

June 10, 2009

Ms. Jemellee Cruz
Flood Maintenance Division
Department of Public Works
County of Los Angeles
900 South Fremont Ave
Annex Building, 2nd Floor
Alhambra, CA 91802-1460

VIA EMAIL
jcruz@dpw.lacounty.gov

Subject: Results of Biological Reconnaissance Surveys of Three Soft-Bottom Channels,
Los Angeles County, California

Dear Ms. Cruz:

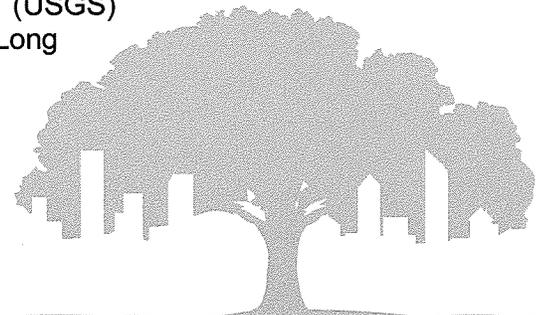
This letter report presents the findings of biological reconnaissance surveys of three soft-bottom channel (SBC) reaches to be added to the Los Angeles County Department of Public Work's (LACDPW's) existing California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB) permits. These SBC reaches include Dominguez Channel (Vermont Avenue – upstream limits/Henry Ford Blvd. – downstream limits), Los Angeles River (Pacific Coast Highway – upstream limits/1,600 feet north of Pacific Ocean – downstream limits), and San Gabriel River (1,750 feet north of San Diego Freeway – upstream limits/350 feet north of Pacific Ocean – downstream limits). The purpose of the surveys was to evaluate existing biological resources and map vegetation types where present in order to determine the potential for special status plant and wildlife species to occur at each SBC reach.

The LACDPW maintains numerous soft-bottom channel reaches and debris basins that primarily function to control flood waters. Maintained soft-bottom channels are located in association with concreted segments of rivers and creeks in order to prevent backup of debris and sediment that moves downstream during high rainfall events. Vegetation within the maintained segments of the soft-bottom channels increases the collection of debris, and periodic maintenance therefore involves removal of vegetation and debris from the SBC reaches.

METHODS

BonTerra Consulting Biologists Brian Daniels and Andrea Edwards conducted general plant and wildlife surveys that included vegetation mapping on February 12, 2009. The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2009) and CDFG's California Natural Diversity Database (CDFG 2009) were reviewed to identify special status plants, wildlife, and habitats known to occur in the vicinity of the project sites, including the following U.S. Geological Survey (USGS) quadrangles: Inglewood, South Gate, Whittier, Torrance, Long Beach, Los Alamitos, San Pedro, and Seal Beach.

All species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Hickman (1993) and Munz (1974).



Taxonomy follows Hickman (1993) and current scientific data (e.g., scientific journals) for scientific and common names. Nomenclature for vegetation types generally follows that of *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003).

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 Fisher and Case (1997) for amphibians and reptiles, American Ornithologists Union (1998) for birds, and Baker *et al.* (2003) for mammals.

Local vicinity maps are attached as Exhibits 1A-1C, and aerial photographs are attached as Exhibits 2A-2C. Vegetation type maps are included as Exhibits 3A-3C, and site photographs are included as Exhibits 4A-4C. Table 1 presents detailed information for each reach. Elevations for the three SBC reaches are below approximately ten feet (above mean sea level). All three of these SBC reaches are within the ocean tidal zone and contain salt and brackish waters. Freshwater enters the Dominguez Channel SBC and San Gabriel River SBC reaches at their upstream limits. Freshwater enters the lower Los Angeles River near Willow Street which is upstream of the Los Angeles River SBC reach surveyed and discussed in this report.

TABLE 1
SOFT-BOTTOM CHANNEL (SBC) REACH INFORMATION

Soft-Bottom Channel	Reach Limits (u/s = upstream; d/s = downstream) and Length	USGS Quadrangles and Watershed	Thomas Guide Location	Soil Type Associations	Maintenance Plan
Dominguez Channel	Vermont Ave (u/s) - Henry Ford Blvd (d/s); 44,742 feet	Torrance, Long Beach; Dominguez Watershed	764-B1 to 794-H7	Hanford, Tujunga-Soboba, Chino, Yolo, Oceano, Ramona-Placentia	Clearing of vegetation, debris, and brush growing within the reach right of way
Los Angeles River	Pacific Coast Hwy (u/s) - 1600' N/o Pacific Ocean (d/s); 9,000 feet	Long Beach; Los Angeles River Watershed	795-C5 to 825-C1	Hanford, Tujunga-Soboba	Clearing of all non-native vegetation growing throughout the reach using mechanical equipment
San Gabriel River	1750' N/o 405 (u/s) - 350' N/o Pacific Ocean (d/s); 21,000 feet	Los Alamitos; San Gabriel River Watershed	796-G4 to 826-F2	Chino	Clearing of vegetation, debris, and brush growing within the reach right of way

RESULTS

Dominguez SBC

Location

The Dominguez SBC reach is located in the Cities of Los Angeles and Carson, and is surrounded mainly by residential, commercial, and industrial development. Victoria Park and Victoria Golf Course are also located adjacent to the SBC in the upper portion of the reach. The reach starts southwest of the Highway 91 and Interstate 110 interchange, crosses Interstate 110, continues southeast along and then crosses Interstate 405, turns south to cross Highway 1, and empties into the East Basin Channel of the Los Angeles Harbor and then into the Pacific Ocean.

Vegetation

Open water is present within this SBC reach, and developed areas consisting of rip-rap (large piled rocks) are present along the channel banks. These developed areas contain bands and patches of saltgrass grassland present mainly in the upper portion of the reach, dominated by saltgrass (*Distichlis spicata*). Other native species present include common woody pickleweed (*Salicornia virginica*) and sand spurrey (*Spergularia* sp.). Non-native species present include tree tobacco (*Nicotiana glauca*), bristly ox tongue (*Picris echioides*), African brass buttons (*Cotula coronopifolia*), wild radish (*Raphanus sativus*), common sow-thistle (*Sonchus oleraceus*), common groundsel (*Senecio vulgaris*), Mediterranean schismus (*Schismus barbatus*), rippgut grass (*Bromus diandrus*), bermuda grass (*Cynodon dactylon*), and wild oat (*Avena* sp.).

Wildlife

Open water habitat dominates this SBC reach and is expected to attract water birds, especially during migration and the winter season. Observed during the survey were American wigeon (*Anas americana*), mallard (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), red-breasted merganser (*Mergus serrator*), ruddy duck (*Oxyura jamaicensis*), pied-billed grebe (*Podilymbus podiceps*), eared grebe (*Podiceps nigricollis*), double-crested cormorant (*Phalacrocorax auritus*), and American coot (*Fulica americana*). Sandpipers use the rip-rap at edge of the water either for foraging or roosting and observed during the survey were black-bellied plover (*Pluvialis squatarola*), black-necked stilt (*Himantopus mexicanus*), least sandpiper (*Calidris minutilla*), and long-billed dowitcher (*Limnodromus scolopaceus*). Gulls are expected to commonly use this SBC reach for loafing, bathing, and preening, but also some occasional foraging. The ring-billed gull (*Larus delawarensis*), western gull (*Larus occidentalis*), and California gull (*Larus californicus*) were observed during the survey. Terrestrial habitats for land birds are generally lacking in this reach and very few of these species were observed during the survey. No raptors or birds of prey were observed at this SBC reach during the survey.

The California ground squirrel (*Spermophilus beecheyi*) was the only non-bird wildlife species observed during the survey. Other than fish, habitats for amphibians, reptiles, and mammals are very limited and only a few species are expected to occur such as the western fence lizard (*Sceloporus occidentalis*), Virginia opossum (*Didelphis virginiana*), and black rat (*Rattus rattus*). Some larger mammals such as the common raccoon (*Procyon lotor*) and coyote (*Canis latrans*) may occasionally occur. A wide variety of fish are found in the salt water environment of the Los Angeles Harbor, though the diversity decreases in the inner harbor areas. Several species are expected to occur in this SBC reach, especially near its mouth, and include common fish species such as California killifish (*Fundulus parvipinnis*) and two or more species of gobies (Gobiidae).

Special Status Species

Although terrestrial habitat is very limited in this SBC reach, the southern tarplant (*Centromadia parryi* ssp. *australis*), a CNPS List 1B species, may occur within the saltgrass grassland patches on the rip-rap near the base of the levee. Several other special status plant species have potential to occur in the general project vicinity, including eight listed as State and federally Threatened and/or Endangered or as a Candidate for listing as Threatened and Endangered: Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), coastal dunes milk-vetch (*Astragalus tener* var. *titi*), salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), Gambel's water cress (*Nasturtium gambelii*), Moran's navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), Lyon's pentachaeta (*Pentachaeta lyonii*),

and Brand's star phacelia (*Phacelia stellaris*). However, the disturbed condition and limited extent of the saltgrass grassland present on the rip-rap is not suitable habitat for these species and they are not expected to occur. Eelgrass (*Zostera marina*) may occur on the mud and sand sediments on the bottom of this SBC reach especially at its downstream limits near the SBC mouth at the harbor. Although eelgrass is not considered to be a special status plant species, it is considered to be a special status vegetation type due to its functional value as habitat for wildlife.

Several special status wildlife species are expected to use this SBC reach including two bird species that are State- and federally listed as Endangered: California brown pelican (*Pelecanus occidentalis californicus*) and California least tern (*Sternula antillarum browni*). The California brown pelican is expected to occasionally occur for loafing and foraging activities throughout the year. The California least tern is expected to occur from April to August for foraging activities only. These two species would not nest in this SBC reach and most occurrences would be near the downstream limits of this SBC reach. Since the proposed maintenance activities would occur outside the nesting season and away from the aquatic habitats, the California brown pelican and California least tern are not expected to be affected.

Los Angeles River SBC

Location

Los Angeles River SBC reach is located in the City of Long Beach, and is surrounded mainly by residential, commercial, and industrial development. This SBC reach starts at Pacific Coast Highway (PCH), flows south parallel to and east of Interstate 710, and empties into Queensway Bay and then into the Pacific Ocean.

Vegetation

Giant reed (*Arundo donax*), an invasive non-native plant species, is dominant near the water's edge in the upper portion of this SBC reach. Other species scattered within this vegetation include native mule fat (*Baccharis salicifolia*), willow (*Salix* sp.), and bulrush (*Scirpus* sp.); and non-native castor bean (*Ricinus communis*), African fountain grass (*Pennisetum setaceum*), tree tobacco, shortpod mustard (*Hirschfeldia incana*), wild radish, sweet fennel (*Foeniculum vulgare*), elm (*Ulmus* sp.), Mexican fan palm (*Washingtonia robusta*), gum (*Eucalyptus* sp.), and ash (*Fraxinus* sp.). Open water is present within the reach, and developed areas consisting of rip-rap (large piled rocks) are present along the banks of this SBC reach.

Wildlife

The open brackish water habitat of this SBC reach attracts a large number and diversity of water birds throughout the year. Observed during the survey were gadwall (*Anas strepera*), mallard, cinnamon teal, lesser scaup (*Aythya affinis*), ruddy duck, eared grebe, brown pelican, double-crested cormorant, and American coot. In addition to rip-rap, this SBC reach has some sediment exposed at the banks and provides some foraging and roosting habitat for sandpipers, though not as extensive as either upstream or downstream of this SBC reach. The spotted sandpiper (*Actitis macularius*) was the only sandpiper observed during the survey. Gulls are common in this channel and the ring-billed gull, western gull, California gull, and glaucous-winged gull (*Larus glaucescens*) were observed. The terns are in the gull family and two species were observed foraging in this reach: Caspian tern (*Hydroprogne caspia*) and Forster's tern (*Sterna forsteri*). Terrestrial habitats in this SBC reach are primarily limited to between PCH and Anaheim Street. Land birds observed during the survey included rock pigeon (*Columba livia*),

Eurasian collared-dove (*Streptopelia decaocto*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), yellow warbler (*Dendroica petechia*), yellow-rumped warbler (*Dendroica coronate*), common yellowthroat (*Geothlypis trichas*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*). Osprey (*Pandion haliaetus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*) were three raptors observed during the survey.

No other wildlife species were observed at this reach during the survey other than birds. The terrestrial habitats between PCH and Anaheim Street provide limited opportunities for amphibians, reptiles, and mammals. The Pacific treefrog (*Pseudacris regilla*) may be present but no other amphibian species are expected to occur. The western fence lizard is expected to occur and the southern alligator lizard (*Elgaria multicarinata*) may occur, but no other reptiles are expected. Mammals expected to occur include the California ground squirrel, Virginia opossum, black rat, and common raccoon. Several fish species are expected to occur near the mouth of this SBC and include the northern anchovy (*Engraulis mordax*), cheek-spotted goby (*Lythrypnus alphigena*), arrow goby (*Clevelandia ios*), and California killifish.

Special Status Species

The terrestrial habitats in this SBC reach also provide potentially suitable habitat for the southern tarplant and it may occur. In addition, eelgrass may occur on the mud and sand sediments on the bottom of this reach.

Several special status wildlife species are expected to use the SBC reach including three bird species listed as State and/or federally Endangered: California brown pelican, American peregrine falcon (*Falco peregrines anatum*)¹, and California least tern. The California brown pelican was observed during the survey and is expected to occur in this reach for loafing and foraging activities throughout the year. The American peregrine falcon is expected to occur throughout the year for foraging activities only. The California least tern is only expected to occur from April to August for foraging activities only. These three species would not nest in this reach. Since the proposed maintenance activities would occur outside the nesting season and away from the aquatic habitats, the California brown pelican, American peregrine falcon, and California least tern are not expected to be affected. The native riparian habitats of this SBC reach are too disturbed and limited in extent to provide suitable habitat for the southwestern willow flycatcher (*Empidonax traillii extimus*) and least Bell's vireo (*Vireo bellii pusillus*) and they are not expected to occur.

San Gabriel River SBC

Location

This San Gabriel River SBC reach is located in the Cities of Long Beach and Seal Beach, and is surrounded mainly by residential, commercial, and industrial development. Nurseries containing non-native ornamental plants are also found immediately adjacent to this SBC reach. The reach starts directly north of the Interstate 405 and Interstate 605 interchange, flows south and crosses Interstate 405 then Highway 22, and empties into the Pacific Ocean.

¹ This species was classified as Recovered and delisted from its federal status of Endangered on August 25, 1999, and as a State Candidate for delisting on November 2, 2007.

Vegetation

Marsh vegetation, mixed together with ruderal and ornamental areas, is present along the SBC banks, mainly in the upper portion of the reach. The marsh vegetation is found in a narrow and patchy band along the water's edge, and is dominated by bulrush; other native species occasionally present include hoary nettle (*Urtica dioica* ssp. *holosericea*), willow, and mule fat. Ruderal areas are generally found in a thicker band upslope from the marsh vegetation, and are dominated by non-native species including castor bean and giant reed; other non-native species present include tree tobacco, common sow-thistle, and common groundsel. Ornamental areas are generally found upslope from, and mixed together with, the ruderal areas, and contain non-native species including bottlebrush (*Callistemon* sp.), Brazilian pepper tree (*Schinus terebinthifolius*), olive (*Olea europaea*), Canary Island date palm (*Phoenix canariensis*), Mexican fan palm, ash, and elm. Open water is present within this SBC reach, and developed areas consisting of rip-rap (large piled rocks) are present along the SBC banks.

Wildlife

The open brackish water habitat of the reach attracts a large number and diversity of water birds throughout the year. Observed during the survey were gadwall, American wigeon, mallard, blue-winged teal (*Anas discors*), greater scaup (*Aythya marila*), lesser scaup, bufflehead (*Bucephala albeola*), red-breasted merganser, pied-billed grebe, western grebe (*Aechmophorus occidentalis*), American white pelican (*Pelecanus erythrorhynchos*), brown pelican, double-crested cormorant, common moorhen (*Gallinula chloropus*), and American coot. In addition to rip-rap, this SBC reach has some sediment exposed at the banks and provides some foraging and roosting habitat for sandpipers. The black-necked stilt, spotted sandpiper, and least sandpiper were observed during the survey. Gulls are occasionally common in this SBC reach and the ring-billed gull, California gull, and glaucous-winged gull were observed. No terns were observed foraging in this reach though they are expected to occasionally occur. Terrestrial habitats in this SBC reach are primarily limited to upstream of the 7th Street/State Highway 22 (Garden Grove Freeway) bridge. Land birds observed during the survey included rock pigeon, black phoebe, common raven (*Corvus corax*), yellow-rumped warbler, common yellowthroat, song sparrow (*Melospiza melodia*), and red-winged blackbird (*Agelaius phoeniceus*). Turkey vulture (*Cathartes aura*), osprey, red-tailed hawk, and American kestrel were four raptors observed during the survey.

California ground squirrel was the only non-bird wildlife species observed at this SBC reach. The terrestrial habitats upstream of the 7th Street/State Highway 22 bridge provide limited opportunities for amphibians, reptiles, and mammals. The Pacific treefrog may be present but no other amphibian species are expected to occur. The western fence lizard and southern alligator lizard are expected to occur. Unlike the Los Angeles River and the Dominguez Channel reaches, this SBC reach has some adjacent open spaces and there is potential for snakes such as the gopher snake (*Pituophis catenifer*) to occur. Mammals expected to occur include the California ground squirrel, Virginia opossum, black rat, common raccoon, and coyote. This SBC reach has a more direct connection with the ocean than the other two SBC reaches discussed above, so marine mammals such as the California sea lion (*Zalophus californianus*) and harbor seal (*Phoca vitulina*) may occasionally occur. Several fish species are expected to occur near the mouth of this SBC reach and include the northern anchovy, cheek-spotted goby, arrow goby, and California killifish.

Special Status Species

The terrestrial habitats in this SBC reach also provide potentially suitable habitat for the southern tarplant and it may occur. In addition, eelgrass may occur on the mud and sand sediments on the bottom of this reach.

Several special status wildlife species are expected to use this reach including one reptile and three bird species listed as State and/or federally Threatened and/or Endangered: green sea turtle (*Chelonia mydas*), California brown pelican, American peregrine falcon, and California least tern. The cold ocean currents of California seem inhospitable to the a tropical species such as the green sea turtle, but its regular occurrence in the San Gabriel River has recently been well documented. It appears to be attracted to the warm water effluents from the adjacent power plant. The California brown pelican was observed during the survey and is expected to occur in the reach for loafing and foraging activities throughout the year. The American peregrine falcon is expected to occur throughout the year for foraging activities only. The California least tern is only expected to occur from April to August for foraging activities only. These three bird species would not nest in the reach. This SBC reach does not provide suitable habitat for egg-laying by the green sea turtle. Since the proposed maintenance activities would occur outside the nesting season and away from the aquatic habitats, the green sea turtle, California brown pelican, American peregrine falcon, and California least tern are not expected to be affected. The native riparian habitats of this SBC reach are too disturbed and limited in extent to provide suitable habitat for the southwestern willow flycatcher and least Bell's vireo and they are not expected to occur.

RECOMMENDATIONS

Since the proposed maintenance activities for these three SBC reaches would only occur in the terrestrial habitats, only the special status plant species discussed above would potentially be affected. Therefore, BonTerra Consulting recommends that focused botanical surveys be conducted for the southern tarplant during the appropriate blooming time (approximately June) at all three channels to determine the presence or absence of this special status plant species.

If any proposed maintenance activities in these SBC reaches would occur in the aquatic habitats, then avoidance measures would need to be developed and implemented to avoid potential impacts on eelgrass and, for the San Gabriel River SBC reach, the green sea turtle.

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

Sincerely,

BONTERRA CONSULTING



Thomas E. Smith, Jr., AICP
Principal

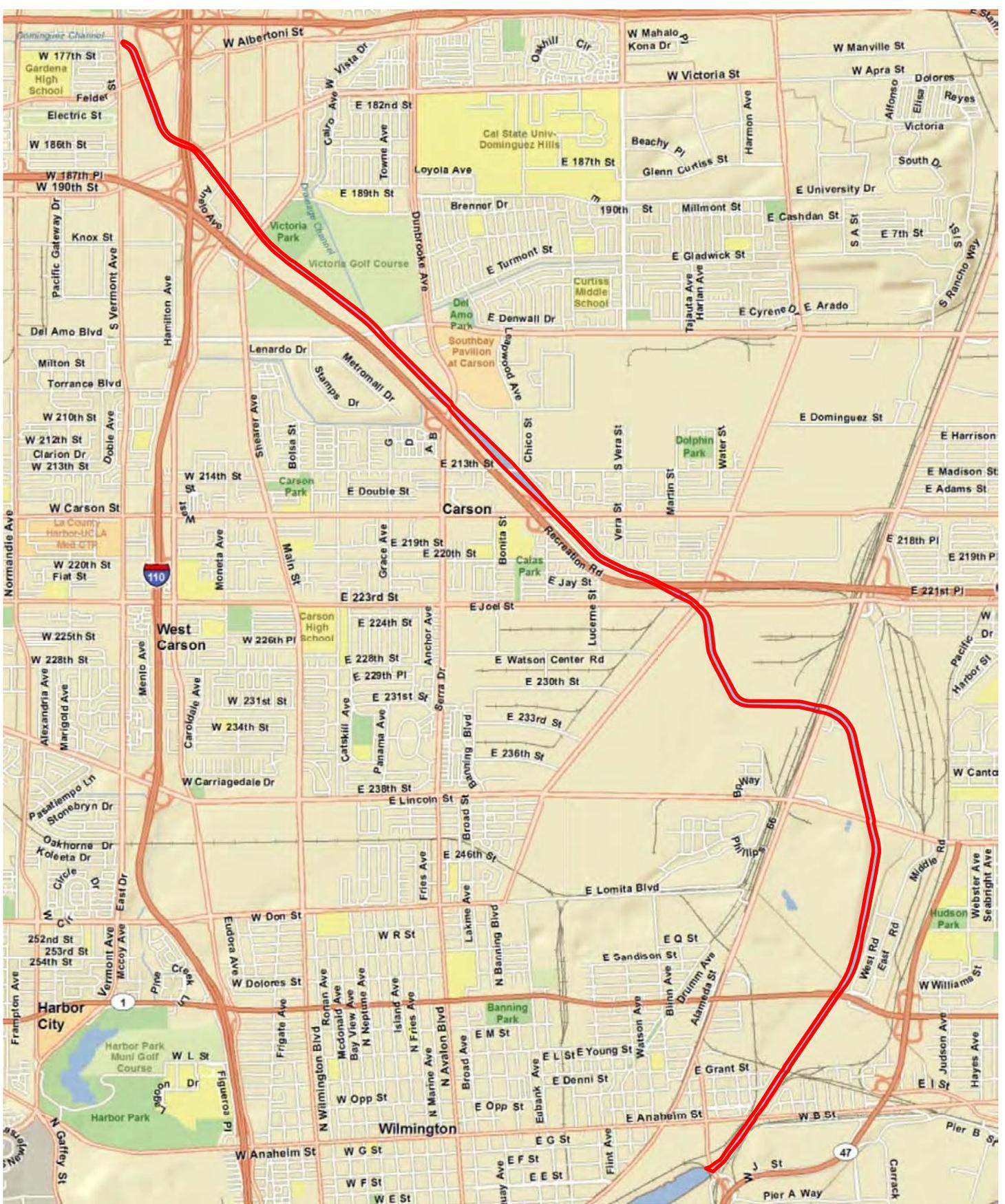


Marc T. Blain
Biological Resources Manager

Attachments: Exhibits 1A, 1B, and 1C – Local Vicinity
Exhibits 2A, 2B, and 2C – Aerial Photograph
Exhibits 3A, 3B, and 3C-1 to 3C-4 – Vegetation Map
Exhibits 4A, 4B, and 4C – Site Photographs

REFERENCES

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Local Vicinity

Dominguez Soft-Bottom Channel, Los Angeles County, California

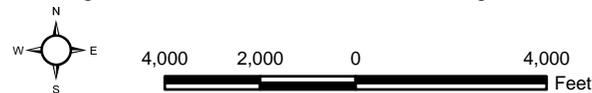
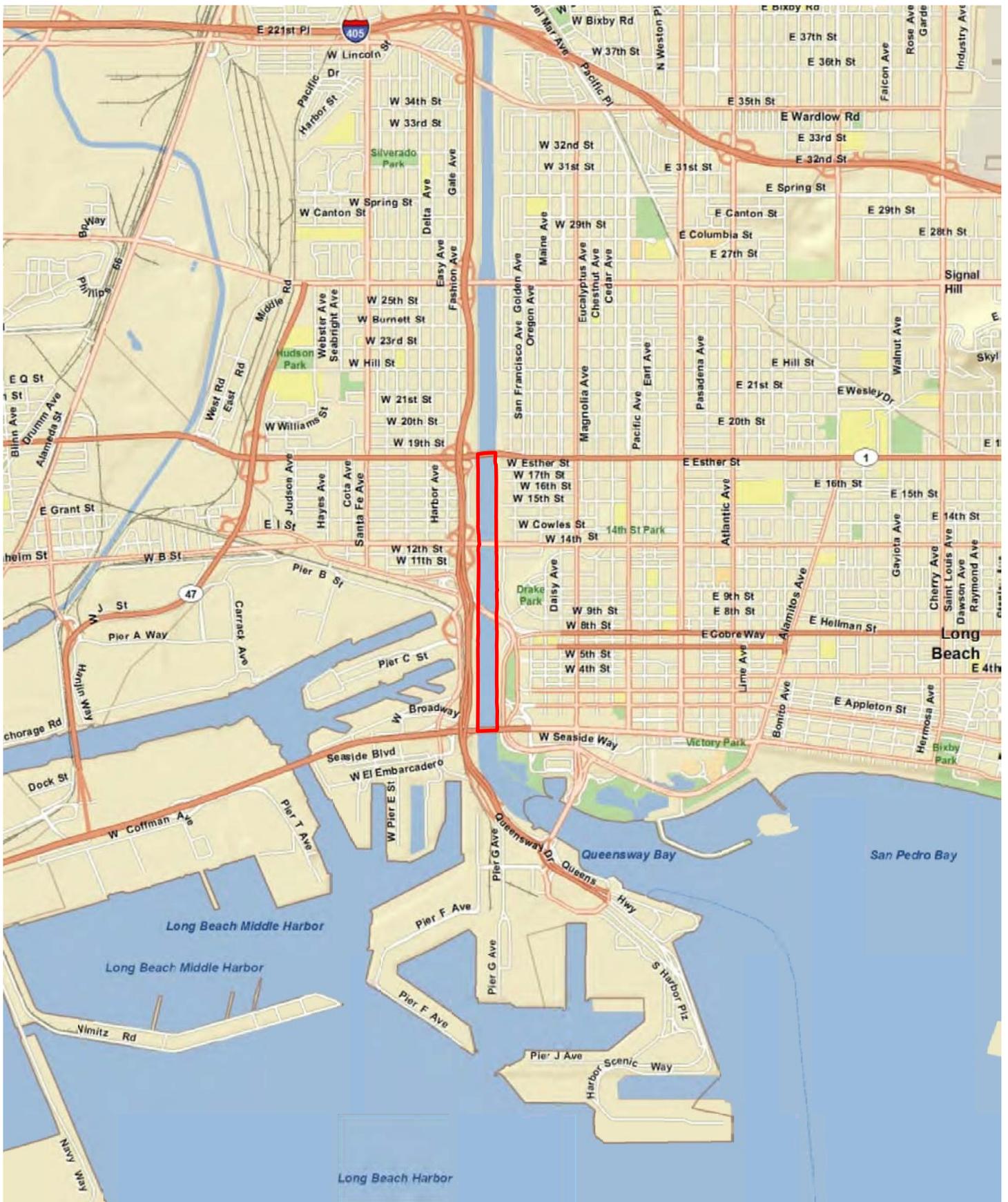


Exhibit 1A





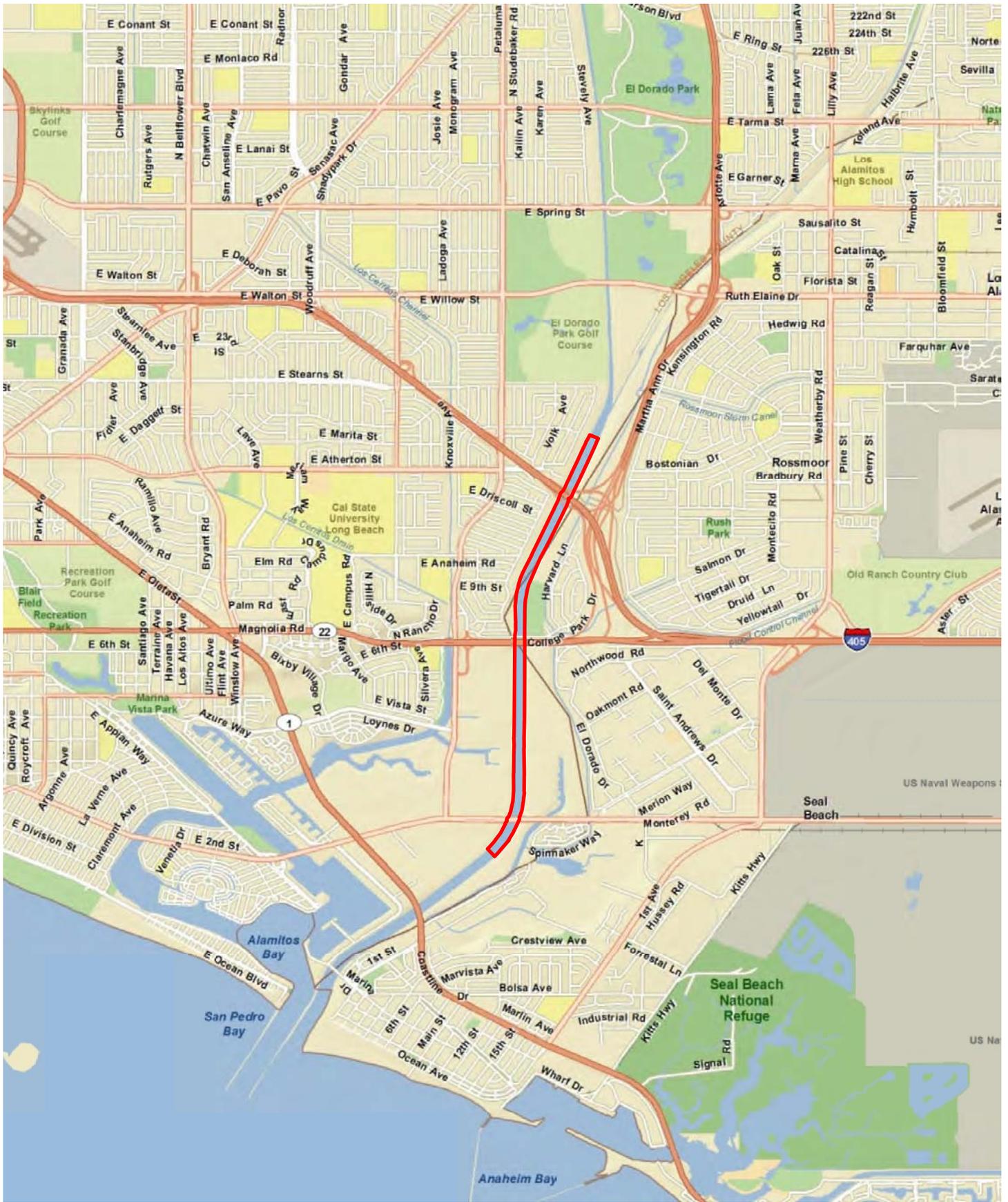
Local Vicinity

Los Angeles River Soft-Bottom Channel, Los Angeles County, California



Exhibit 1B





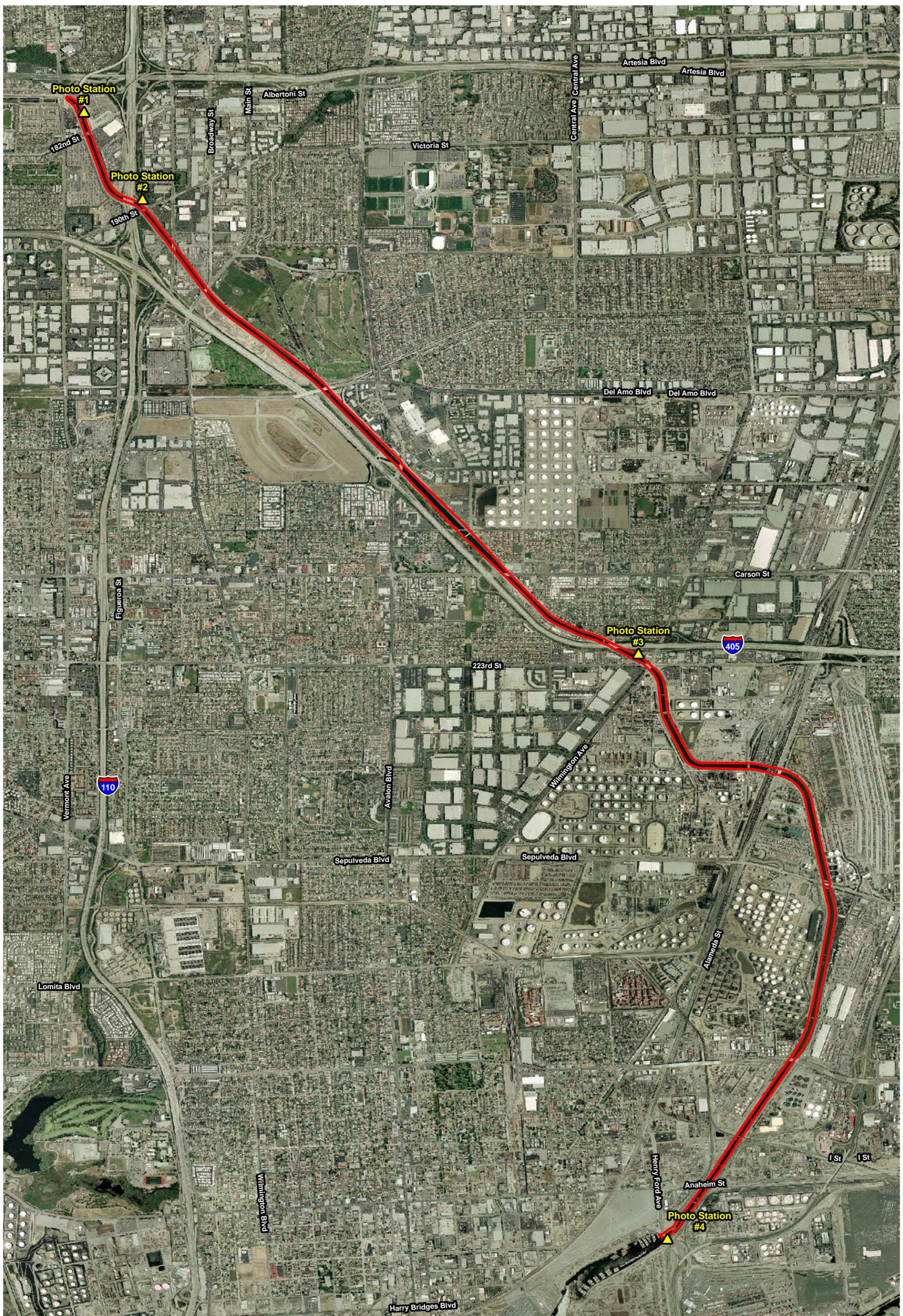
Local Vicinity

San Gabriel River Soft-Bottom Channel, Los Angeles County, California

Exhibit 1C



Bonterra
CONSULTING

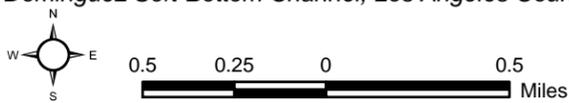


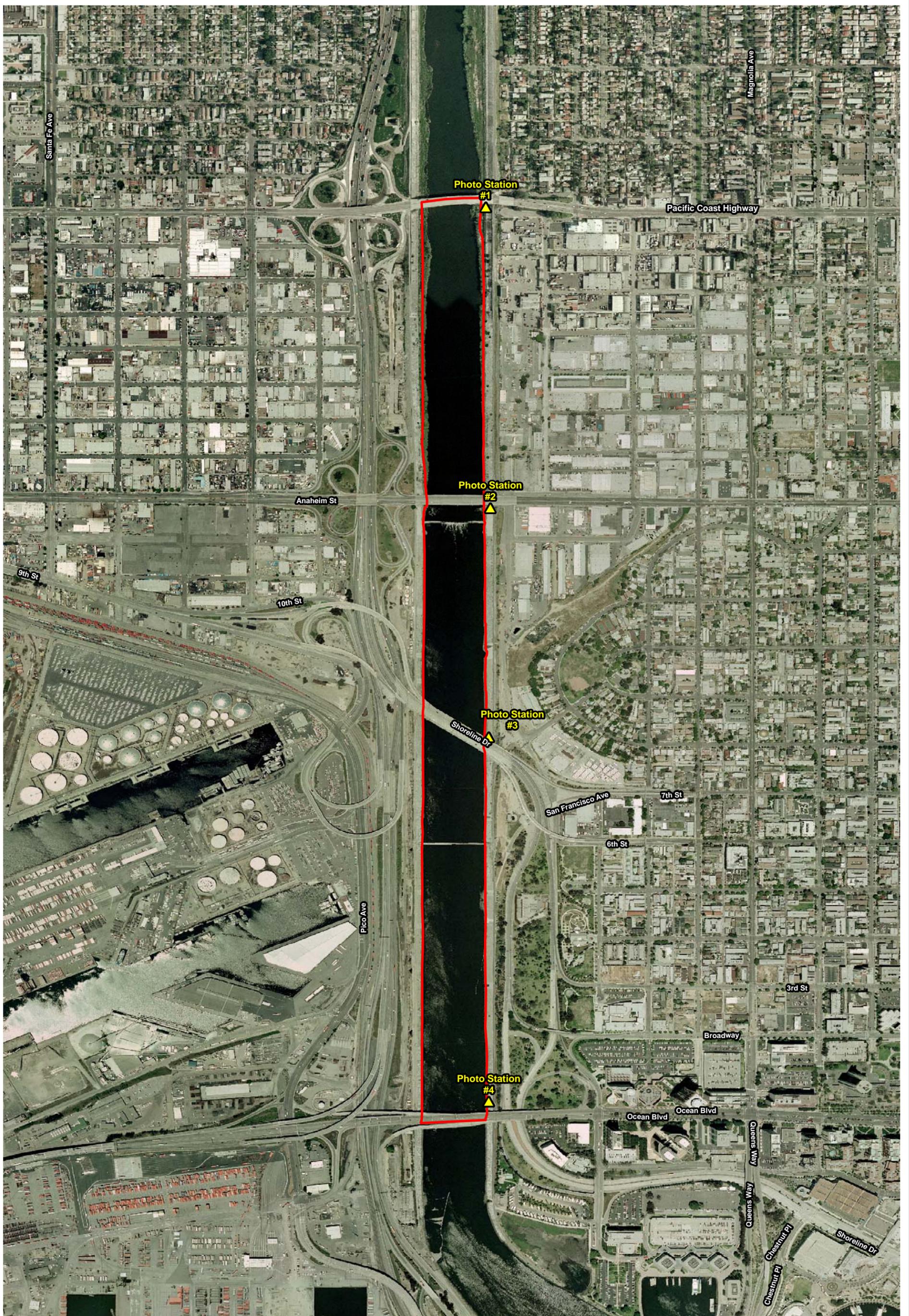
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Aerial Photograph

Dominguez Soft-Bottom Channel, Los Angeles County California

Exhibit 2A



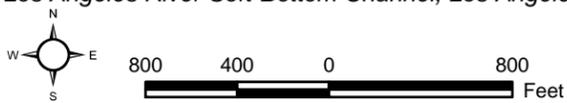


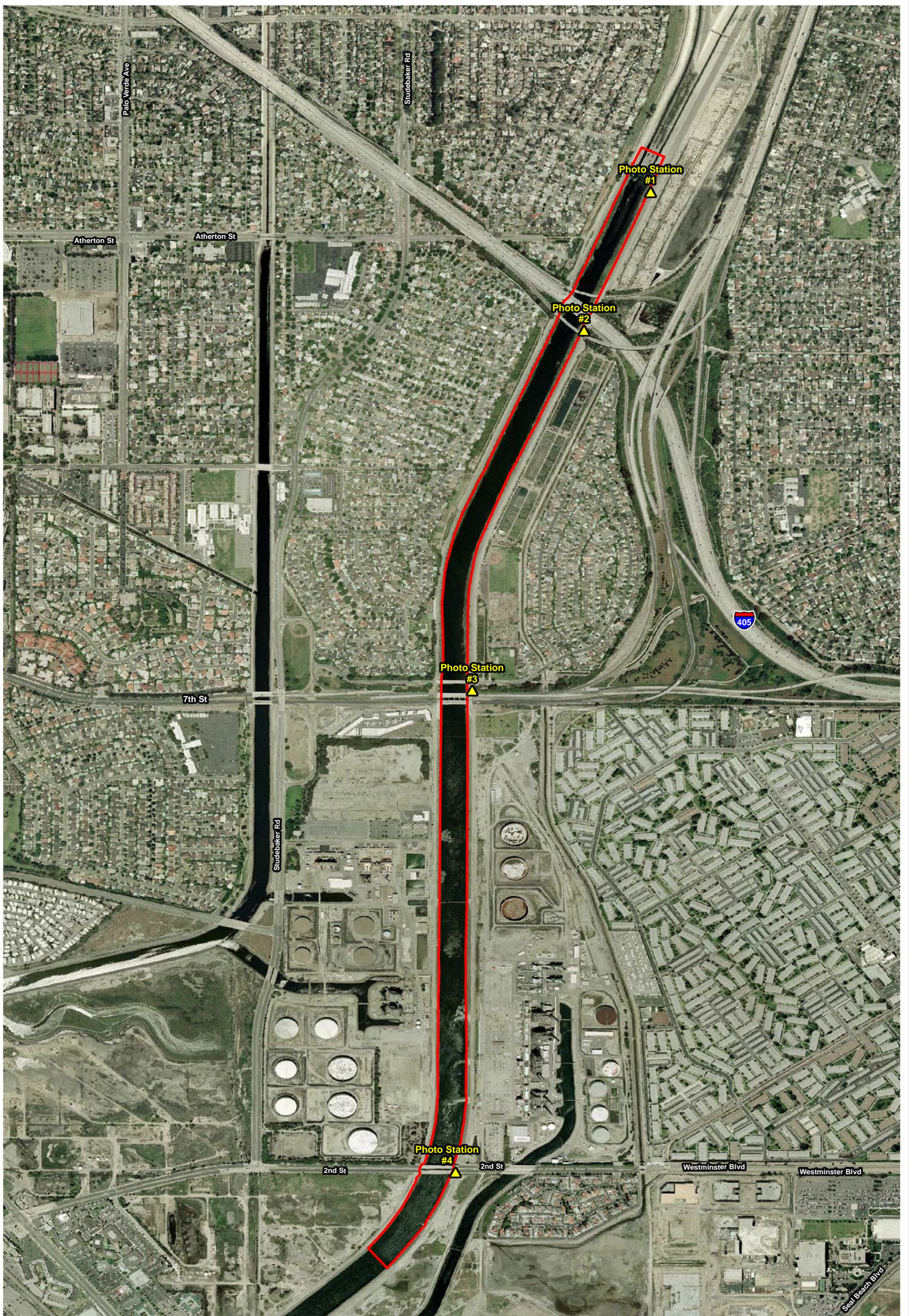
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Aerial Photograph

Los Angeles River Soft-Bottom Channel, Los Angeles County California

Exhibit 2B



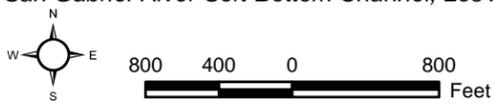


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Aerial Photograph

San Gabriel River Soft-Bottom Channel, Los Angeles County California

Exhibit 2C



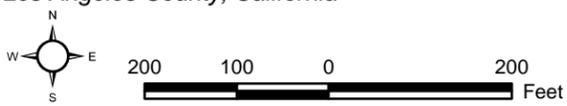


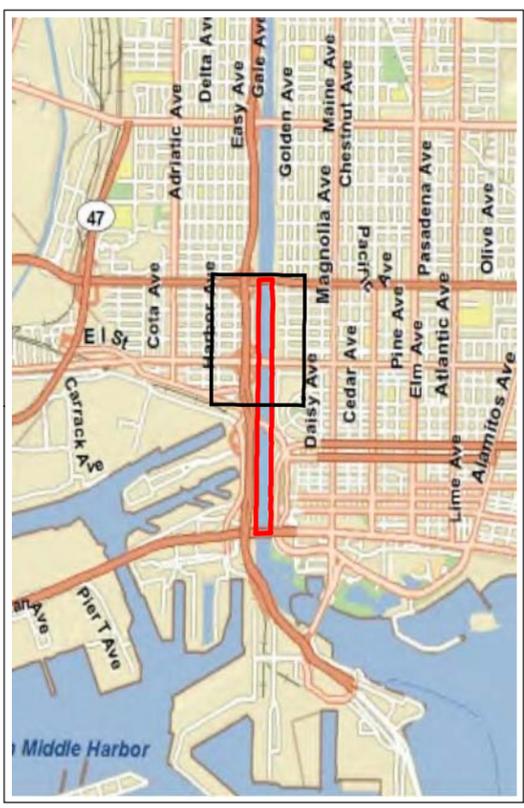
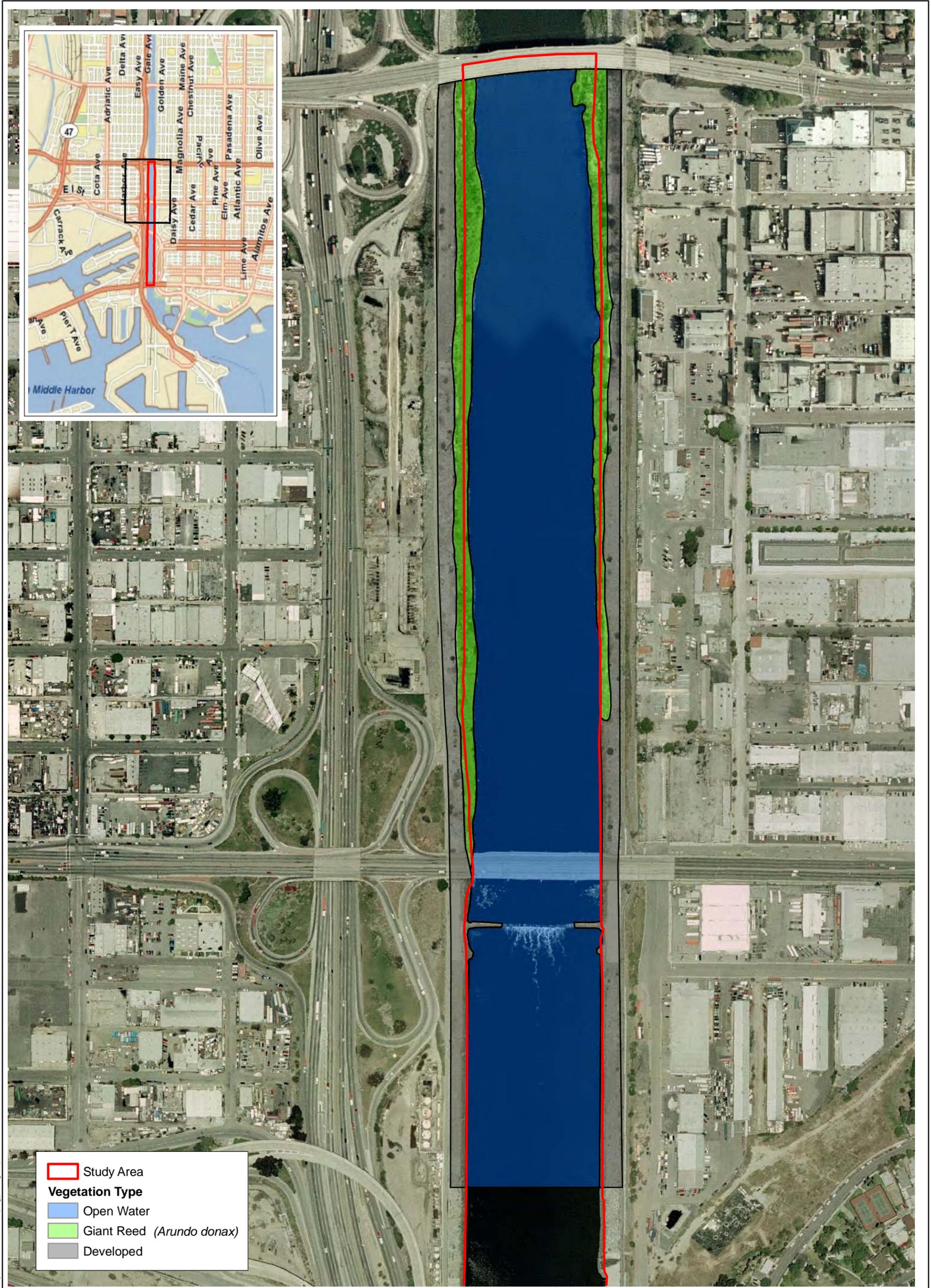
Study Area
Vegetation Type
 Developed with Patches of Saltgrass Grassland
 Open Water

Vegetation Map - Dominguez Soft-Bottom Channel

Los Angeles County, California

Exhibit 3A





Study Area
Vegetation Type
 Open Water
 Giant Reed (*Arundo donax*)
 Developed

Vegetation Map – Los Angeles River Soft-Bottom Channel

Los Angeles County, California

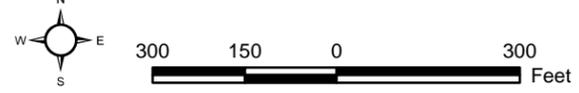
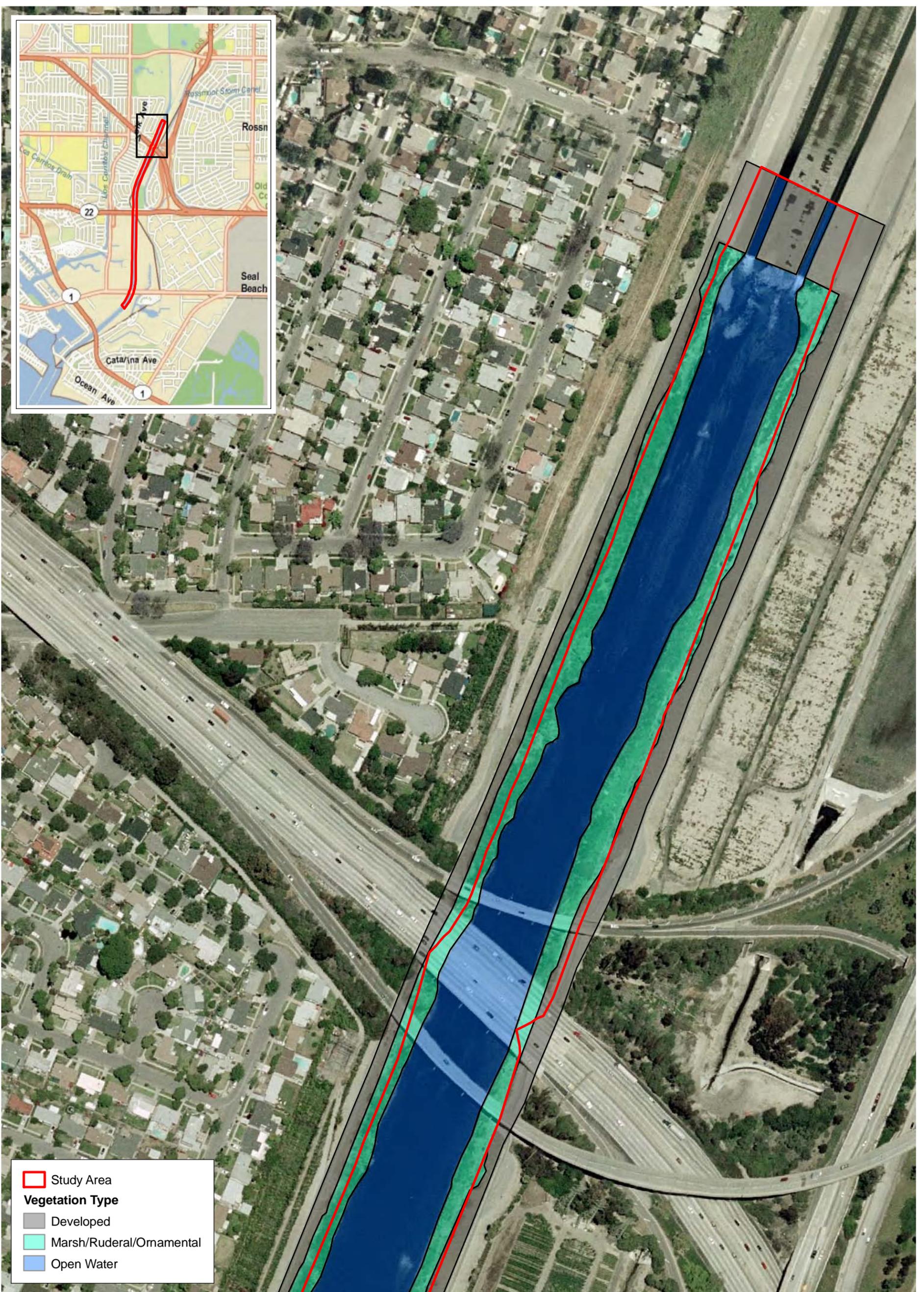


Exhibit 3B



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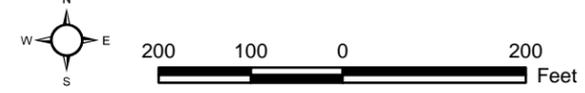
Study Area

Vegetation Type

- Developed
- Marsh/Ruderal/Ornamental
- Open Water

Vegetation Map – San Gabriel River Soft-Bottom Channel
 Los Angeles County, California

Exhibit 3C-1

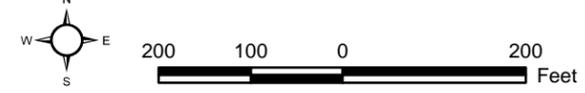


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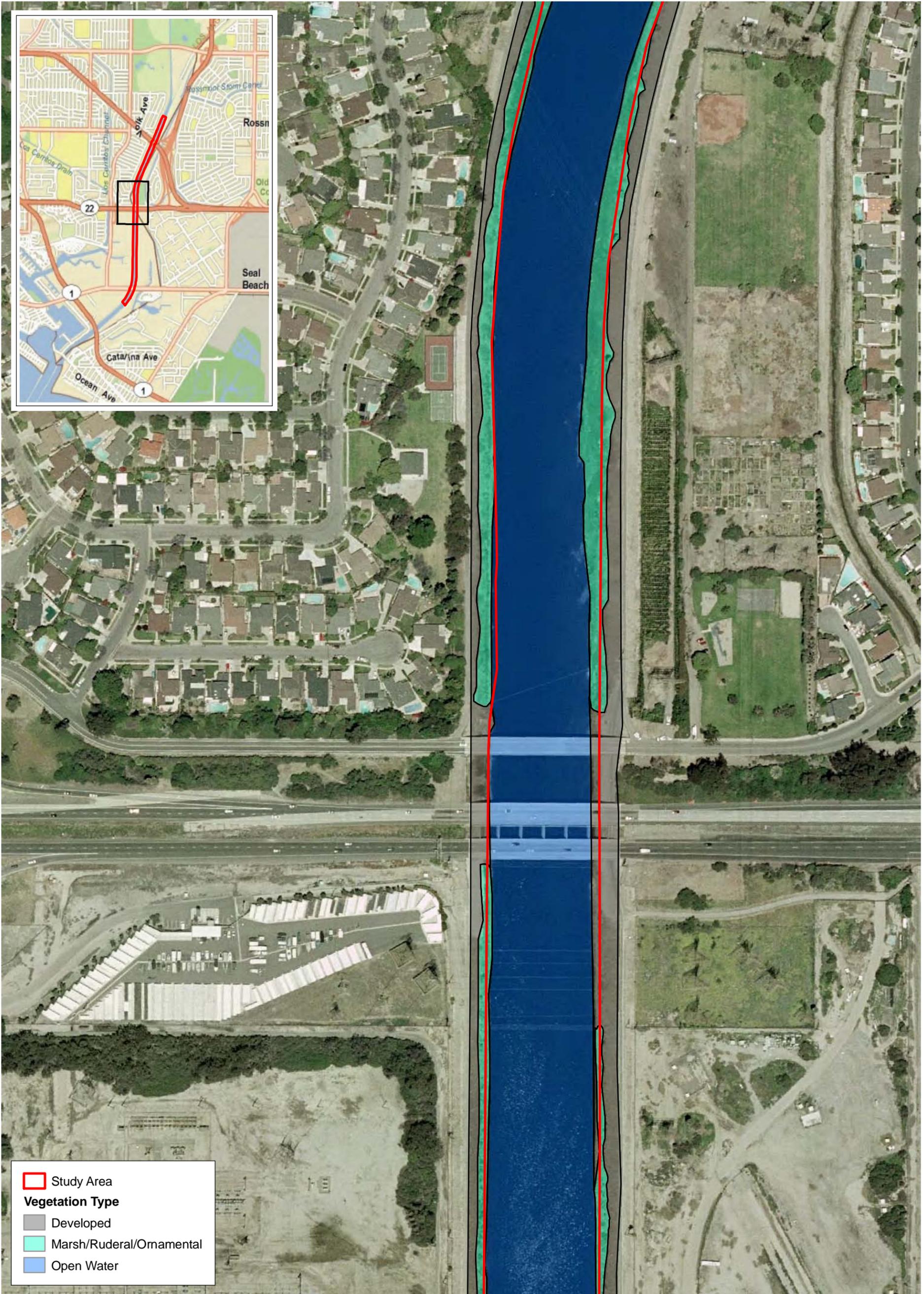


	Study Area
Vegetation Type	
	Developed
	Marsh/Ruderal/Ornamental
	Open Water

Vegetation Map – San Gabriel River Soft-Bottom Channel
 Los Angeles County, California



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Study Area

Vegetation Type

- Developed
- Marsh/Ruderal/Ornamental
- Open Water

Vegetation Map – San Gabriel River Soft-Bottom Channel

Los Angeles County, California

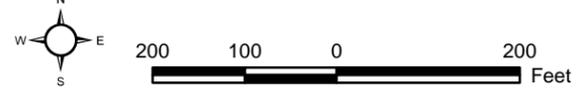
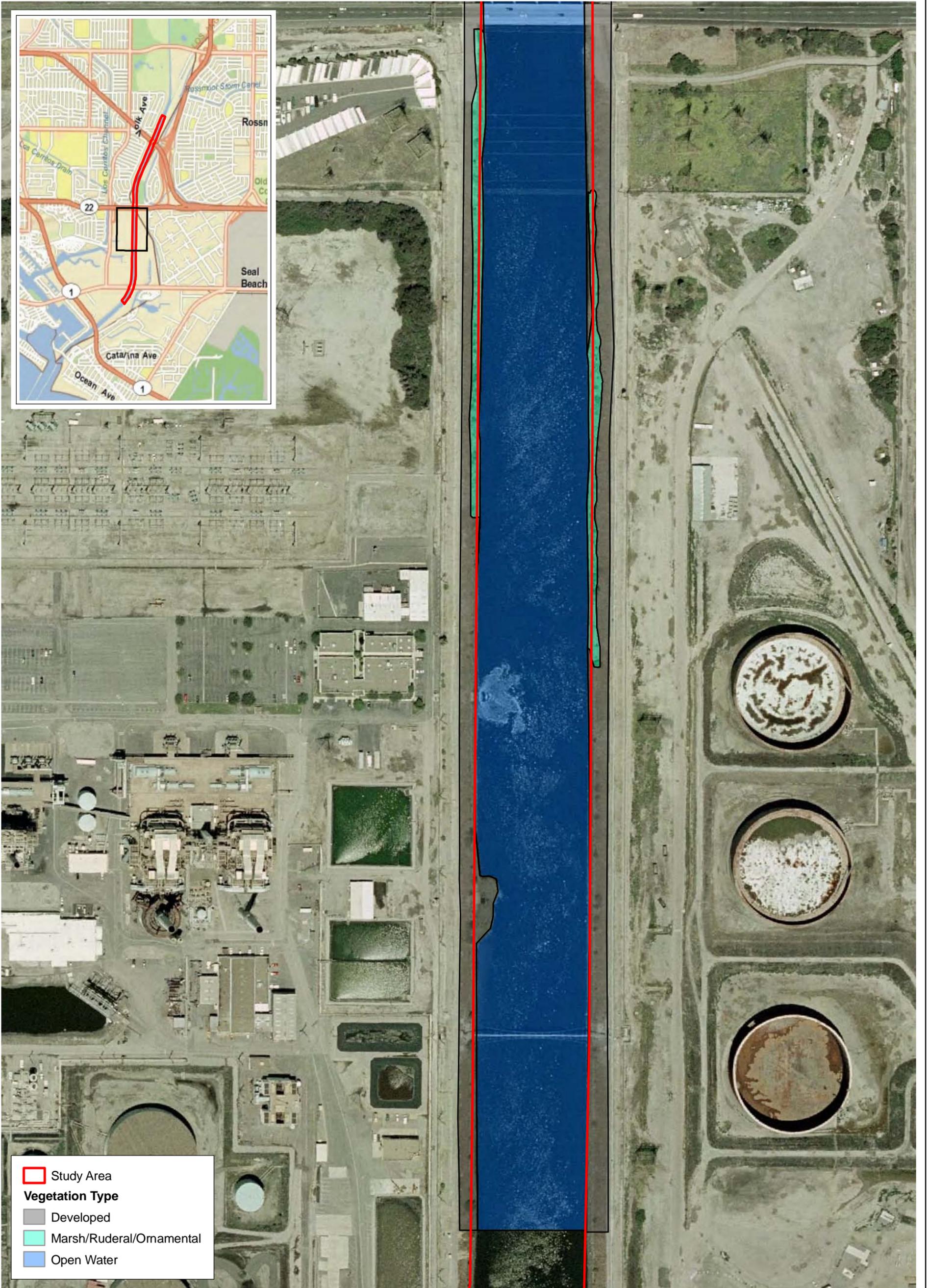
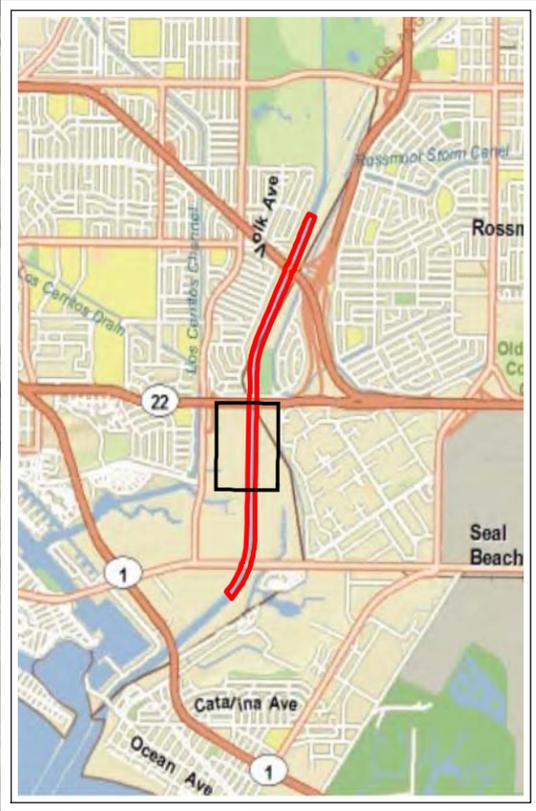


Exhibit 3C-3



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Study Area

Vegetation Type

- Developed
- Marsh/Ruderal/Ornamental
- Open Water

Vegetation Map – San Gabriel River Soft-Bottom Channel

Los Angeles County, California

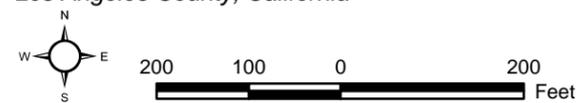


Exhibit 3C-4



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Photo Station 1



Photo Station 2



Photo Station 3

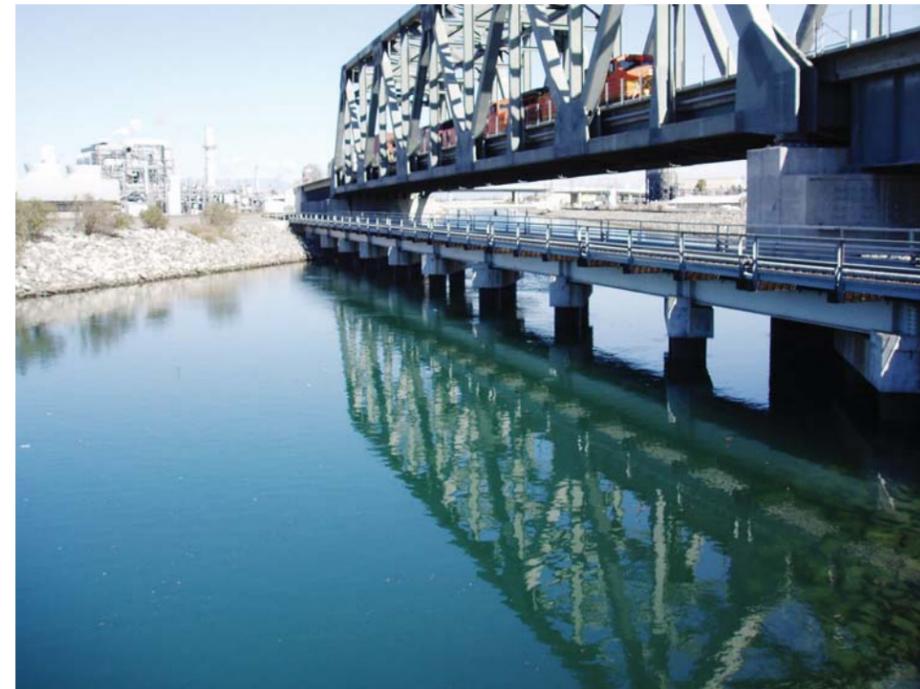


Photo Station 4

Site Photographs

Dominguez Soft-Bottom Channel, Los Angeles County, California

Exhibit 4A

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Photo Station 1



Photo Station 2



Photo Station 3



Photo Station 4

Site Photographs

Los Angeles River Soft-Bottom Channel, Los Angeles County, California

Exhibit 4B

BonTerra
CONSULTING

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Photo Station 1



Photo Station 2



Photo Station 3



Photo Station 4

Site Photographs

San Gabriel River Soft-Bottom Channel, Los Angeles County, California

Exhibit 4C

BonTerra
CONSULTING

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January 6, 2010

Ms. Jemellee Cruz
Flood Maintenance Division
Department of Public Works
County of Los Angeles
900 South Fremont Ave
Annex Building, 2nd Floor
Alhambra, CA 91802-1460

VIA EMAIL AND OVERNITE EXPRESS
jcruz@dpw.lacounty.gov

Subject: Results of Biological Reconnaissance Surveys of Two Soft-Bottom Channels,
Los Angeles County, California

Dear Ms. Cruz:

This letter report presents the findings of biological reconnaissance surveys of two soft-bottom channel (SBC) reaches which are in the process of being added to the Los Angeles County Department of Public Work's (LACDPW's) existing California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (USACE), and Regional Water Quality Control Board (RWQCB) channel maintenance permits. These two new SBC reaches are referred to as Ballona Creek and Los Cerritos SBCs. The purpose of the surveys was to evaluate existing biological resources where present in order to determine the potential for special status plant and wildlife species to occur at each SBC reach.

The LACDPW maintains numerous soft-bottom channel reaches and debris basins that primarily function to control flood waters. Maintained soft-bottom channels are located in association with concreted segments of rivers and creeks in order to prevent backup of debris and sediment that moves downstream during high rainfall events. Vegetation within the maintained segments of the soft-bottom channels increases the collection of debris, and periodic maintenance therefore involves removal of vegetation and debris from the SBC reaches.

METHODS

BonTerra Consulting Biologists Brian Daniels and Andrea Edwards conducted general plant and wildlife surveys on July 22, 2009. The California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2009) and CDFG's California Natural Diversity Database (CDFG 2009) were reviewed to identify special status plants, wildlife, and habitats known to occur in the vicinity of the project sites, including the following U.S. Geological Survey (USGS) quadrangles: Beverly Hills, Hollywood, Venice, and Inglewood for Ballona Creek SBC; and Long Beach, Los Alamitos, and Seal Beach for Los Cerritos SBC.

All species observed were recorded in field notes. Plant species were identified in the field or collected for subsequent identification using keys in Hickman (1993) and Munz (1974). Taxonomy follows Hickman (1993) and current scientific data (e.g., scientific journals) for scientific and common names.



Nomenclature for vegetation types generally follows that of *The Vegetation Classification and Mapping Program: List of California Terrestrial Natural Communities Recognized by the California Natural Diversity Database* (CDFG 2003).

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 Fisher and Case (1997) for amphibians and reptiles, American Ornithologists Union (1998) for birds, and Baker *et al.* (2003) for mammals.

Local vicinity maps are attached as Exhibits 1A and 1B, and aerial photographs are attached as Exhibits 2A and 2B. Site photographs are included as Exhibits 3A and 3B. Table 1 presents detailed information for each reach. Elevations for the two SBC reaches are below approximately ten feet (above mean sea level).

TABLE 1
SOFT-BOTTOM CHANNEL (SBC) REACH INFORMATION

Soft-Bottom Channel	USGS Quadrangles	Thomas Guide Location	Soil Type Association	Watershed
Ballona Creek	Venice	672: D6-7 and E6-7	Chino (loam surface layer/substratum)	Santa Monica Bay
Los Cerritos	Los Alamitos	796: E5-7 and 826:D1-E1	Chino (loam surface layer/substratum)	San Gabriel River

RESULTS

Ballona Creek SBC

Location

The approximately 0.6-mile Ballona Creek SBC reach is located in the Marina Del Rey area of the City of Los Angeles, and is surrounded mainly by residential, commercial, and industrial development. The reach starts at Centinela Avenue, and extends downstream almost to State Highway 90. It is located west of Interstate 405, east of Marina Del Rey, and north of Los Angeles International Airport.

Vegetation

Open water is present within this SBC reach, and developed areas consisting of concrete channel banks line the reach. The channel edges contain thin bands and patches of disturbed freshwater marsh vegetation, most dense in the upstream half of the reach, dominated by southern cattail (*Typha domingensis*), California bulrush (*Scirpus californicus*), and cocklebur (*Xanthium strumarium*). This vegetation type was considered disturbed due to the interspersed patches of ruderal vegetation, dominated by non-native African fountain grass (*Pennisetum setaceum*), Mexican fan palm (*Washingtonia robusta*), bristly ox tongue (*Picris echioides*), African umbrella-sedge (*Cyperus involucratus*), curly dock (*Rumex crispus*), and common beggar ticks (*Bidens pilosa*).

Wildlife

The open freshwater of the channel invert is the dominant habitat feature of this SBC reach. Vegetation is limited in size and primarily confined to the water's edge at the toe of the concrete levee. As a result, this SBC reach is expected to be used by a variety of water birds, but relatively few land birds. Water birds observed during the survey included mallard (*Anas platyrhynchos*), great blue heron (*Ardea herodias*), snowy egret (*Egretta thula*), American coot (*Fulica americana*), black-necked stilt (*Himantopus mexicanus*), spotted sandpiper (*Actitis macularius*), greater yellowlegs (*Tringa melanoleuca*), and western gull (*Larus occidentalis*). The diversity of water birds expected to use this SBC reach would be higher during the winter season. Land bird use of the channel is expected to be limited, with most species occurring primarily for bathing and drinking opportunities. For example, the hooded oriole (*Icterus cucullatus*) was observed during the survey in the vegetation adjacent to the water's edge, but is expected to nest and primarily forage in the vegetation outside the channel. Some bird species observed during the survey, such as the common yellowthroat (*Geothlypis trichas*) and song sparrow (*Melospiza melodia*), may nest in the vegetation at the water's edge in this SBC reach. The open water habitats of the channel are expected to support insect life that provides foraging opportunities for aerial foraging bird species. Birds observed foraging over the SBC reach during the survey included northern rough-winged swallow (*Stelgidopteryx serripennis*), cliff swallow (*Petrochelidon pyrrhonota*), and barn swallow (*Hirundo rustica*).

This SBC reach provides minimal habitat for amphibians or reptiles and none were observed during the survey. However, the western fence lizard (*Sceloporus occidentalis*) is expected to occur. No mammals were observed during the survey, but several species are expected to occur such as the Virginia opossum (*Didelphis virginiana*) and black rat (*Rattus rattus*). Larger mammals including the common raccoon (*Procyon lotor*) and coyote (*Canis latrans*) are also expected to occur occasionally. Only non-native fish species such as the mosquitofish (*Gambusia affinis*) are expected to occur in the freshwater of this SBC reach.

Special Status Species

Although vegetation is limited in this SBC reach, the southern tarplant (*Centromadia parryi* ssp. *australis*), a CNPS List 1B species, may occur within the disturbed freshwater marsh/ruderal patches of vegetation. There is also very limited potential for marsh sandwort (*Arenaria paludicola*), a federally and State-listed Endangered and CNPS List 1B species, although it has not been found this far south in over 100 years. Several other special status plant species have potential to occur in the general project vicinity, including ten listed as State and/or federally Threatened and/or Endangered or as a Candidate for listing as Threatened and Endangered: Braunton's milk-vetch (*Astragalus brauntonii*), Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), coastal dunes milk-vetch (*Astragalus tener* var. *titi*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), beach spectaclepod (*Dithyrea maritima*), Gambel's water cress (*Nasturtium gambelii*), Moran's navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Brand's star phacelia (*Phacelia stellaris*). However, the disturbed condition and limited extent of the vegetation is not suitable habitat for these species and they are not expected to occur.

Numerous species status wildlife species occur or have occurred in the general vicinity of this SBC reach, especially downstream in the Ballona Wetlands. The terrestrial habitats of this SBC reach are not expected to support any of these special status wildlife species. However, the open water habitat of this SBC reach may provide foraging opportunities for some of these species including two bird species that are State- and federally listed as Endangered: California

brown pelican (*Pelecanus occidentalis californicus*) and California least tern (*Sternula antillarum browni*). The California brown pelican may occasionally occur for loafing and foraging activities throughout the year. The California least tern occurs in southern California from April to August and may occasionally occur in this SBC reach for foraging activities only. These two species would not nest in this SBC reach. If proposed maintenance activities occur outside the nesting season and do not impact the aquatic habitats, the California brown pelican and California least tern are not expected to be affected by any proposed maintenance activities at this SBC reach.

Los Cerritos SBC

Location

The approximately 2-mile Los Cerritos SBC reach is located in the City of Long Beach, and is surrounded mainly by residential, commercial, and industrial development, and by open spaces in the downstream portions. This SBC reach starts upstream at Atherton Street, crosses under bridges at Anaheim Road, State Highway 22, and Loynes Drive, and the downstream boundary is Pacific Coast Highway.

Vegetation

Open water is present within this reach, and developed areas consisting of rip-rap (large piled rocks) are present along the banks. The channel edges contain thin bands of disturbed salt marsh dominated by native common woody pickleweed (*Salicornia virginica*) and non-native African brass buttons (*Cotula coronopifolia*). The upper slopes of the banks contain patches of riparian herb vegetation including native spearscale (*Atriplex triangularis*), common horseweed (*Conyza canadensis*), and five-hook bassia (*Bassia hyssopifolia*), along with non-native common sow-thistle (*Sonchus oleraceus*). On the upper banks at the downstream end of the reach, there are also patches of non-native iceplant hottentot fig (*Carpobrotus edulis*) and non-native grassland dominated by wild oats (*Avena* sp.), smilo grass (*Piptatherum miliaceum*), and foxtail barley (*Hordeum murinum*).

Wildlife

The open brackish water of the channel invert is the dominant habitat feature of this SBC reach. The vegetation is very limited in size and extent on the rip-rap of the channel banks. As a result, this SBC reach is expected to be used by a variety of water birds, but relatively few land birds. Water birds observed during the survey included mallard, snowy egret, American coot, spotted sandpiper, least tern (*Sternula antillarum*), and Forster's tern (*Sterna forsteri*). The diversity of water birds expected to use this SBC reach would be higher during the winter season. Land bird use of the channel is expected to be very limited. Some land bird species observed during the survey included the rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), and house finch (*Carpodacus mexicanus*). The open water habitats of the channel are expected to support insect life that provides foraging opportunities for aerial foraging bird species. Birds observed foraging over the SBC reach during the survey included northern rough-winged swallow and barn swallow.

This SBC reach provides minimal habitat for amphibians or reptiles and none were observed during the survey. However, the western fence lizard (*Sceloporus occidentalis*) is expected to occur. No mammals were observed during the survey, but several species are expected to occur such as the Virginia opossum and black rat. Larger mammals including the common raccoon and coyote are also expected to occur occasionally. The brackish waters of this SBC reach are expected to support several fish species. Fish species expected to occur, especially

near the mouth of this SBC include the northern anchovy (*Engraulis mordax*), cheek-spotted goby (*Lythrypnus albigena*), arrow goby (*Clevelandia ios*), and California killifish (*Fundulus parvipinnis*).

Special Status Species

Although vegetation is also limited in this SBC reach, the southern tarplant may occur within the disturbed salt marsh and riparian herb patches of vegetation. There is also limited potential for Sanford's arrowhead (*Sagittaria sanfordii*) and estuary seablite (*Suaeda esteroa*), two other CNPS List 1B species. Several other special status plant species have potential to occur in the general project vicinity, including five listed as State and/or federally Threatened and/or Endangered: Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), salt marsh bird's beak (*Cordylanthus maritimus* ssp. *maritimus*), Gambel's water cress (*Nasturtium gambelii*), California Orcutt grass (*Orcuttia californica*), and Lyon's pentachaeta (*Pentachaeta lyonii*). However, the disturbed condition and limited extent of the vegetation is not suitable habitat for these species and they are not expected to occur.

Numerous species status wildlife species occur or have occurred in the general vicinity of this SBC reach, especially downstream near its confluence with the Los Cerritos Wetlands and the harbor. The terrestrial habitats of this SBC reach are not expected to support any of these special status wildlife species. However, the open water habitat of this SBC reach does provide foraging opportunities for some of these species including two bird species that are State- and federally listed as Endangered: California brown pelican and California least tern. The California least tern was observed (see above Wildlife discussion) and the California brown pelican is expected to occasionally occur for loafing and foraging activities. The California least tern occurs in southern California from April to August and the California brown pelican is a year-round visitor. Four California least terns were observed during the survey at the mouth of this SBC reach. The adults were foraging in the waters at the confluence of this SBC reach with the channel inlet to the Los Cerritos Wetlands and the harbor. One young was observed being fed by an adult California least tern land bordering the channel inlet to the Los Cerritos Wetlands and the harbor (opposite side of confluence from the SBC reach). The young was capable of flight and at an age (four to seven weeks old) where it could have dispersed from the nesting colony. No nesting colony was evident during this survey but there is potentially suitable nesting habitat for this species in the vicinity of this SBC reach at its confluence with the Los Cerritos Wetlands and the harbor. Since the California least tern will nest on bare ground, the access road on the north side of this SBC reach between Loynes Drive and its confluence with the harbor provides potentially suitable nesting habitat for this species. If proposed maintenance activities occur outside the nesting season and do not impact aquatic habitats, the California brown pelican and California least tern are not expected to be affected by any proposed maintenance activities at this SBC reach.

RECOMMENDATIONS

Focused plant surveys are recommended at the Ballona Creek SBC reach for southern tarplant and at the Los Cerritos SBC reach for southern tarplant, Sanford's arrowhead, and estuary seablite during the appropriate blooming time (generally during July) to determine the presence or absence of these special status plant species.

It is recommended that all proposed maintenance activities for these two SBC reaches occur outside the nesting season for the California least tern (April 1 through August 31). If work needs to be conducted at the Los Cerritos SBC reach during the California least tern nesting season, then a qualified biologist should conduct a survey prior to the proposed activities to determine the status of this species at this SBC reach. If the California least tern is present and

Ms. Jemellee Cruz
January 6, 2010
Page 6

nesting in the vicinity of this SBC reach, then the biologist will inform the CDFG and the U.S. Fish and Wildlife Service and appropriate avoidance measures will be implemented.

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

Sincerely,

BONTERRA CONSULTING



Marc T. Blain
Biological Resources Manager/Associate

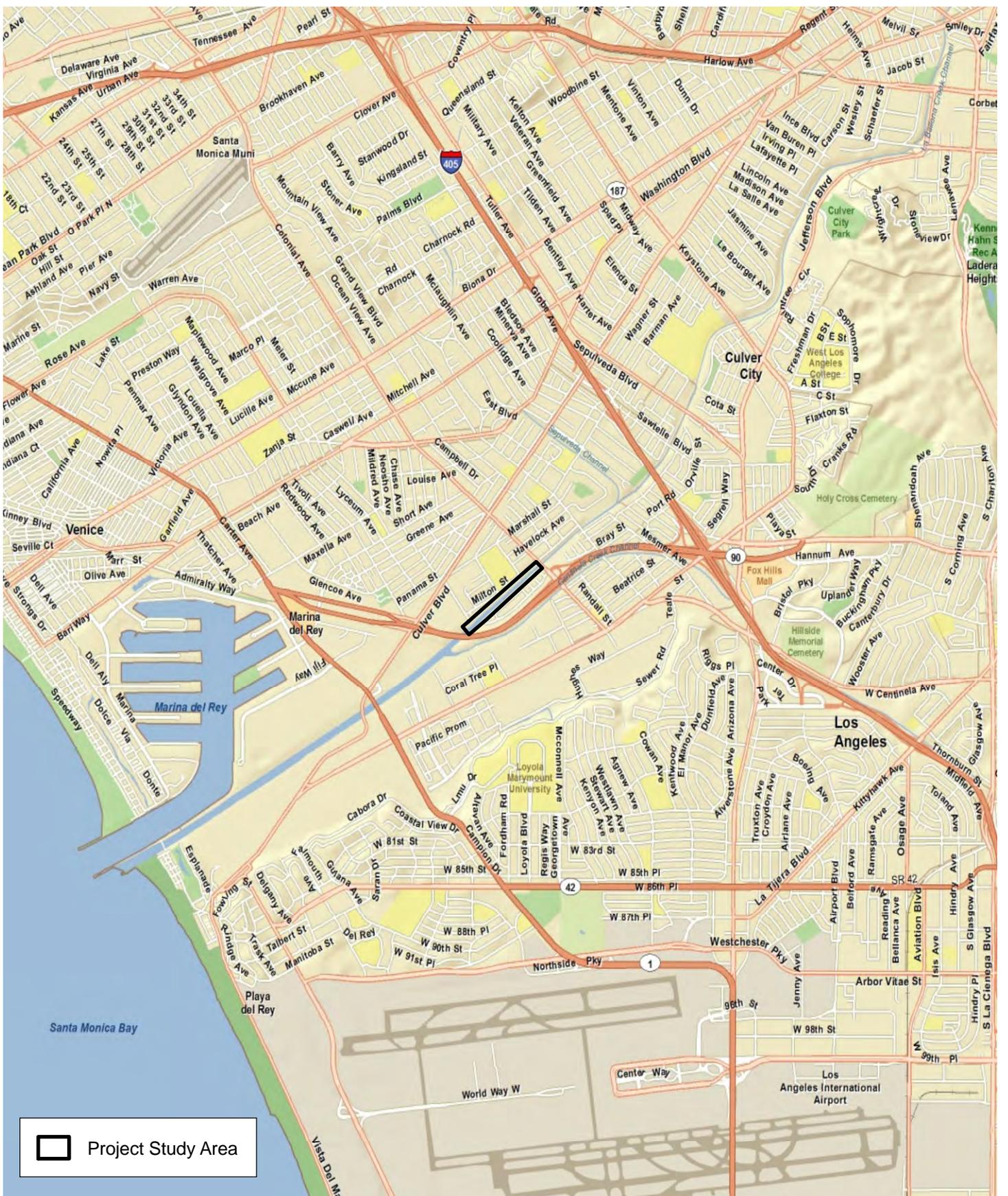


Andrea D. Edwards
Project Botanist

Attachments: Exhibits 1A and 1B – Local Vicinity
Exhibits 2A and 2B – Aerial Photograph
Exhibits 3A and 3B – Site Photographs

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 Project Study Area

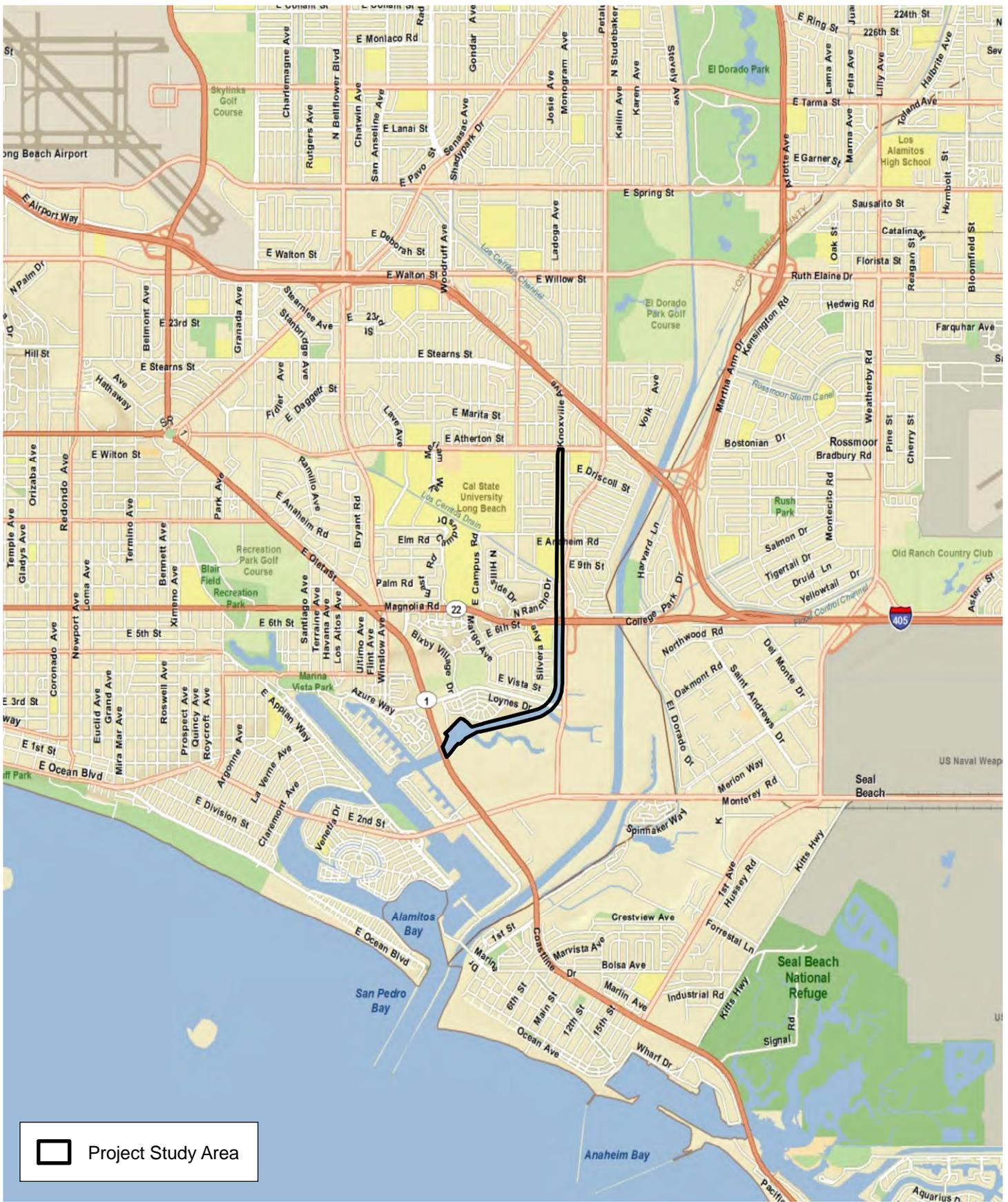
Local Vicinity - Ballona Creek

Biological Reconnaissance Surveys of Two Soft-Bottom Channels



Exhibit 1A





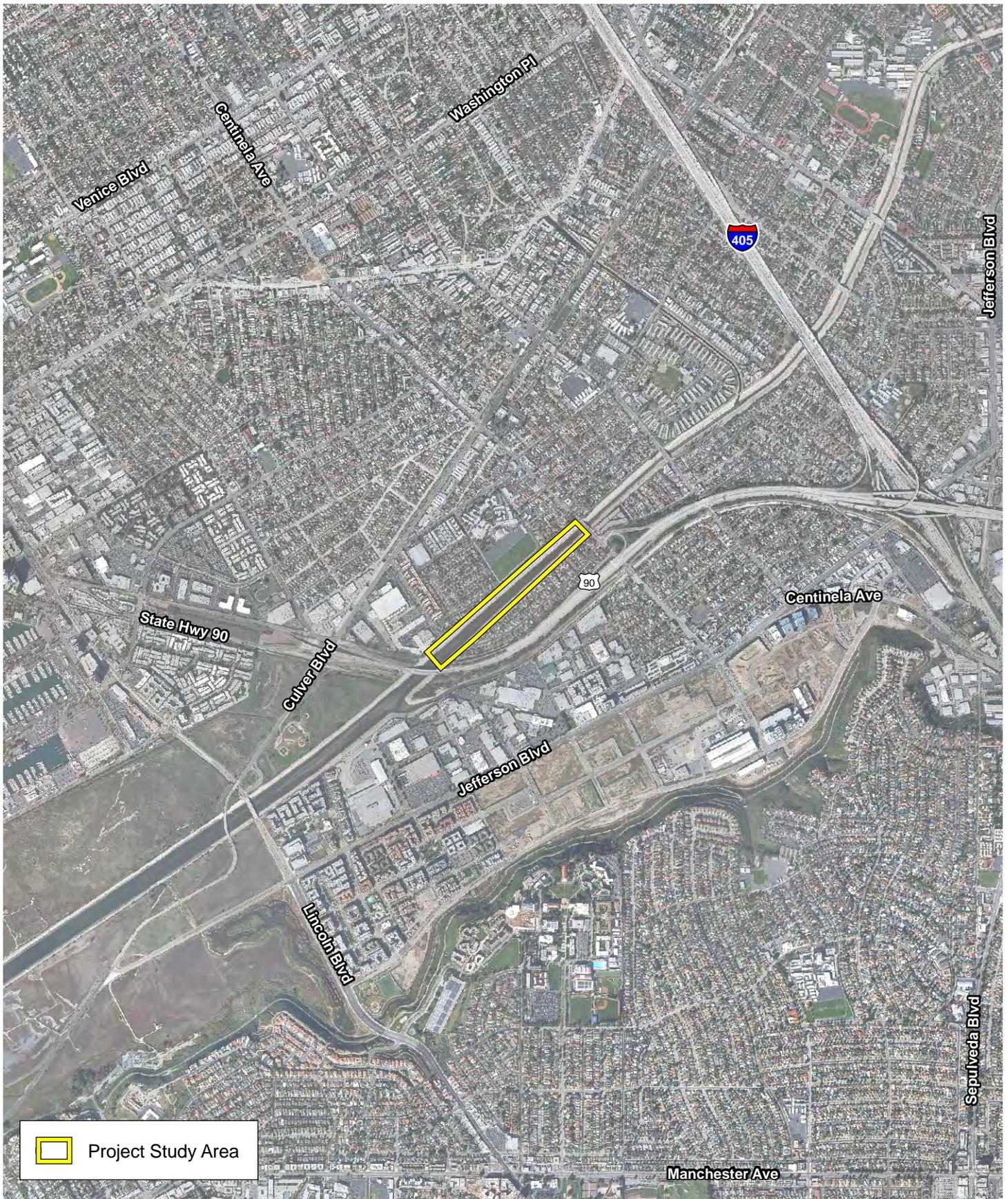
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Local Vicinity - Los Cerritos

Biological Reconnaissance Surveys of Two Soft-Bottom Channels

Exhibit 1B





 Project Study Area

Aerial Photograph – Ballona Creek

Exhibit 2A

Biological Reconnaissance Surveys of Two Soft-Bottom Channels





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Aerial Photograph – Los Cerritos

Exhibit 2B

Biological Reconnaissance Surveys of Two Soft-Bottom Channels





View downstream from Centinela Avenue bridge.



View upstream from left bank.

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Site Photographs – Ballona Creek

Exhibit 3A

Biological Reconnaissance Surveys of Two Soft-Bottom Channels

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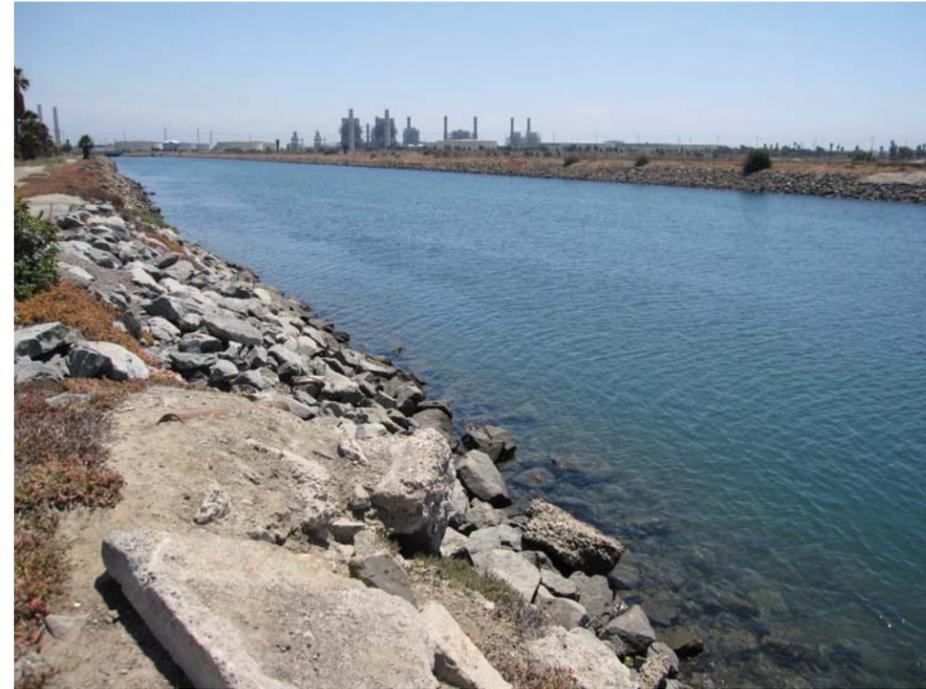
View downstream from Atherton Street bridge.



View upstream from Anaheim Road bridge.



View upstream from Loynes Drive bridge.



View upstream from terminus at harbor.

Site Photographs - Los Cerritos

Biological Reconnaissance Surveys of Two Soft-Bottom Channels

Exhibit 3B

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