PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS **BUILDING STRONG®**
LOS ANGELES DISTRICT

APPLICATION FOR PERMIT
Devil's Gate Reservoir Sediment Removal and Management Project

Public Notice/Application No.: SPL-2014-00591-BLR
Project: Devil's Gate Reservoir Sediment Removal and Management Project
Comment Period: June 13, 2018 through June 27, 2018; **EXTENDED through July 12, 2018.**
Project Manager: Bonnie Rogers; 213-452-3372; Bonnie.L.Rogers@usace.army.mil

Applicant
Christopher Stone
Los Angeles County Flood Control District
P.O. Box 1460
Alhambra, California 91802-1460

Contact
George De La O
Los Angeles County Flood Control District
P.O. Box 1460,
Alhambra, California 91802-1460

Location
Los Angeles County Department of Public Works Devil's Gate Reservoir within the City of Pasadena, Los Angeles County, California (at: 34.185747 latitude and -118.175487 longitude) near 1065 La Canada Verdugo Road, Pasadena, Los Angeles County, California, 91103 (see figure).

Activity
The Los Angeles County Flood Control District (LACFCD) proposes to excavate approximately 1.7 million cubic yards of sediment (inclusive of vegetation) that has accumulated behind the dam within Devil's Gate Reservoir, to restore reservoir capacity for storm and sediment inflows and minimize the level of flood risk to downstream communities along the Arroyo Seco waterway. The activities would result in temporary discharges of fill within waters of the United States through periodic excavation of accumulated sediment and removal of riparian vegetation. Activities would be conducted within an approximately 65 acre footprint, of which approximately 34 acres would directly impact waters of the United States (1.5 acres of wetland, and 32.5 acres of non-wetland)(see attached drawings). The proposed maintenance baseline would be maintained by future sediment excavation activities. For more information see page 4 of this notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that support the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Bonnie Rogers, SPL-2014-00591
LOS ANGELES DISTRICT CORPS OF ENGINEERS
915 Wilshire Blvd. Ste 930
LOS ANGELES, CALIFORNIA 90017

Comments may be sent electronically to: Bonnie.L.Rogers@usace.army.mil

(*Please note, comments submitted in response to the previous Public Notice for this same but modified project, posted May 14, 2015 through June 12, 2015, will also be reviewed and considered in our evaluation.)*

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material,

the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- This project is located outside the coastal zone and therefore would not affect coastal zone resources nor require coastal approval.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH would be affected by the proposed project.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate the proposed activity may affect but would not likely adversely affect (MANLAA) a federally-listed endangered or threatened species, specifically the endangered least Bell's vireo (*Vireo bellii pusillus*), which have been known to occur on-site and within suitable habitat. However, protocol level surveys from 2017 did not detect presence of vireo on-site. No critical habitat is present on-site and no critical habitat would be affected. The Corps will initiate informal consultation with the U.S. Fish and Wildlife Service Carlsbad Office, under Section 7 of the Endangered Species Act, to receive conservation recommendations.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). The basic project purpose for the proposed project is flood risk management. The project is water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose is to increase water and debris holding capacity within Devil's Gate Reservoir for flood control to protect life and property, accomplished through excavation of approximately 1.7 million cubic yards accumulated sediment/debris.

Additional Project Information

Baseline information-

The total Devil's Gate reservoir is approximately 258 acres and there are approximately 47.4 acres of waters of the United States onsite within the reservoir. This includes 3.6 acres of wetland waters and 43.8 acres of non-wetland waters.

The last sediment cleanout project at Devil's Gate Reservoir, the Interim Measures Project, was small, conducted between September 15 and October 15, 2017 under Corps permit number SPL-2011-00516-BLR, whereby approximately 2,000 cubic yards of sediment was excavated within 200 feet from the upstream side of the dam face.

Historically, as storm events have deposited sediment in the reservoir, native and non-native vegetation have become established in the sediment. During subsequent storm events some of the vegetation and trees have been washed out by storm flows or submerged when the reservoir level rises, or have been buried by sedimentation. In most years water flows at least 3 months during the year and therefore exhibits an intermittent flow regime. At times, the groundwater level, as indicated by wells, reaches the streambed elevation. Mature willow trees (primarily black willow), Riversidean Alluvial Fan Sage Scrub, Mulefat Scrub, and other riparian vegetation have grown in the reservoir to the extent that dense undisturbed stands are on site. In particular, Alluvial Fan Sage is an increasingly rare habitat but persists in the northernmost portion of the site within the proposed impact area and within the braided channel. The existing habitats within Devil's Gate Reservoir have been fragmented and degraded due to the presence of large patches of nonnative and invasive plants in recent years.

The original baseline of Devil's Gate reservoir basin as recorded by the Los Angeles County Flood Control District is designated by the 1919 easement as a capacity of 6,500 acre-feet (10,486,727 cubic yards) ranging from the lowest outlet gate elevation of 986 feet up to the top of the dam easement boundary at elevation 1075 feet (258 acres). The proposed excavation footprint and specified maintenance area design plan would become the new baseline by which sediment could be excavated in the future. Areas outside the maintenance baseline would be excluded from any future flood control maintenance activities.

Project description-

In the first year, the project activities include the removal of vegetation. In the subsequent four years, the activities include excavation of approximately 1.7 million cubic yards of accumulated sediment in Devil's Gate Reservoir. The proposed project excavation limits and reservoir configuration are

designed to avoid many on-site habitat and recreational areas (see attached Work Plan Map). The total impacts to waters of the United States would be approximately 34 acres. During construction activities, 13.14 acre of non-wetland waters of the United States would be temporarily impacted, but revegetated following construction. The project would result in permanent loss of aquatic resource habitat functions to 20.9 acres (19.4 acres of non-wetland waters of the United States and 1.5 acres of wetland waters of the United States) due to proposed frequent maintenance to maintain flood storage capacity.

The basin would be excavated to an elevation of approximately 985 feet above mean sea level at the face of the dam. From the dam face the elevation would slope up to 1,000 feet, gradually to 1,040 feet where the flow is most constricted, then up to 1,060 feet, and finally to 1,065 feet approximately 4,788 feet at the northern-most upstream end of the reservoir. The final configuration would involve approximately 65 acres of the reservoir as shown on proposed contours, profile, and cross sections (see attached figure). The non-wetland waters of the United States consist of riparian woodland, mulefat, California sagebrush, scalebroom, and non-native and exotic species (poison hemlock, pepperweed, and rough cocklebur). The proposed project would include the removal of stockpiled sediment that was placed at the adjacent Johnson Field site located near the City of Pasadena's spreading grounds during the previous years' Interim Measures Projects. Excavation would not involve the Oak Grove Area of Hahamongna Park, the City of Pasadena's spreading grounds on the east side of the basin, or other areas of the reservoir outside the excavation limits shown in Attachment B. Devil's Gate Dam is typically opened to allow draining after storm events therefore dewatering is not expected to be needed during construction. However, a surface water diversion plan to direct the low-flow channel would be provided to the Corps for the case when incoming flow may be present during sediment removal activities.

In order to excavate sediment from the reservoir, trees and vegetation growing within the excavation area or where haul roads are located would be removed. In the areas where excavation would not take place, including the western side of the reservoir (Oak Grove Area), vegetation would not be removed, thereby avoiding approximately 193 acres of the original reservoir footprint and approximately 62 acres of habitat within the existing reservoir. To facilitate storm flows, a slightly steeper gradient than the current gradient would be constructed in the upper constricted section of the basin.

The accumulated sediment would be excavated within the proposed limits (see attached figure). Construction equipment would include approximately four front loaders with 4-yard buckets, two bulldozers, one excavator, one grader, one water truck, and two tender trucks. Vegetation and organic debris would be separated from the sediment. Coarse material may need to be processed through the sorters and crushers to be hauled offsite using trucks. Depending on the moisture content of the sediment removed, the sediment may need to be stockpiled to allow it to dry. If drying is required, sediment would be stockpiled onsite within the excavation limits in the reservoir. The excavated sediment would be trucked off-site to existing upland disposal site locations which are currently available to accept the sediment. Trucks would travel and place sediment at one of the following disposal site locations: the Waste Management Facility in Azusa, the Vulcan Materials Reliance Facility in Irwindale, the Manning Pit Sediment Placement Site (SPS) in Irwindale, Scholl Canyon Landfill in Glendale, or facilities in Sun Valley (Sheldon Pit, Sun Valley Fill Site, Bradley Landfill, and Boulevard Pit).

Trucks would enter the reservoir via the upgraded reservoir access road located on the east side of the reservoir. After rehabilitation and minor improvements to the existing west side reservoir access road, trucks would exit the reservoir via this road. The access roads within waters of the United States are included as part of the calculated permanent maintenance baseline area. As part of the Project,

the existing western access road and the upgraded eastern access road would be improved with new ramps to allow for truck traffic in and out of the reservoir. Both the eastern and western access roads would allow for one-way truck traffic. The eastern access road would now allow for traffic to enter the reservoir directly from Oak Grove Drive as opposed to using La Cañada Verdugo Road. The existing western access road is currently unpaved, and the portion of this access road from below the bike path to the reservoir would be widened but remain unpaved. The portion of this access road from Oak Grove Drive to the West Rim Trail bike path would be widened and paved. Empty trucks would be staged within the Project site, outside of waters of the United States. Any equipment or materials staged in seasonally dry portions of the reservoir (outside of waters of the United States) that could be washed downstream or deleterious to aquatic life would be removed from the reservoir prior to inundation by high flows.

The trucks expected to be used for sediment transport are double dump trucks, each with an estimated capacity of 18 cubic yards of sediment. The trucks are anticipated to haul up to an estimated 7,650 cubic yards per day. Removal of sediment, vegetation, trees, and organic debris is expected to require an average of 50 truck round trips per hour, with an estimated maximum of 425 truck round trips per day during excavation activities. Using the preferred haul route, trucks would access the project site from I-210 by exiting at Windsor Avenue/Arroyo Boulevard, turning north at Windsor Avenue, turning left onto northbound Oak Grove Drive, and then entering the eastern reservoir access road. Loaded trucks would exit the reservoir on the existing access road, turning right onto northbound Oak Grove Drive, then left onto westbound Berkshire Place, and then to I-210 eastbound to disposal sites in Azusa and Irwindale or to I-210 westbound to disposal sites in Sun Valley. Vegetation removal would occur between October 2018 and January 2019. Sediment removal would occur between April 2019 and November 2022 (four years). Excavation and associated activities within the reservoir area are expected to take place during drier months, between April 15 to October 15 and possibly through November if there is a late storm season and a dry fall. Excavation activities would take place Monday through Friday from 7:00 a.m. to 5:00 p.m., and sediment hauling would take place Monday through Friday from 7:00 a.m. to 3:30 p.m.

The reservoir management and maintenance phase of the Project would start after the completion of the initial sediment removal phase. The Project would result in a reservoir configuration and access to facilitate future routine annual management and sediment removal. After the initial proposed sediment removal activities, the reservoir would be managed through vegetation maintenance, sediment excavation/trucking offsite, and Flow-Assisted Sediment Transport (FAST) operations. FAST is used during rain events (during the winter), whereby the dam gate is opened, and natural water flow pushes fine grain size sediment through the reservoir and downstream of the dam. It is estimated that an average of 13,000 cubic yards of sediment would potentially be washed down and deposited in the reservoir annually after completion of the Project. A maintenance regime that relies on the FAST approach would greatly reduce the need for and extend the life of future and existing sediment placement sites and improve the future sustainability of the reservoir. The access roads would be maintained to provide proper road width for access.

The area that would be maintained annually is approximately 49 acres, smaller than the previously proposed draft project footprint (64 acres) in 2014 (see attached figure). Vegetation within the 49 acre management baseline footprint would be mowed or removed and grubbed annually to maintain water-holding capacity. The side slopes of the basin (approximately 7 acres) would be revegetated, and would not be impacted annually, except when side slope repair is needed. The side slopes for purpose of this review are included in the total 49-acre permanent maintenance baseline. These activities would occur Monday through Friday over an estimated three-week period in the late summer or early fall. All vegetation and sediment outside the reservoir management footprint would be allowed to naturally reestablish and/or remain in place.

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

AVOIDANCE: Through the CEQA Environmental Impact Report process and through communication with stakeholders, the applicant explored numerous initial project alternatives to avoid and minimize impacts as a result of the project. Through coordination with the Corps, draft alternatives were reviewed and modified to include several different removal configurations, amounts of sediment to be removed, and removal methods.

Draft project alternatives to be analyzed include:

Applicant Preferred Alternative: Removes approximately 1.7 million cubic yards of existing excess sediment in the reservoir in addition to any additional sediment received during the sediment removal phase of the project. The configuration would involve approximately 65.44 acres of the reservoir, and the future management area involves approximately 49.26 acres. Approximately 1.52 acres of wetland waters and 32.54 acres of non-wetland waters of the United States would be impacted by the Applicant Preferred Alternative, and approximately 2.10 acres of wetland waters and 11.27 acres of non-wetland waters of the United States located in the western portion of the reservoir would be avoided by this alternative.

Two Branch Alternative: Removal of approximately 2.4 million cubic yards of existing accumulated sediment in the reservoir, in addition to any additional sediment washed down /received during the sediment removal phase of the project. The configuration would involve approximately 76.86 acres of the reservoir, and the future permanent baseline management area would be approximately 50.78 acres. Approximately 3.19 acres of wetland waters, and 34.52 acres of non-wetland waters of the United States would be impacted by the Two Branch Alternative. Avoided areas under this alternative would include approximately 0.43 acres of wetland waters and 9.29 acres of non-wetland waters of the United States located in the western and central portion of the reservoir.

Front Basin Alternative: Removal of approximately 2.8 million cubic yards of existing accumulated sediment in the reservoir in addition to any additional sediment received during the sediment removal phase of the project. This configuration would involve approximately 86.11 acres of the reservoir, and the future permanent baseline management area would be approximately 51.56 acres. Approximately 3.62 acres of wetland waters and 29.56 acres of non-wetland waters of the United States would be impacted by the Front Basin Alternative. Avoided under this alternative would include approximately 14.25 acres of non-wetland waters of the United States located in the western and upstream portions of the reservoir.

No Federal Action Alternative: No large-scale sediment removal would take place. Because the project contains large acres of waters of the United States which are directly related to sediment accumulation and flows, the No Federal Action Alternative would result in no large-scale sediment removal to restore flood control capacity. Vegetation mowing or hand-clearing could occur under the No Federal Action Alternative, which would not result in increased water holding capacity or achieve the project purpose. The No Federal Action Alternative would result in increased risk to life and property because no sediment would be removed.

In 2014, the applicant had proposed a larger project including excavating 2.4 million cubic yards of sediment over a larger impact footprint of 71 acres. This proposed project was even smaller than the County's first CEQA alternative that covered a 120 acre footprint. The excavation configuration was designed to provide appropriate drainage characteristics and be capable of handling future anticipated sedimentation load from the watershed. Following outcomes of the CEQA process, the project's scale reduced in 2017 to a proposed sediment removal amount of 30% less at 1.7 million cubic yards, with an 8% smaller footprint of 65 acres. The revised project footprint was refined to reflect the reduced removal amount and avoid identified onsite resources. As a result, the currently proposed project design removing 1.7 million cubic yards over 65 acres avoids and minimizes impacts to waters of the United States. The applicant believes the proposed project results in the least amount of sediment proposed for excavation and involves the smallest area of impacts while still maintaining flood control requirements.

MINIMIZATION: The project to-date has been designed to minimize impacts to aquatic resources by reducing the total footprint of the proposed exaction area (see AVOIDANCE section above). Furthermore, the project is designed to minimize impacts primarily through avoidance, as well as through seasonal restrictions and considerations to species.

COMPENSATION: The applicant proposes to provide compensatory mitigation to offset unavoidable impacts to waters of the United States and wetlands through one large onsite permittee-responsible mitigation project (Devil's Gate avoided area of the reservoir) and one large offsite permittee-responsible mitigation project (Petersen Ranch property).

Onsite mitigation is proposed within Devil's Gate Reservoir, outside the annual maintenance baseline footprint (see attached figure). The proposed onsite mitigation would include rehabilitation of existing wetlands as well as re-establishment, rehabilitation, and enhancement of non-wetland waters of the United States. Approximately 2.13 acres of wetlands would be rehabilitated and approximately 23.51 acres of non-wetland waters of the United States would be re-established, rehabilitated, and enhanced in multiple areas onsite. An additional 41.97 acres of riparian buffer mitigation and 9.20 acres of non-riparian buffer mitigation are proposed in areas immediately adjacent to wetland and non-wetland waters of the United States mitigation areas. Activities proposed within the mitigation areas include: minor grading, recontouring of channels, exotic species removal, planting of native vegetation, and conversion of non-native vegetative communities to native vegetative communities.

Offsite mitigation is proposed within the Peterson Ranch Mitigation Bank property (but not part of the Bank or Bank credits), near the unincorporated community of Leona Valley in Los Angeles County, California. The proposed offsite mitigation project would take place at and surrounding an excavated pond in Area D of the Bank property (see attached figure). Currently, Area D has been approved for future inclusion in future development of the Bank, and originally planned to generate various enhancement and preservation credits for U.S. Army Corps of Engineers and California Department of Fish and Wildlife compensatory mitigation. Area D would instead of carved out of the Bank and become a Permittee-responsible mitigation site. The mitigation project includes expanding upon draft mitigation plans to enhance and preserve riparian habitat and waters of the United States. The proposed mitigation within Area D of the Bank would include enhancement of 2.67 acres of open water, 8.01 acres of seasonal wetlands, 0.08 acres of riparian buffer habitat to the seasonal wetlands, 6.76 acres of riparian wetlands, and 16.84 acres of riparian buffer habitat to the riparian wetlands. Proposed restoration activities include installing cattle exclusion fencing, removing and managing invasive plant species, and planting of riparian vegetation. A Conservation Easement would be placed over the mitigation site.

The amount and type of above compensatory mitigation required to offset on-site project impacts would be determined by the Corps using the SPD Mitigation Ratio Checklist policy.

Proposed Special Conditions

Special Conditions typically included in a project like this would include pre-construction biological protocol level surveys for federally-listed species, seasonal timing restrictions, on-site biological monitors, avoidance and minimization of waters of the United States, requirement for a water quality certification approval, installation of approved compensatory mitigation, mitigation monitoring, long-term management , site protection and monitoring, funding to support long-term management, and annual mitigation reporting.

For additional information please call Bonnie Rogers at 213-452-3372 or via e-mail at Bonnie.L.Rogers@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
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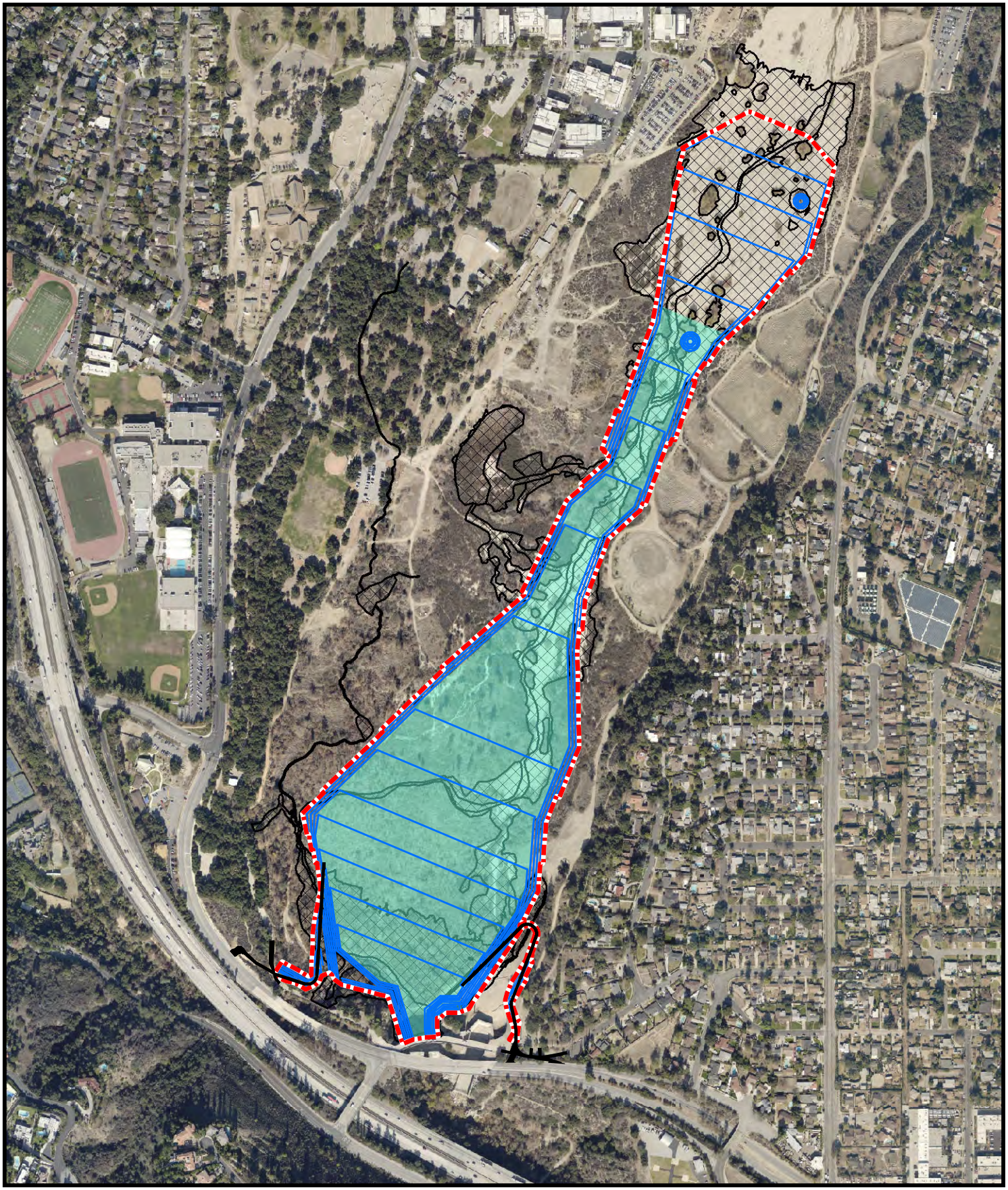
Attachment A
Project Vicinity Map

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS

DEVIL'S GATE RESERVOIR
SEDIMENT REMOVAL AND
MANAGEMENT PROJECT

SCALE	DATE	PREPARED BY
AS SHOWN	06/30/2014	V.MARDIS



Legend

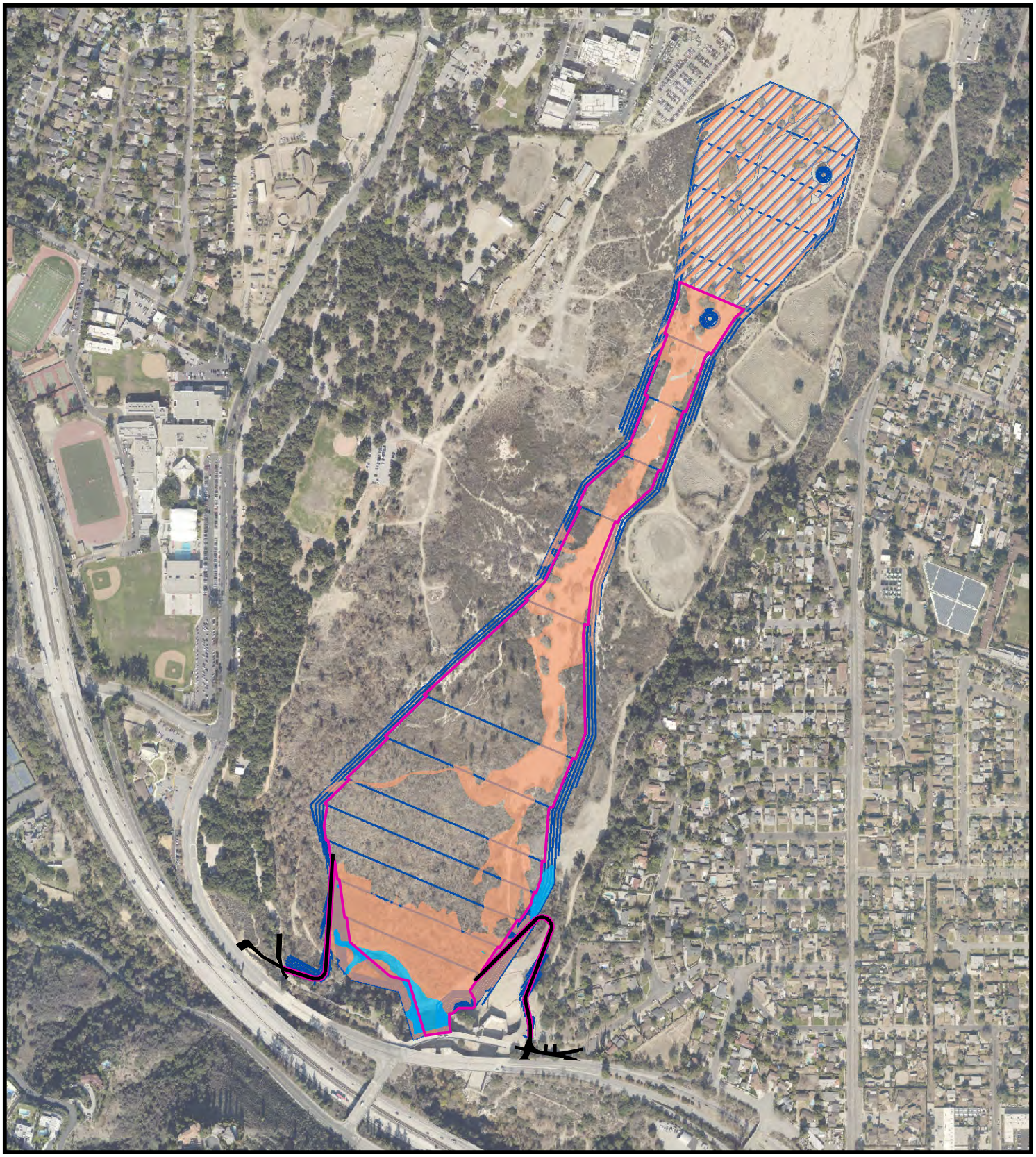
- Initial Sediment Removal Footprint
- Sediment Removal Excavation Contours
- Annual Reservoir Maintenance Area
- Access Roads
- Corps Jurisdictional Area

N

0 250 500 1,000

Feet

Attachment B
Work Plan Map



Legend

- Sediment Removal Excavation Contours
- Annual Reservoir Maintenance Area (42 acres)
- Access Roads

Permanent WOUS Impacts

- Non-wetland Waters of the U.S. (19.4 acres)
- Wetland Waters of the U.S. (1.5 acres)

Temporary WOUS Impacts

- Non-wetland Waters of the U.S. (13.14 acres)

N

0 250 500 1,000

Feet

Attachment C
Impacts to Waters of the U.S.

Attachment D
Corps/RWQCB
Jurisdictional Areas Map

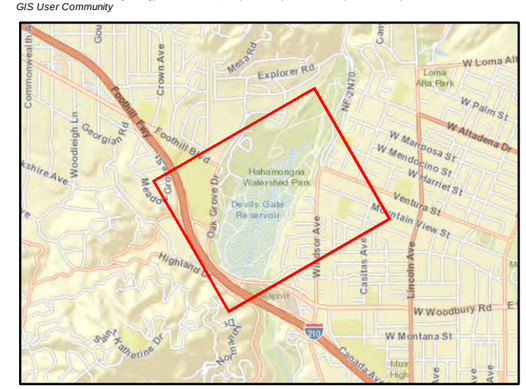
Map Features

- Initial Sediment Removal Footprint [1]
- Permanent Maintenance Footprint [1]
- 1020' Elevation Contour [1]
- Sediment Removal Excavation Contours [1]
- Area Not Delineated (Outside Project Area)
- Culvert
- Soil Sample Point

Waters of the U.S.[2]

- Wetland Waters of the U.S.
- Non-wetland Waters of the U.S.
- Non-wetland Waters of the U.S. (sheet flow)

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Location: N:\2014\2014-003.008 Devils Gate Mitigation Plan\WAPS\Wetland_Mapping\Wetland_Delineation\Devils_Gate\v2\DG_ACoE_Combined_JDFeatures_EA_20180509.mxd (JDS/MAG)-mguidry 5/9/2018

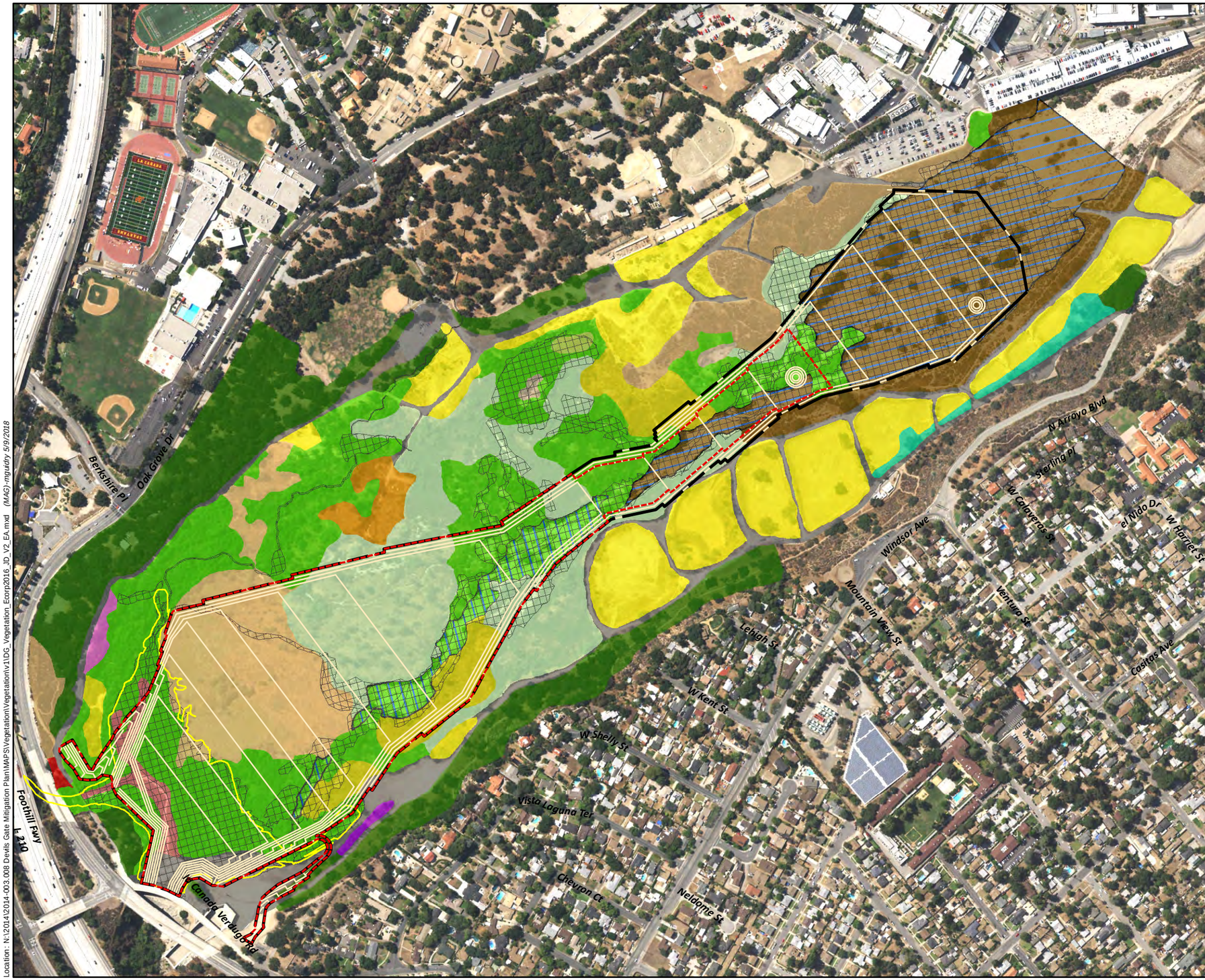
2014-003.008 Devils Gate Mitigation Plan

Scale in Feet
0 500

Photo Source: NAIP 2016
[1] LADPW
[2] ECORP and Chambers Group

Map Date: 5/9/2018

Attachment E
Vegetation Communities Map



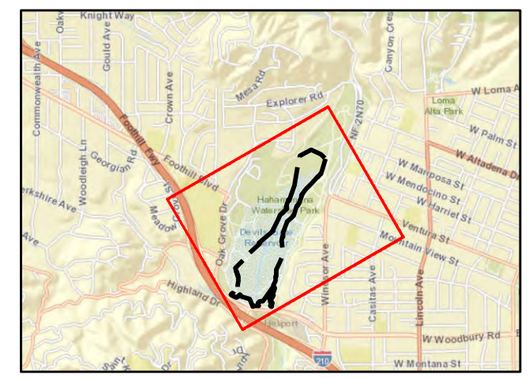
Map Features

- Initial Sediment Removal Footprint [1]
- Permanent Maintenance Footprint [1]
- Sediment Removal Excavation Contours [1]
- 1020' Elevation Contour [1]
- Corps Jurisdictional Area

Vegetation Name

- Artemisia californica - Eriogonum fasciculatum Shrubland Alliance
- Baccharis salicifolia Shrubland Alliance
- Brassica nigra and other mustards Herbaceous Semi-Natural Alliance
- Conium maculatum Herbaceous Semi-Natural Alliance 30% Lepidium latifolium
- Depression/Bare ground
- Disturbed
- Eucalyptus (globulus, camaldulensis) Woodland Semi-Natural Alliance
- Fraxinus velutina Forest Alliance
- Landscaped
- Lepidium latifolium Herbaceous Semi-Natural Alliance
- Lepidium latifolium-Conium maculatum Herbaceous Semi-Natural Alliance
- Lepidospartum squamatum Shrubland Alliance
- Lepidospartum squamatum Shrubland Alliance - Sparse
- Platanus racemosa Woodland Alliance Disturbed
- Quercus agrifolia Woodland Alliance
- Rumex crispus Herbaceous Semi-Natural Alliance
- Salix gooddingii Woodland Alliance
- Salix gooddingii Woodland Alliance - Sparse
- Xanthium strumarium Herbaceous Alliance

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

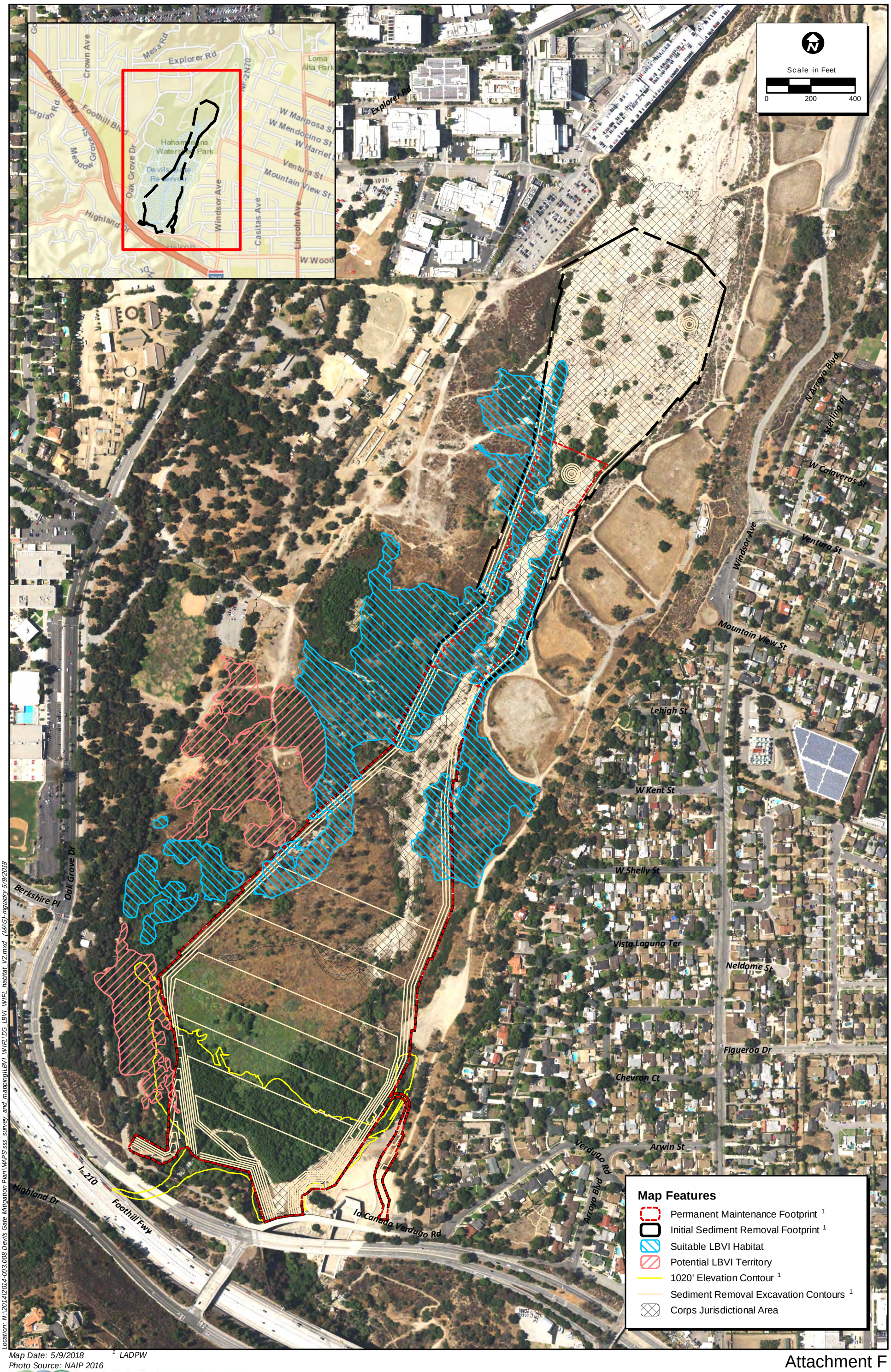
Location: N:\2014\2014-003.008 Devils Gate Mitigation Plan\MAPS\Vegetation\Vegetation\v11DG_Vegetation_Ecorp2016_JD_V2_EA.mxd (MAG)-mgiudry 5/9/2018

2014-003.008 Devil's Gate Sediment Removal Project

Scale in Feet
0 600

Photo Source: NAIP 2016
[1] LADPW

Map Date: 5/9/2018



Location: N:\2014\2014-003.008 Devils Gate Mitigation Plan\MAPS\sss_survey_and_mapping\LBVI_WIFL\DG_LBVI_WIFL_habitat_V2.mxd (MAG) mguidry 5/9/2018

Map Date: 5/9/2018 [1] LADPW
Photo Source: NAIP 2016

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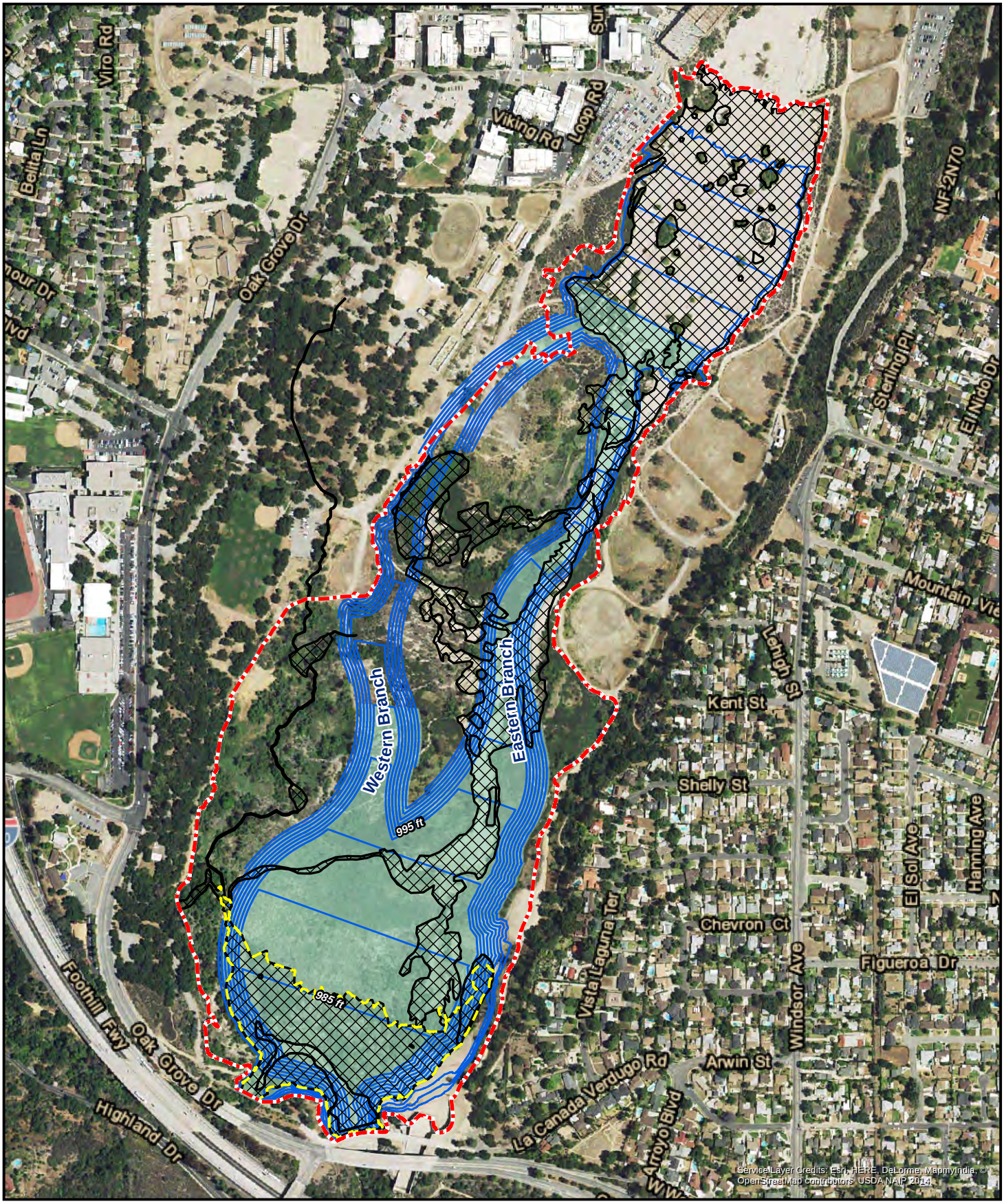
Attachment F

Threatened and Endangered Species Habitat

2014-003.008 Devils Gate Mitigation Plan



Legend

- Project Study Area
- Reservoir Management Area
- Sediment Removal Excavation Contours
- 1020' Elevation Contour
- Corps Jurisdictional Area

N

0 500 1,000
Feet

Attachment G
Two Branch Alternative,
Excavation and Management Areas

Name: 20842 Fig 4.6-1 Two Branch Alt Ex and Mngmnt Areas_rev1.Mxd
Print Date: 9/14/2016, Author: msimmons
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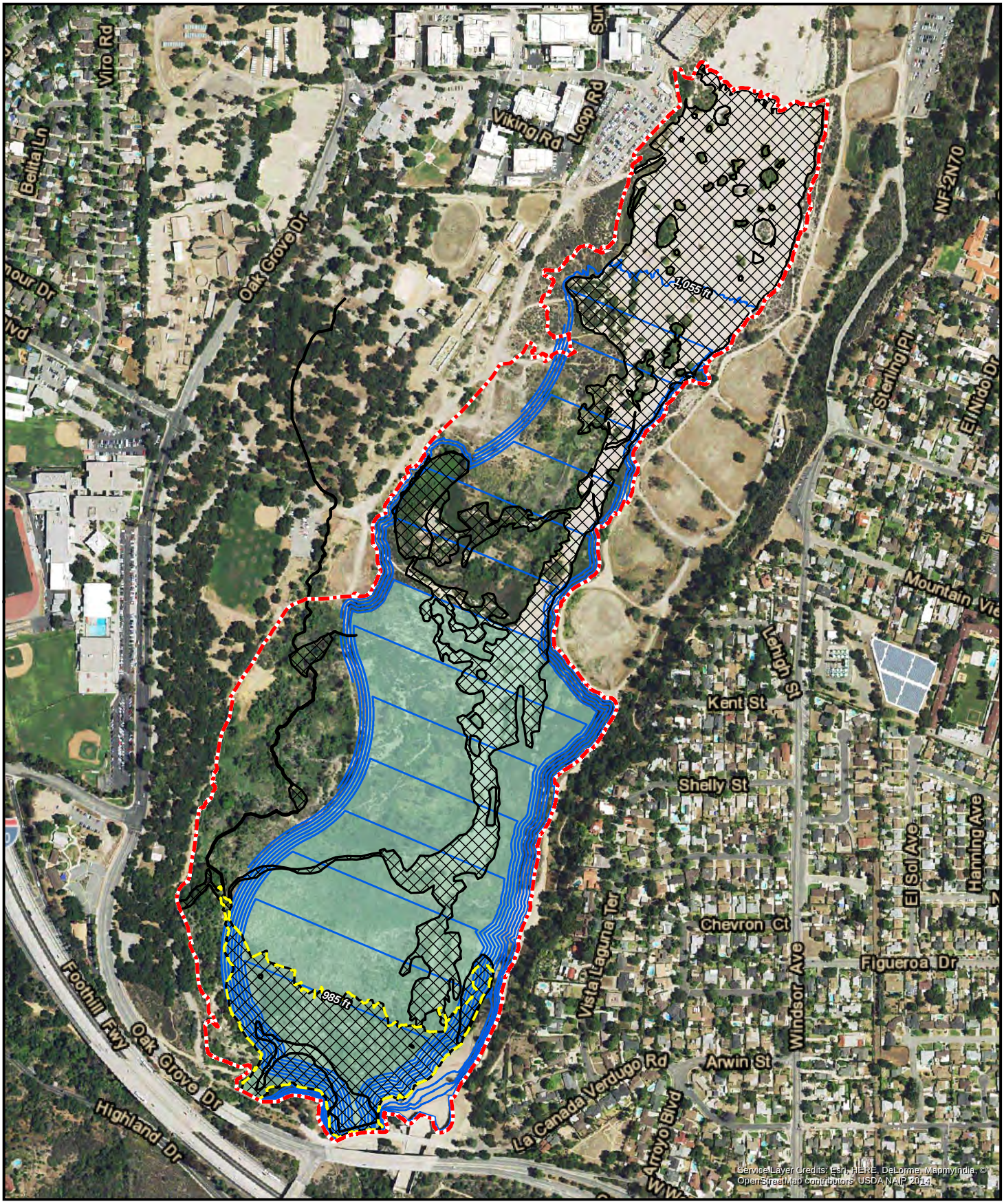

Legend

- Project Study Area
- Reservoir Management Area
- Sediment Removal Excavation Contours
- 1020' Elevation Contour
- Corps Jurisdictional Area

N

0 500 1,000
Feet

Attachment H
Front Basin Alternative,
Excavation and Management Areas

Name: 20842 Fig 4.6-2 Front Basin Alt Ex and Mngmnt Areas_rev1.Mxd
Print Date: 9/14/2016, Author: msimmons

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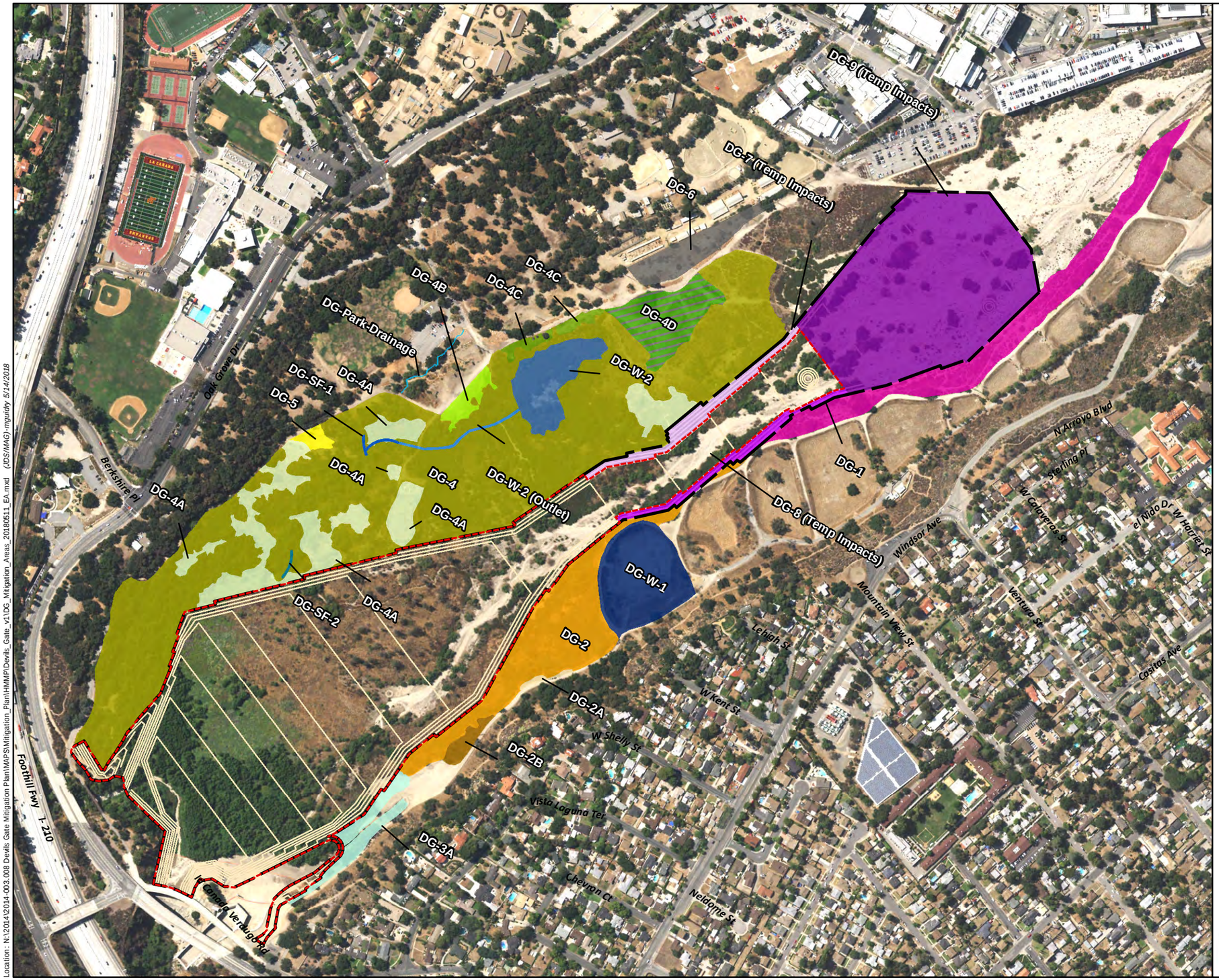
Attachment J
Devil's Gate Mitigation Areas



Map Features

- Initial Sediment Removal Footprint [1]
- Permanent Maintenance Footprint [1]
- Sediment Removal Excavation Contours [1]

Mitigation Areas

- DG-1
- DG-2
- DG-2A
- DG-2B
- DG-3A
- DG-4
- DG-4A
- DG-4B
- DG-4C
- DG-4D
- DG-5
- DG-6
- DG-7 (Temp Impacts)
- DG-8 (Temp Impacts)
- DG-9 (Temp Impacts)
- DG-Park-Drainage
- DG-SF-1
- DG-SF-2
- DG-W-1
- DG-W-2
- DG-W-2 (Outlet)

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

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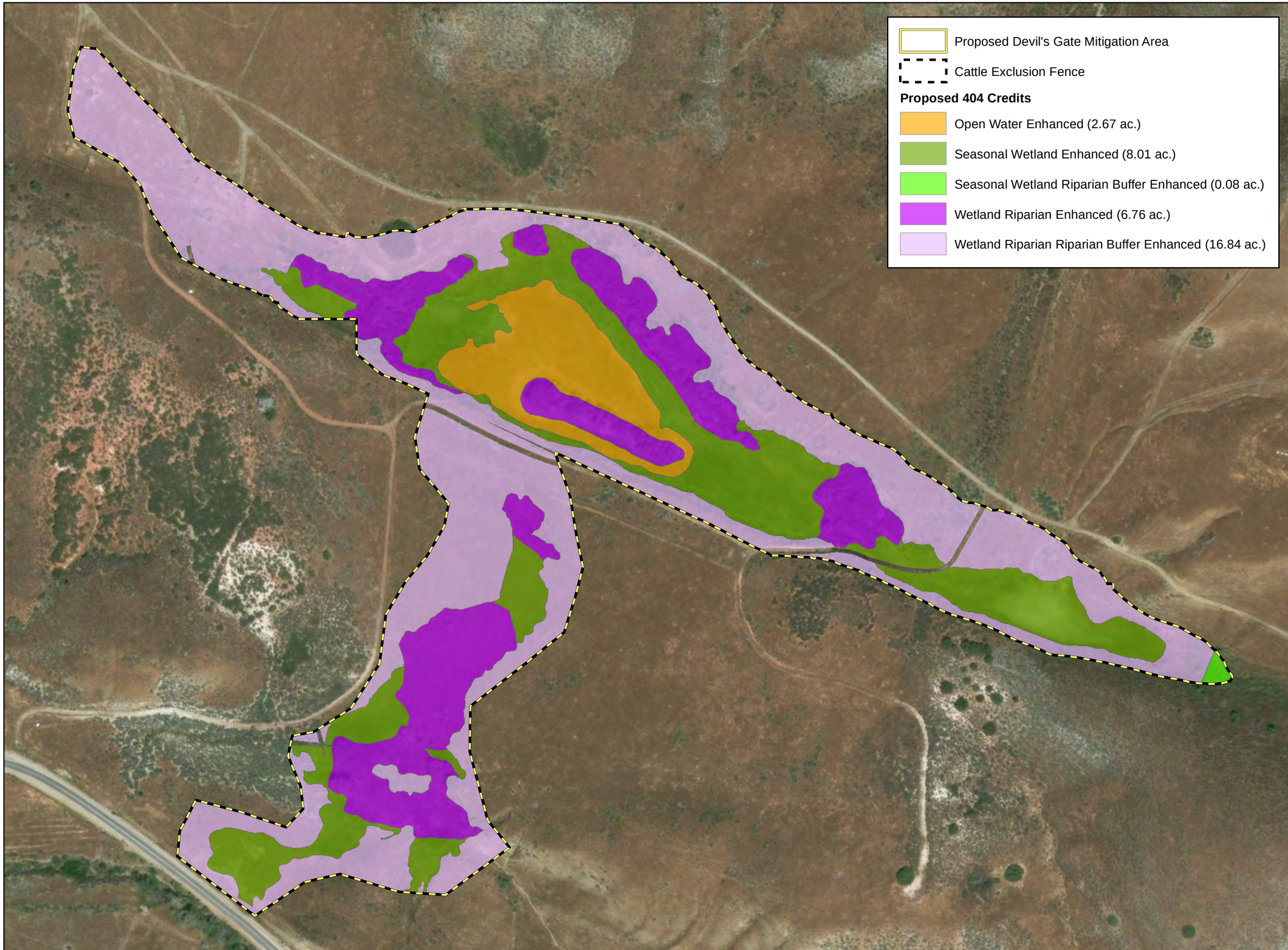
Location: N:\2014\2014-003.008 Devils Gate Mitigation Plan\MAPS\Mitigation_Plan\HMP\Devils_Gate_v1\DG_Mitigation_Areas_20180511_EA.mxd (JDS/MAG)-mguidry 5/14/2018

2014-003.008 Devils Gate Mitigation Plan

Scale in Feet
0 600

Photo Source: NAIP 2016
[1] LADPW

Map Date: 5/11/2018



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Petersen Ranch Property
Los Angeles County, California

Proposed Devil's Gate Mitigation Area

Attachment K
Proposed 404 Mitigation Credits

N
W E
S

0 250 500
Feet

Map Prepared Date: 4/18/2018
Map Prepared By: pkobylarz
Base Source: Esri Streaming - NAIP 2014
Data Source(s): WRA

Path: L:\Acad 2000 Files\21000\21065\gis 2015\ArcMap\Devil's Gate LADPW Proposal\Figure H Devil's Gate 404 Mitigation.mxd