

November 7, 2013

Ms. Jemellee Cruz, P.E.  
County of Los Angeles Department of Public Works  
Flood Maintenance Division  
900 South Fremont Avenue, Annex Building, 2<sup>nd</sup> Floor  
Alhambra, California 91802-1460

**VIA EMAIL**  
**[jcruz@dpw.lacounty.gov](mailto:jcruz@dpw.lacounty.gov)**

**Subject: Results of Habitat Inventory Surveys and Habitat Assessment at the Lower San Gabriel River Reach 115, Los Angeles County, California**

Dear Ms. Cruz:

This Letter Report presents the findings of habitat inventory surveys, a vegetation map update, and assessment of the potential for special status plant and wildlife species to occur at the Lower San Gabriel River (Reach 115) in Long Beach, Los Angeles County (Exhibit 1). Reach 115 is 21,000 feet in length and extends from the ocean outlet (approximately 350 feet north of the Pacific Ocean) to approximately 1,750 feet north of Interstate (I) 405 (the San Diego Freeway) (Exhibit 2). In order to satisfy the U.S. Army Corps of Engineers (USACE) Levee Certification Project, the Los Angeles County Department of Public Works (LACDPW) needs to perform vegetation removal and repair work along the banks of Reach 115. The purpose of these surveys is to provide the LACDPW with the biological information needed to obtain the regulatory agency permits required for these channel activities.

This soft-bottom channel (SBC) reach of the San Gabriel River is in the process of being added to the LACDPW's existing California Department of Fish and Game (CDFG), USACE, and Regional Water Quality Control Board (RWQCB) channel maintenance permits. The biological information collected by these surveys will support previous biological survey findings (BonTerra Consulting 2009a, 2009b). Survey results are being used to support the LACDPW's request to include SBC Reach 115 in the existing regulatory permits.

## **METHODS**

BonTerra Consulting Biologists Brian Daniels, Jennifer Pareti, Sarah Thomas, and BonTerra Consulting Biologist Sandy Leatherman conducted the plant and wildlife inventory surveys on October 30, 2013. Concurrent with the surveys, the 2009 map of vegetation types in Reach 115 (BonTerra Consulting 2009a) was updated and modified to show additional information describing vegetation species present in the channel. This additional information includes estimated tree diameter at breast height (DBH), which was used by BonTerra Consulting Certified Arborist David Hughes to estimate root system depth and extent. Previous survey reports of this SBC reach were reviewed, including the focused plant and biological reconnaissance surveys conducted in 2009 (BonTerra Consulting 2009a, 2009b).

The surveys focused on identifying all plant and wildlife species present in the channel. All plant and wildlife species observed were recorded in field notes. Plant species were



identified in the field or collected for subsequent identification using keys in Baldwin et al. (2012). Taxonomy follows Baldwin et al. (2012) and current scientific data (e.g., scientific journals) for scientific and common names. Nomenclature for vegetation types generally follows that of the *List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program* (CDFG 2010).

The wildlife survey focused on terrestrial species and did not include any searches for aquatic species such as fish. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic signs including scat, footprints, scratch-outs, dust bowls, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, American Ornithologists' Union (2013) for birds, and Baker et al. (2003) for mammals.

## RESULTS

See Attachment A for a complete list of plant and wildlife species observed during the October 30, 2013, surveys. The following discussion is primarily limited to those plant and wildlife species observed during the surveys.

### Vegetation

As illustrated on Exhibits 3A through 3E, the lower San Gabriel River Reach 115 supports five vegetation types and other areas, including freshwater marsh, giant reed (*Arundo donax*) stands, ornamental, open water, and developed areas. Site photographs are included as Exhibits 4A, 4B, and 4C. Vegetation in Reach 115 is limited to bands and patches at the toe of the levee and continuing partially up the bank. Vegetation is most dense at the upstream end of the reach, upstream of I-405, and gradually decreases in density as one travels downstream to State Route (SR) 22. Downstream of SR-22, there is little to no vegetation occurring along the reach. This sparse vegetation continues downstream of the Second Street Bridge to the ocean.

Freshwater marsh occurs upstream of SR-22 along the toe of the levee. This vegetation type is dominated by southern bulrush (*Schoenoplectus californicus*) and cattail (*Typha* sp.). Giant reed stands, which consist of mature giant reed, occur along both banks from the upstream survey boundary to approximately 1,800 feet downstream of I-405. Ornamental vegetation is the dominant vegetation type in the survey area and occurs from the upstream survey boundary downstream to the Second Street Bridge. Ornamental vegetation is composed primarily of non-native trees with a ruderal understory. The dominant trees in this vegetation type include Brazilian pepper (*Schinus terebinthifolius*), ornamental ash (*Fraxinus* sp.), Chinese flame tree (*Koelreuteria bipinnata*), bottlebrush (*Callistemon* sp.), Chinese elm (*Ulmus parvifolia*), date palm (*Phoenix* sp.), and Mexican fan palm (*Washingtonia robusta*). The ruderal understory of the ornamental vegetation includes African umbrella-sedge (*Cyperus involucratus*), cocklebur (*Xanthium strumarium*), poison hemlock (*Conium maculatum*), western ragweed (*Ambrosia psilostachya*), common horseweed (*Erigeron canadensis*), freeway daisy (*Osteospermum fruticosum*), white sweetclover (*Melilotus alba*), pampas grass (*Cortaderia selloana*), Bermuda grass (*Cynodon dactylon*), and seashore paspalum (*Paspalum vaginatum*). The remaining unvegetated portions of the survey area include open water and developed areas. Because these areas contain little or no vegetation, open water and developed are considered "other areas" rather than vegetation types, and there is no corresponding vegetation type to these in the *List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program* (CDFG 2010). Developed areas are composed of unvegetated portions of grouted

riprap, ungrouted riprap, and concrete within the survey area. Downstream of SR-22, sparse individuals of saltwort (*Batis maritima*), five-hook bassia (*Bassia hyssopifolia*), and pickleweed (*Salicornia* sp.) were observed growing within the riprap.

## Wildlife

Open brackish water is the dominant habitat feature of Reach 115. A limited amount of upland habitat is present where sediment has accumulated at the toe of the levee at the upstream terminus of Reach 115, downstream to the area just south of I-405. As a result, wildlife use of Reach 115 is expected to be dominated by aquatic species, including water birds. Although fish were observed, this wildlife survey focused on terrestrial species. The survey was conducted at the end of October when the majority of water birds present are expected to be winter visitors and not summer breeders. Reach 115 is expected to support a higher diversity of water birds in winter than in summer. Water birds that were relatively numerous during the survey included Canada goose (*Branta Canadensis*), American wigeon (*Anas Americana*), mallard (*Anas platyrhynchos*), ruddy duck (*Oxyura jamaicensis*), western grebe (*Aechmophorus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardeas Herodias*), American coot (*Fulica americana*), black-necked stilt (*Himantopus mexicanus*), western sandpiper (*Calidris mauri*), and least sandpiper (*Calidris minutilla*). See the Wildlife List table in Appendix A for all wildlife species observed during the survey along with their relative abundance (i.e., a tally).

Land bird use of this channel reach is expected to be relatively minimal and limited to the upstream portions of the reach that support vegetation at the toe of the levee. As shown on Exhibits 3A through 3E, this vegetation occurs north of Second Street to the upstream terminus of Reach 115. The most numerous land birds during the survey were bushtit (*Psaltriparus minimus*) and house finch (*Haemorhous mexicanus*). The European starling (*Sturnus vulgaris*) was also numerous during the survey, but these birds were using man-made structures (e.g., bridges and overhead transmission lines), rather than the vegetation in the channel.

Reach 115 provides minimal terrestrial habitat for amphibians and reptiles. Three species of reptiles were observed: western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), and green sea turtle (*Chelonia mydas*). The green sea turtle was observed swimming in the warm water discharge from the Los Angeles Department of Water and Power's (LADWP's) Haynes Generating Station located north of Second Street. A small population of green sea turtles has been documented at this location. Reach 115 also provides minimal terrestrial habitat for mammals, and only two species were observed: California ground squirrel (*Spermophilus beecheyi*) and domestic cat (*Felis catus*).

## Root Structures

Estimates related to the depth and extent of tree roots were based on a brief examination of the tree size (e.g., trunk diameter and canopy dripline) and the location of the tree. Given that many trees are growing among the riprap bank protection, it was difficult to directly observe any indications of root extent; as a result, general estimates were made. In a natural setting, roots can reach well beyond the outer dripline of a tree with roots reaching depths of three feet or more (Day and Wiseman 2009). However, given the extremely disturbed nature of the project site, the extent and depth of roots is assumed to be affected by soil compaction, physical obstructions, and access to available water and nutrients. Tree size is assumed to be directly correlated to root extent, as larger trees will have more extensive root systems than smaller trees. The depth of tree roots is dependent on many factors, such as the tree's genetics, available oxygen (related directly to soil texture and saturation), and soil compaction

(Perry 1989). Therefore, the general character of the soil was noted, as was the nearest available water.

As noted above, trees were observed throughout the project area, with ornamental ash trees, Chinese flame trees, and Mexican fan palms constituting the most common species. Patches of giant reed are also present. Trees are densely populated along the toe of the side levees where sediment has accumulated and scattered along the side levees amongst the rip-rap bank protection.

For trees located at the toe of the side levees, the extent of tree roots is expected to generally correspond to the outer tree canopy as roots have easy access to water at that location and don't require extensive root systems to provide adequate water to the trees. The root systems of these trees are probably mostly contained within the sediment and organic matter that has accumulated at the toe of slope and extending into the open water. Tree roots in this area are likely found within the top two to three feet of soil, likely limited by the lack of available oxygen beyond this depth. Roots may also be growing into the levee itself, but the compacted soil of the levee is likely discouraging significant root growth in that soil. On the other hand, giant reed is adapted to grow in inundated soils and the root system may extend up to 15 feet deep (Frandsen 1997). However, because water and nutrients are easily accessible, their roots are probably contained in the top five feet of soil, though these roots are fibrous and produce very dense mats of root material.

It is difficult to estimate the extent and depth of roots for trees that are located higher up on the side levees. The presence of riprap prevented a close examination of the soil to estimate the extent of root systems in these areas, although it is assumed that roots are extending downslope to reach moist soils that are located at the bottom of the levees. Therefore, most roots are expected to be encountered downslope of these trees. Furthermore, it is assumed that the soil where these trees are growing is highly compacted, which would discourage root penetration into the soil, as the depth of the root zone is limited by the ability of oxygen to reach roots more than one foot deep. Though roots may find cracks to exploit deep root growth on the levees, most roots should be encountered in the top 12 inches of soil.

### **Special Status Plant and Wildlife Species**

Previous biological surveys identified potentially suitable habitat in Reach 115 for the southern tarplant (*Centromadia parryi* ssp. *australis*) (BonTerra Consulting 2009a). This has a California Rare Plant Rank (CRPR) of 1B and occurs in a variety of habitats, including riparian, marsh, or ruderal habitats at the margin of estuaries. Focused surveys for this species in Reach 115 in 2009 were negative (BonTerra Consulting 2009b). The current survey was conducted outside the summer period in which this species is detectable; however, the previous 2009 surveys did not locate this species in Reach 115 and, as a result, its chances of occurrence are considered to be very low due these negative survey results combined with the limited amount of potentially suitable habitat available for this species. In addition to plants in terrestrial habitats, the aquatic habitats of Reach 115 provide suitable habitat for eelgrass (*Zostera marina*), which may occur. This marine grass has special status with the resource agencies as it provides high quality habitat for a variety of aquatic species.

Several special status wildlife species are expected to use this reach, including one reptile and one bird species listed as State and/or federally Threatened and/or Endangered: green sea turtle (*Chelonia mydas*) and California least tern (*Sternula antillarum browni*). The cold ocean currents of California seem atypical for a tropical species such as the green sea turtle, but its regular occurrence in the San Gabriel River has been well documented. It is believed to be attracted to the warm water discharges from the LADWP's Haynes Generating Station located

north of Second Street. There is no suitable habitat for egg-laying at Reach 115, and the green sea turtle is only expected to occur for foraging opportunities associated with the warm water discharges between Second Street and I-405. Reach 115 does not provide suitable nesting habitat for the California least tern and it is only expected to occur for foraging from April to August.

## **CONCLUSIONS**

### **Vegetation**

As Exhibits 3A through 3E show, native riparian vegetation in Reach 115 is not present in amounts sufficient enough to be mapped. Native riparian species are scattered in Reach 115 and consist of one red willow (*Salix laevigata*), a few blue elderberries (*Sambucus nigra* ssp. *caerulea*), and several mule fat (*Baccharis salicifolia* ssp. *salicifolia*). Freshwater marsh is the only native vegetation type in Reach 115. It consists of 4.02 acres that are dominated by southern bulrush with some scattered cattails. Removal of the individual native riparian species would not be expected to require mitigation, but removal of the reed beds (freshwater marsh) would be expected to require mitigation. Compensation for this impact, however, should be considered for the removal of 1.16 acres of giant reed and 10.8 acres of ornamental vegetation.

### **Special Status Species**

The southern tarplant is not expected to be present and, as a result, no mitigation would be expected with removal of the terrestrial vegetation in Reach 115. The proposed project, however, includes removal of sediment in addition to vegetation removal, and this may result in downstream turbidity. If no measures are taken to reduce downstream turbidity, this may result in impacts on eelgrass and other aquatic species.

The green sea turtle and California least tern are two Threatened and/or Endangered species that may be potentially affected by implementation of the proposed project. Removal of the vegetation and associated sediment may result in downstream turbidity, which may affect aquatic resources. The California least tern is a migratory species that is only present in the region from April to August, and it is only expected to forage in Reach 115. If the vegetation and sediment removal activities occur between September and March, then there would be no effect on the California least tern. The green sea turtle, however, may be present all year. Implementation of the proposed project may affect downstream water quality; therefore measures to control turbidity may be required.

### **Root Structures**

Trees within the project area are growing under two separate circumstances. Trees at the toe of slope are growing in accumulated sediment and organic matter. The roots of these trees are generally expected to be contained within this accumulated sediment, with minimal root growth extending into the side levee. Trees that are rooted on the side levee itself are likely to be rooted very shallow with the majority of roots extending downslope. Generally, roots in this area are probably no more than one foot deep due to the compacted nature of the soil.

## **RECOMMENDATIONS**

Based on the biological resources discussed above, implementation of the proposed project would not result in impacts on any terrestrial resources that would be considered significant. It is recommended that removal of vegetation and sediments occur during the non-nesting season (September 1 to February 28) to avoid potential impacts on nesting birds. Removal work



conducted outside the bird nesting season would also avoid any potential indirect effects on foraging California least terns.

Appropriate measures may need to be developed to control turbidity during vegetation and sediment removal activities so that downstream water quality is not adversely affected. It would be expected that the permitting process would require minimization or avoidance of any impacts on special status aquatic species such as eelgrass and green sea turtle.

Removal of trees on the side levee (i.e., those not growing at the toe of slope) can be accomplished by attaching a chain to an individual tree's trunk and pulling it out of ground using a back hoe or other suitable piece of equipment that would be parked on the top of the levee. This strategy would minimize the need to remove rip-rap and would be effective at removing any deeply rooted portions of the tree. Dirt may be loosened around the outer dripline of these trees, as possible, to maximize lateral root removal. It is recommended that an arborist be present at the onset of tree removal to evaluate the efficacy of this method and provide further recommendations based on the initial results.

Care should be taken in the removal of giant reed from the project site. Attempting to remove above and/or below ground growth of this species through excavation can allow pieces of root material to break away and re-sprout at a downstream location. Therefore, it is recommended that the above-ground growth is cut and immediately (i.e., within five minutes) sprayed with an appropriate aquatic herbicide to kill the root system. If the root system needs to be removed, this should only be done once the plant is clearly dead to avoid additional downstream giant reed control. If time constraints do not allow for herbicide spraying, then measures need to be developed to prevent the spread of giant reed fragments that are likely to be produced during its removal.

BonTerra Consulting has appreciated the opportunity to assist on this project. If you have any comments or questions, please call Marc Blain or Brian Daniels at (626) 351-2000.

Sincerely,

BONTERRA CONSULTING



Marc T. Blain  
Associate, Biological Resources Manager



Brian E. Daniels  
Senior Biologist/Ornithologist

Attachments: Exhibit 1 – Regional Location  
Exhibits 2 – Local Vicinity  
Exhibits 3A, 3B, 3C, 3D, and 3E – Vegetation Types  
Exhibits 4A, 4B, and 4C – Site Photographs  
Appendix A – Plant and Wildlife Compendia

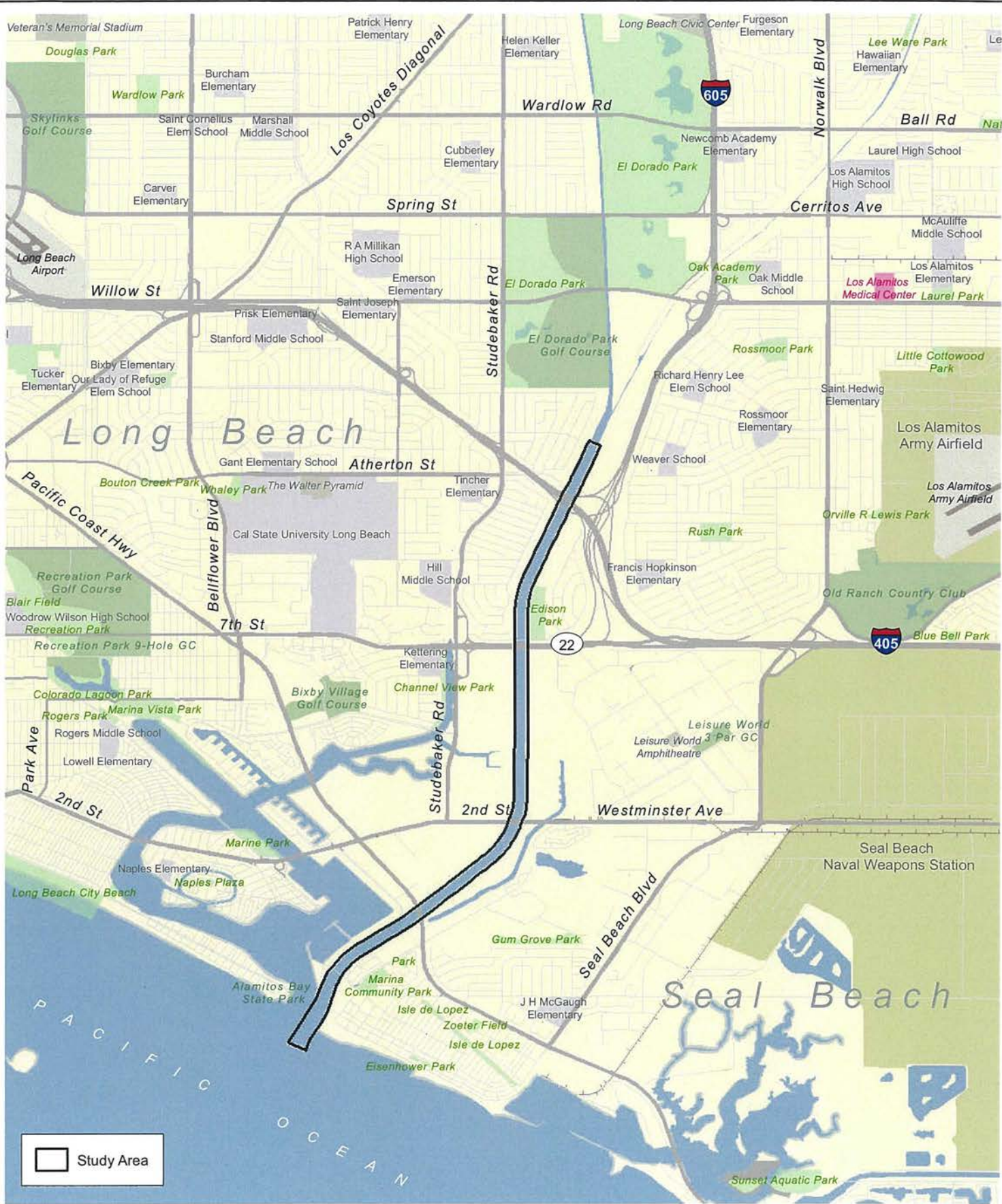
## REFERENCES

- American Ornithologists' Union (AOU). 2013 (July). *Check-list of North American Birds* (7<sup>th</sup> ed., as revised through 54th Supplement). Washington, D.C.: AOU. <http://www.aou.org/checklist/north/index.php>.
- Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003 (December). Revised Checklist of North American Mammals North of Mexico, 2003. *Occasional Papers* (No. 229). Waco, TX: Museum of Texas Tech University.
- Baldwin, B.G., D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (Eds.). 2012. *The Jepson Manual: Vascular Plants of California* (Second ed.). Berkeley, CA: University of California Press.
- BonTerra Consulting. 2009a (June). *Results of Biological Reconnaissance Surveys of Three Soft-Bottom Channels, Los Angeles, California*. Pasadena, CA: BonTerra Consulting.
- . 2009b (October). *Results of Focused Plant Surveys for the San Gabriel River Soft-Bottom Channel, Los Angeles, California*. Pasadena, CA: BonTerra Consulting.
- California Department of Fish and Game (CDFG).<sup>1</sup> 2010 (September). *List of Vegetation Alliances and Associations, Vegetation Classification and Mapping Program*. Sacramento, CA: CDFG.
- Day, S.D. and P.E. Wiseman. 2009. At the Root of it. *Arborist News*. 18(4): 20–22. Champaign, IL: International Society of Arboriculture.
- Perry, T.O. 1989. Tree Roots: Facts and Fallacies. *Arnoldia* 49(4): 3–29. Boston, MA: the Arnold Arboretum of Harvard University.
- Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians* (3<sup>rd</sup> ed.). Boston, MA: Houghton-Mifflin Company.

---

<sup>1</sup> Although the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013, "CDFG" is still used throughout this document for all documents published or database searches completed before January 1, 2013.





## Regional Location

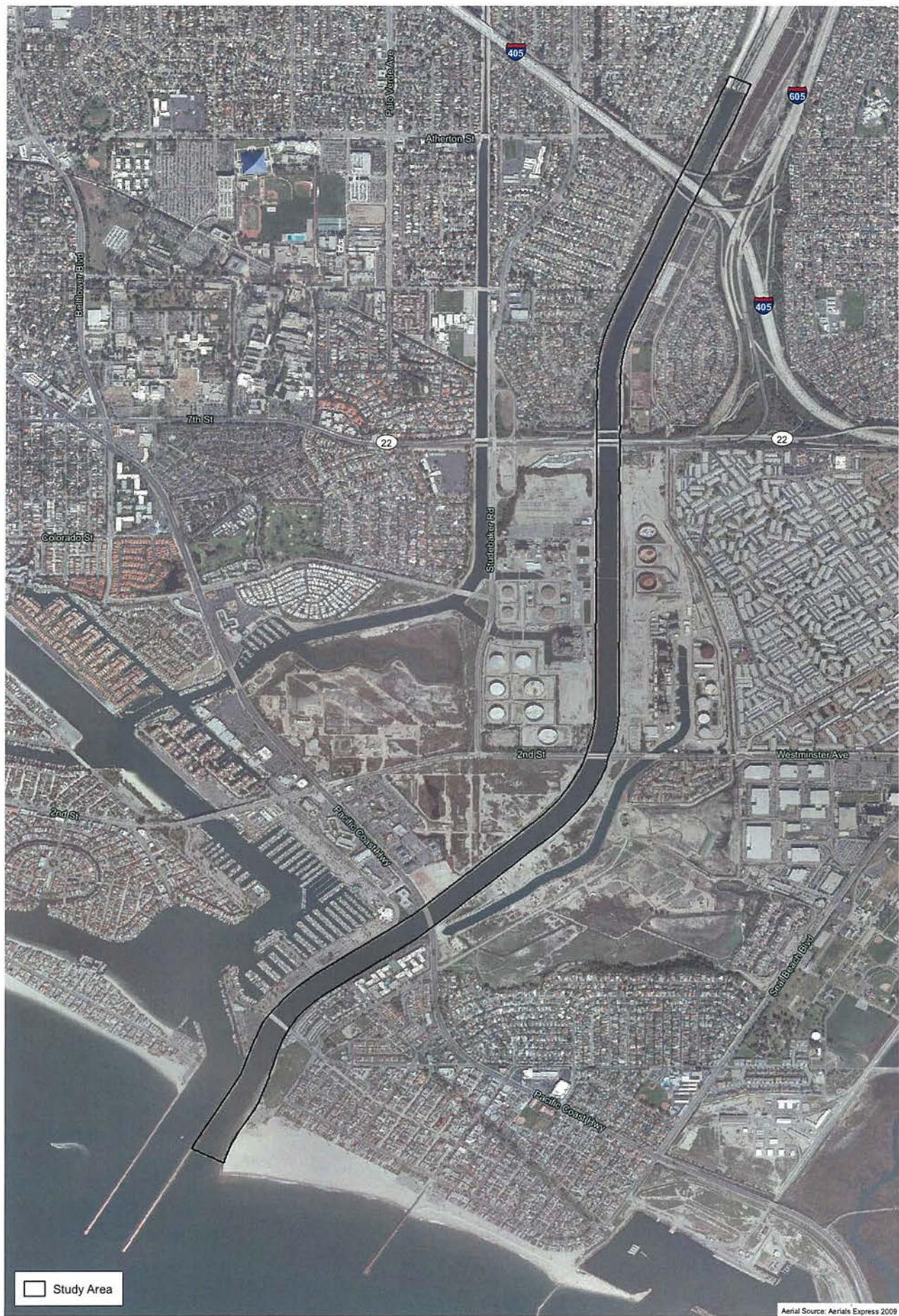
Lower San Gabriel River Reach 115



Exhibit 1

**Bonterra**  
CONSULTING





## Local Vicinity

Lower San Gabriel River Reach 115



1,500 750 0 1,500  
Feet

Exhibit 2

**Benterra**  
CONSULTING

(Rev: 11-08-2013 CJS) PAS R:\Projects\Col\A2PWJ242\Graphics\LetterReport\ex2\_LV.pdf













# Vegetation Types

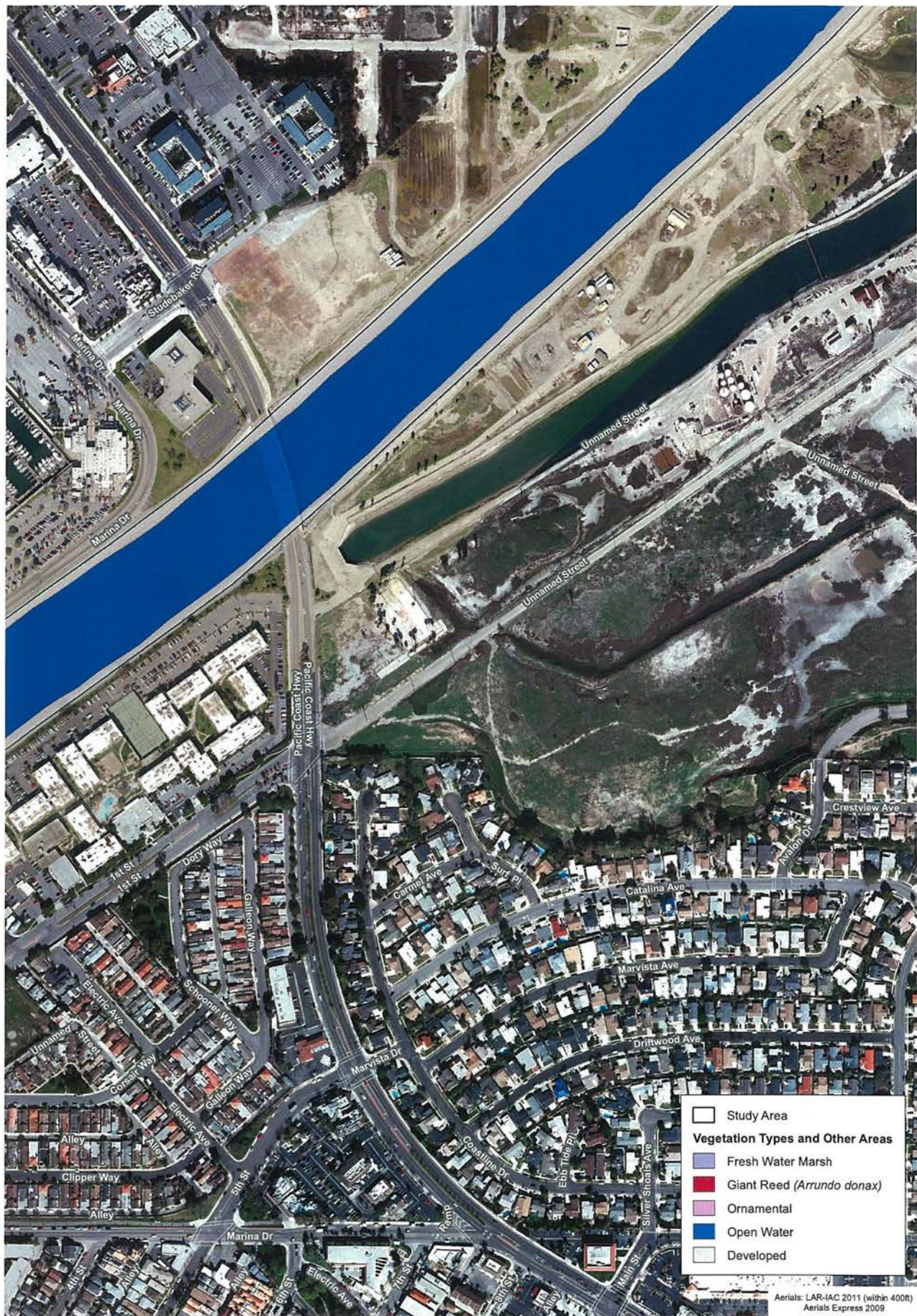
Lower San Gabriel River Reach 115



Exhibit 3C

**Benterra**  
CONSULTING





## Vegetation Types

Lower San Gabriel River Reach 115



Exhibit 3D

**Benterra**  
CONSULTING

(Rev: 11-05-2013 CJS) Project: C:\ADPW\242\Graphics\Letter\_Rpt\Ex3D\_vag.pdf





## Vegetation Types

Lower San Gabriel River Reach 115

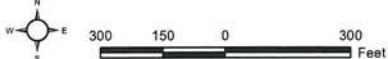
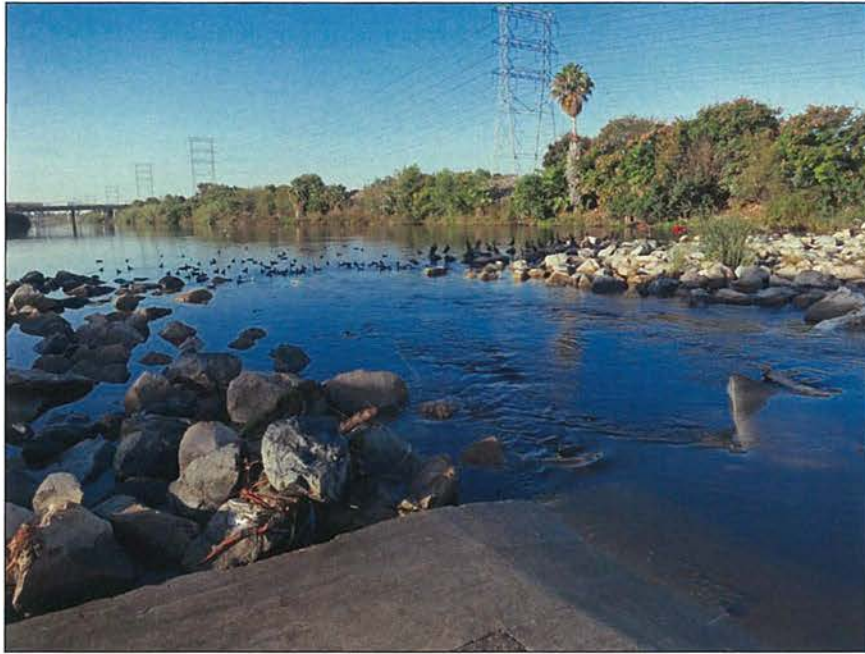


Exhibit 3E

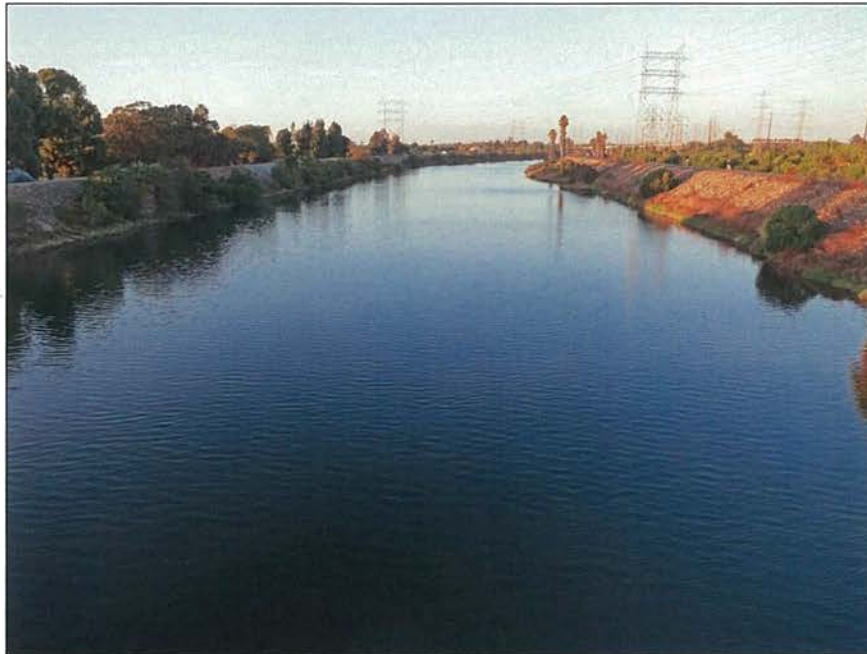
**Benterra**  
CONSULTING

(Rev: 11-05-2013 CJS) Projects\CoLADPW\2242\Graphics\Letter\_Rpt\Ex3\_vgg.pdf





October 30, 2013. View downstream of west bank of upper end of Reach 115.



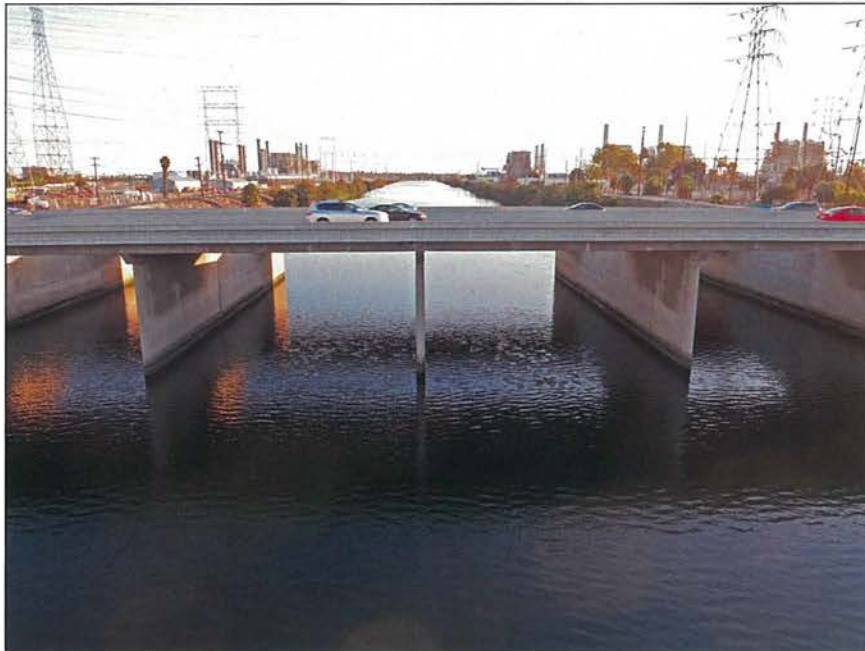
October 30, 2013. View upstream from College Park Drive.

## Site Photographs

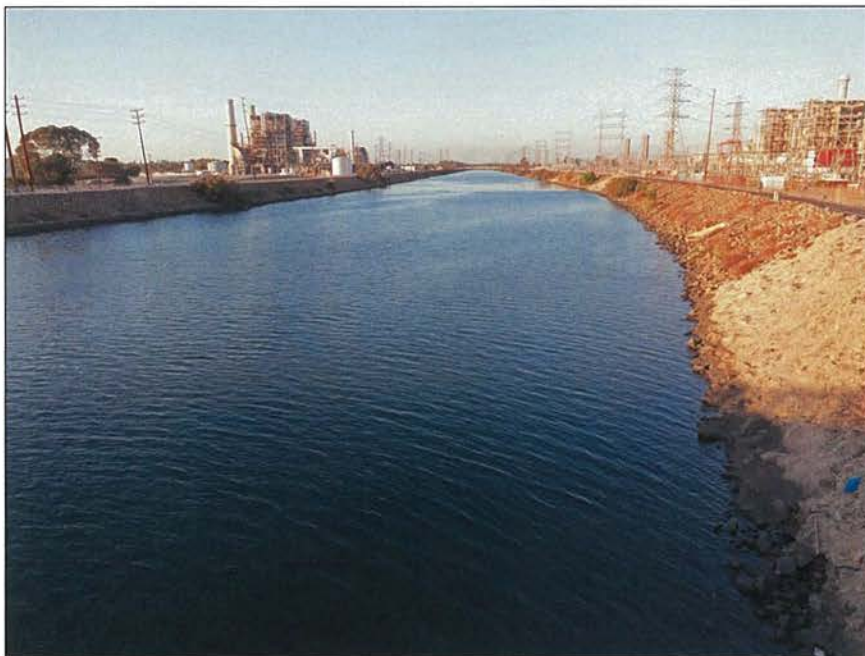
*Lower San Gabriel River Reach 115*

Exhibit 4A

**BonTerra**  
CONSULTING



October 30, 2013. View downstream from College Park Drive.



October 30, 2013. View upstream from East 2nd Street.

## Site Photographs

*Lower San Gabriel River Reach 115*

Exhibit 4B

**BonTerra**  
CONSULTING

(10/31/13 MMD) PAS R:\Projects\CoLADPWJ242\Graphics\LetterReport\Ex\_SP2.pdf





October 30, 2013. View upstream from Pacific Coast Highway.



October 30, 2013. View downstream towards ocean from Marina Drive.

## Site Photographs

Lower San Gabriel River Reach 115

Exhibit 4C

**BonTerra**  
CONSULTING



**ATTACHMENT A**  
**PLANT AND WILDLIFE COMPENDIUM**

# APPENDIX A PLANT AND WILDLIFE COMPENDIA

## LOWER SAN GABRIEL RIVER REACH 115 PLANT LIST

November 7, 2013

FLORAL COMPENDIUM	
SPECIES	
EUDICOTS	
ADOXACEAE – MUSKROOT FAMILY	
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry
ANACARDIACEAE – SUMAC FAMILY	
<i>Schinus terebinthifolius</i> *	Brazilian pepper tree
APIACEAE (UMBELLIFERAE) – CARROT FAMILY	
<i>Apium graveolens</i> *	common celery
<i>Conium maculatum</i> *	poison hemlock
<i>Foeniculum vulgare</i> *	sweet fennel
ASTERACEAE (COMPOSITAE) – SUNFLOWER FAMILY	
<i>Acourtia microcephala</i>	sacapellote
<i>Ambrosia psilostachya</i>	western ragweed
<i>Baccharis pilularis</i>	coyote brush
<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	mule fat
<i>Carduus pycnocephalus</i> var. <i>pycnocephalus</i> *	Italian thistle
<i>Cirsium vulgare</i> *	bull thistle
<i>Erigeron canadensis</i>	common horseweed
<i>Delairea odorata</i> [ <i>Senecio mikanioides</i> ]*	German ivy
<i>Euthamia occidentalis</i>	western goldenrod
<i>Helianthus annuus</i>	western sunflower
<i>Lactuca serriola</i> *	prickly lettuce
<i>Osteospermum fruticosum</i>	freeway daisy
<i>Pseudognaphalium luteoalbum</i> *	weedy cudweed
<i>Pulicaria paludosa</i> *	Spanish sunflower
<i>Sonchus oleraceus</i> *	common sow thistle
<i>Symphyotrichum subulatum</i>	slender aster
<i>Xanthium strumarium</i>	cocklebur
BATACEAE – SALTWORT FAMILY	
<i>Batis maritima</i>	saltwort
BRASSICACEAE (CRUCIFERAE) – MUSTARD FAMILY	
<i>Hirschfeldia incana</i> *	shortpod mustard
<i>Lepidium latifolium</i> *	broad-leaved peppergrass
CHENOPODIACEAE – GOOSEFOOT FAMILY	
<i>Atriplex prostrata</i> *	fat-hen
<i>Bassia hyssopifolia</i>	five-hook bassia
<i>Chenopodium album</i> *	lamb's quarters
<i>Salicornia</i> sp.	pickleweed
<i>Salsola tragus</i> *	Russian thistle
EUPHORBIACEAE – SPURGE FAMILY	
<i>Ricinus communis</i> *	castor bean
FABACEAE (LEGUMINOSAE) – LEGUME FAMILY	
<i>Melilotus alba</i> *	white sweetclover

FLORAL COMPENDIUM	
SPECIES	
FAGACEAE – OAK/BEECH FAMILY	
<i>Quercus</i> sp.	ornamental oak
SCROPHULARIACEAE – FIGWORT FAMILY [MYOPORACEAE – MYOPORUM FAMILY]	
<i>Myoporum laetum</i>	myoporum
MYRTACEAE – MYRTLE FAMILY	
<i>Callistemon</i> sp.	bottlebrush
OLEACEAE – OLIVE FAMILY	
<i>Fraxinus</i> sp.	ornamental ash
<i>Olea europaea</i> *	olive
ONAGRACEAE – EVENING PRIMROSE FAMILY	
<i>Epilobium ciliatum</i>	willow-herb
POLYGONACEAE – BUCKWHEAT FAMILY	
<i>Persicaria lapathifolia</i>	willow weed
<i>Rumex crispus</i> *	curly dock
SALICACEAE – WILLOW FAMILY	
<i>Salix laevigata</i>	red willow
SAPINDACEAE – SOAP BERRY FAMILY	
<i>Cupaniopsis anacardioides</i> *	carrot wood
<i>Koelreuteria bipinnata</i>	Chinese flame tree
SIMAROUBACEAE – QUASSIA FAMILY	
<i>Ailanthus altissima</i> *	tree of heaven
SOLANACEAE – NIGHTSHADE FAMILY	
<i>Nicotiana glauca</i> *	tree tobacco
ULMACEAE – ELM FAMILY	
<i>Ulmus parvifolia</i> *	Chinese elm
URTICACEAE – NETTLE FAMILY	
<i>Urtica dioica</i> ssp. <i>holosericea</i>	hoary nettle
MONOCOTS	
ARECACEAE (PALMAE) – PALM FAMILY	
<i>Phoenix</i> sp.*	date palm
<i>Washingtonia</i> sp. ( <i>robusta</i> or <i>filifera</i> -seedling)	Fan Palm
<i>Washingtonia robusta</i> *	Mexican fan palm
CYPERACEAE – SEDGE FAMILY	
<i>Cyperus involucratus</i> *	African umbrella-sedge
<i>Schoenoplectus californicus</i>	southern bulrush
LILIACEAE – LILY FAMILY	
<i>Asparagus</i> sp.	fern asparagus
POACEAE [GRAMINEAE] – GRASS FAMILY	
<i>Arundo donax</i> *	giant reed
<i>Cortaderia selloana</i> *	pampas grass
<i>Cynodon dactylon</i> *	bermuda grass
<i>Paspalum vaginatum</i> *	seashore paspalum
<i>Stenotaphrum secundatum</i> *	Saint Augustine grass
TYPHACEAE – CATTAIL FAMILY	
<i>Typha</i> sp.	cattail
* non-native to the region it was found	



**APPENDIX A (Continued)**  
**PLANT AND WILDLIFE COMPENDIA**

**LOWER SAN GABRIEL RIVER REACH 115**  
**WILDLIFE LIST**

**November 7, 2013**

SCIENTIFIC AND COMMON NAME	TALLY	SCIENTIFIC AND COMMON NAME	TALLY
<b>Lizards and Snakes</b>			
western fence lizard <i>Sceloporus occidentalis</i>	2	side-blotched lizard <i>Uta stansburiana</i>	2
<b>Birds</b>			
Canada goose <i>Branta canadensis</i>	43	least sandpiper <i>Calidris minutilla</i>	60
gadwall <i>Anas strepera</i>	6	dunlin <i>Calidris alpina</i>	6
American wigeon <i>Anas americana</i>	20	Heermann's Gull <i>Larus heermanni</i>	1
mallard <i>Anas platyrhynchos</i>	43	ring-billed gull <i>Larus delawarensis</i>	3
blue-winged teal <i>Anas discors</i>	4	western gull <i>Larus livens</i>	18
cinnamon teal <i>Anas cyanoptera</i>	3	California gull <i>Larus californicus</i>	1
green-winged teal <i>Anas crecca</i>	2	glaucous-winged gull <i>Larus glaucescens</i>	1
ring-necked duck <i>Aythya collaris</i>	1	elegant tern <i>Thalasseus elegans</i>	4
lesser scaup <i>Aythya affinis</i>	1	rock pigeon <i>Columba livia</i>	7
ruddy duck <i>Oxyura jamaicensis</i>	16	mourning dove <i>Zenaida macroura</i>	6
common loon <i>Gavia immer</i>	1	white-throated swift <i>Aeronautes saxatalis</i>	1
pied-billed grebe <i>Podilymbus podiceps</i>	8	Anna's hummingbird <i>Calypte anna</i>	2
eared grebe <i>Podiceps nigricollis</i>	1	Allen's/rufous Hummingbird <i>Selasphorus</i> sp.	3
western grebe <i>Aechmophorus occidentalis</i>	20	belted kingfisher <i>Megaceryle [Ceryle] alcyon</i>	3
double-crested dormorant <i>Phalacrocorax auritus</i>	94	northern flicker <i>Colaptes auratus</i>	1
American white pelican <i>Pelecanus erythrorhynchos</i>	7	black phoebe <i>Sayornis nigricans</i>	4
brown pelican <i>Pelecanus occidentalis</i>	2	American crow <i>Corvus brachyrhynchos</i>	10
great blue heron <i>Ardea herodias</i>	11	common raven <i>Corvus corax</i>	8
great egret <i>Ardea alba</i>	4	bushtit <i>Psaltiriparus minimus</i>	25
snowy egret <i>Egretta thula</i>	3	northern mockingbird <i>Mimus polyglottos</i>	1
green heron <i>Butorides virescens</i>	3	European starling <i>Sturnus vulgaris</i> *	28

SCIENTIFIC AND COMMON NAME	TALLY	SCIENTIFIC AND COMMON NAME	TALLY
black-crowned night-heron <i>Nycticorax nycticorax</i>	5	orange-crowned warbler <i>Oreothlypis [Vermivora] celata</i>	2
turkey vulture <i>Cathartes aura</i>	3	common yellowthroat <i>Geothlypis trichas</i>	6
osprey <i>Pandion haliaetus</i>	2	yellow warbler <i>Setophaga petechia</i> [ <i>Dendroica petechia</i> ]	2
red-tailed hawk <i>Buteo jamaicensis</i>	3	yellow-rumped warbler <i>Setophaga coronata</i> [ <i>Dendroica coronata</i> ]	4
American kestrel <i>Falco sparverius</i>	1	black-throated gray warbler <i>Setophaga nigrescens</i> [ <i>Dendroica nigrescens</i> ]	1
common gallinule <i>Gallinula galeata</i> [ <i>Gallinula chloropus</i> ]	2	Townsend's warbler <i>Himantopus mexicanus</i>	1
American coot <i>Fulica americana</i>	118	California towhee <i>Melospiza [Pipilo] crissalis</i>	1
black-necked Stilt <i>Himantopus mexicanus</i>	31	white-crowned sparrow <i>Zonotrichia leucophrys</i>	2
spotted sandpiper <i>Actitis macularius</i>	8	red-winged blackbird <i>Agelaius phoeniceus</i>	4
willet <i>Tringa [Catoptrophorus] semipalmata</i>	4	great-tailed grackle <i>Quiscalis mexicanus</i>	6
whimbrel <i>Numenius phaeopus</i>	1	house finch <i>Carpodacus mexicanus</i>	20
western sandpiper <i>Calidris mauri</i>	450	lesser goldfinch <i>Spinus [Carduelis] psaltria</i>	1
<b>Mammals</b>			
California ground squirrel <i>Spermophilus beecheyi</i>	1	Domestic cat <i>Felis catus</i>	1
* introduced species			