APPENDIX D
BIOLOGICAL RECONNAISSANCE SURVEY REPORTS

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October 1, 2010

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City of Los Angeles
Department of Water and Power
111 North Hope Street, Room 1044
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Subject: 2010 Biological Reconnaissance Survey and Constraints Analysis for the Elysian Reservoir Water Quality Improvement Project, City of Los Angeles, California

Dear Ms. Parker,

This letter report summarizes the results of biological reconnaissance surveys conducted by AECOM in support of the Elysian Reservoir Improvements Project, located in the southeast corner of Elysian Park, in the City of Los Angeles, California, on August 13, 2010. This report is an addendum to a previous letter report dated September 8, 2008 that contained results of two biological reconnaissance surveys conducted on May 15 and July 21, 2008. Adjustments to the project plans required an additional survey to examine biological resources in areas that had not been surveyed previously.

New areas examined include the stockpile area north of Elysian Reservoir, overlook area east of the reservoir, and the jacking pit area north of the reservoir and just north of I-5 and south of Riverside Drive.

PROJECT LOCATION

The project site is located in the City of Los Angeles within Elysian Park, and is immediately surrounded by open space (Elysian Park) (Enclosure 1). The regional land use includes residential and commercial development to the west and Dodger Stadium situated at the southeast end of Elysian Park. The site is accessed via Park Row Drive from the west and via Angels Point Drive (an interior park road) from the east, and it is situated approximately one mile north of the intersection of Stadium Way and the Pasadena Freeway (CA-11). It is located within the United States Geological Survey (USGS) Los Angeles, California 7.5-minute topographic quadrangle map. Topography on the site includes a relatively flat reservoir basin, surrounded by steep slopes. Elevation of the project site ranges from approximately 460 to 600 feet above mean sea level (msl).

METHODS

Literature Review

A literature review was conducted to determine sensitive plant species, animal species, and vegetation communities with the potential to occur in the project site. The California Natural Diversity DataBase (CNDDB) RareFind 3 program (2010) and the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (2010) were reviewed for any information on known occurrences of sensitive species and communities within the Los Angeles and Hollywood USGS topographic quadrangles. Based on the literature review, 16 sensitive plant species and 11 wildlife species were identified as having the potential to occur in the vicinity of the project. Sensitive plant and wildlife species are listed in Enclosure 2. Three sensitive plant communities were also identified as having the potential to occur in the vicinity of the project: California Walnut Woodland, Southern Sycamore Alder Riparian Woodland, and Walnut Forest.

Field Survey

On August 13, 2010, AECOM (Ms. Jeanette Duffels, Ms. Donna Germann, and Ms. Sara Dietler) conducted a survey of the proposed stockpile area, overlook, and jacking pit staging area.

On August 13 weather conditions were clear skies with temperatures ranging from 65° to 75° F. Winds were northeasterly and ranged from 4 to 8 mph.

The project site was evaluated for habitat suitable for the sensitive species identified in the literature review, as well as for protected trees and potential nesting habitat for migratory birds. Observed plants and wildlife were recorded, however, focused surveys for particular plants and animals were not conducted at this time.

RESULTS

Literature Review

Sensitivity status, general habitat requirements, and potential habitat presence or absence within the project site for the species identified during the literature review are provided in Enclosure 2. Only one sensitive plant is reported to have occurred in Elysian Park, Greata's aster (*Symphyotrichum greatae*). The source of the reported occurrence is a collection from 1932, mapped as a best guess to be in the Elysian Park area. No sensitive wildlife are known to occur in the project site. In addition to individual species, the following sensitive plant communities are reported from the project vicinity: California walnut woodland, southern sycamore alder riparian woodland, and walnut forest. No sensitive plant communites are reported to have occurred in Elysian Park.

Elysian Park is not within any Significant Ecological Areas or designated Critical Habitat.

Field Survey: Habitat

The field survey areas consisted of the stockpile area north of Elysian Reservoir, overlook area east of the reservoir, the staging area located west of the reservoir, and the jacking pit area north of the reservoir and just north of I-5 and south of Riverside Drive.

Stockpile Area

The stockpile area is a sloped, disturbed vegetated area just north of the lay down area at the northwestern edge of Elysian Reservoir. The natural vegetation in this area appears to have been at one time supplemented with ornamental species. More recently the area has been disturbed by human activity, as evidenced by amount of trash and the large number of unauthorized trails.

Vegetation in the stockpile area contains mixture of native, ornamental and invasive species. Native species include: blue elderberry (*Sambucus mexicana*), toyon (*Heteromeles arbutifolia*), sugarbush (*Rhus ovata*), and holly-leafed cherry (*Prunus ilicifolia*), poison oak (*Toxicodendron diversilobum*), and wild cucumber (*Marah* sp.). Ornamental species include deodar cedar (*Cedrus deodara*), golden wattle (*Acacia pycnantha*) and fan palm (*Washingtonia filifera*). Invasive species observed include: tree of heaven (*Ailanthus altissima*), a variety of eucalyptus species (*Eucalyptus* spp.), tree tobacco (*Nicotiana glauca*), golden wattle (*Acacia pycnantha*), silver wattle (*A. retinoides*), wild oat (*Avena fatua*), and ripgut (*Bromus diandrus*).

The stockpile area can be accessed at its southern end from a secured gate northwest of Elysian Reservoir, or from its northern edge at Grand View Drive.

Overlook

Elysian Park contains an overlook area to the east of the reservoir, along Grand View Drive. This area consists of paved parking spaces and a vegetated planter between the parking area and Grand View Drive. The planted island does not contain any native habitat. Ornamental species in the overlook include: mature fan palm trees, rosemary (*Rosmarinus officinalis*), and lantana (*Lantana camara*).

The natural area just north of Grand View Drive at the overlook contains native coast live oak (*Quercus agrifolia*) in close proximity to the road.

Staging Area

The staging area is an approximately 0.73 acre picnic area and parking lot. The site is graded flat and planted with an ornamental lawn and trees. The Staging Area contains a seeded grass lawn, 10 to 15 somewhat evenly spaced carob trees (*Ceratonia siliqua*), and scattered picnic tables. The southeast portion of staging area, adjacent to Grand View Drive, consists of a dirt graded parking area. Access to the staging area is via Grand View Drive.

The staging area is surrounded by vegetated slopes on all sides except at its southeast end adjacent to Grand View Drive. Vegetation on the slopes is a mixture of native, ornamental, and ruderal plants. Native vegetation includes toyon (*Heteromeles arbutifolia*), laurel sumac (*Malosma laurina*), and holly-leaf cherry (*Prunus ilicifolia*) as well as at least two coast live oak trees (*Quercus agrifolia*). Ornamental species include olive (*Olea eurpea*), acacia (*Acacia redolens*), jacaranda (*Jacaranda mimosifolia*), and eucalyptus (*Eucalyptus* sp.). Many small carob trees occur on the slopes as well. Ruderal plants include tree of heaven (*Ailanthus altissima*) and black mustard (*Brassica nigra*).

Inlet Line Area

The inlet line construction area is a heavily vegetated Caltrans median between Riverside Drive and an entrance to the I-5 Freeway. This area contains a dense mixture of native, ornamental and invasive species. The native vegetation in the jacking pit area appears to have been at one time supplemented with ornamental species, possibly to block the view and noise of the freeway from Riverside Drive.

Native species in the inlet line area include: laurel sumac (*Malosma laurina*), western sycamore (*Plantanus racemosa*), blue elderberry, and coast live oak. Ornamental species include passion fruit (*Passiflora edulis*), oleander (*Nerium oleander*), Peruvian pepper tree (*Schinus molle*), bottle brush tree (*Callistemon* sp.), pomegranate (*Punica granatum*), and eucalyptus. The area also contains invasive tree of heaven and a variety of non-native grasses and annuals.

The inlet line area can be accessed via Riverside Drive. The area surrounded by a chain-link fence with a locked gate.

Field Survey: Wildlife

Urban park settings provide habitat for common wildlife species typically adapted to disturbed areas and human presence. Native and disturbed habitat found within the stockpile area, overlook area, and the jacking pit area provides habitat for a variety of nesting birds. Palm, deciduous, and conifer trees located within the stockpile area, overlook area, and throughout the park provide suitable habitat for a variety of nesting birds and potential habitat for certain species of roosting bats. The reservoir is covered by a layer of E-balls, floating hollow plastic balls, and therefore does not provide a water source for surrounding wildlife.

Sixteen species of bird and one mammal species were observed on site and are typically associated with such urban park and lake settings. These species include common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), lesser goldfinch (*Carduelis psaltria*), wrentit (*Chamaea fasciata*), spotted towhee (*Pipilo maculates*), California towhee (*Pipilo crissalis*), black phoebe (*Sayornis nigricans*), white-throated swift (*Aeronautes saxatalis*), cliff swallow (*Petrochelidon pyrrhonota*), mourning dove (*Zenaida macroura*), kingbird (*Tyrannus* sp.), western-scrub jay (*Aphelocoma californica*), mallard (*Anas platyrhynchos*), hooded oriole (*Icterus cucullatus*), and California ground squirrel (*Spermophilus beecheyi*). Additionally, a red-tailed hawk (*Buteo jamaicensis*) was detected in the project vicinity.

Wildlife Corridors and Habitat Linkages

In an urban context, a wildlife migration corridor can be defined as a linear landscape feature of sufficient width and buffer to allow animal movement between two patches of comparatively undisturbed habitat, or between a patch of habitat and some vital resources. Regional corridors are defined as those linking two or more large areas of natural open space, and local corridors are defined as those allowing resident animals to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development.

Wildlife migration corridors are essential in geographically diverse settings, and especially in urban settings, for the sustenance of healthy and genetically diverse animal communities. At a minimum, they promote colonization of habitat and genetic variability by connecting fragments of like habitat and they help sustain individual species distributed in and among habitat fragments. Habitat fragments, by definition, are separated by otherwise foreign or inhospitable habitats, such as urban/suburban tracts. Isolation of populations can have many harmful effects and may contribute significantly to local species extinction.

A viable wildlife migration corridor consists of more than a path between habitat areas. To provide food and cover for transient species as well as resident populations of less mobile animals, a wildlife migration corridor must also include pockets of vegetation.

There are no adjacent large open space areas bordering Elysian Park. Several noncontiguous open spaces contain suitable habitat for a variety of wildlife near Elysian Park, including: Mt. Washington (1 mile northeast), Arroyo Seco Park (2 miles northeast), Topanga State Park (16 miles west), Angeles National Forest (10 miles north), Griffith Park (5 miles northwest), and Echo Park (less than 1 mile west). Elysian Park is not part of a major contiguous linkage between two or more large areas of open space, and thus does not serve as a regional wildlife corridor.

The vegetation in the canyon surrounding Elysian Reservoir is a mixture of native, ornamental, and ruderal plants that support a variety of wildlife species, as indicated by the species observed by Bonterra and EDAW.

RECOMMENDATIONS

Sensitive Plants

The survey areas are heavily disturbed and do not present quality habitat for sensitive plant species. Although Greata's aster is reported to have occurred in Elysian Park in 1932, and potentially suitable habitat in the project area occurs the stockpile and jacking pit area. Because the stockpile area is so disturbed, and the jacking pit area is so densely vegetated with ornamentals, the habitat is only marginally suitable and no sensitive plants are expected. No sensitive plants were observed during general surveys by AECOM in 2008 or 2010, or by BonTerra Consulting (2005). No surveys for sensitive plants are recommended.

Protected Trees

The City of Los Angeles (City), Department of Recreation and Parks (DRP) Urban Forest Program provides direction for the care of trees within City parkland. DRP recognizes and implements regulatory procedures for trees specified in the Tree Preservation Policy. The Tree Preservation Policy regulates protection of trees in four categories: Trees Protected by LA City Ordinances, Heritage Trees, Special Habitat Value Trees, and all other Common Park Trees. The Urban Forest Program *Tree Care Manual* (2004) describes all regulations, standards, and specifications for implementation of the Tree Preservation Policy. Pruning of park trees must adhere to the recommendations described in section 3.10 of the Urban Forest Program *Tree Care Manual*. The Tree Removal Procedure (Appendix J of the Urban Forest Program *Tree Care Manual*) must be followed for the removal of any park trees.

The jacking pit area contains at least one coast live oak that may be removed as part of the proposed project, and coast live oaks adjacent to the overlook may require trimming. Oak trees are protected from removal by the City of Los Angeles Native Tree Protection Ordinance (Los Angeles Municipal Code Section 17.05.R), enforced by the Los Angeles Department of Public Works Bureau of Street Services. For pruning of trees protected by the Ordinance (branches larger than 2 inches in diameter), the DRP requires a permit from the Board of Public Works (Urban Forest Program *Tree Care Manual*, Section 3.10). Any permitted pruning must be done in compliance with the Oak Tree Pruning Standards set forth by the Western Chapter of the International Society of Arboriculture. The stockpile area contains several small southern California walnut trees that may be large enough to be protected by the Native Tree Protection Ordinance, and the jacking pit area contains at least one sycamore that would be protected by the Ordinance. Removal of a protected tree requires a removal permit from the Board of Public Works.

No Heritage Trees would be affected by the proposed project.

The stockpile area contains several toyon plants. DRP recognizes toyon as a Special Habitat Value Tree, and as such they may only be pruned or removed with the approval of DRP. Before any alterations (damage, relocation, or removal) to Special Habitat Value Trees, a recommendation for action must be obtained from DRP Arborists. The recommendation must be approved by the General Manager of DRP or his/her designee before any action proceeds. Furthermore, all actions relating to pruning or removing toyon must comply with all relevant components of DRP's Urban Forest Program *Tree Care Manual*. Replacement of removed trees in accordance with Los Angeles City Landscape Policy (Urban Forest Program *Tree Care Manual*, Appendix M) is also required.

DRP regulates protection of mature exotic park trees, referred to as Common Park Trees, under the Tree Preservation Policy. Ornamental trees in the stockpile area may or may not be considered Common Park Trees. Common Park Trees may be removed with the recommendation of the Forestry Arborist.

Sensitive Plant Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of limited relatively limited distribution in the region, or particularly high wildlife value or provide habitat to rare or endangered species (CNDDB 2003). The survey areas did not contain any sensitive vegetation communities.

Sensitive Wildlife

Bats

The survey areas do not contain habitat suitable for roosting bats. Trees and palms throughout the rest of the park may provide roosting habitat, however potential trees are not immediately adjacent to the survey areas. Additionally, the probability for sensitive species of bat to occur on site is low to not expected. No surveys for roosting bats are warranted.

Migratory Birds

Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and Russia. Although no permit is issued under the MBTA, if vegetation removal within the Project Area occurs during the breeding season for raptors and migratory birds (February 15 through September 15), the U.S. Fish and Wildlife Service requires that surveys be conducted

to locate active nests within the construction area. If active raptor or migratory bird nests are detected, project activities may be temporarily curtailed or halted. The project must comply with the MBTA.

The project site and adjacent areas contain mature trees and other vegetation that is suitable for use by migratory birds. Should vegetation removal associated with construction activities at the project sites occur during the breeding season for migratory non-game native bird species (generally considered to be between February 15 and September 15, depending on seasonal conditions), it is recommended that nesting bird surveys be conducted in order to detect any protected native birds nesting within the construction work area. Surveys should be conducted weekly, beginning no earlier than 30 days and ending no later than 3 days prior to the commencement of disturbance. If an active nest is discovered, disturbance within a particular buffer should be prohibited until nesting is complete; the buffer distance should be determined by the biological monitor in consideration of species sensitivity and existing nest site conditions. Limits of avoidance should be demarcated with flagging or fencing. Once a flagged nest is determined to be no longer active, the biological monitor would remove all flagging and allow construction activities to proceed. The surveys and actions described above will assure compliance with the Migratory Bird Treaty Act of 1918.

Yours sincerely,

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Enclosures: 1. Federally-listed, State-listed, and Species of Special Concern with Potential to Occur in the Study Area

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Enclosure 1. Federally-listed, State-listed, and Species of Special Concern with Potential to Occur in the Areas Surveyed on August 13, 2010

Common Name *Scientific Name*	Sensitivity Status	General Habitat Description	Potential to Occur in the Project Area
Plants			
marsh sandwort *Arenaria paludicola*	USFWS: FE CDFG: SE CNPS: List 1B.1	Found in marshes and swamps. Elevation 10-170 meters. Blooms May-August.	Not Expected. The survey areas do not contain suitable habitat for this species. The only reported occurrence in the vicinity of the project area was in 1900 in the community of Cienega.
Braunton's milk-vetch *Astragalus brauntonii*	USFWS: FE CDFG: None CNPS: List 1B.1	Found in recently burned or disturbed areas; in stiff gravelly clay soils overlying granite or limestone. Associated with closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Elevation 4-640 meters. Blooms January-August.	Not Expected. The stockpile and jacking pit areas contain marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period and it has not been reported in the vicinity of the project area for 100 years. The last reported occurrences of Braunton's milk-vetch in the vicinity of the project area were in 1908 in the foothills above West Hollywood (now presumed extirpated), and a possible collection in the vicinity of Cienega in 1904. Focused surveys of vegetated slopes adjacent to the reservoir conducted in 2006 did not detect the species.
coastal dunes milk-vetch *Astragalus tener* var. *titi*	USFWS: FE CDFG: SE CNPS: List 1B.1	Found in moist, sandy depressions or bluffs or dunes along and near the Pacific ocean. Associated with coastal bluff scrub, coastal dunes. Elevation 1-50 meters. Blooms March-May.	Not Expected. The survey areas do not contain suitable habitat for this species.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	USFWS: None CDFG: None CNPS: List 1B.2	Found in alkaline soils. Associated with coastal bluff scrub and coastal scrub. Elevation 3-250 meters. Blooms April-October.	Not Expected. The survey areas do not contain suitable habitat for this species.
round-leaved filaree *California macrophylla*	USFWS: None CDFG: None CNPS: List 1B.1	Found in clay soils. Associated with cismontane woodland and valley and foothill grassland. Elevation 15-1,200 meters. Blooms March-May.	Not Expected. The survey areas do not contain suitable habitat for this species.

Plummer's mariposa lily *Calochortus plummerae*	USFWS: None CDFG: None CNPS: List 1B.2	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. Associated with coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. Elevation 90-1,610 meters. Blooms May-July.	Not Expected. The stockpile area contains marginally suitable habitat for this species, however, it has not been reported in the vicinity of the project area for almost 100 years. The last reported occurrences of Plummer's mariposa lily in the vicinity of the project area were in 1913 on Poppy Peak in Garvanza, and in 1901 in the hills above West Hollywood.
Santa Barbara morning-glory *Calystegia sepium* ssp. *binghamiae*	USFWS: None CDFG: None CNPS: 1A	Found on dry, rocky open slopes and rock outcrops. Associated with coastal marshes. Elevation 0-30 meters. Blooms April-May.	Not Expected. The survey areas do not contain suitable habitat for this species.
Lewis' evening primrose *Camissonia lewisii*	USFWS: None CDFG: None CNPS: 3	Associated with coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland. Elevation 0-300 meters. Blooms March-May (rarely June).	Not Expected. The survey areas do not contain suitable habitat for this species.
southern tarplant *Centromadia parryi* ssp. *australis*	USFWS: None CDFG: None CNPS: 1B.1	Often found in disturbed sites near the coast at marsh edges; also in alkaline soils, sometimes with saltgrass. Associated with marshes and swamps (margins), valley and foothill grassland. Elevation 0-30 meters. Blooms May-November.	Not Expected. The survey areas do not contain suitable habitat for this species.
many-stemmed dudleya *Dudleya multicaulis*	USFWS: None CDFG: None CNPS: 1B.2	Found in heavy, often clayey soils or grassy slopes. Associated with chaparral, coastal scrub, and valley and foothill grassland. Elevation 0-790 meters. Blooms April-July.	Not Expected. The survey areas do not contain suitable habitat for this species.
Los Angeles sunflower *Helianthus nuttallii* ssp. *parishii*	USFWS: None CDFG: None CNPS: 1A	Known from both coastal salt and freshwater marshes and swamps.	Not Expected. The survey areas do not contain suitable habitat for this species.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	USFWS: None CDFG: None CNPS: List 1B.1	Found on sandy or gravelly sites. Associated with chaparral, cismontane woodland, and coastal scrub. Elevation 70-810 meters. Blooms February-July (September).	Not Expected. The stockpile area contains marginally suitable habitat for this species, however, it has not been reported in the vicinity of the project area for 90 years. The last reported occurrences of mesa horkelia in the vicinity of the project area were in 1902 in Garvanza, and in 1918 in Griffith Park.

prostrate vernal pool navarretia *Navarretia prostrata*	USFWS: None CDFG: None CNPS: List 1B.1	Found in alkaline soils in grassland, or in vernal pools; mesic alkaline sites. Associated with coastal scrub, valley and foothill grassland, vernal pools. Elevation 15-700 meters. Blooms April-July.	Not Expected. The survey areas do not contain suitable habitat for this species.
white rabbit-tobacco *Pseudognaphalium leucocephalum*	USFWS: None CDFG: None CNPS: List 2.2	Found in sandy, gravelly sites. Associated with riparian woodland, cismontane woodland, coastal scrub, chaparral. Elevation 0-2,100 meters. Blooms (July) August-November (December).	Not Expected. The stockpile area contains marginally suitable habitat for this species, however, the species was not detected during general surveys and it has not been reported in the vicinity of the project area for more than 80 years. The last reported occurrence of white rabbit-tobacco in the vicinity of the project area was in 1925 in the general area of Pasadena.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	USFWS: None CDFG: None CNPS: List 1.A	Found in willow swales in riparian habitats. Associated with riparian woodland. Elevation 65-100 meters. Blooms February-April.	Not Expected. The survey areas do not contain suitable habitat for this species.
San Bernardino aster *Symphyotrichum defoliatum*	USFWS: None CDFG: None CNPS: 1B.2	Found in vernally mesic grassland or near ditches, streams and springs. Also found in disturbed areas. Associated with meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. Elevation 2-2,040 meters. Blooms July-November.	Not Expected. The survey areas do not contain suitable habitat for this species.
Greata's aster *Symphyotrichum greatae*	USFWS: None CDFG: None CNPS: 1B.3	Found in mesic canyons. Associated with chaparral and cismontane woodland. Elevation 800-1,500 meters. Blooms June-October.	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period, and it has not been reported in the vicinity of the project area for more than 75 years. The last reported occurrences of Greata's aster in the vicinity of the project area were in 1902 in Arroyo Seco, near Garvanza, and in 1932 in Elysian Park.
Wildlife			
Insects			

Buck's gallmoth *Carolella busckana*	USFWS: None CDFG: None	Unknown	Not Expected. Very little is known about this species' habitat requirements; the only reported occurrence(extirpated in 1939) of Buck's gall moth occurred in Beverly Hills, 7 miles west of Elysian Park.
Reptiles			
coast (San Diego) horned lizard *Phrynosoma blainvillii*	USFWS: None CDFG: CSC	A variety of habitats including sage scrub, chaparral, and coniferous and broad-leafed woodlands. Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.	Not Expected. The survey area contains do not contain suitable habitat for this species.
Birds			
burrowing owl *Athene cunicularia*	USFWS: None CDFG: CSC	A subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Prefers open, dry annual, or perennial grasslands, deserts and scrublands with low-growing vegetation.	Not Expected. The survey areas do not contain suitable habitat for this species.
southwestern willow flycatcher *Empidonax traillii extimus*	USFWS: FE CDFG: SE	Utilizes riparian woodlands in southern California	Not Expected. The survey areas do not contain suitable habitat for this species.
coastal California gnatcatcher *Polioptila californica californica*	USFWS: FT CDFG: CSC	A permanent resident of coastal sage scrub in arid washes, mesas, and slopes.	Not Expected. The survey areas do not contain suitable habitat for this species.
Mammals			
pallid bat *Antrozous pallidus*	USFWS: None CDFG: CSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low. The Project Area does not contain suitable habitat for this species. The surrounding area contains potentially suitable habitat, however it is severely reduced, and the only reported occurrences in the vicinity of the project was 1951 or earlier in the vicinities of San Dimas and Glendora, approximately 1.0 mile south and 4.0 miles west of the Project Area, respectively.

western mastiff bat *Eumops perotis californicus*	USFWS: None CDFG: CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Primarily a cliff-dwelling species, but also known to roost in high buildings, trees, and tunnels. Roost locations are generally high above the ground, providing a 3m minimum clearance below the entrance for flight. Requires large open-water drinking sites.	Low. The Project Area does not contain suitable habitat for this species. The surrounding area contains potentially suitable habitat, however it is severely reduced or disturbed, and the only reported occurrences in the vicinity of the project were from 1958 or earlier in the vicinities of La Vern and Glendora, approximately 1.5 miles southeast and 2.0 miles northwest of the Project Area, respectively.
hoary bat *Lasiurus cinereus*	USFWS: None CDFG: CSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees, and have been found in trees in dense forests, open wooded areas, and urban parks. Feeds primarily on moths. Requires water.	Low: The Project Area does not contain suitable habitat for this species. It is not likely that trees surrounding the Project Area are dense enough to provide roosting habitat for this species, though it may forage in the area. The only known occurrences of this species in the vicinity were from 1992, 1977, and 1942 approximately 3 miles northwest, 2 miles northwest, and 1.5 miles south of the Project Area, respectively.
south coast marsh vole *Microtus californicus stephensi*	USFWS: None CDFG: CSC	Inhabits tidal marshes.	Not Expected. The survey areas do not contain suitable habitat for this species.
big free-tailed bat *Nycinomops macrotis*	USFWS: None CDFG: CSC	Low-lying arid areas in southern California; need high cliffs or rocky outcrops for roosting sites; feeds principally on large moths	Not Expected. The survey areas do not contain suitable habitat for this species.
American badger *Taxidea taxus*	USFWS: None CDFG: CSC	Inhabits dry open stages of most shrub, forest, and herbaceous habitats; requires sufficient food source, friable soils and open, uncultivated ground.	Not Expected. The survey areas do not contain suitable habitat for this species.

[1]Federal U.S. Fish and Wildlife Service (USFWS):
Federally Threatened (FT), Federally Endangered (FE)
U.S. Forest Service (USFS): Sensitive

State California Department of Fish and Game (CDFG):
State Threatened (ST), State Endangered (SE), State Species of Special Concern (CSC), State Rare (SR), State Fully-Protected (SFP), no state status, but tracked by the California Natural Diversity DataBase or otherwise considered to be locally sensitive (CNDDB)

CNPS California Native Plant Society:
List 1A: Plants presumed extinct in California
List 1B: Plants rare, threatened, or endangered in California and elsewhere
List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3: Plants about which we need more information
List 4: Plants of limited distribution – a watch list
Threat Ranks
0.1- Seriously threatened in California (high degree/immediacy of threat)
0.2- Fairly threatened in California (moderate degree/immediacy of threat)
0.3- Not very threatened in California (low degree/immediacy of threats or no current threats known)

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September 8, 2008

Ms. Sarah Easley Perez
City of Los Angeles
Department of Water and Power
111 North Hope Street
Los Angeles, CA 90012

Subject: 2008 Biological Reconnaissance Surveys and Constraints Analysis for the Elysian Reservoir Water Quality Improvement Project, City of Los Angeles, California

Dear Ms. Perez,

This letter report summarizes the results of biological reconnaissance surveys conducted by EDAW in support of the Elysian Reservoir Improvements Project, located in the southeast corner of Elysian Park, in the City of Los Angeles, California. EDAW conducted two surveys: the first on May 15, 2008; the second on July 21, 2008. A biological reconnaissance survey for the project was conducted by BonTerra Consulting on December 14, 2004; these new surveys were conducted to evaluate potential project constraints in areas affected by the proposed project, and were also conducted in order to assess any changes to project site since the completion of the original survey.

PROJECT LOCATION

The project site is located in the City of Los Angeles within Elysian Park, and is immediately surrounded by open space (Elysian Park) (Enclosure 1). The regional land use includes residential and commercial development to the west and Dodger Stadium situated at the southeast end of Elysian Park. The site is accessed via Park Row Drive from the west and via Angels Point Drive (an interior park road) from the east, and it is situated approximately one mile north of the intersection of Stadium Way and the Pasadena Freeway (CA-11). It is located within the United States Geological Survey (USGS) Los Angeles, California 7.5-minute topographic quadrangle map. Topography on the site includes a relatively flat reservoir basin, surrounded by steep slopes. Elevation of the project site ranges from approximately 460 to 600 feet above mean sea level (msl).

METHODS

Literature Review

A literature review was conducted to determine sensitive plant species, animal species, and vegetation communities with the potential to occur in the project site. The California Natural Diversity DataBase (CNDDB) RareFind 3 program (2008) and the California Native Plant Society (CNPS) *Inventory of Rare and Endangered Plants* (2007) were reviewed for any information on known occurrences of sensitive species and communities within the Los Angeles and Hollywood USGS topographic quadrangles. Based on the literature review, 16 sensitive plant species and 11 wildlife species were identified as having the potential to occur in the vicinity of the project. Sensitive plant and wildlife species are listed in Enclosure 2. Three sensitive plant communities were also identified as having the potential to occur in the vicinity of the project: California Walnut Woodland, Southern Sycamore Alder Riparian Woodland, and Walnut Forest.

Field Survey

On May 15, 2008, EDAW (Ms. Jeanette Duffels, Ms. Melissa Hatcher, and Ms. Kathalyn Tung) conducted a survey of the proposed Lay Down Area, the proposed vertical shaft location, and Grand View Drive between Park Row Drive and the proposed vertical shaft location. EDAW biologists (Ms. Duffels and Ms. Donna Germann) conducted a survey on July 21, 2008 of proposed the Lay Down Area, the proposed

vertical shaft location, Grand View Drive between Lay Down Area No. 1 and the vertical shaft location, and the immediate surroundings of these locations.

On May 15 weather conditions were clear skies with temperatures ranging from 80° to 84° F. Winds were westerly and ranged from 5 to 7 mph. Weather conditions on July 21 were clear skies with temperatures between 70° and 76° F. Wind speed varied from 0 to 5 mph.

The project site was evaluated for habitat suitable for the sensitive species identified in the literature review, as well as for protected trees and potential nesting habitat for migratory birds. Observed plants and wildlife were recorded, however, focused surveys for particular plants and animals were not conducted at this time.

RESULTS

Literature Review

Sensitivity status, general habitat requirements, and potential habitat presence or absence within the project site for the species identified during the literature review are provided in Enclosure 2. Only one sensitive plant is reported to have occurred in Elysian Park, Greata's aster (*Symphyotrichum greatae*). The source of the reported occurrence is a collection from 1932, mapped as a best guess to be in the Elysian Park area. No sensitive wildlife are known to occur in the project site. In addition to individual species, the following sensitive plant communities are reported from the project vicinity: California walnut woodland, southern sycamore alder riparian woodland, and walnut forest. No sensitive plant communites are reported to have occurred in Elysian Park.

Elysian Park is not within any Significant Ecological Areas or designated Critical Habitat.

Field Survey: Habitat

The field survey areas consisted of the Lay Down Area, Grand View Drive, and the Vertical Shaft Location. The reservoir does not contain any vegetation or habitat, and therefore was not included in the survey.

Lay Down Area

The Lay Down Area is an approximately 0.30 acre flat, graded, and partially paved area at the northwest edge of Elysian Reservoir. Unpaved portions have partial cover of ruderal plant species. As evidenced by tire ruts and the low growth of plants, the site appears to be disturbed regularly. The Lay Down Area is accessed from a secured gate at the southern end of Elysian Reservoir.

Ruderal vegetation in the Lay Down Area includes black mustard (*Brassica nigra*), tree tobacco (*Nicotiana glauca*), Russian thistle (*Salsola tragus*), horseweed (*Conyza canadensis*), jimsonweed (*Datura wrightii*), fan palm (*Washingtonia filifera*), eucalyptus seedlings and saplings (*Eucalyptus* sp.) (Enclosure 3).

The Lay Down Area is surrounded by vegetated slopes on all sides except the southern edge which faces the reservoir. Surrounding vegetation is similar to that within the Lay Down Area; however, fan palms and eucalyptus trees are mature. At the time of the surveys, the reservoir was full.

Grand View Drive

Grand View Drive, between Park Row Drive and the vertical shaft location, is a paved park road that is open to the public. Access to Grand View Drive is via Park Row Drive.

On either side of Grand View Drive are heavily vegetated slopes. The vegetation is a mixture of native and ornamental species. Native species include mulefat (*Baccharis salicifolia*), blue elderberry (*Sambucus*

mexicana), laurel sumac (*Malosma laurina*), sugarbush (*Rhus ovata*), poison oak (*Toxicodendron diversilobum*), wild cucumber (*Marah macrocarpus*), holly-leaf cherry (*Prunus ilicifolia*), and California walnut (*Juglans californica*). Non-native ornamental or weedy species include tree of heaven (*Ailanthus altissima*), cape plumbago (*Plumbago auriculata*), silver wattle (*Acacia retinodes*), black mustard, and eucalyptus (*Eucalyptus* sp.). Many trees and shrubs hang over the road, including native toyon (*Heteromeles arbutifolia*), sugarbush, laurel sumac and coast live oak (*Quercus agrifolia*) and non-native cape plumbago and silver wattle.

Vertical Shaft Location

The vertical shaft location is a slope rehabilitation area. It consists mostly of non-native ruderal vegetation, but also includes native toyon and occasional blue elderberry shrubs. Ruderal vegetation includes black mustard, ripgut (*Bromus diandrus*), Russian thistle, and tocalote (*Centaurea melitensis*).

Access to the vertical shaft location is via a small picnic area off of Grand View Drive, northeast of the reservoir. The picnic area contains some small planted acacia (*Acacia* sp.) trees.

Field Survey: Wildlife

Urban park settings provide habitat for common wildlife species typically adapted to disturbed areas and human presence. Palm, deciduous, and conifer trees throughout the park provide suitable habitat for a variety of nesting birds and potential habitat for certain species of roosting bats. Additionally, the reservoir provides an ample water source for birds and bats, which are not hindered by the surrounding chain link fence. Sixteen species of bird and one mammal species were observed on site and are typically associated with such urban park and lake settings. These species include common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), lesser goldfinch (*Carduelis psaltria*), wrentit (*Chamaea fasciata*), spotted towhee (*Pipilo maculates*), California towhee (*Pipilo crissalis*), black phoebe (*Sayornis nigricans*), white-throated swift (*Aeronautes saxatalis*), cliff swallow (*Petrochelidon pyrrhonota*), mourning dove (*Zenaida macroura*), kingbird (*Tyrannus* sp.), western-scrub jay (*Aphelocoma californica*), mallard (*Anas platyrhynchos*), hooded oriole (*Icterus cucullatus*), and California ground squirrel (*Spermophilus beecheyi*). Additionally, a red-tailed hawk (*Buteo jamaicensis*) was detected in the project vicinity.

Wildlife Corridors and Habitat Linkages

In an urban context, a wildlife migration corridor can be defined as a linear landscape feature of sufficient width and buffer to allow animal movement between two patches of comparatively undisturbed habitat, or between a patch of habitat and some vital resources. Regional corridors are defined as those linking two or more large areas of natural open space, and local corridors are defined as those allowing resident animals to access critical resources (food, cover, and water) in a smaller area that might otherwise be isolated by urban development.

Wildlife migration corridors are essential in geographically diverse settings, and especially in urban settings, for the sustenance of healthy and genetically diverse animal communities. At a minimum, they promote colonization of habitat and genetic variability by connecting fragments of like habitat and they help sustain individual species distributed in and among habitat fragments. Habitat fragments, by definition, are separated by otherwise foreign or inhospitable habitats, such as urban/suburban tracts. Isolation of populations can have many harmful effects and may contribute significantly to local species extinction.

A viable wildlife migration corridor consists of more than a path between habitat areas. To provide food and cover for transient species as well as resident populations of less mobile animals, a wildlife migration corridor must also include pockets of vegetation.

There are no adjacent large open space areas bordering Elysian Park. Several noncontiguous open spaces contain suitable habitat for a variety of wildlife near Elysian Park, including: Mt. Washington (1 mile northeast), Arroyo Seco Park (2 miles northeast), Topanga State Park (16 miles west), Angeles National Forest (10 miles north), Griffith Park (5 miles northwest), and Echo Park (less than 1 mile west). Elysian Park is not part of a major contiguous linkage between two or more large areas of open space, and thus does not serve as a regional wildlife corridor.

The vegetation in the canyon surrounding Elysian Reservoir is a mixture of native, ornamental, and ruderal plants that support a variety of wildlife species, as indicated by the species observed by Bonterra and EDAW.

RECOMMENDATIONS

Sensitive Plants

The soils in the survey areas are greatly disturbed and do not present suitable habitat for sensitive plant species. Although Greata's aster is reported to have occurred in Elysian Park in 1932, the only potentially suitable habitat in the project area is the vertical shaft location. Because the location is a slope rehabilitation area and the soils have been heavily disturbed, the habitat is only marginally suitable and no sensitive plants are expected. No sensitive plants were observed during general surveys by EDAW or BonTerra Consulting (2005). No surveys for sensitive plants are warranted.

Protected Trees

The City of Los Angeles (City), Department of Recreation and Parks (DRP) Urban Forest Program provides direction for the care of trees within City parkland. DRP recognizes and implements regulatory procedures for trees specified in the Tree Preservation Policy. The Tree Preservation Policy regulates protection of trees in four categories: Trees Protected by LA City Ordinances, Heritage Trees, Special Habitat Value Trees, and all other Common Park Trees. The Urban Forest Program *Tree Care Manual* (2004) describes all regulations, standards, and specifications for implementation of the Tree Preservation Policy. Pruning of park trees must adhere to the recommendations described in section 3.10 of the Urban Forest Program *Tree Care Manual*. The Tree Removal Procedure (Appendix J of the Urban Forest Program *Tree Care Manual*) must be followed for the removal of any park trees.

At least two coast live oaks along Grand View Drive will likely require trimming to allow higher clearance for trucks during construction (Enclosure 3). Oak trees are protected from removal by the City of Los Angeles Oak Tree Ordinance (Los Angeles Municipal Code Section 46.00), enforced by the Los Angeles Department of Public Works Bureau of Street Services. For pruning of trees protected by the Oak Tree Ordinance (branches larger than 2 inches in diameter), the DRP requires a permit from the Board of Public Works (Urban Forest Program *Tree Care Manual*, Section 3.10). Any permitted pruning must be done in compliance with the Oak Tree Pruning Standards set forth by the Western Chapter of the International Society of Arboriculture.

No Heritage Trees would be affected by the proposed project.

DPR recognizes toyon as a Special Habitat Value Tree, and as such they may only be pruned or removed with the approval of DPR. Before any alterations (damage, relocation, or removal) to Special Habitat Value Trees, a recommendation for action must be obtained from DRP Arborists. The recommendation must be approved by the General Manager of DRP or his/her designee before any action proceeds. Furthermore, all actions relating to pruning or removing toyon must comply with all relevant components of DRP's Urban Forest Program *Tree Care Manual*. Replacement of removed trees in accordance with Los Angeles City Landscape Policy (Urban Forest Program *Tree Care Manual*, Appendix M) is also required.

DPR regulates protection of mature exotic park trees, referred to as Common Park Trees, under the Tree Preservation Policy. The small acacia trees at the vertical shaft location may or may not be considered Common Park Trees. Common Park Trees may be removed with the recommendation of the Forestry Arborist.

Sensitive Plant Communities

Sensitive vegetation communities are natural communities and habitats that are either unique, of limited relatively limited distribution in the region, or particularly high wildlife value or provide habitat to rare or endangered species (CNDDB 2003). The survey areas did not contain any sensitive vegetation communities.

Sensitive Wildlife

Bats

The survey areas do not contain habitat suitable for roosting bats. Trees and palms throughout the rest of the park may provide roosting habitat, however potential trees are not immediately adjacent to the survey areas. Additionally, the probability for sensitive species of bat to occur on site is low to not expected. No surveys for roosting bats are warranted.

Migratory Birds

Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the United States and Great Britain, the United States and Mexico, the United States and Japan, and the United States and Russia. Although no permit is issued under the MBTA, if vegetation removal within the Project Area occurs during the breeding season for raptors and migratory birds (February 15 through September 15), the U.S. Fish and Wildlife Service requires that surveys be conducted to locate active nests within the construction area. If active raptor or migratory bird nests are detected, project activities may be temporarily curtailed or halted. The project must comply with the MBTA.

The project site and adjacent areas contain mature trees and other vegetation that is suitable for use by migratory birds. Should commencement of construction activities at the project site occur during the breeding season for migratory non-game native bird species (generally considered to be between February 15 and September 15, depending on seasonal conditions), it is recommended that nesting bird surveys be conducted in order to detect any protected native birds nesting within 300 feet of the construction work area (500 feet for raptors). Surveys should be conducted 30 days prior to the disturbance of suitable nesting habitat and continue on a weekly basis; the last survey being conducted no more than 3 days prior to the initiation of work. If a protected native bird is found, the all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) must be halted and postponed within 300 feet of its nesting habitat (within 500 feet within raptor nesting habitat) until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging, stakes, or construction fencing. Construction personnel should be instructed on the sensitivity of the area. A biological monitor should be present during construction activities that occur within 500 feet of any flagged nest. Once a flagged nest is determined to be no longer active, the biological monitor would remove all flagging and allow construction activities to proceed. The surveys and actions described above will assure compliance with the Migratory Bird Treaty Act of 1918.

Wetlands

The Clean Water Act (CWA) governs pollution control and water quality of waterways throughout the U.S. Its intent, in part, is to restore and maintain the biological integrity of the nation's waters. The goals and

standards of the CWA are enforced through permit provisions. Section 401 requires certification from the Regional Water Quality Control Board (RWQCB) that the proposed project is in compliance with established water quality standards. Section 404 of the CWA requires an individual or general permit from the U.S. Army Corps of Engineers (USACE) for discharge into "waters of the U.S."

The California Fish and Game Codes include Streambed Alteration Agreement regulations (Sections 1600-1616). Any proposed impact to state jurisdictional waters within or adjacent to the proposed project site would require a permit under CESA and a Streambed Alteration Agreement from the CDFG.

A jurisdictional delineation of the Project Area was not conducted as part of the biological reconnaissance surveys; however, the survey areas do not contain drainages or riparian vegetation that would typically indicate the presence of a wetland. Elysian Reservoir itself is an entirely artificial construct. It is completely lined with asphaltic concrete and does not function as a waterway or wetland.

Yours sincerely,

Jeanette Duffels
Biologist
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Enclosures: 1. Biological Survey Areas
2. Federally-listed, State-listed, and Species of Special Concern with Potential to Occur in the Study Area
3. Biological Resources

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Source: Globexplorer 2007, EDAW 2008

N

1 inch equals 300 feet

0 150 300 600 Feet

Enclosure 1
Biological Survey Areas

Enclosure 2. Federally-listed, State-listed, and Species of Special Concern with Potential to Occur in the Study Area

Common Name *Scientific Name*	Sensitivity Status	General Habitat Description	Potential to Occur in the Project Area
Plants			
marsh sandwort *Arenaria paludicola*	USFWS: FE CDFG: SE CNPS: List 1B.1	Found in marshes and swamps. Elevation 10-170 meters. Blooms May-August.	Not Expected. The Project Area does not contain suitable habitat for this species. The only reported occurrence in the vicinity of the project area was in 1900 in the community of Cienega.
Braunton's milk-vetch *Astragalus brauntonii*	USFWS: FE CDFG: None CNPS: List 1B.1	Found in recently burned or disturbed areas; in stiff gravelly clay soils overlying granite or limestone. Associated with closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Elevation 4-640 meters. Blooms January-August.	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period and it has not been reported in the vicinity of the project area for 100 years. The last reported occurrences of Braunton's milk-vetch in the vicinity of the project area were in 1908 in the foothills above West Hollywood (now presumed extirpated), and a possible collection in the vicinity of Cienega in 1904. Focused surveys of vegetated slopes adjacent to the reservoir conducted in 2006 did not detect the species.
coastal dunes milk-vetch *Astragalus tener* var. *titi*	USFWS: FE CDFG: SE CNPS: List 1B.1	Found in moist, sandy depressions or bluffs or dunes along and near the Pacific ocean. Associated with coastal bluff scrub, coastal dunes. Elevation 1-50 meters. Blooms March-May.	Not Expected. The Project Area does not contain suitable habitat for this species.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	USFWS: None CDFG: None CNPS: List 1B.2	Found in alkaline soils. Associated with coastal bluff scrub and coastal scrub. Elevation 3-250 meters. Blooms April-October.	Not Expected. The Project Area does not contain suitable habitat for this species.
round-leaved filaree *California macrophylla*	USFWS: None CDFG: None CNPS: List 1B.1	Found in clay soils. Associated with cismontane woodland and valley and foothill grassland. Elevation 15-1,200 meters. Blooms March-May.	Not Expected. The Project Area does not contain suitable habitat for this species.

Plummer's mariposa lily *Calochortus plummerae*	USFWS: None CDFG: None CNPS: List 1B.2	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. Associated with coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, and lower montane coniferous forest. Elevation 90-1,610 meters. Blooms May-July.	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period and it has not been reported in the vicinity of the project area for almost 100 years. The last reported occurrences of Plummer's mariposa lily in the vicinity of the project area were in 1913 on Poppy Peak in Garvanza, and in 1901 in the hills above West Hollywood.
Santa Barbara morning-glory *Calystegia sepium* ssp. *binghamiae*	USFWS: None CDFG: None CNPS: 1A	Found on dry, rocky open slopes and rock outcrops. Associated with coastal marshes. Elevation 0-30 meters. Blooms April-May.	Not Expected. The Project Area does not contain suitable habitat for this species.
southern tarplant *Centromadia parryi* ssp. *australis*	USFWS: None CDFG: None CNPS: 1B.1	Often found in disturbed sites near the coast at marsh edges; also in alkaline soils, sometimes with saltgrass. Associated with marshes and swamps (margins), valley and foothill grassland. Elevation 0-30 meters. Blooms May-November.	Not Expected. The Project Area does not contain suitable habitat for this species.
many-stemmed dudleya *Dudleya multicaulis*	USFWS: None CDFG: None CNPS: 1B.2	Found in heavy, often clayey soils or grassy slopes. Associated with chaparral, coastal scrub, and valley and foothill grassland. Elevation 0-790 meters. Blooms April-July.	Not Expected. The Project Area does not contain suitable habitat for this species.
Los Angeles sunflower *Helianthus nuttallii* ssp. *parishii*	USFWS: None CDFG: None CNPS: 1A	Known from both coastal salt and freshwater marshes and swamps.	Not Expected. The Project Area does not contain suitable habitat for this species.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	USFWS: None CDFG: None CNPS: List 1B.1	Found on sandy or gravelly sites. Associated with chaparral, cismontane woodland, and coastal scrub. Elevation 70-810 meters. Blooms February-July (September).	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period and it has not been reported in the vicinity of the project area for 90 years. The last reported occurrences of mesa horkelia in the vicinity of the project area were in 1902 in Garvanza, and in 1918 in Griffith Park.

Orcutt's linanthus *Linanthus orcuttii*	USFWS: None CDFG: None CNPS: List 1.B3	Sometimes found in disturbed areas, often in gravelly clearings. Associated with chaparral, lower montane coniferous forest. Elevation 1,060-2,000 meters. Blooms May-June.	Not Expected. The Project Area does not contain suitable habitat for this species.
prostrate vernal pool navarretia *Navarretia prostrata*	USFWS: None CDFG: None CNPS: List 1B.1	Found in alkaline soils in grassland, or in vernal pools; mesic alkaline sites. Associated with coastal scrub, valley and foothill grassland, vernal pools. Elevation 15-700 meters. Blooms April-July.	Not Expected. The Project Area does not contain suitable habitat for this species.
white rabbit-tobacco *Pseudognaphalium leucocephalum*	USFWS: None CDFG: None CNPS: List 2.2	Found in sandy, gravelly sites. Associated with riparian woodland, cismontane woodland, coastal scrub, chaparral. Elevation 0-2,100 meters. Blooms (July) August-November (December).	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys and it has not been reported in the vicinity of the project area for more than 80 years. The last reported occurrence of white rabbit-tobacco in the vicinity of the project area was in 1925 in the general area of Pasadena.
Parish's gooseberry *Ribes divaricatum* var. *parishii*	USFWS: None CDFG: None CNPS: List 1.A	Found in willow swales in riparian habitats. Associated with riparian woodland. Elevation 65-100 meters. Blooms February-April.	Not Expected. The Project Area does not contain suitable habitat for this species.
San Bernardino aster *Symphyotrichum defoliatum*	USFWS: None CDFG: None CNPS: 1B.2	Found in vernally mesic grassland or near ditches, streams and springs. Also found in disturbed areas. Associated with meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. Elevation 2-2,040 meters. Blooms July-November.	Not Expected. The Project Area does not contain suitable habitat for this species.

Greata's aster *Symphyotrichum greatae*	USFWS: None CDFG: None CNPS: 1B.3	Found in mesic canyons. Associated with chaparral and cismontane woodland. Elevation 800-1,500 meters. Blooms June-October.	Not Expected. The vertical shaft location contains marginally suitable habitat for this species, however, the species was not detected during general surveys which coincided with its blooming period, and it has not been reported in the vicinity of the project area for more than 75 years. The last reported occurrences of Greata's aster in the vicinity of the project area were in 1902 in Arroyo Seco, near Garvanza, and in 1932 in Elysian Park.
Wildlife			
Insects			
Buck's gallmoth *Carolella busckana*	USFWS: None CDFG: None	Unknown	Not Expected. Very little is known about this species' habitat requirements; the only reported occurrence(extirpated in 1939) of Buck's gall moth occurred in Beverly Hills, 7 miles west of Elysian Park.
Reptiles			
coast (San Diego) horned lizard *Phrynosoma coronatum blainvillii*	USFWS: None CDFG: CSC	A variety of habitats including sage scrub, chaparral, and coniferous and broad-leafed woodlands. Found on sandy or friable soils with open scrub. Requires open areas, bushes, and fine loose soil.	Not Expected. The Project Area does not contain suitable habitat for this species.
Birds			
burrowing owl *Athene cunicularia*	USFWS: None CDFG: CSC	A subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. Prefers open, dry annual, or perennial grasslands, deserts and scrublands with low-growing vegetation.	Not Expected. The Project Area does not contain suitable habitat for this species.
southwestern willow flycatcher *Empidonax traillii extimus*	USFWS: FE CDFG: SE	Utilizes riparian woodlands in southern California	Not Expected. The Project Area does not contain suitable habitat for this species.
coastal California gnatcatcher *Polioptila californica californica*	USFWS: FT CDFG: CSC	A permanent resident of coastal sage scrub in arid washes, mesas, and slopes.	Not Expected. The Project Area does not contain suitable habitat for this species.

Mammals			
pallid bat *Antrozous pallidus*	USFWS: None CDFG: CSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low. The Project Area does not contain suitable habitat for this species. The surrounding area contains potentially suitable habitat, however it is severely reduced, and the only reported occurrences in the vicinity of the project was 1951 or earlier in the vicinities of San Dimas and Glendora, approximately 1.0 mile south and 4.0 miles west of the Project Area, respectively.
western mastiff bat *Eumops perotis californicus*	USFWS: None CDFG: CSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Primarily a cliff-dwelling species, but also known to roost in high buildings, trees, and tunnels. Roost locations are generally high above the ground, providing a 3m minimum clearance below the entrance for flight. Requires large open-water drinking sites.	Low. The Project Area does not contain suitable habitat for this species. The surrounding area contains potentially suitable habitat, however it is severely reduced or disturbed, and the only reported occurrences in the vicinity of the project were from 1958 or earlier in the vicinities of La Vern and Glendora, approximately 1.5 miles southeast and 2.0 miles northwest of the Project Area, respectively.
hoary bat *Lasiurus cinereus*	USFWS: None CDFG: CSC	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees, and have been found in trees in dense forests, open wooded areas, and urban parks. Feeds primarily on moths. Requires water.	Low: The Project Area does not contain suitable habitat for this species. It is not likely that trees surrounding the Project Area are dense enough to provide roosting habitat for this species, though it may forage in the area. The only known occurrences of this species in the vicinity were from 1992, 1977, and 1942 approximately 3 miles northwest, 2 miles northwest, and 1.5 miles south of the Project Area, respectively.
south coast marsh vole *Microtus californicus stephensi*	USFWS: None CDFG: CSC	Inhabits tidal marshes.	Not Expected. The Project Area does not contain suitable habitat for this species.
big free-tailed bat *Nycinomops macrotis*	USFWS: None CDFG: CSC	Low-lying arid areas in southern California; need high cliffs or rocky outcrops for roosting sites; feeds principally on large moths	Not Expected. The Project Area does not contain suitable habitat for this species.

American badger *Taxidea taxus*	USFWS: None CDFG: CSC	Inhabits dry open stages of most shrub, forest, and herbaceous habitats; requires sufficient food source, friable soils and open, uncultivated ground.	Not Expected. The Project Area does not contain suitable habitat for this species.

[1]Federal U.S. Fish and Wildlife Service (USFWS):
Federally Threatened (FT), Federally Endangered (FE)
U.S. Forest Service (USFS): Sensitive

State California Department of Fish and Game (CDFG):
State Threatened (ST), State Endangered (SE), State Species of Special Concern (CSC), State Rare (SR), State Fully-Protected (SFP), no state status, but tracked by the California Natural Diversity DataBase or otherwise considered to be locally sensitive (CNDDB)

CNPS California Native Plant Society:
List 1A: Plants presumed extinct in California
List 1B: Plants rare, threatened, or endangered in California and elsewhere
List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
List 3: Plants about which we need more information
List 4: Plants of limited distribution – a watch list
Threat Ranks
0.1- Seriously threatened in California (high degree/immediacy of threat)
0.2- Fairly threatened in California (moderate degree/immediacy of threat)
0.3- Not very threatened in California (low degree/immediacy of threats or no current threats known)

Source: Globexplorer 2007, EDAW 2008

N

1 inch equals 300 feet

0 150 300 600 Feet

Enclosure 3
Biological Resources