



May 21, 2015

Belinda Kwan, P.E.  
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 Sediment Removal Project (Exhibit 1). The creation of oak woodland and sage scrub habitat is required by Mitigation Measures BIO-D and BIO-E in the Los Angeles County Department of Public Works' 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 Game (now known as the California Department of Fish and Wildlife, CDFW) in 2009. The mitigation program includes a seven- to ten-year maintenance and monitoring period that began after the completion of mitigation installation which occurred in December 2014.

As detailed in the OWHRMP, final grading of the Lower Sediment Placement Site (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 Qwest Construction (for LACDPW) in October 2012.

The LACDPW retained BonTerra Psomas to prepare the OWHRMP document (including the performance of reference site surveys); participate in community outreach efforts related to the OWHRMP; provide biological monitoring and documentation services; and implement the mitigation program. BonTerra Psomas retained the following sub-contractors/vendors: (1) S&S Seeds, Inc. (S&S) to collect site-specific native seeds (including oak acorns) and cuttings (cactus) in the Santa Anita Dam/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. (Restoration Contractor) to perform mitigation site preparation, installation, and long-term maintenance tasks. Site photographs are provided in Attachment A.

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## **SEED AND CUTTINGS COLLECTION**

BonTerra and S&S Seeds, Inc. (BonTerra/S&S) started local seed collection tasks in June 2011. Seed collection in 2011 was limited to LACDPW's Santa Anita Dam property; however, LACDPW secured access in 2012 to off-site open space areas in the Cities of Arcadia and Monrovia for more extensive seed collection. BonTerra/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/RSABG collected local seed (rare oaks) and cuttings (fern species) in October and November 2013. RSABG propagated the ferns and rare oaks for installation in fall 2014 (ferns and rare oaks) and continues to propagate ferns and other native plant species for installation in fall 2015 and beyond. Fern 'stock plants' (a minimum of ten individual plants each, of four different species) have been established in the RSABG nursery; these plants will be used for ongoing future rhizome cuttings collection for vegetative propagation of four-inch container plants. More than 90 native plant species (seed and/or cuttings) have been collected in the Sub-Watershed for the OWHRMP. The seed species and quantities installed to date on the mitigation site are listed in Attachment B of this document. Seed and cuttings collection for the mitigation program will continue in 2015 and throughout the long-term maintenance period.

## **MITIGATION SITE PREPARATION**

BonTerra and Nakae & Associates, Inc. (BonTerra/Nakae) started mitigation site preparation tasks in September 2013. 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 2 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 8-foot perimeter fence (wood posts and smooth wire) to exclude large mammals (only) to reduce herbivory during the initial oak establishment phase; and
11. the installation of interpretive signage on the site, explaining the goals of the OWRMP. 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. The Restoration Contractor 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/Nakae performed mitigation site installation tasks (native plant and seed materials) in January/February 2014. The Phase I installation included the following tasks: (1) the planting of coast live oak acorns (ten per planting hole), the installation of protective caging and shade cloth at each oak location, and the placement of conserved oak leaf mulch at each oak planting site; (2) the installation of native container plants (4,963 total plants, including 358 coast live oak planting locations); and (3) the installation of 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 also flagged the various seed mix application areas in the field. The planting/seeding area layouts roughly follow the conceptual planting plans provided in the OWRMP; 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)**

The Restoration Contractor 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 Rancho Santa Anita Botanic Garden, 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 El Nativo Growers 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*]). Additional native seed species (3 total) installed in fall 2014 included stinging lupine (*Lupinus hirsutissimus*), wild heliotrope phacelia (*Phacelia distans*), and wild Canterbury

bells (*Phacelia minor*) which bloomed/seeded over much of the oak woodland mitigation site in spring 2015. 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 at this stage, 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 re-infestation of the site. Herbicide use is minimized in favor of hand pulling of weeds whenever possible.

There is no significant erosion on the site, and there has been no problematic trespassing or trash deposition in the vicinity. The Restoration Contractor is maintaining the concrete down-drains and V-ditches to ensure they are clear of sediment and debris in order to facilitate ongoing County inspection of the integrity of the Lower SPS. Supplemental irrigation is currently being applied to the mitigation site every other week, and the frequency of irrigation will continue to be decreased as seasonal temperatures become warmer in spring and summer 2015.

The Biological Monitor met with a representative of the San Gabriel Valley Vector Control District (SGVVCD) at the Lower SPS on March 17, 2015, 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).

The Restoration Contractor 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.

## **MITIGATION PERFORMANCE**

As of March 2015, the mitigation site already supports an excellent diversity of plant and animal species and is developing vegetation structure/cover. A total of 113 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. 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.

Ms. Belinda Kwan

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Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project

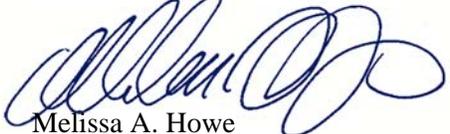
Wildlife species—including mule deer (*Odocoileus hemionus*) and American black bear (*Ursus americanus*)—have been observed using the two ‘drinker’ tanks that were installed just northeast of the Lower SPS. Three different species of birds were observed nesting on the mitigation site in 2014 (killdeer [*Charadrius vociferus*], common yellowthroat [*Geothlypis trichas*], and acorn woodpecker [*Melanerpes formicivorus*]) and three bird species (acorn woodpecker [2015 nesting confirmed], western bluebird [*Sialia mexicana*], and rock wren [*Salpinctes obsoletus*]) exhibited nesting behaviors on the site in March 2015. The acorn woodpeckers nested in a cavity in one of the placed snags, far earlier than cavity nesting was expected to occur during the seven- to ten-year maintenance and monitoring period. The Biological Monitor will continue to note birds observed on the site in 2015, and parking restrictions and protective no-entry buffer areas will be established around active nests to ensure that maintenance activities do not adversely impact nesting birds. California ground squirrels (*Spermophilus beecheyi*), rock wrens, native reptiles (including California striped racer [*Coluber lateralis lateralis*], a snake species), and other wildlife species are increasingly colonizing the created boulder and woody debris piles. A total of 84 native vertebrate wildlife species (75 native bird species) have been observed on the site, in addition to numerous native invertebrate species (e.g., butterflies, beetles, bees). The compendia of all native plant and wildlife species observed on the site are provided in Attachments C and D, respectively.

The Phase II installation was completed in December 2014, and the seven 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.

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

Sincerely,

**BonTerra Psomas**



Melissa A. Howe

Vice President, Resource Management

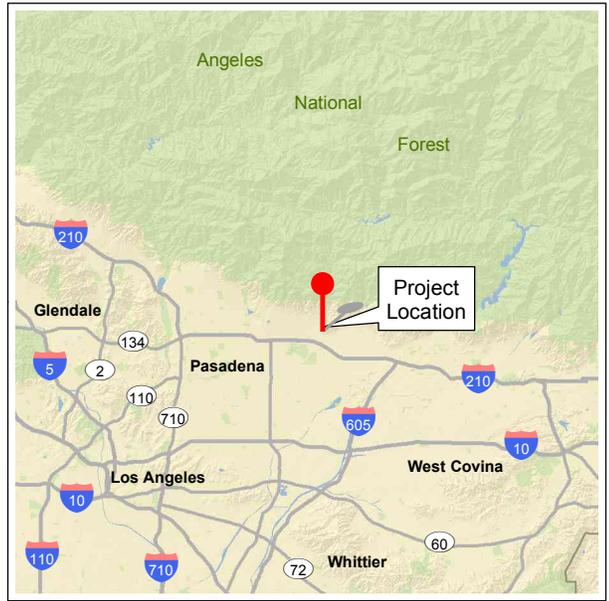


Richard B. Lewis, III

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 – Plant Compendium (September 2013 through September 2014)  
                      Attachment D – Wildlife Compendium (September 2013 through September 2014)

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



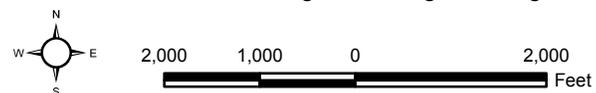
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## Project Vicinity

## Exhibit 1

Quarterly Status Report

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





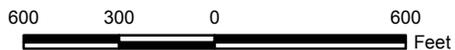
Aerial Source: LAR-IAC 2011

## Sediment Placement Site Locations

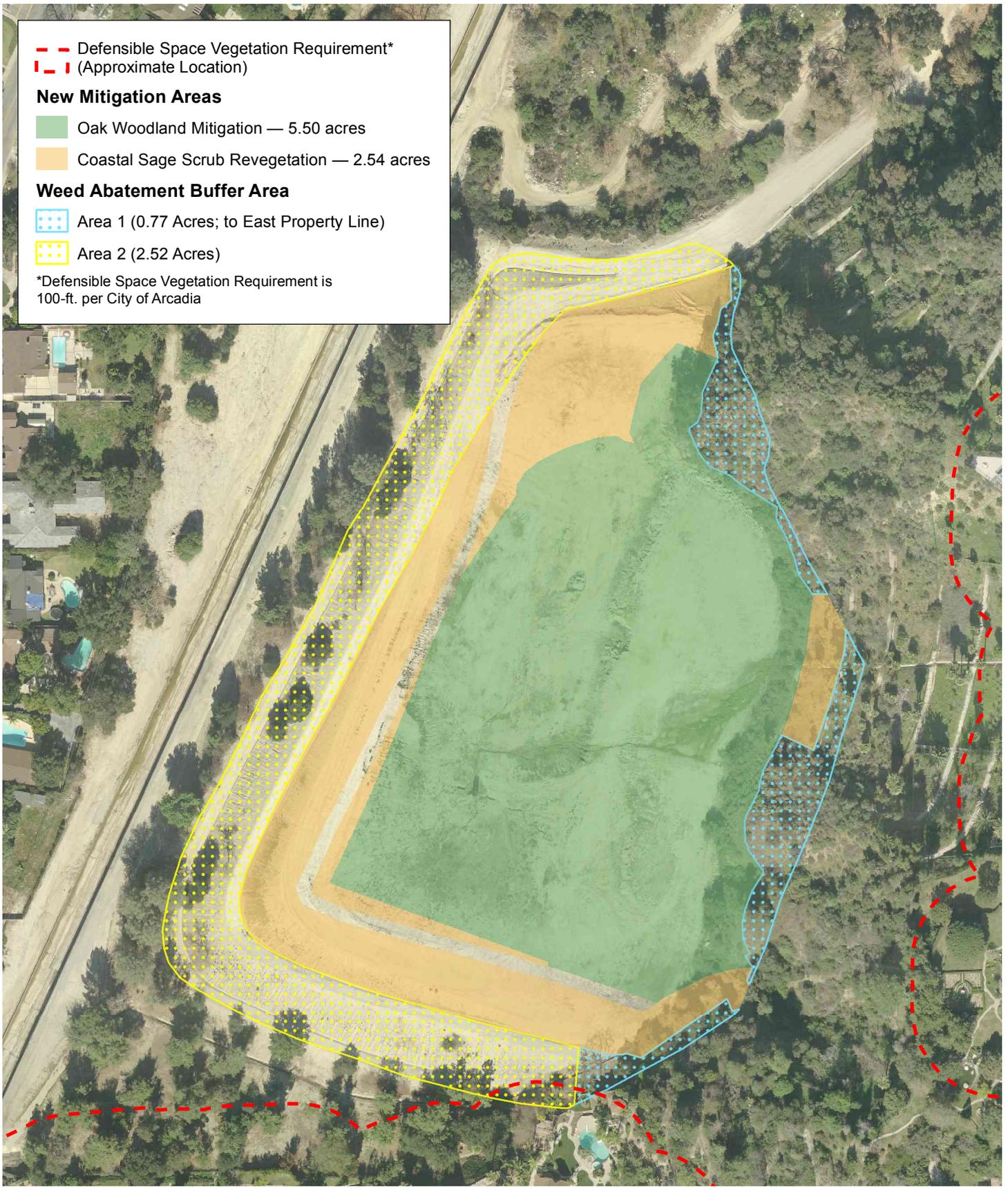
## Exhibit 2

Quarterly Status Report

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



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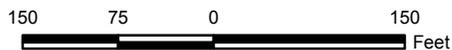


### Mitigation Site Location (Lower Sediment Placement Site)

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**



**March 2015.** Placed snags, boulder assemblages, coarse woody debris, a caged coast live oak seedling (foreground left), and diverse understory vegetation.



**March 2015.** Numerous wildflowers (such as showy beardtongue, shown here) are currently blooming on the site.



**March 2015.** Planted and seeded coastal sage scrub vegetation surrounds a placed boulder and woody debris assemblage.



**March 2015.** A healthy planted coast live oak seedling in its protective cage.



**March 2015.** Beneficial bracket fungi growing on placed woody debris.



**March 2015.** Coastal woodfern planted in the shady niche of placed boulders.

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**Site Photographs**

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



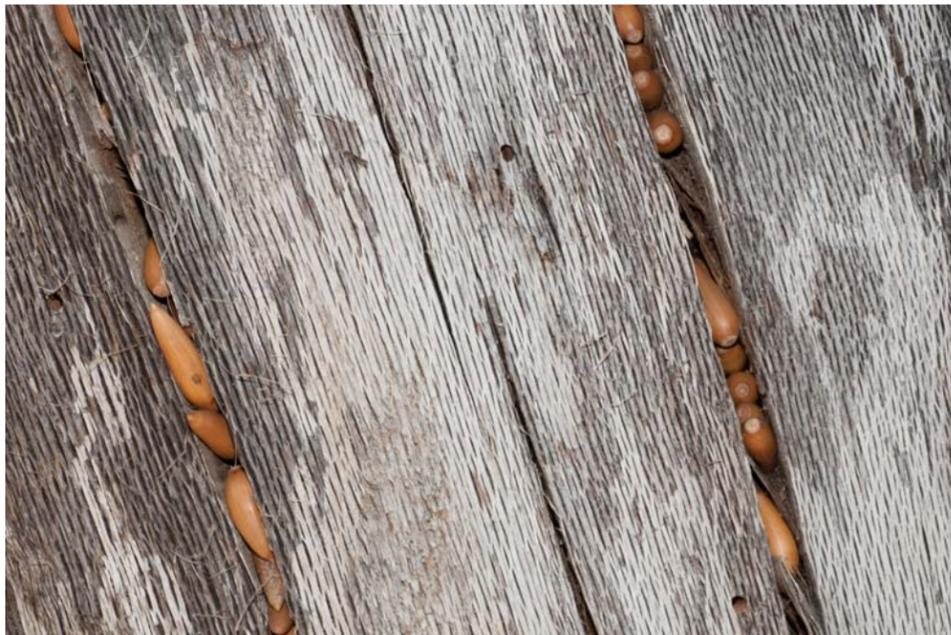
**March 2015.** Acorn woodpeckers on a placed snag (video capture).



**March 2015.** Crab spider and prey on a jimson weed flower.



**March 2015.** Multiple reptile species (such as this western fence lizard) are associated with the placed rock and woody debris on the site.



**March 2015.** Acorns cached by acorn woodpeckers in a placed snag.



**March 2015.** Western bluebird at a nest cavity in a placed snag (video capture).



**March 2015.** Ongoing maintenance avoids the proliferation of weed species while protecting sensitive biological resources.

## 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

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**September 2013.** West-facing slope on the Lower Sediment Placement Site (SPS) prior to sage scrub habitat installation.



**September 2013.** Overview to the south of the Lower SPS during the soil enhancement phase of mitigation installation.



**September 2013.** Installation and re-compaction of natural oak snags on the mitigation site.



**April 1, 2015.** Excellent coverage of sage scrub vegetation provides habitat and slope stabilization.



**April 1, 2015.** Overview to the south of the Lower SPS showing the development of native habitat.



**April 1, 2015.** Several placed natural snags and boulder assemblages with planted oaks and diverse native understory vegetation.

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## Site Photographs

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

Exhibit 6

**Bonterra**  
PSOMAS

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

**ATTACHMENT B-1**

**CONTAINER PLANT SPECIES INSTALLED (JANUARY 2014–DECEMBER 2014)**

**CONTAINER PLANTS AND CUTTINGS INSTALLED (JANUARY 2014 – DECEMBER 2014)**

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)	Total
<i>Acmispon glaber</i> var. <i>glaber</i>	deerweed	400	0	<b>400</b>
<i>Acourtia microcephala</i> (cuttings)	sacapellote	0	10	<b>10</b>
<i>Artemisia californica</i>	California sagebrush	1,050	0	<b>1,050</b>
<i>Artemisia douglasiana</i> (cuttings)	Douglas' sagebrush	10	0	<b>10</b>
<i>Artemisia douglasiana</i>	Douglas' sagebrush	0	100	<b>100</b>
<i>Asclepias californica</i> (cuttings)	California milkweed	0	10	<b>10</b>
<i>Asclepias fascicularis</i> <sup>b</sup>	narrow-leaf milkweed	0	0	<b>0</b>
<i>Ceanothus leucodermis</i>	whitebark ceanothus	0	75	<b>75</b>
<i>Cercocarpus betuloides</i>	birchleaf mountain mahogany	0	50	<b>50</b>
<i>Clematis lasiantha</i>	chaparral virgin's bower	0	200	<b>200</b>
<i>Dryopteris arguta</i>	coastal woodfern	0	5	<b>5</b>
<i>Elymus condensatus</i>	giant wildrye	0	80	<b>80</b>
<i>Eriogonum fasciculatum</i>	California buckwheat	750	0	<b>750</b>
<i>Frangula californica</i>	California coffeeberry	0	100	<b>100</b>
<i>Hesperoyucca whipplei</i>	chaparral yucca	150	100	<b>250</b>
<i>Heteromeles arbutifolia</i>	toyon	55	0	<b>55</b>
<i>Juncus textilis</i> (cuttings)	basket rush	10	0	<b>10</b>
<i>Keckiella cordifolia</i>	heartleaf bush penstemon	0	271	<b>271</b>
<i>Lonicera subspicata</i> var. <i>denudata</i>	Johnston's honeysuckle	0	20	<b>20</b>
<i>Malosma laurina</i>	laurel sumac	40	0	<b>40</b>
<i>Melica imperfecta</i>	coast range onion grass	150	125	<b>275</b>
<i>Mimulus aurantiacus</i> var. <i>pubescens</i>	hairy bush monkeyflower	425	0	<b>425</b>
<i>Opuntia x vaseyi</i>	Vasey's prickly pear	200	100	<b>300</b>
<i>Pellaea andromedifolia</i> (cuttings)	coffee cliff-brake	5	0	<b>5</b>
<i>Pellaea andromedifolia</i>	coffee cliff-brake	0	20	<b>20</b>
<i>Pellaea mucronata</i>	bird's-foot cliff-brake	0	5	<b>5</b>
<i>Penstemon spectabilis</i>	showy beardtongue	75	5	<b>80</b>
<i>Polypodium californicum</i>	California polypody	0	20	<b>20</b>
<i>Prunus ilicifolia</i> ssp. <i>ilicifolia</i>	holly leaf cherry	0	50	<b>50</b>
<i>Pseudognaphalium californicum</i>	California everlasting	460	0	<b>460</b>
<i>Quercus agrifolia</i> var. <i>agrifolia</i> <sup>c</sup>	coast live oak	358	0	<b>358</b>
<i>Quercus agrifolia</i> var. <i>agrifolia</i> <sup>d</sup>	coast live oak	0	24	<b>24</b>
<i>Quercus engelmannii</i>	Engelmann oak	0	57	<b>57</b>
<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	0	25	<b>25</b>
<i>Rhamnus ilicifolia</i>	hollyleaf redberry	0	31	<b>31</b>
<i>Rhus aromatica</i> (cuttings)	skunk bush	10	0	<b>10</b>
<i>Rhus ovata</i>	sugar bush	55	0	<b>55</b>
<i>Ribes aureum</i>	golden currant	100	275	<b>375</b>
<i>Rubus ursinus</i> (cuttings)	California blackberry	10	0	<b>10</b>
<i>Salvia apiana</i>	white sage	250	150	<b>400</b>

**CONTAINER PLANTS AND CUTTINGS INSTALLED (JANUARY 2014 – DECEMBER 2014)**

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)	Total
<i>Salvia mellifera</i>	black sage	400	0	<b>400</b>
<i>Sambucus nigra ssp. caerulea</i>	blue elderberry	0	55	<b>55</b>
<i>Selaginella bigelovii</i>	bushy spike-moss	0	10	<b>10</b>
<i>Stipa lepida</i> <sup>e</sup>	foothill needle grass	0	0	<b>0</b>
<b>Total (40 Native Container Plant/Cuttings Species)</b>		<b>4,963</b>	<b>1,973</b>	<b>6,936</b>
<sup>a</sup> Additional container plant and cuttings species will be propagated and installed in 2015/2016. <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. <sup>e</sup> Seed for this species was obtained in May 2015 for container plant propagation (fall 2015 installation).				

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

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

Scientific Name	Common Name	Pounds Collected	Seed Quantities				Total Pounds Installed
			CSS Seed Mixes/Aspect		Hand Seeding		
			South/West (2.0 acres)	North (0.54 acres)	Oak Woodland	CSS	
<b>Initial/Conceptual OWRMP Seed Species (11 Total) Collected by S&amp;S Seeds in 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>	leafy 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>	bush monkey flower	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 (22 Total) Collected To-Date by S&amp;S Seeds in Santa Anita Wash – Rio Hondo Sub-Watershed (applied in 2014)</b>							
<i>Acer macrophyllum</i>	big leaf maple	1.86	—	—	1.86	—	1.86
<i>Artemisia douglasiana</i>	Douglas' sagebrush	8.64	—	—	3.00	—	3.00
<i>Ceanothus leucodermis</i>	whitebark ceanothus	0.52	0.20	0.10	—	—	0.30
<i>Cercocarpus betuloides</i>	birch-leaf mountain-mahogany	4.92	1.00	0.50	—	—	1.50
<i>Chaenactis glabruiscula</i>	yellow pincushion	0.92	0.25	0.10	0.10	0.47	0.92
<i>Clarkia purpurea</i>	purple clarkia	0.20	0.05	0.05	0.05	0.05	0.20
<i>Clematis lasiantha</i>	chaparral clematis	4.30	0.80	0.20	1.00	—	2.00
<i>Datura wrightii</i>	jimson weed	0.56	0.20	0.16	0.10	0.10	0.56
<i>Heteromeles arbutifolia</i>	toyon	5.78	—	—	1.00	—	1.00
<i>Lepidospartum squamatum</i>	scale broom	14.56	—	—	1.00	—	1.00
<i>Lupinus hirsutissimus</i> (2014 collection)	stinging lupine	8.49	—	—	8.49	—	8.49
<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	great marsh evening primrose	0.04	—	—	0.04	—	0.04
<i>Phacelia distans</i> (2014 collection)	common phacelia	0.96	—	—	0.96	—	0.96
<i>Phacelia minor</i> (2014 collection)	wild Canterbury-bell	6.15	—	—	6.15	—	6.15
<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>	cottonbatting plant	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>	white nightshade	0.02	—	—	0.02	—	0.02
<i>Stachys bullata</i>	California hedgenettle	0.01	—	—	0.01	—	0.01
<i>Umbellularia californica</i>	California laurel bay	4.44	—	—	3.00	—	3.00
<b>Total (33 Native Seed Species)</b>		<b>399.36</b>	<b>47.26</b>	<b>14.51</b>	<b>53.14</b>	<b>9.51</b>	<b>124.42</b>

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

Scientific Name	Common Name	Pounds Collected	Seed Quantities				Total Pounds Installed
			CSS Seed Mixes/Aspect		Hand Seeding		
			South/West (2.0 acres)	North (0.54 acres)	Oak Woodland	CSS	
<b>Seed Species (64 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)</b>							
<i>Acer macrophyllum</i> (big leaf maple), <i>Acourtia microcephala</i> (sacapellote), <i>Adenostoma 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 brickellbush), <i>Ceanothus leucodermis</i> (whitebark ceanothus), <i>Ceanothus oliganthus</i> (hairy ceanothus), <i>Cercocarpus betuloides</i> (birch-leaf mountain-mahogany), <i>Cirsium occidentale</i> var. <i>californicum</i> (California thistle), <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> (lanceleaf dudleya), <i>Elymus condensatus</i> (giant wild rye), <i>Epilobium canum</i> (California fuchsia), <i>Ericameria parishii</i> (Parish's goldenbush), <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 yarrow), <i>Frangula californica</i> (California coffeeberry), <i>Galium angustifolium</i> ssp. <i>angustifolium</i> (narrow leaved bedstraw), <i>Hazardia squarrosa</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>Linanthus 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> (long leaf lupine), <i>Lupinus truncatus</i> (blunt leaved lupine), <i>Marah macrocarpus</i> (wild cucumber), <i>Melica imperfecta</i> (coast range onion grass), <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> (showy beardtongue), <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), <i>Rhus ovata</i> (sugar bush), <i>Ribes aureum</i> (golden currant), <i>Salvia apiana</i> (white sage), <i>Solidago velutina</i> (California goldenrod), <i>Salvia mellifera</i> (black sage), <i>Senecio flaccidus</i> var. <i>douglasii</i> (Douglas' threadleaf ragwort), <i>Silene laciniata</i> (cardinal catchfly), <i>Stephanomeria cichoriacea</i> (chicoryleaf wire-lettuce), <i>Stipa coronata</i> (giant needlegrass), <i>Symphoricarpos mollis</i> (creeping snowberry), <i>Umbellularia californica</i> (California laurel bay).							
<b>Cuttings Species (4 Total) and Rare Oak Acorns (2 Species) Collected To-Date by Rancho Santa Ana Botanic Garden or S&amp;S Seeds in the Santa Anita Wash – Rio Hondo Sub-Watershed (for Container Plant Propagation)</b>							
<i>Dryopteris arguta</i>	coastal woodfern	Rhizome cuttings for container plant propagation (only).					
<i>Pellaea andromedifolia</i>	coffee cliff-brake	Rhizome cuttings for container plant propagation (only).					
<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).					
CSS: Coastal Sage Scrub; OWHRMP: Oak Woodland Habitat Revegetation/Mitigation Program for the Santa Anita Dam Riser Modification and Reservoir Sediment Removal Project; FM: Field Material - 2015 (Quantity of Cleaned Seed to be Determined; Container Plant Propagation Only; Fall 2015)							

**ATTACHMENT C**

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

Native Plant Species (113 Total)	Common Name	Special Status <sup>a</sup>	Wetland Rank <sup>b</sup>
<b>LYCOPHYTES</b>			
<i>SELAGINELLACEAE</i> – SPIKE-MOSS FAMILY			
<i>Selaginella bigelovii</i>	bushy spike-moss		
<b>FERNS</b>			
<i>DRYOPTERIDACEAE</i> – WOOD FERN FAMILY			
<i>Dryopteris arguta</i>	coastal woodfern		
<i>POLYPODIACEAE</i> – POLYPODY FAMILY			
<i>Polypodium californicum</i>	California polypody		
<i>PTERIDACEAE</i> – BRAKE FAMILY			
<i>Pellaea andromedifolia</i>	coffee cliff-brake		
<i>Pellaea mucronata</i> var. <i>mucronata</i>	bird's-foot cliff-brake		
<b>CERATOPHYLLALES</b>			
<i>CERATOPHYLLACEAE</i> – HORNWORT FAMILY			
<i>Ceratophyllum demersum</i>	vascular horticort		OBL
<b>EUDICOTS</b>			
<i>ADOXACEAE</i> – MUSKROOT FAMILY			
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry		FAC
<i>ANACARDIACEAE</i> – 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
<i>APOCYNACEAE</i> – DOGBANE FAMILY			
<i>Asclepias californica</i>	California milkweed		
<i>ASTERACEAE</i> – 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> x <i>sarothroides</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>	yellow pincushion		
<i>Cirsium occidentale</i> var. <i>californicum</i>	California thistle		
<i>Corethrogyne filaginifolia</i>	common sand aster		
<i>Deinandra fasciculata</i>	fascicled tarplant		FACU
<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>	sessileflower goldenaster		
<i>Lasthenia gracilis</i>	common goldfields		
<i>Lepidospartum squamatum</i>	California scale-broom		FACU
<i>Pseudognaphalium biolettii</i>	bi-color everlasting		

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

Native Plant Species (113 Total)	Common Name	Special Status <sup>a</sup>	Wetland Rank <sup>b</sup>
<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		
<b>BORAGINACEAE – BORAGE FAMILY</b>			
<i>Eriodictyon parryi</i>	poodle-dog bush		
<i>Cryptantha intermedia</i> var. <i>intermedia</i>	common cryptantha		
<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
<b>CACTACEAE – CACTUS FAMILY</b>			
<i>Opuntia</i> x <i>vaseyi</i>	Vasey's prickly pear		
<i>Opuntia littoralis</i>	coastal prickly pear		
<b>CAPRIFOLIACEAE – HONEYSUCKLE FAMILY</b>			
<i>Lonicera subspicata</i> var. <i>denudata</i>	Johnston's honeysuckle		
<b>CONVOLVULACEAE – MORNING-GLORY FAMILY</b>			
<i>Calystegia macrostegia</i>	coast morning-glory		
<b>CUCURBITACEAE – GOURD FAMILY</b>			
<i>Marah macrocarpus</i>	large fruit wild cucumber		
<b>FABACEAE – LEGUME FAMILY</b>			
<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		
<b>FAGACEAE – OAK FAMILY</b>			
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	coast 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	
<b>GROSSULARIACEAE – GOOSEBERRY FAMILY</b>			
<i>Ribes aureum</i>	golden currant		FAC
<b>LAMIACEAE – MINT FAMILY</b>			
<i>Salvia apiana</i>	white sage		
<i>Salvia columbariae</i>	chia		
<i>Salvia mellifera</i>	black sage		
<i>Stachys bullata</i>	California hedgenettle		
<b>LOASACEAE – BLAZING STAR FAMILY</b>			
<i>Mentzelia laevicaulis</i>	smooth stem blazing star		

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

Native Plant Species (113 Total)	Common Name	Special Status <sup>a</sup>	Wetland Rank <sup>b</sup>
<i>LYTHRACEAE – LOOSESTRIFE FAMILY</i>			
<i>Ammannia coccinea</i>	valley redstem		OBL
<i>NYCTAGINACEAE – FOUR O'CLOCK FAMILY</i>			
<i>Mirabilis laevis</i> var. <i>crassifolia</i>	coastal wishbone plant		
<i>ONAGRACEAE – EVENING PRIMROSE FAMILY</i>			
<i>Camissoniopsis hirtella</i>	hairy suncup		
<i>Clarkia purpurea</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
<i>OXALIDACEAE – OXALIS FAMILY</i>			
<i>Oxalis californica</i>	California wood-sorrel		
<i>PAPAVERACEAE – POPPY FAMILY</i>			
<i>Eschscholzia californica</i>	California poppy		
<i>PHRYMACEAE – LOPSEED FAMILY</i>			
<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
<i>PLANTAGINACEAE – PLANTAIN FAMILY</i>			
<i>Keckiella cordifolia</i>	heartleaf bush penstemon		
<i>Penstemon spectabilis</i> var. <i>spectabilis</i>	showy beardtongue		
<i>PLATANACEAE – SYCAMORE FAMILY</i>			
<i>Platanus racemosa</i>	western sycamore		FAC
<i>POLYGONACEAE – BUCKWHEAT FAMILY</i>			
<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
<i>RANUNCULACEAE – BUTTERCUP FAMILY</i>			
<i>Clematis lasiantha</i>	chaparral virgin's bower		
<i>RHAMNACEAE – BUCKTHORN FAMILY</i>			
<i>Ceanothus leucodermis</i>	whitebark ceanothus		
<i>Ceanothus oliganthus</i>	hairy ceanothus		
<i>Frangula californica</i>	California coffeeberry		
<i>Rhamnus ilicifolia</i>	hollyleaf redberry		
<i>ROSACEAE – ROSE FAMILY</i>			
<i>Cercocarpus betuloides</i> var. <i>betuloides</i>	birchleaf 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
<i>RUBIACEAE – COFFEE FAMILY</i>			
<i>Galium angustifolium</i> ssp. <i>angustifolium</i>	narrow-leaved bedstraw		

**NATIVE PLANT COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

Native Plant Species (113 Total)	Common Name	Special Status <sup>a</sup>	Wetland Rank <sup>b</sup>
<b>SALICACEAE – WILLOW FAMILY</b>			
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood		FAC
<b>SALICACEAE – WILLOW FAMILY</b>			
<i>Salix exigua</i>	sand bar 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
<b>SOLANACEAE – NIGHTSHADE FAMILY</b>			
<i>Datura wrightii</i>	Wright's jimsonweed		
<i>Solanum americanum</i>	white nightshade		FACU
<i>Solanum douglasii</i>	Douglas' nightshade		FAC
<b>URTICACEAE – NETTLE FAMILY</b>			
<i>Urtica dioica</i> ssp. <i>holosericea</i>	hoary stinging nettle		FAC
<b>MONOCOTS</b>			
<b>AGAVACEAE – AGAVE FAMILY</b>			
<i>Hesperoyucca whipplei</i>	chaparral yucca		
<b>CYPERACEAE – SEDGE FAMILY</b>			
<i>Cyperus eragrostis</i>	tall flatsedge		FACW
<b>JUNCACEAE – RUSH FAMILY</b>			
<i>Juncus rugulosus</i>	wrinkled rush		OBL
<i>Juncus textilis</i>	basket rush		FACW
<i>Juncus xiphioides</i>	iris leaved rush		OBL
<b>POACEAE – GRASS FAMILY</b>			
<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		
<b>TYPHACEAE – CATTAIL FAMILY</b>			
<i>Typha domingensis</i>	southern cattail		OBL
<p>a California Rare Plant Rank 4.2, 'Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat'. Special-status plant nomenclature confirms to the California Native Plant Society [CNPS] online inventory (8<sup>th</sup> edition, accessed 3-9-2015).</p> <p>b OBL = obligate wetland (almost always occur in wetlands); FACW = facultative wetland (usually occur in wetlands, but may occur in non-wetlands); FAC = facultative (occur in wetlands and non-wetlands); FACU = facultative upland (usually occurs in non-wetlands, but may occur in wetlands); UPL = obligate upland (almost never occur in wetlands). Lichvar, R.W., M. Butterwick, N.C. Melvin, and W.N. Kirchner. 2014. The National Wetland Plant List: 2014 Update of Wetland Ratings. Phytoneuron 2014-41: 2-42.</p>			

**ATTACHMENT D**

**WILDLIFE COMPENDIUM (SEPTEMBER 2013–MAY 2015)**

**WILDLIFE COMPENDIUM (SEPTEMBER 2013 – MAY 2015)**

Species (Vertebrates): 85 Total Native Species		2013	2014	2015
<b>AMPHIBIANS</b>				
<b>AMPHIBIA – AMPHIBIANS</b>				
<b>HYLIDAE – TREEFROGS</b>				
<i>Pseudacris hypochondriaca</i>	Baja California treefrog			X
<b>REPTILES</b>				
<b>LEPIDOSAURIA – LIZARDS AND SNAKES</b>				
<b>PHRYNOSOMATIDAE – ZEBRA-TAILED, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS</b>				
<i>Sceloporus occidentalis</i>	western fence lizard	X	X	X
<i>Uta stansburiana</i>	side-blotched lizard	X	X	X
<i>Aspidoscelis tigris stejnegeri</i>	coastal western whiptail	X	X	
<b>COLUBRIDAE – COLUBRID SNAKES</b>				
<i>Coluber lateralis</i>	California striped racer		X	X
<b>VIPERIDAE – VIPERS</b>				
<i>Crotalus oreganus helleri</i>	southern Pacific rattlesnake			X
<b>BIRDS</b>				
<b>AVES – BIRDS</b>				
<b>ANATIDAE – WATER FOWL</b>				
<i>Branta canadensis</i>	Canada goose			X
<b>ODONTOPHORIDAE – QUAILS</b>				
<i>Callipepla californica</i>	California quail		X	X
<b>ARDEIDAE - HERONS, BITTERNS, &amp; ALLIES</b>				
<i>Ardea herodias</i>	great blue heron			X
<b>CATHARTIDAE – NEW WORLD VULTURES</b>				
<i>Cathartes aura</i>	turkey vulture		X	X
<b>ACCIPITRIDAE – HAWKS, KITES, EAGLES, AND ALLIES</b>				
<i>Accipiter cooperii</i>	Cooper's hawk	X	X	X
<i>Buteo jamaicensis</i>	red-tailed hawk	X	X	X
<b>FALCONIDAE – FALCONS</b>				
<i>Falco sparverius</i>	American kestrel		X	X
<i>Falco columbarius</i>	merlin		X	
<b>CHARADRIIDAE – PLOVERS</b>				
<i>Charadrius vociferus</i>	killdeer	X	X <sup>a</sup>	X
<b>COLUMBIDAE – PIGEONS AND DOVES</b>				
<i>Patagioenas fasciata</i>	band-tailed pigeon			X
<i>Zenaida macroura</i>	mourning dove	X	X	X
<b>APODIDAE – SWIFTS</b>				
<i>Aeronautes saxatalis</i>	white-throated swift		X	X
<b>TROCHILIDAE – HUMMINGBIRDS</b>				
<i>Archilochus alexandri</i>	black-chinned hummingbird			X
<i>Calypte anna</i>	Anna's hummingbird	X	X	X
<i>Calypte costae</i>	Costa's hummingbird			X
<i>Selasphorus sasin</i>	Allen's hummingbird	X	X	X
<i>Selasphorus sp.</i>	Allen's/rufous hummingbird		X	X

**WILDLIFE COMPENDIUM (SEPTEMBER 2013 – MAY 2015)**

<b>Species (Vertebrates): 85 Total Native Species</b>		<b>2013</b>	<b>2014</b>	<b>2015</b>
<i>PICIDAE – WOODPECKERS</i>				
<i>Melanerpes lewis</i>	Lewis's woodpecker	X	X	
<i>Melanerpes formicivorus</i>	acorn woodpecker		X <sup>a</sup>	X <sup>a</sup>
<i>Picoides nuttallii</i>	Nuttall's woodpecker			X
<i>Picoides pubescens</i>	downy woodpecker			X
<i>Colaptes auratus</i>	northern flicker		X	X
<i>TYRANNIDAE – TYRANT FLYCATCHERS</i>				
<i>Contopus sordidulus</i>	western wood-pewee			X
<i>Empidonax traillii</i>	willow flycatcher			X
<i>Sayornis nigricans</i>	black phoebe	X	X	X
<i>Sayornis saya</i>	Say's phoebe		X	X
<i>Myiarchus cinerascens</i>	ash-throated flycatcher		X	
<i>Tyrannus vociferans</i>	Cassin's kingbird		X	X
<i>Tyrannus verticalis</i>	western kingbird		X	X
<i>VIREONIDAE - VIREOS</i>				
<i>Vireo gilvus</i>	warbling vireo			X
<i>CORVIDAE – CROWS AND JAYS</i>				
<i>Aphelocoma californica</i>	western scrub-jay	X	X	X
<i>Corvus brachyrhynchos</i>	American crow			X
<i>Corvus corax</i>	common raven	X	X	X
<i>HIRUNDINIDAE – SWALLOWS</i>				
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow		X	X
<i>AEGITHALIDAE – BUSHTITS</i>				
<i>Psaltriparus minimus</i>	bushtit	X	X	X
<i>TROGLODYTIDAE – WRENS</i>				
<i>Salpinctes obsoletus</i>	rock wren		X	X
<i>Catherpes mexicanus</i>	canyon wren		X	
<i>Thryomanes bewickii</i>	Bewick's wren	X	X	X
<i>Troglodytes aedon</i>	house wren	X	X	X
<i>POLIOPTILIDAE – GNATCATCHERS AND GNATWRENS</i>				
<i>Polioptila caerulea</i>	blue-gray gnatcatcher		X	
<i>REGULIDAE – KINGLETS</i>				
<i>Regulus calendula</i>	ruby-crowned kinglet		X	X
<i>SYLVIIDAE – SYLVIID WARBLERS</i>				
<i>Chamaea fasciata</i>	wrentit		X	X
<i>TURDIDAE – THRUSHES AND ROBINS</i>				
<i>Sialia mexicana</i>	western bluebird		X	X
<i>Catharus guttatus</i>	hermit thrush			X
<i>Turdus migratorius</i>	American robin		X	X
<i>MIMIDAE – THRASHERS</i>				
<i>Mimus polyglottos</i>	northern mockingbird	X	X	X
<i>STURNIDAE – STARLINGS</i>				
<i>Sturnus vulgaris*</i>	European starling			X

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<i>MOTACILLIDAE – PIPITS</i>				
<i>Anthus rubescens</i>	American pipit	X		
<i>BOMBYCILLIDAE – WAXWINGS</i>				
<i>Bombycilla cedrorum</i>	cedar waxwing			X
<i>PTILOGONATIDAE – SILKY-FLYCATCHERS</i>				
<i>Phainopepla nitens</i>	phainopepla		X	
<i>PARULIDAE – WARBLERS</i>				
<i>Oreothlypis celata</i>	orange-crowned warbler			X
<i>Geothlypis tolmiei</i>	MacGillivray's warbler			X
<i>Geothlypis trichas</i>	common yellowthroat	X	X <sup>a</sup>	
<i>Setophaga petechia</i>	yellow warbler			X
<i>Setophaga coronata</i>	yellow-rumped warbler	X	X	X
<i>Setophaga occidentalis</i>	hermit warbler			X
<i>Cardellina pusilla</i>	Wilson's warbler			X
<i>EMBERIZIDAE – SPARROWS AND JUNCOS</i>				
<i>Pipilo maculatus</i>	spotted towhee	X	X	X
<i>Melospiza crissalis</i>	California towhee	X	X	X
<i>Aimophila ruficeps</i>	rufous-crowned sparrow		X	
<i>Chondestes grammacus</i>	lark sparrow			X
<i>Melospiza melodia</i>	song sparrow	X	X	X
<i>Melospiza lincolni</i>	Lincoln's sparrow		X	
<i>Zonotrichia leucophrys</i>	white-crowned sparrow	X	X	X
<i>Junco hyemalis</i>	dark-eyed junco			X
<i>CARDINALIDAE – CARDINALS AND ALLIES</i>				
<i>Piranga ludoviciana</i>	western tanager			X
<i>Pheucticus melanocephalus</i>	black-headed grosbeak		X	
<i>Passerina caerulea</i>	blue grosbeak			X
<i>Passerina amoena</i>	lazuli bunting			X
<i>ICTERIDAE – BLACKBIRDS</i>				
<i>Sturnella neglecta</i>	western meadowlark		X	
<i>Molothrus ater</i>	brown-headed cowbird			X
<i>Icterus cucullatus</i>	hooded oriole		X	X
<i>Icterus bullockii</i>	Bullock's oriole		X	X
<i>FRINGILLIDAE – FINCHES</i>				
<i>Carpodacus mexicanus</i>	house finch	X	X	X
<i>Spinus psaltria</i>	lesser goldfinch	X	X	X
<i>Spinus lawrencei</i>	Lawrence's goldfinch			X
<i>Spinus pinus</i>	pine siskin			X
<i>Spinus tristis</i>	American goldfinch		X	X
<i>PASSERIDAE – OLD WORLD SPARROWS</i>				
<i>Passer domesticus*</i>	house sparrow			X
<i>ESTRILDIDAE – MANNIKINS</i>				
<i>Lonchura punctulata*</i>	nutmeg mannikin	X	X	

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<b>MAMMALS</b>				
<b>MAMMALIA – MAMMALS</b>				
<b>SCIURIDAE – SQUIRRELS</b>				
<i>Spermophilus beecheyi</i>	California ground squirrel		X	X
<b>URSIDAE – BEARS</b>				
<i>Ursus americanus</i>	American black bear		X	
<b>CERVIDAE – DEER</b>				
<i>Odocoileus hemionus</i>	mule deer	X	X	X
*Introduced Species				
<sup>a</sup> Species observed nesting on the site				