



April 15, 2016

Belinda Kwan, PE  
Water Resource Division  
County of Los Angeles  
Department of Public Works  
900 South Fremont Avenue  
Alhambra, California 91803-1331

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

**Subject:** Quarterly 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. Kwan:

This status report addresses site conditions for the Los Angeles County Department of Public Works' (LACDPW's) 2014 *Oak Woodland Habitat Revegetation/Mitigation Program for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project* (OWHRMP). 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. The creation of oak woodland and sage scrub habitat is required by Mitigation Measures BIO-D and BIO-E in the LACDPW's 2009 *Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project Final Environmental Impact Report* and by the Streambed Alteration Agreement (Agreement, No. 1600-2008-0173-R5), which was granted by the California Department of Fish and Wildlife (CDFW) in 2009. The mitigation program includes a seven-year to ten-year maintenance and monitoring period that began after mitigation installation was completed in December 2014. The locations of the Upper, Middle, and Lower Sediment Placement Sites (SPS) are shown in Exhibits 1, 2, and 3. As detailed in the OWHRMP, final grading of the Lower SPS included the placement of approximately 30 feet of sediment (over the pre-existing condition) and the subsequent creation of dual, spiraling drainage channels to a relocated standpipe. The drainage design is intended to optimize retention and percolation of on-site precipitation and off-site inflows (from the eastern slopes). Final grading was completed by Quest Construction (for LACDPW) in October 2012.

The LACDPW retained BonTerra Psomas to prepare the OWHRMP document in 2009 (including the performance of reference site surveys); to participate in community outreach efforts related to the OWHRMP; to provide biological monitoring and documentation services; and to implement the mitigation program. The reference site surveys were performed in existing oak woodland and sage scrub habitat areas on the Santa Anita Dam site for the purpose of developing mitigation performance criteria. BonTerra Psomas retained the following subcontractors/vendors: (1) S&S Seeds, Inc. (S&S) to collect site-specific native seeds (including oak acorns) and cuttings (cactus) in the Santa Anita Wash/Rio Hondo Sub-Watershed (started in 2011); (2) El Nativo Growers (ENG) and Rancho Santa Ana Botanic Garden (RSABG) to collect (ferns and rare oaks) and to propagate native container plants (started in 2012); (3) Cornerstone Studios, Inc. (Landscape Architect) to prepare irrigation plans and photo simulations for the mitigation site (2013); and (4) Nakae & Associates, Inc. (Nakae) to perform mitigation site preparation, installation, and long-term maintenance tasks. Site photographs are provided in Attachment A.

225 South Lake Avenue  
Suite 1000  
Pasadena, CA 91101

Tel 626.351.2000  
Fax 626.351.2030  
[www.Psomas.com](http://www.Psomas.com)

## SEED AND CUTTINGS COLLECTION

BonTerra Psomas (Biological Monitor) and S&S started local seed collection tasks in June 2011. Seed collection in 2011 was limited to the LACDPW's Santa Anita Dam property; however, the LACDPW secured access in 2012 to off-site open space areas in the Cities of Arcadia and Monrovia for more extensive seed collection. BonTerra Psomas/S&S collected cuttings (pads) of Vasey's prickly pear cactus (*Opuntia x vaseyi*) from the Middle SPS on the Santa Anita Dam site in June 2013. The cactus pads were selected from a minimum of ten separate cactus patches and were delivered to ENG for propagation on the same day they were collected. BonTerra Psomas Biologists have also collected small quantities of native seeds and rooted cuttings on the Santa Anita Dam property during native seed scouting activities. Most of the collected seed was applied to the mitigation site via hydroseeding or hand-broadcasting. A small portion of the collected seed material was used for container plant propagation. BonTerra Psomas/RSABG collected local seed (rare oaks) and cuttings (fern species) in October and November 2013. RSABG established fern "stock plants" (four different species with a minimum of ten individual plants each) in their nursery in 2013; the stock plants are used for ongoing rhizome cutting collection for vegetative propagation of four-inch fern container plants. RSABG propagated ferns and rare oaks for initial installation in 2014; however, most of the ferns were installed in 2015/2016 after niche planting sites were better established by improved canopy/shading from planted vegetation. BonTerra Psomas and S&S also collected oak acorns (multiple species) in 2015 for direct sowing on the mitigation site. BonTerra Psomas and S&S collected cuttings of several native plant species in the local subwatershed in 2015, including California milkweed (*Asclepias californicus*), California lace fern (*Aspidotis californica*), lance-leaf dudleya (*Dudleya lanceolata*), California fuchsia (*Epilobium canum* ssp. *canum*), thicketleaf yerba santa (*Eriodictyon crassifolium*), spiny redberry (*Rhamnus crocea*), hillside gooseberry (*Ribes californicum*), and California hedgenettle (*Stachys bullata*). The cuttings of these species were delivered to RSABG for vegetative propagation. BonTerra Psomas and S&S collected seeds of numerous native plant species in 2015, with special emphasis on (1) herbaceous plant species and (2) plant species that did not yet occur on the mitigation site. For many species, only trace quantities of seed were collected (i.e., <0.05 pound) due to the low availability of seed in a drought year and to avoid over-collection of seed from a particular patch or population that would impact wildlife food sources and plant reseeding/regeneration.

More than 119 native plant species (seed and/or cuttings) have been collected to date in the local Sub-Watershed; this represents a diversity of installed plant species that is nearly four times (383 percent) greater than the diversity of the conceptual plant/seed palettes (31 plant species) that were listed in the OWHRMP. The seed species and quantities installed to date on the mitigation site are listed in Attachment B of this document.

## MITIGATION SITE PREPARATION

BonTerra Psomas and the Nakae (a licensed landscape contractor that specializes in habitat restoration) started mitigation site preparation tasks in September 2013. The mitigation site (Exhibit 3) includes oak woodland habitat establishment on the deck portion of the Lower SPS and sage scrub establishment in slope areas on the Lower SPS. Site preparation included the following tasks:

1. Preliminary flagging of existing native plants (especially "volunteer" oak seedlings) to be protected on the mitigation site and in adjacent weed-abatement buffer areas.
2. The installation of erosion-control measures, including fully biodegradable fiber rolls on the slopes of the Lower SPS (i.e., the sage scrub site) and fiber rolls and sandbags (temporary check dams) in the dual drainages of the plateau area (oak woodland site).
3. The initial treatment (via Aquamaster™ herbicide) and/or removal of non-native plants from the mitigation site and adjacent buffer weed-abatement areas (including the slope that was manufactured by a development located adjacent to the Lower SPS).

4. The distribution and incorporation into the top two feet of topsoil (via heavy machinery) of a large volume of mulched native vegetation resulting from January 2011 construction activities at the Middle SPS.
5. The placement (in excavated pits) of a total of 14 artificial snags on the oak woodland site, consisting of large oak and sycamore trunks that were salvaged with a portion of the root tissue attached (for stability upon installation) during January 2011 construction activities.
6. The placement of several tons of conserved coarse woody debris (predominantly oak but also sycamore) on the oak woodland site, which was salvaged in January 2011.
7. The placement of many tons of boulders, rocks, and cobble on the oak woodland site, which were salvaged during sediment removal operations at Santa Anita Dam.
8. The installation of a temporary irrigation system, including overhead spray components (site-wide) and individual bubblers for each oak planting location.
9. The installation of temporary water tanks for wildlife (“drinkers”) adjacent to the Middle SPS.
10. The construction of a temporary eight-foot-high perimeter fence (wood posts and smooth wire) to exclude large mammals (only) to reduce herbivory during the initial oak establishment phase.
11. The installation of interpretive signage on the site, explaining the goals of the OWHRMP. The mitigation site preparation tasks listed above were completed in January 2014, with the exception of the signage, which was installed in June 2014.

Protective wire cages were installed around approximately 50 volunteer (naturally occurring) coast live oak seedlings (*Quercus agrifolia* var. *agrifolia*) in the weed-abatement buffer area to reduce herbivory impacts.

Irrigation system installation included the construction of a new water meter by the City of Arcadia Public Works Services Department (PWSD) near the intersection of Highland Oaks Drive and East Woodland Avenue. Nakae installed a new gate valve in the same box as the PWSD meter, and a new backflow preventer device (caged) was installed in the same general location. Water is delivered to the Lower SPS via a four-inch mainline that extends north from the point of connection along the alignment of the Santa Anita Wash box channel.

#### **MITIGATION SITE INSTALLATION–PHASE I (PLANT AND SEED MATERIALS)**

BonTerra Psomas/Nakae performed mitigation site installation tasks (native plant and seed materials) in January/February 2014. The Phase I installation included the following tasks: (1) planting coast live oak acorns (10 per planting hole), installing protective caging and shade cloth at each oak location, and placing conserved oak leaf mulch at each oak planting site; (2) installing native container plants (4,963 total plants, including 358 coast live oak planting locations); and (3) installing native seed mixes (hydroseeding and hand-broadcasting) totaling approximately 135 pounds and including 78 different seeded plant species.

The Biological Monitor marked the container planting locations using color-coded wire flags for each plant species and flagged the various seed mix application areas in the field. The planting/seeding area layouts roughly follow the conceptual planting plans provided in the OWHRMP; in addition, designated polygons were flagged and planted with cactus and herbaceous species (which will be maintained on a long-term basis free of other shrub species) to improve vegetative diversity. Initial container plant installation was completed in January 2014, and Phase I seed mix installation was completed in early February 2014 (a small number of additional Phase I container plants were installed on the site in March/April 2014, as these species became available from the nursery).

## MITIGATION SITE INSTALLATION–PHASE II (PLANT AND SEED MATERIALS)

Nakae installed a total of 1,973 additional container plants and approximately 25 pounds of additional native seed of numerous plant species (all locally obtained) on the 8.0-acre mitigation site in December 2014, in coordination with the Biological Monitor. The Phase II container plants included ferns and rare oaks propagated by RSABG, including Engelmann oak (*Quercus engelmannii*), San Gabriel oak (*Quercus durata* var. *gabrielensis*), and four species of native ferns (e.g., coffee cliff-brake [*Pellaea andromedifolia*]). Most of the Phase II container materials for fall planting were propagated by ENG and included a variety of native shrubs, herbs, vines, and succulent species, most of which did not previously occur on the mitigation site (e.g., chaparral virgin's bower [*Clematis lasiantha*], giant wild rye [*Elymus condensatus*], and California coffeeberry [*Frangula californica* ssp. *californica*]). Additional native seed species (three total) installed in fall 2014 included stinging lupine (*Lupinus hirsutissimus*), wild heliotrope phacelia (*Phacelia distans*), and wild Canterbury bells (*Phacelia minor*), which all bloomed/seeded over much of the oak woodland mitigation site in spring 2015 and 2016. A total of 81 native seed species and 40 native container plant/cutting species were installed on the site in 2014. A summary of all native container plants and seed mix species and quantities installed to date is provided in Attachment B.

## MITIGATION MAINTENANCE

The mitigation site and adjacent buffer weed-abatement areas are essentially weed free, as non-native plant species are promptly treated and removed when observed during regular maintenance activities. Weeds are removed prior to seed production/dispersal to avoid reinfestation of the site. Herbicide use is minimized in favor of hand-pulling of weeds whenever possible.

Nakae is monitoring some minor erosion on the off-site slopes to the east of the mitigation site (i.e., Weed Abatement Area No. 1); however, there is no significant erosion on the mitigation site, and there has been no problematic trespassing or trash deposition in the vicinity. Nakae is maintaining the concrete down-drains and V-ditches to ensure they are clear of sediment and debris to facilitate the County's ongoing inspection of the Lower SPS' integrity. Supplemental irrigation (bubblers only) is currently being applied to the oak woodland (SPS deck) mitigation site approximately every six to eight weeks, depending on weather conditions. Overhead irrigation has not been applied to the sage scrub planting areas (SPS slopes) since June 9, 2015. The frequency of irrigation will continue to be decreased to foster adaptation of native plant species to the typical arid growing conditions in this region.

The Biological Monitor periodically coordinates with a representative of the San Gabriel Valley Vector Control District (SGVVCD) to discuss ongoing, potential mosquito vector issues associated with the drainage channels on the site. The SGVVCD typically performs vector control via the application of *Bacillus thuringiensis* (BTi), a bacterial/biological control material. SGVVCD applied a volatile mineral oil to control more mature mosquito larvae following a few past inspections (to maintain compliance with public health and safety codes); however, since project initiation, the LACDPW/BonTerra Psomas have requested that SGVVCD use only BTi on the site (rather than other materials, to the extent practicable) to minimize adverse impacts on mitigation habitat (e.g., arthropod species diversity and abundance). Senior Restoration Ecologist David Hughes of BonTerra Psomas met with Benjamin Waswa of SGVVCD on the mitigation site on February 4, 2016, and Belinda Kwan of LACDPW and Biologist Sarah Thomas of BonTerra Psomas met with Mr. Waswa on the mitigation site on March 10, 2016, to assess vector control issues.

Nakae performed additional exotic plant species removal on the slopes to the east of the mitigation site in October 2014. The LACDPW obtained rights-of-entry from several private landowners to allow access for removal of numerous invasive Mexican fan palms (*Washingtonia robusta*) and other non-native, perennial plant species. The east slope exotic vegetation removal was coordinated with the Biological Monitor to ensure that biological resources were not adversely impacted during these activities. The

removal of these invasive plants from areas adjacent to the mitigation site will improve long-term mitigation site performance by eliminating a significant source of weed seeds that would otherwise infest the site on an ongoing basis.

### SUPPLEMENTAL PLANTING AND SEEDING–2015/2016

The Biological Monitor monitored/coordinated the collection and propagation of supplemental seed and cuttings materials with RSABG and S&S in 2015, including field collections from open space areas in the Cities of Monrovia and Sierra Madre (LACDPW secured access to Sierra Madre open space areas for seed/plant collection in 2014). Supplemental planting and seeding occurred in December 2015/February 2016, and a summary of these materials is provided in Tables 1 and 2. The supplemental container planting included primarily native ferns (309 plants) of several species; native grasses (641 plants); and a variety of native shrubs, perennials, and succulents, several of which did not previously occur on the mitigation site. Supplemental seeding of oak acorns occurred on the oak woodland site in December 2015 to provide added contingency plants (as needed) toward compliance with mitigation performance criteria. Seed of native herbaceous species was installed in designated shrub-free portions of the oak woodland and sage scrub mitigation sites to improve coverage and diversity of native herbs and grasses in these areas. The enhancement of herbaceous areas on the mitigation site improves overall ecological functions and values, including pollinator resources. A total of 60 packets of mixed herbaceous plant species were also prepared and installed in and immediately adjacent to numerous boulder and woody debris assemblages on the site. Several of the plant species from the packets have already germinated in these niches, including Dudley’s clarkia (*Clarkia dudleyana*) and scarlet larkspur (*Delphinium cardinale*).

**TABLE 1**  
**SUPPLEMENTAL CONTAINER PLANTS (DECEMBER 2015/FEBRUARY 2016)**

Plant Species <sup>a</sup>	Container Size	Quantity		
		Dec. 2015	Feb. 2016	Total
<i>Aspidotis californica</i> <sup>b</sup>	4" pot	0	6	6
<i>Dryopteris arguta</i>	4" pot	24	0	24
<i>Dudleya lanceolata</i> <sup>b</sup>	4" pot	0	32	32
<i>Epilobium canum</i> ssp. <i>canum</i>	3" x 6" tree-band	37	9	46
<i>Eriodictyon crassifolium</i>	1-gal	3	0	3
	4" pot	2	0	2
<i>Pellaea andromedifolia</i>	4" pot	85	43	128
<i>Pellaea mucronata</i> var. <i>mucronata</i>	4" pot	60	0	60
<i>Polypodium californicum</i>	4" pot	74	17	91
<i>Ribes californicum</i> <sup>b</sup>	3" x 6" tree-band	24	5	29
<i>Stachys bullata</i>	4" pot	110	25	135
<i>Stipa lepida</i> <sup>b</sup>	2" liner	200	441	641
<b>Total</b>		<b>619</b>	<b>578</b>	<b>1,197</b>
": inch(es).				
<sup>a</sup> All container species were propagated from cuttings/seed collected in the Santa Anita Wash/Rio Hondo Sub-Watershed.				
<sup>b</sup> Plant species that did not occur on the OWRMP site prior to Dec. 2015/Feb. 2016 planting.				

**TABLE 2**  
**SUPPLEMENTAL SEED SPECIES (DECEMBER 2015)**

Plant Species <sup>a</sup>	Quantity (Pounds)
<i>Acer macrophyllum</i>	0.10
<i>Castilleja applegatei</i> <sup>b</sup>	trace
<i>Clarkia dudleyana</i> <sup>b</sup>	trace
<i>Clematis lasiantha</i>	0.25
<i>Delphinium cardinale</i> <sup>b</sup>	trace
<i>Dudleya lanceolata</i> <sup>b</sup>	trace
<i>Epilobium canum</i> ssp. <i>canum</i> <sup>b</sup>	trace
<i>Erigeron foliosus</i> var. <i>foliosus</i> <sup>b</sup>	trace
<i>Eriophyllum confertiflorum</i> ssp. <i>confertiflorum</i> <sup>b</sup>	trace
<i>Eulobus californicus</i>	0.82
<i>Hazardia squarrosa</i> var. <i>grindelioides</i>	trace
<i>Holodiscus discolor</i>	trace
<i>Lathyrus vestitus</i> <sup>b</sup>	trace
<i>Lonicera subspicata</i> var. <i>johnstonii</i>	trace
<i>Lupinus concinnus</i>	trace
<i>Lupinus hirsutissimus</i>	3.41
<i>Lupinus longifolius</i>	trace
<i>Lupinus truncatus</i>	trace
<i>Malacothrix saxatilis</i>	2.22
<i>Marah macrocarpa</i>	trace
<i>Mentzelia laevicaulis</i>	trace
<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	5.52
<i>Phacelia minor</i>	12.21
<i>Quercus agrifolia</i> var. <i>agrifolia</i> (acorns)	10.00
<i>Quercus chrysolepis</i> (acorns)	1.00
<i>Quercus durata</i> var. <i>gabrielensis</i>	0.10
<i>Quercus engelmannii</i> (acorns)	5.00
<i>Silene laciniata</i> <sup>b</sup>	trace
<i>Solidago velutina</i>	trace
<i>Stephanomeria cichoriacea</i> <sup>b</sup>	trace
<i>Stipa lepida</i>	0.06
<b>Total</b>	<b>40.69</b>
Trace: < 0.05 pounds of seed.	
<sup>a</sup> All seed species were collected in the Santa Anita Wash/Rio Hondo Sub-Watershed.	
<sup>b</sup> A total of 60 packets of these herbaceous seed species (mixed) were prepared and carefully scratched into soil along the north and east edges of numerous boulder and woody debris assemblages in fall 2015.	

## MITIGATION PERFORMANCE

As of March 2016, the mitigation site already supports an excellent diversity of plant and animal species and is developing vegetation structure/cover. A total of 128 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. Oak tree seedling survival currently exceeds 100 percent (compared to the quantities specified in the OWHRMP) due to supplemental Phase II planting of oaks and additional germination of volunteer oaks on the site. Most of the oak saplings now exceed six to eight feet in height. As the growing branch tips of these larger oaks rise above deer browsing height, Nakae is removing the upper four feet of caging to enable the trees to assume a natural, spreading form. The lower two feet of temporary caging is being left in place as a longer-term rodent deterrent.

Beneficial decay processes, including the growth of fungi (several species), have been observed in the coarse woody debris assemblages. These decay processes naturally occur in woodland habitats as a part of biological resource nutrient cycles. It is important to note that without the installation of the salvaged woody material, such processes would not otherwise occur on the mitigation site for many years.

Wildlife species—including southern mule deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), and coyote (*Canis latrans*)—have been observed using the two drinker tanks that were installed just northeast of the Lower SPS to provide a water source for wildlife. Three different species of birds were observed nesting on the mitigation site in 2014 (killdeer [*Charadrius vociferus*], common yellowthroat [*Geothlypis trichas*], and acorn woodpecker [*Melanerpes formicivorus*]). Four bird species were observed nesting on the mitigation site and adjacent/maintained buffer areas in 2015 (acorn woodpecker, northern mockingbird [*Mimus polyglottos*], phainopepla [*Phainopepla nitens*], and California towhee [*Melospiza crissalis*]), while two bird species (western bluebird [*Sialia mexicana*], and rock wren [*Salpinctes obsoletus*]) exhibited nesting behaviors (though they did not subsequently nest) on the site in March 2015. The Biological Monitor will continue to note wildlife species observed on the site and ensure that maintenance activities do not adversely impact sensitive biological resources. California ground squirrels (*Otospermophilus beecheyi*), rock wrens, native reptiles (including striped racer [*Coluber lateralis*], a snake species), raptors, and other wildlife species are increasingly colonizing the created boulder and woody debris piles and perching on the installed snags. A total of 89 native vertebrate wildlife species (79 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. The compendia of all native plant and wildlife species observed on the site are provided in Attachments C and D, respectively.

Phase II installation was completed in December 2014, and the seven-year to ten-year mitigation maintenance clock began on January 1, 2015. The Biological Monitor will continue to perform regular qualitative inspections of the mitigation site through spring 2016, at which time the first quantitative survey of the mitigation site will be conducted. The quantitative survey will include the performance of vegetation quadrats and transects; the evaluation of all oak trees on the site by a Certified Arborist; site photographs from established photo stations; and other performance analyses. The first Annual Monitoring Report will be prepared subsequent to the spring 2016 first annual quantitative survey. Qualitative and quantitative monitoring will continue through Years 7 to 10 until the mitigation program has been signed off on by the CDFW and the City of Arcadia.

Ms. Belinda Kwan  
Page 8  
April 15, 2015  
Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project

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

Sincerely,

**BonTerra Psomas**



Melissa A. Howe  
Vice President, Resource Management



Richard B. Lewis, III  
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  
                  Attachment B – Installed Native Plant and Seed Materials  
                  Attachment C – Native Plant Compendium (September 2013–March 2016)  
                  Attachment D – Wildlife Compendium (September 2013–March 2016)

cc:        Pat Wood, (PWood@dpw.lacounty.gov)  
              Joan Kelly, BonTerra Psomas

## **REFERENCES**

Los Angeles County Department of Public Works (LACDPW). 2009. *Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project Final Environmental Impact Report*. Alhambra, CA: LACDPW.

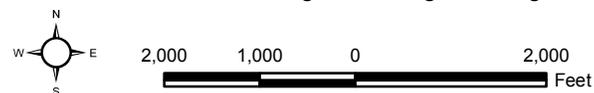


## Project Vicinity

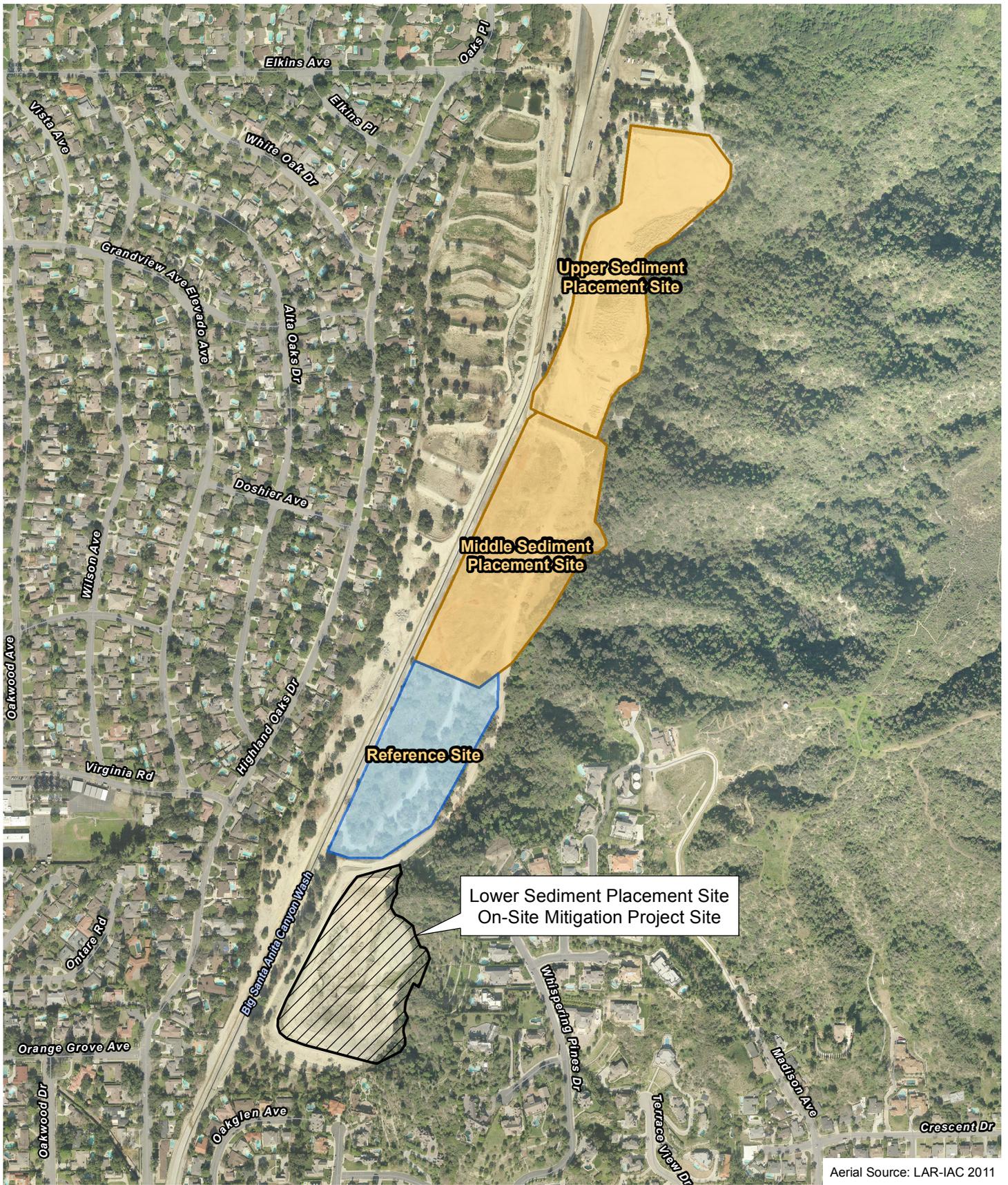
## Exhibit 1

Quarterly Status Report

Oak Woodland Habitat Revegetation/Mitigation Program — Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project



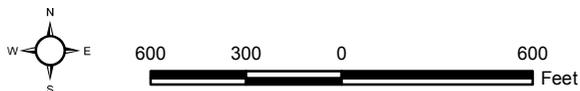
**Bonterra**  
 PSOMAS



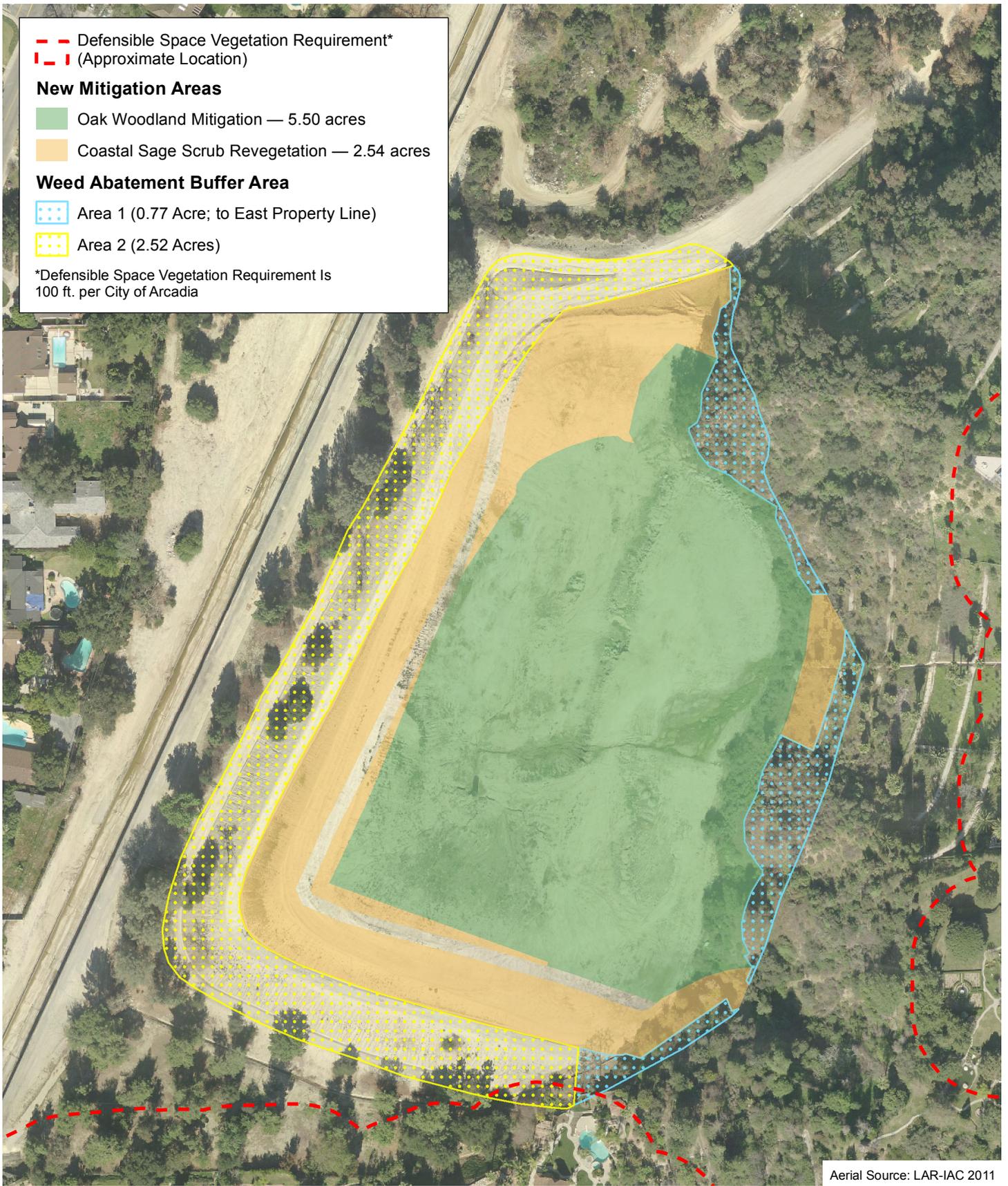
## Sediment Placement Site Locations

## Exhibit 2

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



D:\Projects\COLADPW\UJ254\MXD\QuarterlyStatusReport\2016\April\ex\_MitSiteLocations.mxd



Aerial Source: LAR-IAC 2011

--- Defensible Space Vegetation Requirement\*  
- - - (Approximate Location)

**New Mitigation Areas**

- Oak Woodland Mitigation — 5.50 acres
- Coastal Sage Scrub Revegetation — 2.54 acres

**Weed Abatement Buffer Area**

- Area 1 (0.77 Acre; to East Property Line)
- Area 2 (2.52 Acres)

\*Defensible Space Vegetation Requirement Is 100 ft. per City of Arcadia

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

**Exhibit 3**

*Quarterly Status Report*  
*Oak Woodland Habitat Revegetation/Mitigation Program — Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project*



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



**February 2016.** Lance-leaf dudleya (left) and foothill needle grass (right) container plants ready for installation.



**December 2015.** BonTerra Psomas Restoration Ecologist identifying suitable niche planting sites for native ferns among a placed boulder assemblage. Rhizomes of several native fern species (such as the nursery flat of coffee cliff-brake in the foreground) were collected in the local subwatershed and were propagated as container plants by Rancho Santa Ana Botanic Garden (RSABG).



**March 2016.** Root and/or stem cuttings of several native shrub and perennial plant species were collected in the local subwatershed and propagated as container plants by RSABG. Hillsides gooseberry (above) did not occur on the oak woodland mitigation site prior to its installation in fall 2015.



**October 2015.** Acorns of various native oak species were collected in the local subwatershed for planting on the mitigation site in fall 2015 (pictured here: coast live oak acorns).



**November 2015.** The Restoration Contractor (Nakae & Associates, Inc.), in coordination with the BonTerra Psomas Restoration Ecologist, is applying a supplemental seed mix to the designated herbaceous portion of the oak woodland mitigation site.



**February 2016.** The Restoration Ecologist placed color-coded wire flags to indicate planting sites. Shown here are California fuchsia plants, which were propagated by RSABG and installed by the Restoration Contractor in fall 2015.

## Site Photographs

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



**March 2016.** Abundant blooms of wild Canterbury bells, a native annual wildflower on the mitigation site.



**March 2016.** Recently germinated seedlings of Engelmann oak that were collected in the local subwatershed and planted on the oak woodland mitigation site in fall 2015. Supplemental seeding of local oak species will occur each year for the first five years of the long-term maintenance and monitoring program.



**November 2015.** Great marsh evening primrose (seeded on the site in 2015) blooming in one of the created streambeds that traverse the oak woodland planting area.



**March 2016.** Lance-leaf dudleya in bloom. Several of these contract-grown native succulents were planted in fall 2015 in protected north- or east-facing niches associated with the placed boulder and coarse woody debris assemblages.



**March 2016.** California hedgenettle plants, which were installed along the north aspect of placed coarse woody debris, are in bloom. The Restoration Contractor (Nakae & Associates, Inc.) installed these plants in shady niches marked by BonTerra Psomas Restoration Ecologists in fall 2015.



**March 2016.** Seedlings of clarkia and scarlet larkspur—a showy native perennial plant species. These native herbs recently germinated from a specialized seed mix (packets) that was applied to portions of the mitigation site in fall 2015.

## Site Photographs

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

Exhibit 5

**BonTerra**  
PSOMAS



**March 2016.** A red-tailed hawk is perched atop a placed natural snag in the middle of the oak mitigation site. Below the snag is a planted/seeded mosaic of developing oak trees, native shrubs, and patches of designated succulent or herbaceous understory habitat, as well as placed boulder and coarse woody debris assemblages, all of which provide high biological diversity on the site.



**March 2016.** Planted native shrubs such as golden currant (above) and California coffeeberry have begun to produce fruit. These increasing and varied food sources will benefit wildlife and increase the density and diversity of animals that colonize the mitigation site or visit the habitat area during migration.



**March 2016.** A salvaged native log that was placed along one of the created streambeds on the Lower Sediment Placement Site (SPS). The Lower SPS mitigation site supports a range of habitat types from moist riparian plants (e.g., the tall flatsedge and basket rush seen in the foreground) to transitional riparian and upland plants (e.g., mugwort and coast live oak, seen in the background).



**October 2015.** A western fence lizard on placed coarse woody debris. The varied substrates on the site, including the large amount of salvaged rock and woody material, are increasingly teeming with life.



**March 2016.** Acorn woodpeckers are increasingly caching acorns in the snags that were placed on the mitigation site. Acorn woodpeckers have also begun to nest in a placed snag in 2016—the third consecutive year that woodpeckers have nested on the site since project initiation in 2013.



**October 2015.** Numerous piles of salvaged native brush were placed on the mitigation site by the Restoration Contractor (Nakae & Associates, Inc.) in coordination with BonTerra Psomas Restoration Ecologists, to benefit wildlife species.

## Site Photographs

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



**March 2016.** Planted coastal woodfern was propagated by Rancho Santa Ana Botanic Garden (RSABG) from rhizomes collected in the local subwatershed. A total of five native fern species as well as native bush spike moss have become established on the formerly barren mitigation site.



**March 2016.** Recently planted California polypody (a native fern species) was propagated by RSABG from rhizomes collected in the local subwatershed.



**March 2016.** Reproductive structures (sporangia) are visible on the underside of the leaves of this planted California polypody (a native fern species) on the oak woodland mitigation site.



**March 2016.** Bird's-foot cliff-brake, a native fern, is thriving in its planted niche on the north side of a placed boulder on the oak woodland mitigation site.



**March 2016.** A recently planted California lace fern (center) and coffee cliff-brake plants (left and right) were installed by the Restoration Contractor (Nakae & Associates, Inc.) in protected niches identified on the site by BonTerra Psomas Restoration Ecologists.



**March 2016.** Reproductive structures (sporangia) are visible on the underside of the leaves of this planted coffee cliff-brake (fern) on the oak woodland mitigation site.

## Site Photographs

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

Exhibit 7

**BonTerra**  
**PSOMAS**

(04/07/2016 JAZ) H:\Projects\CoLADPW (DPW)\J254 (prvly 243)\Graphics\QuarterlyStatusReport\2016April\ex7\_SP.pdf



**October 2015.** Robust growth of a planted coast live oak tree. The Restoration Contractor (Nakae & Associates, Inc.), in coordination with BonTerra Psomas Restoration Ecologists, removes the upper portion of protective oak caging as the saplings grow above deer-browsing height.



**March 2016.** A small number of native volunteer riparian trees (sycamore and willow, background) have been retained on the site to provide contrasting habitat functions and values to benefit wildlife species.



**March 2016.** A placed boulder assemblage surrounded by a variety of native shrubs, herbs, and planted oaks. Some of the assemblages were designed to be large enough to retain emergent rock surfaces (i.e., not overgrown by mature vegetation) for lizards and other wildlife. Native woody debris was placed erect among the boulders to benefit perching birds.



**October 2015.** Locally collected acorns of San Gabriel oak (a rare local plant species) were planted within protective cages on the mitigation site in 2014/2015.



**March 2016.** Designated patches of native succulent scrub (pictured: Vasey's prickly pear and chaparral yucca) were created on the oak woodland and sage scrub mitigation sites to provide contrasting habitat functions and values.



**March 2016.** Patches of shrub-free/herbaceous native understory vegetation have been laboriously established on the mitigation site. This high value habitat can only be created via application of diverse seed mixes, with rigorous weed control and protection of emerging native herb/grass seedlings.

## Site Photographs

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

Exhibit 8

**BonTerra**  
**PSOMAS**



**November 2013.** The Restoration Contractor (Nakae & Associates, Inc.), in coordination with BonTerra Psomas Restoration Ecologists, is placing salvaged boulders in the northern portion of the sage scrub creation site during the mitigation site preparation phase.



**September 2013.** The deck of the Lower Sediment Placement Site (SPS)(oak mitigation site) during mitigation site preparation. Partially distributed, salvaged native mulch is visible in the background. A large volume of mulch was incorporated into the soil via heavy equipment to a minimum depth of two feet.



**August 2009.** The barren, southern portion of Weed Abatement Buffer Area No. 2, prior to mitigation implementation.



**March 2016.** High quality, developing sage scrub habitat in the northern portion of the sage scrub creation site.



**March 2016.** High quality, developing oak woodland habitat on the deck of the Lower SPS.



**March 2016.** Abundant growth of volunteer native herbs (e.g., arroyo lupine and cut-leaf lupine shown above) and volunteer native oak and shrub seedlings has been facilitated in the Weed Abatement Buffer Areas by rigorous weed control.

## Site Photographs

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

**ATTACHMENT B**  
**INSTALLED NATIVE PLANT AND SEED MATERIALS**

**ATTACHMENT B-1**  
**CONTAINER PLANT SPECIES INSTALLED**  
**(JANUARY 2014–FEBRUARY 2016)**

**CONTAINER PLANTS AND CUTTINGS INSTALLED  
(JANUARY 2014–FEBRUARY 2016)**

Container Plants and Cuttings Species <sup>a</sup>		Container Plants and Cuttings Quantities			
Scientific Name	Common Name	Phase I (Jan/Feb 2014)	Phase II (Dec 2014)	Supplemental (2015/2016)	Total
<i>Acmispon glaber</i> var. <i>glaber</i>	deerweed	400	0	0	<b>400</b>
<i>Acourtia microcephala</i> (cuttings)	sacapellote	0	10	0	<b>10</b>
<i>Artemisia californica</i>	California sagebrush	1,050	0	0	<b>1,050</b>
<i>Artemisia douglasiana</i> (cuttings)	mugwort	10	0	0	<b>10</b>
<i>Artemisia douglasiana</i>	mugwort	0	100	0	<b>100</b>
<i>Asclepias californica</i> (cuttings)	California milkweed	0	10	0	<b>10</b>
<i>Aspidotis californica</i>	California lace fern	0	0	6	<b>6</b>
<i>Asclepias fascicularis</i> <sup>b</sup>	narrow-leaf milkweed	0	0	0	<b>0</b>
<i>Ceanothus leucodermis</i>	whitebark ceanothus	0	75	0	<b>75</b>
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birchleaf mountain mahogany	0	50	0	<b>50</b>
<i>Clematis lasiantha</i>	chaparral virgin's bower	0	200	0	<b>200</b>
<i>Dryopteris arguta</i>	coastal woodfern	0	5	24	<b>29</b>
<i>Dudleya lanceolata</i>	lance-leaf dudleya	0	0	32	<b>32</b>
<i>Elymus condensatus</i>	giant wildrye	0	80	0	<b>80</b>
<i>Epilobium canum</i> ssp. <i>canum</i>	California fuchsia	0	0	46	<b>46</b>
<i>Eriodictyon crassifolium</i>	thickleaf yerba santa	0	0	5	<b>5</b>
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	California buckwheat	750	0	0	<b>750</b>
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry	0	100	0	<b>100</b>
<i>Hesperoyucca whipplei</i>	chaparral yucca	150	100	0	<b>250</b>
<i>Heteromeles arbutifolia</i>	toyon	55	0	0	<b>55</b>
<i>Juncus textilis</i> (cuttings)	basket rush	10	0	0	<b>10</b>
<i>Keckiella cordifolia</i>	heartleaf bush penstemon	0	271	0	<b>271</b>
<i>Lonicera subspicata</i> var. <i>denudata</i>	Johnston's honeysuckle	0	20	0	<b>20</b>
<i>Malosma laurina</i>	laurel sumac	40	0	0	<b>40</b>
<i>Melica imperfecta</i>	coast range onion grass	150	125	0	<b>275</b>
<i>Mimulus aurantiacus</i> var. <i>pubescens</i>	hairy bush monkeyflower	425	0	0	<b>425</b>
<i>Opuntia xvaseyi</i>	Vasey's prickly pear	200	100	0	<b>300</b>
<i>Pellaea andromedifolia</i> (cuttings)	coffee cliff-brake	5	0	0	<b>5</b>

**CONTAINER PLANTS AND CUTTINGS INSTALLED  
(JANUARY 2014–FEBRUARY 2016)**

Container Plants and Cuttings Species <sup>a</sup>		Container Plants and Cuttings Quantities			
Scientific Name	Common Name	Phase I (Jan/Feb 2014)	Phase II (Dec 2014)	Supplemental (2015/2016)	Total
<i>Pellaea andromedifolia</i>	coffee cliff-brake	0	20	128	148
<i>Pellaea mucronata</i> var. <i>mucronata</i>	bird's-foot cliff-brake	0	5	60	65
<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	showy beardtongue	75	5	0	80
<i>Polypodium californicum</i>	California polypody	0	20	91	111
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	holly leaf cherry	0	50	0	50
<i>Pseudognaphalium californicum</i>	California everlasting	460	0	0	460
<i>Quercus agrifolia</i> var. <i>agrifolia</i> <sup>c</sup>	coast live oak	358	0	0	358
<i>Quercus agrifolia</i> var. <i>agrifolia</i> <sup>d</sup>	coast live oak	0	24	0	24
<i>Quercus engelmannii</i>	Engelmann oak	0	57	0	57
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	0	25	0	25
<i>Rhamnus ilicifolia</i>	hollyleaf redberry	0	31	0	31
<i>Rhus aromatica</i> (cuttings)	skunk bush	10	0	0	10
<i>Rhus ovata</i>	sugar bush	55	0	0	55
<i>Ribes aureum</i> var. <i>gracillimum</i>	little graceful golden currant	100	275	0	375
<i>Ribes californicum</i>	hillside gooseberry	0	0	29	29
<i>Rubus ursinus</i> (cuttings)	California blackberry	10	0	0	10
<i>Salvia apiana</i>	white sage	250	150	0	400
<i>Salvia mellifera</i>	black sage	400	0	0	400
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	0	55	0	55
<i>Selaginella bigelovii</i>	bushy spike-moss	0	10	0	10
<i>Stachys bullata</i>	California hedgenettle	0	0	135	135
<i>Stipa lepida</i>	foothill needle grass	0	0	641	641
<b>Total (47 Native Container Plant/Cuttings Species)</b>		<b>4,963</b>	<b>1,973</b>	<b>1,197</b>	<b>8,133</b>
<p><sup>a</sup> Additional container plant and cuttings species will be propagated and installed in 2016/2017.  <sup>b</sup> Seed for this species has yet to be obtained in the Santa Anita Wash/Rio Hondo Sub-Watershed for propagation.  <sup>c</sup> Initial oak planting locations established via direct sown acorns/seedlings.  <sup>d</sup> Supplemental planting of oaks in "T4" (deep 1-gallon) size.</p>					

**ATTACHMENT B-2**  
**NATIVE SEED SPECIES COLLECTED/INSTALLED**  
**(JANUARY 2014–DECEMBER 2015)**

NATIVE SEED SPECIES COLLECTED/INSTALLED  
(JANUARY 2014–DECEMBER 2015)

Scientific Name	Common Name	Pounds Collected	Seed Quantities				Total Pounds Installed
			Sage Scrub Seed Mixes/Aspect		Hand-Seeding		
			South/West (2.0 acres)	North (0.54 acre)	Oak Woodland	Sage Scrub	
<b>Initial/Conceptual OWRMP Seed Species (11 Total) Collected by S&amp;S Seeds in the Santa Anita Wash/Rio Hondo Sub-Watershed and Used for Initial Hydroseeding and Hand-Seeding in January 2014 and December 2014</b>							
<i>Acmispon glaber</i> var. <i>glaber</i>	deerweed	43.82	12.00	2.00	8.00	2.40	24.40
<i>Artemisia californica</i>	California sagebrush	81.78	8.00	2.00	—	—	10.00
<i>Camissoniopsis hirtella</i>	hairy suncup	0.20	—	0.10	0.05	0.05	0.20
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	California buckwheat	81.95	20.00	5.00	—	—	25.00
<i>Hesperoyucca whipplei</i>	chaparral yucca	42.34	1.00	—	—	2.00	3.00
<i>Mimulus aurantiacus</i> var. <i>pubescens</i>	hairy bush monkeyflower	19.88	0.50	2.00	2.00	1.00	5.50
<i>Phacelia cicutaria</i>	caterpillar phacelia	0.56	0.26	0.10	0.10	0.10	0.56
<i>Pseudognaphalium californicum</i>	California everlasting	5.54	1.00	1.00	2.00	1.34	5.34
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	coast live oak	16.92	—	—	1.92	—	1.92
<i>Salvia mellifera</i>	black sage	13.14	1.00	1.00	1.00	—	3.00
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	6.07	—	—	1.00	0.50	1.50
<b>Other Seed Species (26 Total) Collected to Date by S&amp;S Seeds in the Santa Anita Wash/Rio Hondo Sub-Watershed (applied in 2014 and/or 2015)</b>							
<i>Acer macrophyllum</i>	big leaf maple	1.96	—	—	1.96	—	1.96
<i>Artemisia douglasiana</i>	mugwort	8.64	—	—	3.00	—	3.00
<i>Ceanothus leucodermis</i>	chaparral whitethorn	0.52	0.20	0.10	—	—	0.30
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birch-leaf mountain-mahogany	4.92	1.00	0.50	—	—	1.50
<i>Chaenactis glabruiscula</i> var. <i>glabruiscula</i>	yellow pincushion	0.92	0.25	0.10	0.10	0.47	0.92
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	purple clarkia	0.20	0.05	0.05	0.05	0.05	0.20
<i>Clematis lasiantha</i>	chaparral virgin's bower	4.30	0.80	0.20	1.00	0.25	2.25
<i>Datura wrightii</i>	jimson weed	0.56	0.20	0.16	0.10	0.10	0.56
<i>Eulobus californicus</i>	false-mustard	0.82	—	—	0.41	0.41	0.82
<i>Heteromeles arbutifolia</i>	toyon	5.78	—	—	1.00	—	1.00
<i>Lepidospartum squamatum</i>	California scale broom	14.56	—	—	1.00	—	1.00
<i>Lupinus hirsutissimus</i>	stinging lupine	11.90	—	—	9.90	2.00	11.90
<i>Malacothrix saxatilis</i>	cliff desert dandelion	2.22	—	—	1.11	1.11	2.22
<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	great marsh evening primrose	0.04	—	—	0.04	—	0.04
<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	showy beardtongue	5.52	—	—	2.00	3.52	5.52
<i>Phacelia distans</i>	wild heliotrope phacelia	0.96	—	—	0.96	—	0.96
<i>Phacelia minor</i>	wild Canterbury bells	18.36	—	—	10.15	8.21	18.36
<i>Phacelia ramosissima</i>	branching phacelia	2.40	—	—	2.40	—	2.40
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	hollyleaf cherry	9.20	—	—	4.00	—	4.00
<i>Pseudognaphalium stramineum</i>	cotton batting everlasting	3.20	1.00	0.20	1.00	1.00	3.20
<i>Rhamnus ilicifolia</i>	hollyleaf redberry	2.64	—	—	1.89	0.50	2.39
<i>Rhus ovata</i>	sugar bush	7.35	—	—	1.00	—	1.00
<i>Solanum douglasii</i>	Douglas' nightshade	0.02	—	—	0.02	—	0.02
<i>Stachys bullata</i>	California hedgenettle	0.01	—	—	0.01	—	0.01
<i>Stipa lepida</i>	foothill needle grass	0.16	—	—	0.03	0.03	0.06
<i>Umbellularia californica</i>	California laurel	4.44	—	—	3.00	—	3.00
<b>Total (33 Native Seed Species)</b>		<b>408.71</b>	<b>47.26</b>	<b>14.51</b>	<b>62.20</b>	<b>25.04</b>	<b>149.01</b>

NATIVE SEED SPECIES COLLECTED/INSTALLED  
(JANUARY 2014–DECEMBER 2015)

Scientific Name	Common Name	Pounds Collected	Seed Quantities				Total Pounds Installed
			Sage Scrub Seed Mixes/Aspect		Hand-Seeding		
			South/West (2.0 acres)	North (0.54 acre)	Oak Woodland	Sage Scrub	
<b>Seed Species (71 Total) Collected to Date by BonTerra Psomas in the Santa Anita Wash/Rio Hondo Sub-Watershed (small quantities, &lt;1.0 lb collected per species, except as noted)</b>							
<i>Acer macrophyllum</i> (big leaf maple), <i>Acourtia microcephala</i> (sacapellote), <i>Adenostoma fasciculatum</i> var. <i>fasciculatum</i> (chamise), <i>Alnus rhombifolia</i> (white alder), <i>Amorpha californica</i> (California false indigo), <i>Arctostaphylos glauca</i> (bigberry manzanita), <i>Brickellia californica</i> (California brickellbush), <i>Brickellia nevinii</i> (Nevin's brickellia), <i>Castilleja applegatei</i> (Applegate's indian paintbrush), <i>Ceanothus leucodermis</i> (whitebark ceanothus), <i>Ceanothus oliganthus</i> (hairy ceanothus), <i>Cercocarpus betuloides</i> var. <i>betuloides</i> (birch-leaf mountain-mahogany), <i>Cirsium occidentale</i> var. <i>californicum</i> (California thistle), <i>Clarkia dudleyana</i> (Dudley's clarkia), <i>Clematis lasiantha</i> (chaparral clematis), <i>Corethrogyne filaginifolia</i> (common sandaster), <i>Datura wrightii</i> (Jimson weed), <i>Delphinium cardinale</i> (scarlet larkspur), <i>Dudleya lanceolata</i> (lance-leaf dudleya), <i>Elymus condensatus</i> (giant wild rye), <i>Epilobium canum</i> ssp. <i>canum</i> (California fuchsia), <i>Ericameria parishii</i> (Parish's goldenbush), <i>Erigeron foliosus</i> var. <i>foliosus</i> (leafy daisy), <i>Eriodictyon crassifolium</i> (thick-leaf yerba santa), <i>Eriogonum elongatum</i> var. <i>elongatum</i> (longstem buckwheat), <i>Eriophyllum confertiflorum</i> ssp. <i>confertiflorum</i> (golden woolly sunflower), <i>Frangula californica</i> ssp. <i>californica</i> (California coffeeberry), <i>Galium angustifolium</i> ssp. <i>angustifolium</i> (narrow leaved bedstraw), <i>Hazardia squarrosa</i> var. <i>grindelioides</i> (saw-toothed goldenbush), <i>Hesperoyucca whipplei</i> (chaparral yucca), <i>Heteromeles arbutifolia</i> (toyon), <i>Heterotheca grandiflora</i> (telegraph weed), <i>Holodiscus discolor</i> (oceanspray), <i>Juncus rugulosus</i> (wrinkled rush), <i>Juncus textilis</i> (basket rush), <i>Keckiella cordifolia</i> (heart-leaved keckiella), <i>Lathyrus vestitus</i> (chaparral sweet pea), <i>Lepidospartum squamatum</i> (California scale broom), <i>Linantus californicus</i> (prickly phlox), <i>Lonicera subspicata</i> var. <i>denudata</i> (Johnston's honeysuckle), <i>Lupinus concinnus</i> (bajada lupine), <i>Lupinus longifolius</i> (pauma lupine), <i>Lupinus truncatus</i> (blunt leaved lupine), <i>Malacothrix saxatilis</i> (cliff desert dandelion), <i>Marah macrocarpus</i> (wild cucumber), <i>Melica imperfecta</i> (California melic), <i>Mentzelia laevicaulis</i> (smooth stem blazing star), <i>Mimulus aurantiacus</i> var. <i>pubescens</i> (hairy bush monkeyflower), <i>Mirabilis laevis</i> var. <i>crassifolia</i> (coastal wishbone bush), <i>Paeonia californica</i> (California peony), <i>Penstemon spectabilis</i> var. <i>spectabilis</i> (showy penstemon), <i>Phacelia cicutaria</i> (caterpillar phacelia), <i>Phacelia ramosissima</i> (branching phacelia), <i>Pseudognaphalium bioletti</i> (bi-color everlasting), <i>Pseudognaphalium californicum</i> (California everlasting), <i>Pseudognaphalium canescens</i> (hairy everlasting), <i>Quercus agrifolia</i> var. <i>agrifolia</i> (coast live oak), <i>Quercus chrysolepis</i> (canyon live oak; 1.0 lb), San Gabriel oak ( <i>Quercus durata</i> var. <i>gabrielensis</i> ), <i>Quercus engelmannii</i> (Engelmann oak; 5.0 lb), <i>Rhus ovata</i> (sugar bush), <i>Ribes aureum</i> var. <i>gracillimum</i> (little graceful golden currant), <i>Salvia apiana</i> (white sage), <i>Salvia mellifera</i> (black sage), <i>Senecio flaccidus</i> var. <i>douglasii</i> (Douglas' threadleaf ragwort), <i>Silene laciniata</i> (cardinal catchfly), <i>Solidago velutina</i> (California goldenrod), <i>Stephanomeria cichoriacea</i> (silver rock-lettuce), <i>Stipa coronata</i> (giant needlegrass), <i>Symphoricarpos</i> cf. <i>mollis</i> (creeping snowberry), <i>Umbellularia californica</i> (California laurel).							
<b>Cuttings Species (17 Total) and Rare Oak Acorns (2 Species) Collected to Date by BonTerra Psomas, Rancho Santa Ana Botanic Garden, and S&amp;S Seeds in the Santa Anita Wash/Rio Hondo Sub-Watershed</b>							
<i>Acourtia microcephala</i>	sacapellote	Direct planting on mitigation site.					
<i>Artemisia douglasiana</i>	mugwort	Direct planting on mitigation site.					
<i>Asclepias californica</i>	California milkweed	For container plant propagation and direct planting on mitigation site.					
<i>Aspidotis californica</i>	California lace fern	Rhizome cuttings for container plant propagation and direct planting on mitigation site.					
<i>Dryopteris arguta</i>	California wood fern	Rhizome cuttings for container plant propagation (only).					
<i>Dudleya lanceolata</i>	lance-leaf dudleya	For container plant propagation and direct planting on mitigation site.					
<i>Epilobium canum</i> ssp. <i>canum</i>	California fuchsia	Container plant propagation (only).					
<i>Juncus textilis</i>	basket rush	Direct planting on mitigation site.					
<i>Pellaea andromedifolia</i>	coffee fern	Rhizome cuttings for container plant propagation and direct planting on mitigation site.					
<i>Pellaea mucronata</i> var. <i>mucronata</i>	bird's foot cliff-brake	Rhizome cuttings for container plant propagation (only).					
<i>Polypodium californicum</i>	California polypody	Rhizome cuttings for container plant propagation (only).					
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	Container plant propagation (only).					
<i>Quercus engelmannii</i>	Engelmann oak	Container plant propagation (only).					
<i>Rhamnus crocea</i>	spiny redberry	Container plant propagation (only).					
<i>Rhus aromatica</i>	skunk bush	Direct planting on mitigation site.					
<i>Ribes californicum</i>	hillside gooseberry	Container plant propagation (only).					
<i>Rubus ursinus</i>	California blackberry	Direct planting on mitigation site.					
<i>Selaginella bigelovii</i>	bushy spike-moss	Direct planting on mitigation site.					
<i>Stachys bullata</i>	California hedgenettle	For container plant propagation and direct planting on mitigation site.					
OWHRMP: Oak Woodland Habitat Revegetation/Mitigation Program for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project; lb: pound.							

**ATTACHMENT C**

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (128 Native Plant Species)		Special Status	Wetland Rank
Scientific Name	Common Name		
<b>LYCOPHYTES</b>			
SELAGINELLACEAE–SPIKE-MOSS FAMILY			
<i>Selaginella bigelovii</i>	bushy spike-moss		
<b>FERNS</b>			
DRYOPTERIDACEAE–WOOD FERN FAMILY			
<i>Dryopteris arguta</i>	coastal woodfern		
POLYPODIACEAE–POLYPODY FAMILY			
<i>Polypodium californicum</i>	California polypody		
PTERIDACEAE–BRAKE FAMILY			
<i>Aspidotis californica</i>	California lace fern		
<i>Pellaea andromedifolia</i>	coffee cliff-brake		
<i>Pellaea mucronata</i> var. <i>mucronata</i>	bird's-foot cliff-brake		
<b>CERATOPHYLLALES</b>			
CERATOPHYLLACEAE–HORNWORT FAMILY			
<i>Ceratophyllum demersum</i>	vascular horticort		OBL
<b>EUDICOTS</b>			
ADOXACEAE–MUSKROOT FAMILY			
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry		FAC
ANACARDIACEAE–SUMAC FAMILY			
<i>Malosma laurina</i>	laurel sumac		
<i>Rhus aromatica</i>	skunk bush		FACU
<i>Rhus ovata</i>	sugar bush		
<i>Toxicodendron diversilobum</i>	western poison oak		FACU
APOCYNACEAE–DOGBANE FAMILY			
<i>Asclepias californica</i>	California milkweed		
ASTERACEAE–SUNFLOWER FAMILY			
<i>Acourtia microcephala</i>	sacapellote		
<i>Artemisia californica</i>	California sagebrush		
<i>Artemisia douglasiana</i>	Douglas' sagebrush		FAC
<i>Baccharis pilularis</i> ssp. <i>consanguinea</i>	coyote brush		
<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	mule fat		FAC
<i>Brickellia californica</i>	California brickellbush		FACU
<i>Chaenactis glabriuscula</i> var. <i>glabriuscula</i>	yellow pincushion		
<i>Cirsium occidentale</i>	cobwebby thistle		
<i>Corethrogyne filaginifolia</i>	common sand aster		
<i>Deinandra fasciculata</i>	fascicled tarplant		FACU
<i>Ericameria nauseosa</i>	rubber rabbitbrush		
<i>Ericameria parishii</i> var. <i>parishii</i>	Parish's goldenbush		
<i>Erigeron canadensis</i>	horseweed		FACU
<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>	golden woolly sunflower		
<i>Helianthus annuus</i>	annual sunflower		FACU
<i>Heterotheca grandiflora</i>	telegraph weed		
<i>Heterotheca sessiliflora</i> ssp. <i>fastigiata</i>	upright sessileflower false goldenaster		

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (128 Native Plant Species)		Special Status	Wetland Rank
Scientific Name	Common Name		
<i>Lasthenia gracilis</i>	common goldfields		
<i>Lepidospartum squamatum</i>	California scale-broom		FACU
<i>Malacothrix saxatilis</i>	cliff desert dandelion		
<i>Pseudognaphalium biolettii</i>	bi-color everlasting		
<i>Pseudognaphalium californicum</i>	California everlasting		
<i>Pseudognaphalium canescens</i>	hairy everlasting		FACU
<i>Pseudognaphalium stramineum</i>	cotton batting everlasting		FAC
<i>Senecio flaccidus</i> var. <i>douglasii</i>	Douglas' threadleaf ragwort		
BORAGINACEAE–BORAGE FAMILY			
<i>Cryptantha intermedia</i> var. <i>intermedia</i>	common cryptantha		
<i>Eriodictyon crassifolium</i>	thickleaf yerba santa		
<i>Eriodictyon parryi</i>	poodle-dog bush		
<i>Phacelia cicutaria</i>	caterpillar phacelia		
<i>Phacelia distans</i>	wild heliotrope phacelia		OBL
<i>Phacelia minor</i>	wild Canterbury bells		
<i>Phacelia ramosissima</i>	branching phacelia		FACU
CACTACEAE–CACTUS FAMILY			
<i>Dudleya lanceolata</i>	lance-leaf dudleya		
<i>Opuntia xvaseyi</i>	Vasey's prickly pear		
<i>Opuntia littoralis</i>	coastal prickly pear		
CAPRIFOLIACEAE–HONEYSUCKLE FAMILY			
<i>Lonicera subspicata</i> var. <i>denudata</i>	Johnston's honeysuckle		
CARYOPHYLLACEAE–PINK FAMILY			
<i>Silene laciniata</i>	cardinal catchfly		
CONVOLVULACEAE–MORNING-GLORY FAMILY			
<i>Calystegia macrostegia</i>	coast morning-glory		
CUCURBITACEAE–GOURD FAMILY			
<i>Marah macrocarpa</i>	large fruit wild cucumber		
FABACEAE–LEGUME FAMILY			
<i>Acmispon brachycarpus</i>	short fruit lotus		
<i>Acmispon glaber</i> var. <i>glaber</i>	deerweed		
<i>Acmispon maritimus</i> var. <i>maritimus</i>	coastal lotus		
<i>Acmispon strigosus</i>	strigose lotus		
<i>Lupinus concinnus</i>	bajada lupine		
<i>Lupinus hirsutissimus</i>	stinging lupine		
<i>Lupinus longifolius</i>	long leaf lupine		
<i>Lupinus succulentus</i>	arroyo lupine		
<i>Lupinus truncatus</i>	cut leaf lupine		
FAGACEAE–OAK FAMILY			
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	coast live oak		
<i>Quercus chrysolepis</i>	canyon live oak		
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	CRPR 4.2	
<i>Quercus engelmannii</i>	Engelmann oak	CRPR 4.2	

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (128 Native Plant Species)		Special Status	Wetland Rank
Scientific Name	Common Name		
GROSSULARIACEAE–GOOSEBERRY FAMILY			
<i>Ribes aureum</i> var. <i>gracillimum</i>	little graceful golden currant		FAC
<i>Ribes californicum</i>	hillside gooseberry		
LAMIACEAE–MINT FAMILY			
<i>Salvia apiana</i>	white sage		
<i>Salvia columbariae</i>	chia		
<i>Salvia mellifera</i>	black sage		
<i>Stachys bullata</i>	California hedgenettle		
LOASACEAE–BLAZING STAR FAMILY			
<i>Mentzelia laevicaulis</i>	smooth stem blazing star		
LYTHRACEAE–LOOSESTRIFE FAMILY			
<i>Ammannia coccinea</i>	valley redstem		OBL
NYCTAGINACEAE–FOUR O'CLOCK FAMILY			
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	coastal wishbone plant		
ONAGRACEAE–EVENING PRIMROSE FAMILY			
<i>Camissoniopsis hirtella</i>	hairy suncup		
<i>Clarkia dudleyana</i>	Dudley's clarkia		
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i>	purple clarkia		
<i>Epilobium brachycarpum</i>	tall annual willowherb		
<i>Epilobium canum</i> ssp. <i>canum</i>	California fuchsia		
<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	fringed willowherb		FACW
<i>Eulobus californicus</i>	false-mustard		
<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	great marsh evening primrose		FACW
OXALIDACEAE–OXALIS FAMILY			
<i>Oxalis californica</i>	California wood-sorrel		
PAPAVERACEAE–POPPY FAMILY			
<i>Eschscholzia californica</i>	California poppy		
PHRYMACEAE–LOPSEED FAMILY			
<i>Mimulus aurantiacus</i> var. <i>pubescens</i>	hairy bush monkeyflower		FACU
<i>Mimulus cardinalis</i>	scarlet monkeyflower		FACW
<i>Mimulus guttatus</i>	seep monkeyflower		OBL
PLANTAGINACEAE–PLANTAIN FAMILY			
<i>Keckiella cordifolia</i>	heartleaf bush penstemon		
<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	showy beardtongue		
<i>Penstemon spectabilis</i> var. <i>subviscosus</i>	glandular showy beardtongue		
PLATANACEAE–SYCAMORE FAMILY			
<i>Platanus racemosa</i>	western sycamore		FAC
POLEMONIACEAE–PHLOX FAMILY			
<i>Linanthus californicus</i>	prickly phlox		
POLYGONACEAE–BUCKWHEAT FAMILY			
<i>Eriogonum elongatum</i> var. <i>elongatum</i>	longstem buckwheat		
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i>	leafy California buckwheat		
<i>Persicaria lapathifolia</i>	willow smartweed		FACW

### NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)

Species (128 Native Plant Species)		Special Status	Wetland Rank
Scientific Name	Common Name		
RANUNCULACEAE–BUTTERCUP FAMILY			
<i>Clematis lasiantha</i>	chaparral virgin's bower		
<i>Delphinium cardinale</i>	scarlet larkspur		
RHAMNACEAE–BUCKTHORN FAMILY			
<i>Ceanothus leucodermis</i>	whitebark ceanothus		
<i>Ceanothus oliganthus</i>	hairy ceanothus		
<i>Frangula californica</i> ssp. <i>californica</i>	California coffeeberry		
<i>Rhamnus ilicifolia</i>	hollyleaf redberry		
ROSACEAE–ROSE FAMILY			
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birch-leaf mountain mahogany		
<i>Heteromeles arbutifolia</i>	toyon		
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	holly leaf cherry		
<i>Rubus ursinus</i>	California blackberry		FAC
RUBIACEAE–COFFEE FAMILY			
<i>Galium angustifolium</i> ssp. <i>angustifolium</i>	narrow leaved bedstraw		
SALICACEAE–WILLOW FAMILY			
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood		FAC
<i>Salix exigua</i> var. <i>hindsiana</i>	Hind's willow		FACW
<i>Salix gooddingii</i>	Goodding's black willow		FACW
<i>Salix laevigata</i>	red willow		FACW
<i>Salix lasiolepis</i>	arroyo willow		FACW
SOLANACEAE–NIGHTSHADE FAMILY			
<i>Datura wrightii</i>	Wright's jimsonweed		
<i>Solanum americanum</i>	white nightshade		FACU
<i>Solanum douglasii</i>	Douglas' nightshade		FAC
URTICACEAE–NETTLE FAMILY			
<i>Urtica dioica</i> ssp. <i>holosericea</i>	hoary stinging nettle		FAC
VERBENACEAE–VERVAIN FAMILY			
<i>Verbena lasiostachys</i>	western vervain		FAC
<b>MONOCOTS</b>			
AGAVACEAE–AGAVE FAMILY			
<i>Hesperoyucca whipplei</i>	chaparral yucca		
CYPERACEAE–SEDGE FAMILY			
<i>Cyperus eragrostis</i>	tall flatsedge		FACW
JUNCACEAE–RUSH FAMILY			
<i>Juncus rugulosus</i>	wrinkled rush		OBL
<i>Juncus textilis</i>	basket rush		FACW
<i>Juncus xiphioides</i>	iris leaved rush		OBL
POACEAE–GRASS FAMILY			
<i>Elymus condensatus</i>	giant wildrye		FACU
<i>Festuca microstachys</i>	Pacific fescue		
<i>Leptochloa fusca</i>	bearded sprangletop		
<i>Melica imperfecta</i>	coast range onion grass		
<i>Stipa coronata</i>	crested needle grass		

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (128 Native Plant Species)		Special Status	Wetland Rank		
Scientific Name	Common Name				
<i>Stipa lepida</i>	foothill needle grass				
TYPHACEAE–CATTAIL FAMILY					
<i>Typha domingensis</i>	southern cattail		OBL		
<p>USFWS: U.S. Fish and Wildlife Service; CDFW: California Department of Fish and Wildlife; CRPR: California Rare Plant Rank; Cal-IPC: California Invasive Plant Council</p> <p><b>LEGEND:</b>            * = Non-native species            cf. = appears similar to, species can not be confirmed 100% due to phenological condition</p> <p><b>Special Status:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <b>Federal (USFWS):</b>            FE = Endangered            FT = Threatened         </td> <td style="width: 50%; vertical-align: top;"> <b>State (CDFW):</b>            SE = Endangered            ST = Threatened            SR = Rare         </td> </tr> </table> <p><b>CRPR – California Rare Plant Rank</b></p> <p>1A. Presumed extirpated in California and either rare or extinct elsewhere            1B. Rare, Threatened, or Endangered in California and elsewhere            2A. Presumed extirpated in California, but more common elsewhere            2B. Rare, Threatened, or Endangered in California, but more common elsewhere            3. Plants about which we need more information - a review list            4. Plants of limited distribution - a watch list</p> <p><b>Threat Code Extensions</b></p> <p>None Plants lacking any threat information            .1 Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)            .2 Moderately threatened in California (20–80% of occurrences threatened/moderate degree and immediacy of threat)            .3 Not very threatened in California (&lt;20% of occurrences threatened/low degree and immediacy of threat or no current threats known)</p> <p>Special status designations updated on 12/21/2014</p>				<b>Federal (USFWS):</b> FE = Endangered FT = Threatened	<b>State (CDFW):</b> SE = Endangered ST = Threatened SR = Rare
<b>Federal (USFWS):</b> FE = Endangered FT = Threatened	<b>State (CDFW):</b> SE = Endangered ST = Threatened SR = Rare				

**ATTACHMENT D**

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (Vertebrates): 89 Total Native Species (Cumulative)		Special Status	2013	2014	2015	2016	Cumulative
<b>AMPHIBIANS</b>							
<b>AMPHIBIA–AMPHIBIANS</b>							
HYLIDAE–TREEFROGS							
<i>Pseudacris hypochondriaca</i>	Baja California treefrog				X	X	X
<b>LEPIDOSAURIA–LIZARDS AND SNAKES</b>							
PHRYNOSOMATIDAE–SPINY LIZARDS							
<i>Sceloporus occidentalis</i>	western fence lizard		X	X	X	X	X
<i>Uta stansburiana</i>	common side-blotched lizard		X	X	X	X	X
TEIIDAE–WHIPTAIL LIZARDS							
<i>Aspidoscelis tigris</i>	tiger whiptail		X	X	X		X
COLUBRIDAE–COLUBRID SNAKES							
<i>Coluber lateralis</i>	striped racer			X	X		X
VIPERIDAE–VIPERS AND PITVIPERS							
<i>Crotalus oreganus</i>	western rattlesnake				X		X
<b>BIRDS</b>							
<b>AVES–BIRDS</b>							
ANATIDAE–SWAN, GOOSE, AND DUCK FAMILY							
<i>Branta canadensis</i>	Canada goose				X		X
ODONTOPHORIDAE–NEW WORLD QUAIL FAMILY							
<i>Callipepla californica</i>	California quail			X	X		X
ARDEIDAE–HERONS							
<i>Ardea herodias</i>	great blue heron				X		X
CATHARTIDAE–NEW WORLD VULTURES							
<i>Cathartes aura</i>	turkey vulture			X	X		X
ACCIPITRIDAE–HAWKS, KITES, EAGLES, AND ALLIES							
<i>Accipiter cooperii</i>	Cooper's hawk		X	X	X		X
<i>Buteo jamaicensis</i>	red-tailed hawk		X	X	X	X	X
CHARADRIIDAE–PLOVERS							
<i>Charadrius vociferus</i>	killdeer		X	X <sup>b</sup>	X		X

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (Vertebrates): 89 Total Native Species (Cumulative)		Special Status	2013	2014	2015	2016	Cumulative
COLUMBIDAE–PIGEONS AND DOVES							
<i>Patagioenas fasciata</i>	band-tailed pigeon				X		X
<i>Streptopelia decaocto</i> <sup>a</sup>	Eurasian collared-dove				X		X
<i>Zenaida macroura</i>	mourning dove		X	X	X	X	X
APODIDAE–SWIFTS							
<i>Aeronautes saxatalis</i>	white-throated swift			X	X		X
TROCHILIDAE–HUMMINGBIRDS							
<i>Archilochus alexandri</i>	black-chinned hummingbird				X		X
<i>Calypte anna</i>	Anna's hummingbird		X	X	X	X	X
<i>Calypte costae</i>	Costa's hummingbird				X		X
<i>Selasphorus rufus</i>	rufous hummingbird				X		X
<i>Selasphorus sasin</i>	Allen's hummingbird		X	X	X	X	X
<i>Selasphorus sp.</i>	Allen's/rufous hummingbird			X	X		X
PICIDAE–WOODPECKERS							
<i>Melanerpes lewis</i>	Lewis's woodpecker		X	X			X
<i>Melanerpes formicivorus</i>	acorn woodpecker			X <sup>b</sup>	X <sup>b</sup>	X	X
<i>Picoides nuttallii</i>	Nuttall's woodpecker				X		X
<i>Picoides pubescens</i>	downy woodpecker				X		X
<i>Colaptes auratus</i>	northern flicker			X	X	X	X
FALCONIDAE–FALCONS							
<i>Falco sparverius</i>	American kestrel			X	X	X	X
<i>Falco columbarius</i>	merlin			X			X
PSITTACIDAE–PARROTS							
<i>Amazona viridigenalis</i> <sup>a</sup>	red-crowned parrot				X		X
TYRANNIDAE–TYRANT FLYCATCHERS							
<i>Contopus sordidulus</i>	western wood-pewee				X		X
<i>Empidonax traillii</i>	willow flycatcher				X		X
<i>Empidonax difficilis</i>	Pacific-slope flycatcher				X		X
<i>Sayornis nigricans</i>	black phoebe		X	X	X	X	X
<i>Sayornis saya</i>	Say's phoebe			X	X		X
<i>Myiarchus cinerascens</i>	ash-throated flycatcher			X	X		X
<i>Tyrannus vociferans</i>	Cassin's kingbird			X	X		X

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

<b>Species (Vertebrates): 89 Total Native Species (Cumulative)</b>		<b>Special Status</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Cumulative</b>
<i>Tyrannus verticalis</i>	western kingbird			X	X		X
VIREONIDAE–VIREOS							
<i>Vireo gilvus</i>	warbling vireo				X		X
CORVIDAE–JAYS AND CROWS							
<i>Aphelocoma californica</i>	western scrub-jay		X	X	X	X	X
<i>Corvus brachyrhynchos</i>	American crow				X		X
<i>Corvus corax</i>	common raven		X	X	X	X	X
HIRUNDINIDAE–SWALLOWS							
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow			X	X		X
<i>Hirundo rustica</i>	barn swallow				X	X	X
AEGITHALIDAE–BUSHTITS							
<i>Psaltriparus minimus</i>	bushtit		X	X	X	X	X
TROGLODYTIDAE–WRENS							
<i>Salpinctes obsoletus</i>	rock wren			X	X	X	X
<i>Catherpes mexicanus</i>	canyon wren			X			X
<i>Troglodytes aedon</i>	house wren		X	X	X		X
<i>Thryomanes bewickii</i>	Bewick's wren		X	X	X	X	X
POLIOPTILIDAE–GNATCATCHERS AND GNATWRENS							
<i>Polioptila caerulea</i>	blue-gray gnatcatcher			X			X
REGULIDAE–KINGLETS							
<i>Regulus calendula</i>	ruby-crowned kinglet			X	X		X
SYLVIIDAE–SYLVIID WARBLERS							
<i>Chamaea fasciata</i>	wrentit			X	X		X
TURDIDAE–THRUSHES AND ROBINS							
<i>Sialia mexicana</i>	western bluebird			X	X	X	X
<i>Catharus guttatus</i>	hermit thrush				X		X
<i>Turdus migratorius</i>	American robin			X	X		X
MIMIDAE–THRASHERS							
<i>Mimus polyglottos</i>	northern mockingbird		X	X	X	X	X
STURNIDAE–STARLINGS							
<i>Sturnus vulgaris</i> <sup>a</sup>	European starling				X		X

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

Species (Vertebrates): 89 Total Native Species (Cumulative)		Special Status	2013	2014	2015	2016	Cumulative
MOTACILLIDAE–PIPITS							
<i>Anthus rubescens</i>	American pipit		X				X
BOMBYCILLIDAE–WAXWINGS							
<i>Bombycilla cedrorum</i>	cedar waxwing				X	X	X
PTILOGONATIDAE–SILKY-FLYCATCHERS							
<i>Phainopepla nitens</i>	phainopepla			X			X
PARULIDAE–WOOD-WARBLERS							
<i>Oreothlypis celata</i>	orange-crowned warbler				X		X
<i>Geothlypis tolmiei</i>	MacGillivray's warbler				X		X
<i>Geothlypis trichas</i>	common yellowthroat		X	X <sup>b</sup>			X
<i>Setophaga petechia</i>	yellow warbler				X		X
<i>Setophaga coronata</i>	yellow-rumped warbler		X	X	X	X	X
<i>Setophaga occidentalis</i>	hermit warbler				X		X
<i>Cardellina pusilla</i>	Wilson's warbler				X		X
EMBERIZIDAE–SPARROWS							
<i>Pipilo maculatus</i>	spotted towhee		X	X	X		X
<i>Aimophila ruficeps</i>	rufous-crowned sparrow			X		X	X
<i>Melospiza crissalis</i>	California towhee		X	X	X	X	X
<i>Chondestes grammacus</i>	lark sparrow				X		X
<i>Melospiza melodia</i>	song sparrow		X	X	X	X	X
<i>Melospiza lincolni</i>	Lincoln's sparrow			X			X
<i>Zonotrichia leucophrys</i>	white-crowned sparrow		X	X	X	X	X
<i>Junco hyemalis</i>	dark-eyed junco				X	X	X
CARDINALIDAE–CARDINALS, GROSBEAKS, AND ALLIES							
<i>Piranga ludoviciana</i>	western tanager				X		X
<i>Pheucticus melanocephalus</i>	black-headed grosbeak			X			X
<i>Passerina caerulea</i>	blue grosbeak				X		X
<i>Passerina amoena</i>	lazuli bunting				X		X
ICTERIDAE–BLACKBIRDS							
<i>Sturnella neglecta</i>	western meadowlark			X			X
<i>Molothrus ater</i>	brown-headed cowbird				X		X
<i>Icterus cucullatus</i>	hooded oriole			X	X		X

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MARCH 2016)**

<b>Species (Vertebrates): 89 Total Native Species (Cumulative)</b>		<b>Special Status</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Cumulative</b>
<i>Icterus bullockii</i>	Bullock's oriole			X	X		X
<b>FRINGILLIDAE–FINCHES</b>							
<i>Carpodacus mexicanus</i>	house finch		X	X	X	X	X
<i>Carduelis pinus</i>	pine siskin				X		X
<i>Carduelis psaltria</i>	lesser goldfinch		X	X	X	X	X
<i>Carduelis lawrencei</i>	Lawrence's goldfinch				X		X
<i>Carduelis tristis</i>	American goldfinch			X	X		X
<b>PASSERIDAE–OLD WORLD SPARROWS</b>							
<i>Passer domesticus</i> <sup>a</sup>	house sparrow				X		X
<b>ESTRILDIDAE–WAXBILLS AND MANNIKINS</b>							
<i>Lonchura punctulata</i> *	nutmeg mannikin		X	X			X
<b>MAMMALS</b>							
<b>MAMMALIA–MAMMALS</b>							
<b>SCIURIDAE–SQUIRRELS</b>							
<i>Otospermophilus beecheyi</i>	California ground squirrel			X	X		X
<b>CANIDAE–DOGS, WOLVES, FOXES</b>							
<i>Canis latrans</i>	coyote				X	X	X
<b>URSIDAE–BEARS</b>							
<i>Ursus americanus</i> <sup>a</sup>	black bear			X			X
<b>CERVIDAE–DEER</b>							
<i>Odocoileus hemionus</i>	southern mule deer		X	X	X		X
<b>Total Native Vertebrate Species Observed</b>			<b>27</b>	<b>56</b>	<b>79</b>	<b>29</b>	<b>89</b>
<sup>a</sup> Introduced species. <sup>b</sup> Species observed nesting on the site.							