

September 14, 2020

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**VIA EMAIL**  
**MarLee@dpw.lacounty.gov**

**Subject:** Status Report for the Oak Woodland Habitat Revegetation/Mitigation Program for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project, Los Angeles County, California

Dear Ms. Lee:

This Status Report provides a summary of August 2020 site conditions for the Los Angeles County Public Works' (Public Works') 2014 *Oak Woodland Habitat Revegetation/Mitigation Program (OWHRMP) for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project*. The OWHRMP describes the creation of 5.5 acres of oak woodland habitat and 2.5 acres of sage scrub habitat as compensation for impacts associated with the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project. Mitigation site performance is subject to the approval of the California Department of Fish and Wildlife (CDFW) and the City of Arcadia. The mitigation site locations are shown in Exhibits 1, 2, and 3. Photographs of the site are provided in Attachment A.

### **MITIGATION MAINTENANCE AND MONITORING**

Mitigation site preparation (consisting of initial non-native vegetation removal, soil conditioning, placement of coarse woody debris and boulders, irrigation system construction, enclosure fencing, and erosion control measures) was performed from September 2013 through December 2013. Mitigation site installation (planting and seeding) was performed in two phases: Phase I occurred in January/February 2014, and Phase II occurred in December 2014. The seven-year to ten-year maintenance and monitoring period began on January 1, 2015 (the ten-year maintenance/monitoring period may be completed after seven years if the program's performance criteria are met early, subject to the approval of the CDFW and the City of Arcadia). Psomas has served as the Biological Monitor for the mitigation program since its inception and is responsible for vegetation surveys, wildlife surveys, monitoring, and supervision of maintenance activities.

The Restoration Contractor, Nakae & Associates, Inc. (Nakae), promptly treats or removes non-native plant species when they are observed during regular maintenance activities. To the extent practicable, weeds are removed prior to seed production/dispersal to avoid re-infestation of the site. All herbicide use on the mitigation site was suspended in April 2019 per Public Works' direction. Psomas' Biological Monitor performs nesting bird surveys and monitoring to ensure that maintenance activities do not adversely impact sensitive biological resources. Intensive manual removal of weeds is performed year-round in areas that are not designated as environmentally sensitive (e.g., nesting bird areas) by the Biological Monitor.

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Nakae also performs regular maintenance of the concrete drainages and inlets on the Lower Sediment Placement Site (SPS), the exclusionary fencing on the deck of the Lower SPS, and the wildlife ‘drinker’ tanks that were placed at the northeast corner of the site. The most recent cleanout of sediment and debris in the Lower SPS drainages and inlets occurred in June 2020; a re-inspection and cleanout (as needed) of these facilities will be performed prior to the onset of the 2020-2021 rainy season.

Psomas’ Biological Monitor periodically places flagging tape on some of the native ‘volunteer’ plants (i.e., naturally occurring native plants that were not purposely installed via planting or seeding) that occur on the site, such as mule fat (*Baccharis salicifolia* ssp. *salicifolia*) and laurel sumac (*Malosma laurina*). Nakae removes the flagged plants in order to avoid excessive coverage of these native shrub species that is inconsistent with project goals. Psomas coordinates with Nakae on the identification of native/non-native plant species and methods of weed removal.

Based on data from Public Works’ website, the area received a total of 17.88 inches of precipitation between October 1, 2019, and September 8, 2020 (i.e., the current water year, which ends on September 30). This rainfall total was recorded at the Arcadia Fire Station, which is located 0.5 mile from the Lower SPS at a similar elevation. The normal (annual) seasonal average of precipitation at Public Works’ Arcadia gauge location is 21.34 inches for the period of October 1 to September 30; therefore, the recorded precipitation through September 8, 2020, was approximately 84 percent of the average annual precipitation amount. Irrigation was discontinued on the oak woodland mitigation site in October 2018. Irrigation has not been applied to the sage scrub planting areas (SPS slopes) since June 2015. It is anticipated that no additional irrigation of the oak trees will be required for their long-term establishment unless an extended period of acute drought occurs on the mitigation site.

## MITIGATION PERFORMANCE

The mitigation site supports an excellent diversity of plant and animal species, and the vegetation structure and cover continue to develop. During the fifth annual monitoring survey that was performed in the spring of 2020, it was determined that the mitigation site exceeded several of the seven-year to ten-year vegetative performance criteria (e.g., minimum percent coverage of the site by native plant species) that are listed in the OWRMP. As of September 2020, a total of 148 native plant species have been observed on the site, including trees, shrubs, sub-shrubs, vines, succulents, herbs, grasses, ferns, spike-moss, and emergent plant species. A total of 107 native vertebrate wildlife species (88 native bird species) have been observed on the site, in addition to numerous native invertebrate species (e.g., butterflies, beetles, bees, dragonflies) since project initiation in September 2013. A total of 15 different species of native birds have been documented to utilize the mitigation site for nesting purposes since project initiation.

The planted oaks exhibit excellent growth and survival, and there is a diverse mosaic of associated understory vegetation. Many of the oak saplings now exceed 10 to 12 feet in height. The overall oak survival currently exceeds 100 percent on the mitigation site due to the planting of numerous supplemental oak plants outside the initially designated 399 oak planting locations.

Various habitat enhancements that were incorporated into the mitigation site’s design (e.g., natural snags, coarse woody debris, brush piles, boulder assemblages) provide valuable cover for wildlife species and habitat niches for the establishment of a variety of plant species (e.g., ferns).

Several ‘camera traps’ (motion-activated video cameras) were installed on and adjacent to the mitigation site to provide 24-hour wildlife observation data that enhance the Biological Monitor’s observations. Wildlife species—including coyote (*Canis latrans*), bobcat (*Lynx rufus*), southern mule deer (*Odocoileus*

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*hemionus*), mountain lion (*Puma concolor*), common gray fox (*Urocyon cinereoargenteus*), and black bear (*Ursus americanus*)—have been observed via camera traps.

The CDFW has authorized Public Works to discontinue the requirement for surveys of the reference site for the duration of the mitigation program. Qualitative and quantitative monitoring of the mitigation site will continue through Years 7 to 10 until the mitigation program has been signed off by the CDFW and the City of Arcadia.

Please call Richard Lewis at (626) 351-2000 with any questions regarding this report.

Sincerely,

**P S O M A S**



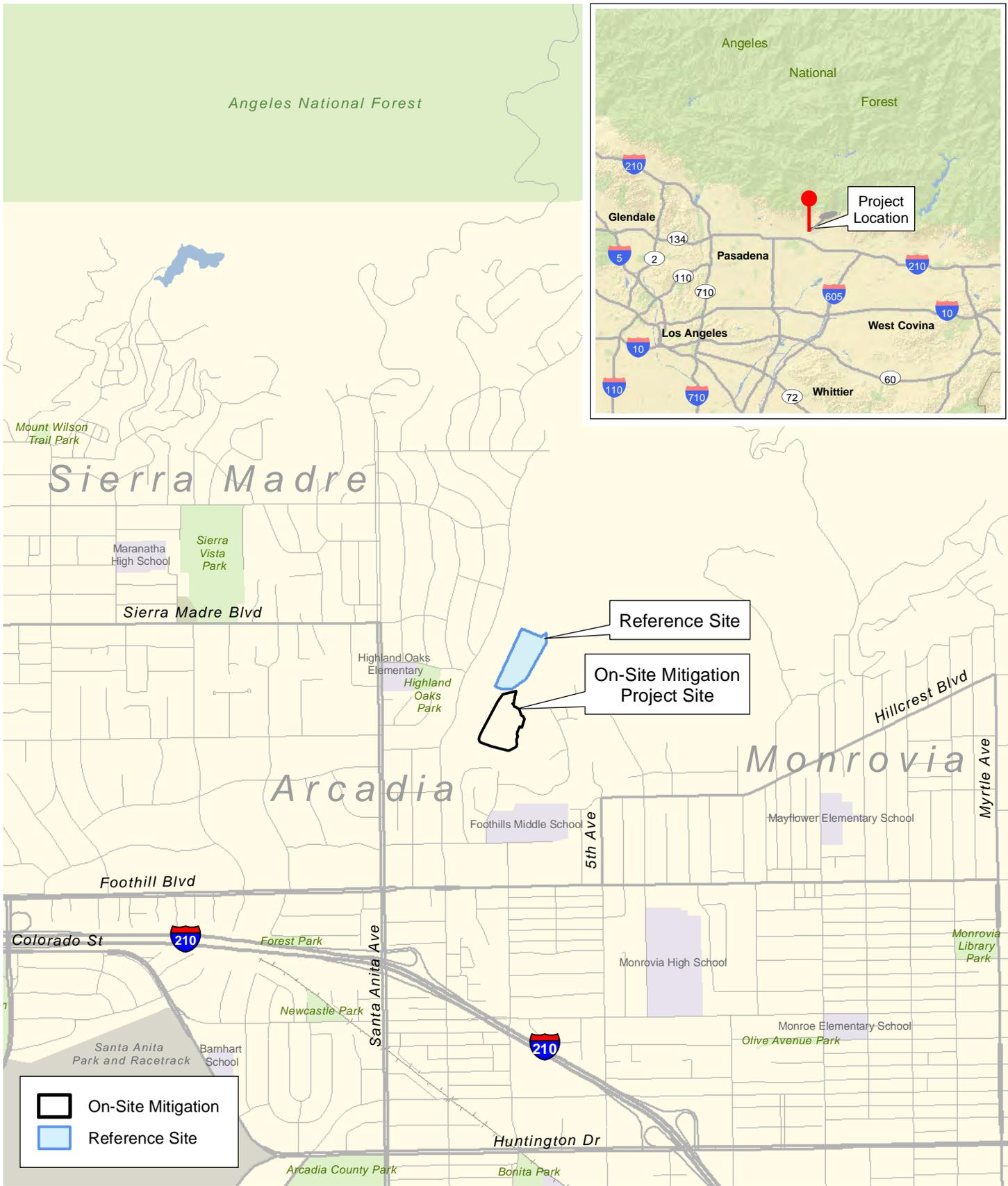
Ann M. Johnston  
Vice President, Resource Management



Richard B. Lewis, III, ENV SP  
Senior Project Manager

Enclosures:    Exhibit 1 – Project Vicinity  
                  Exhibit 2 – Sediment Placement Site Locations  
                  Exhibit 3 – Mitigation Site Location (Lower Sediment Placement Site)  
                  Attachment A – Site Photographs

cc:        Marc Blain, Psomas

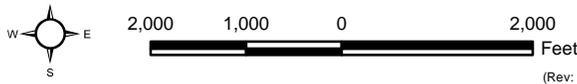


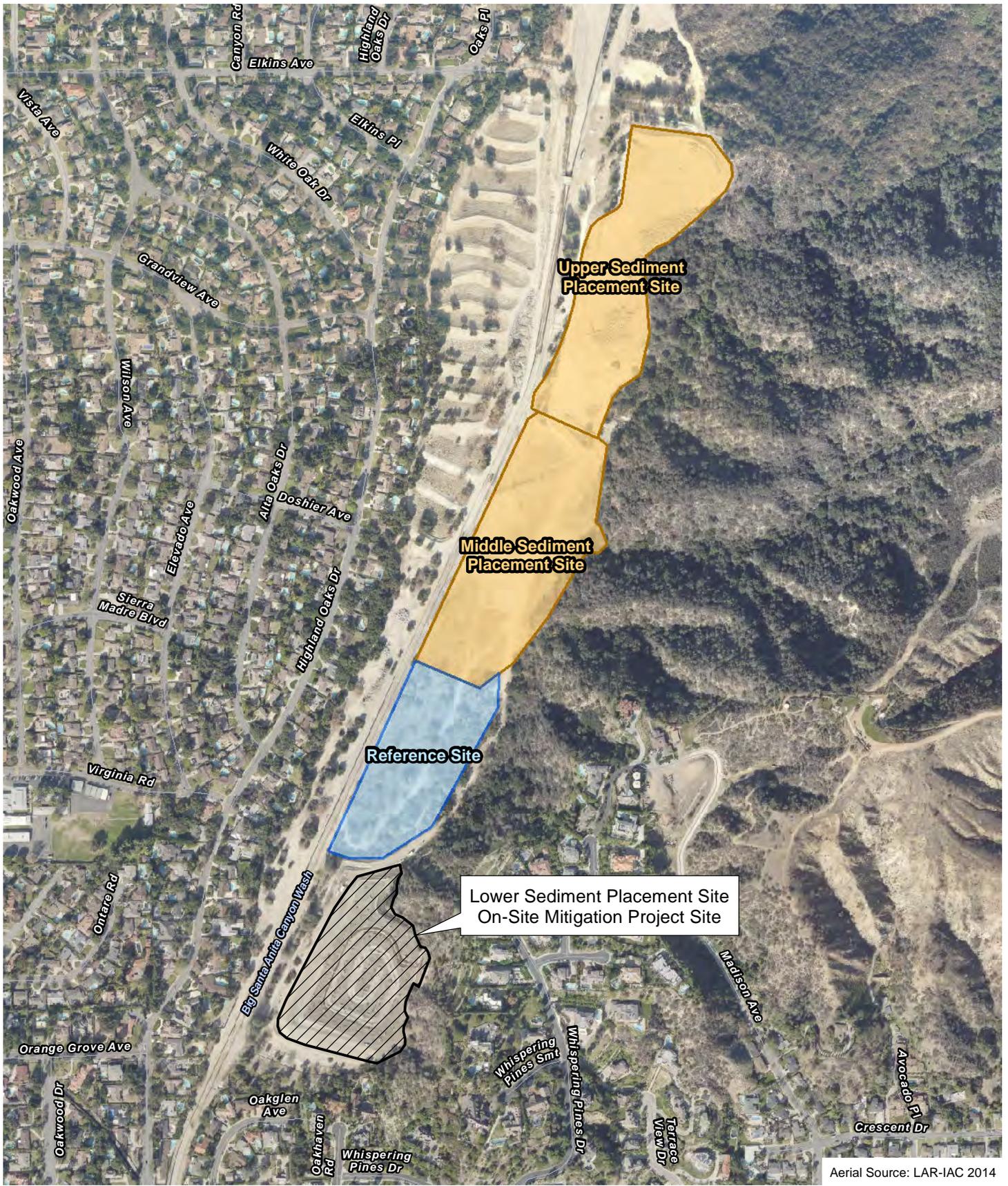
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### Project Vicinity

### Exhibit 1

Status Report: Oak Woodland Habitat Revegetation/Mitigation Program;  
 Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project



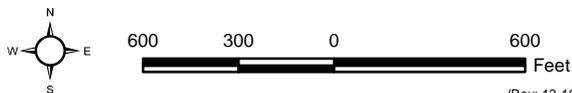


Aerial Source: LAR-IAC 2014

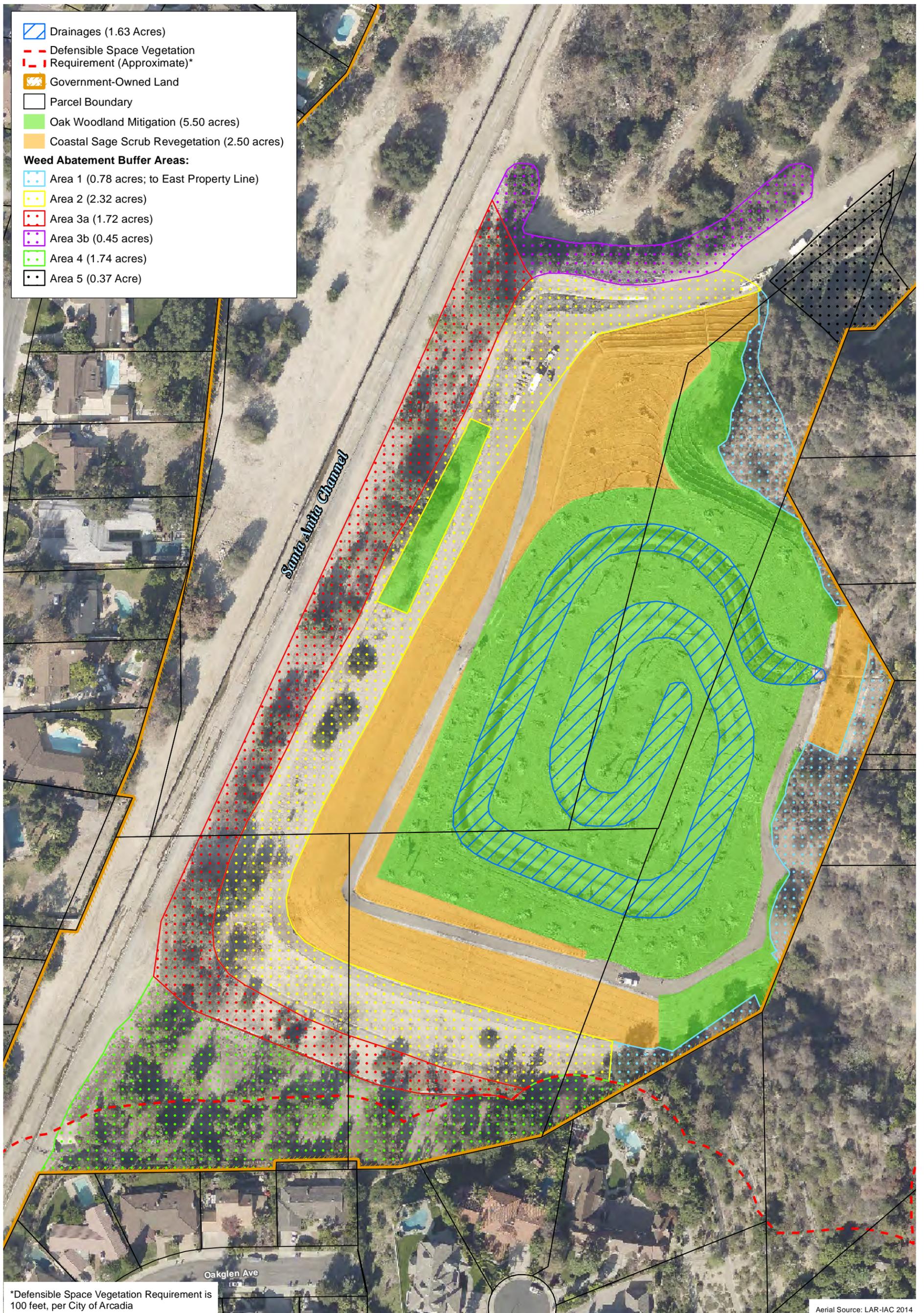
## Sediment Placement Site Locations

## Exhibit 2

Status Report: Oak Woodland Habitat Revegetation/Mitigation Program;  
Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project



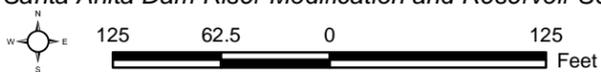
-  Drainages (1.63 Acres)
-  Defensible Space Vegetation Requirement (Approximate)\*
-  Government-Owned Land
-  Parcel Boundary
-  Oak Woodland Mitigation (5.50 acres)
-  Coastal Sage Scrub Revegetation (2.50 acres)
- Weed Abatement Buffer Areas:**
-  Area 1 (0.78 acres; to East Property Line)
-  Area 2 (2.32 acres)
-  Area 3a (1.72 acres)
-  Area 3b (0.45 acres)
-  Area 4 (1.74 acres)
-  Area 5 (0.37 Acre)



### Mitigation Site Location (Lower Sediment Placement Site)

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Exhibit 3



**ATTACHMENT A**  
**SITE PHOTOGRAPHS**



**August 2020.** Maturing planted oaks occur among understory shrubs and herbs, placed natural snags, boulders, and woody debris.



**July 2020.** Ripe seeds are dispersing from short-fruited willow herb—a late-blooming native volunteer wildflower that occurs on the mitigation site.



**July 2020.** A California ground squirrel is perching in placed woody debris near a planted oak. A placed natural snag is shown in the background.



**August 2020.** A planted Vasey's prickly pear cactus is surrounded by long-stemmed buckwheat—a native perennial herb that was seeded onto the site.



**August 2020.** Placed woody debris and boulders are seen beneath a planted oak, with desiccated distant phacelia—an annual wildflower that was seeded onto the site.



**August 2020.** The capsule fruits are ripening on chaparral yucca—a planted fibrous shrub that bloomed on the coastal sage scrub mitigation site for the first time in 2020.

## Site Photographs

*Status Report: Oak Woodland Habitat Revegetation/Mitigation Program  
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## Attachment A