BIOLOGICAL TECHNICAL REPORT

FOR

MAJESTIC CHINO HERITAGE PROJECT

LOCATED IN THE CITY OF CHINO, SAN BERNARDINO COUNTY, CALIFORNIA

Prepared For:

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January 17, 2020

INFORMATION SUMMARY

A. Report Date: January 17, 2020

B. Report Title: Biological Technical Report for the Majestic Chino Heritage Project

C. Project Site Location:

The Majestic Chino Heritage Development Project (Project) totals approximately 97.26 acres and is located at latitude 33.957541 and longitude -117.662515 in the City of Chino, San Bernardino County, California [Exhibit 1]. The Project occurs within an unsectioned area and Section 31, Township 2 South, and Range 7 West, and Section 36, Township 2 South, and Range 8 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. The Project site is bordered by Bickmore Avenue to the north, the El Prado Golf Course to the south, Cypress Channel to the east, and Mountain Avenue to the west.

The Off Site Storm Drain Improvement Area adjacent to the Project Site totals approximately 0.34 acre and is located at latitude 33.954018 and longitude -117.659439 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. This area is bordered by the Project site to the north, the El Prado Golf Course to the south and west, and industrial development to the east.

Borrow Site One (Borrow Site 1) totals approximately 43.67 acres and is located at latitude 33.952213 and longitude -117.648256 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 1 is bordered by Pine Avenue to the north, the Prado Regional Park to the south, Johnson Avenue to the east, and Euclid Avenue to the west.

Borrow Site Two (Borrow Site 2) totals approximately 38.51 acres and is located at latitude 33.952641 and longitude -117.644448 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 2 is bordered by Pine Avenue to the north, the Prado Regional Park and the Prado Equestrian Center to the south, the California Institute for Women to the east, and Johnson Avenue to the west.

Borrow Site Three (Borrow Site 3) totals approximately 84.25 acres and is located at latitude 33.941462 and longitude -117.635815 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 5, Township 3 South, and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit

2 – Vicinity Map]. Borrow Site 3 is bordered by the California Institute for Women to the north, the Prado Basin to the south and west, and Cucamonga Avenue to the east.

Borrow Site Four (Borrow Site 4) totals approximately 12.92 acres and is located at latitude 33.945011 and longitude -117.622304 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 4, Township 3 South, and Range 7 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Corona North (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 4 is bordered by Chino-Corona Road to the north, the Mill Creek Wetlands to the south and east, and Comet Avenue to the west.

Borrow Site Five (Borrow Site 5) totals approximately 21.28 acres and is located at latitude 33.949712 and longitude -117.613437 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 33, Township 2 South, and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Corona North (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 5 is bordered by undeveloped land to the north and south, Hellman Avenue to the east, and Chino-Corona Road to the west.

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Phone: (949) 837-0404
Report Preparer: Martin Rasnick and Thienan Pfeiffer

F. Report Summary:

A biological study was performed for the proposed Majestic Chino Heritage Project (Project). Discretionary actions requested for the Project include a General Plan Amendment (PL18-0090), a Change of Zone (PL18-0091), a Vesting Tentative Parcel Map (PL18-0119), two (2) Site Approvals (PL18-0118) and (PL18-0120), and a Special Conditional Use Permit (PL19-0011).

The Project would involve the construction and operation of two warehouse buildings consisting of 1,168,710 square feet (sf) and 914,040 sf, respectively, on an approximately 97.26-acre property located at the southeast corner of the intersection of Mountain Avenue and Bickmore Avenue in the City of Chino, San Bernardino County, California. Other physical improvements on the Project site would include, but would not be limited to, automobile and truck parking areas, vehicle drive aisles, landscaping, a water quality/detention basin, public street and utility infrastructure, exterior lighting, and signage.

A majority of the Project site's ground surface elevation is below 566 feet above mean sea level (amsl); the portions of the site located at and below 566 feet amsl are located within the inundation area for the Prado Dam.

In order to develop the Project as proposed, the existing ground surface elevations of the proposed building footprints would need to be raised above the inundation line for the Prado Dam while simultaneously lowering the elevations of other sites within the Inundation Area in order to maintain the Inundation Area's capacity to hold water that may back up behind the Dam during rare and extreme storm events. As such, the Project entails the potential transfer of earthen materials from five (5) off-site "excess fill dirt sites" (referred to as Borrow Sites 1-5 in this report) within the Inundation Area to the Project site in order to raise the proposed building footprints above the inundation line and create additional flood water holding capacity at the excess fill dirt sites.

The Project also entails the construction of an off-site, underground storm drain line that would connect proposed on-site stormwater drainage facilities along the southern boundary of the Project site to the Cypress Channel, which is located approximately 600 feet east of the Project site. This improvement is documented as the Off Site Storm Drain Improvement Area adjacent to the Project Site in this report. A new outlet would be constructed above the "ordinary high water mark" of the Cypress Channel to receive stormwater runoff that would be discharged via the new storm drain line.

This document provides the results of a field study performed to evaluate the potential occurrence of biological resources and the requirements triggered by environmental laws and regulations. A habitat assessment was performed for the Study Area which determined the presence of potential habitat for the burrowing owl (***Athene cunicularia***), the tri-colored blackbird (*Agelaius tricolor*), and the least Bell's vireo (***Vireo bellii pusillus***). The Study Area contains two drainage feature, Drainage 1, an intermittent soft-bottom stream passing through Borrow Site 1, as well as one roadside drainage ditch, which is parallel to Johnson Avenue and Pine Avenue within Borrow Site 2. Although artificially created, this ditch is potentially subject to jurisdiction by both the Santa Ana Regional Water Quality Control Board (Regional Board) and the California Department of Fish and Wildlife (CDFW), although no part of which is wetland or supports riparian habitat.

Drainage 1 would be subject to U.S. Army Corps of Engineers (Corps) jurisdiction under Section 404 of the Clean Water Act (CWA), Regional Board jurisdiction under Section 401 of the CWA, and CDFW jurisdiction under Section 1602 of the state Fish and Game Code, and regulatory permits from these agencies would be needed, should impact to these resources occur.

G. Individuals Conducting Fieldwork:

David Smith, Trina Ming, Zack West, Jeff Ahrens, Stephanie Cashin, Amy Walters, Martin Rasnick, Jillian Stephens, and Lesley Lokovic Gamber.

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of a biological study for the approximately 97.26-acre Majestic Chino Heritage Project (the Project), an off site storm drain improvement area adjacent to the Project site, and five potential borrow sites, totaling an additional 203.63 acres, all located in the City of Chino, San Bernardino County, California. Combined, this report covers and analyzes approximately 298.22 acres of land, hereafter referred to as the "Study Area". This report identifies and evaluates impacts to biological resources associated with the proposed Project and related areas including an off site storm drain improvement area and five potential borrow sites in the context of the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), Porter-Cologne Water Quality Control Act (CWC), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the Study Area, all methods employed regarding the biological study, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the CDFW, the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological study; (3) habitat assessments for special-status plant species; and (4) habitat assessments for special-status wildlife species. Observations of all plant and wildlife species were recorded during the general biological survey and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site totals approximately 97.26 acres and is located at latitude 33.957541 and longitude -117.662515 in the City of Chino, San Bernardino County, California [Exhibit 1]. The Project occurs within an unsectioned area and Section 31, Township 2 South, and Range 7 West, and Section 36, Township 2 South, and Range 8 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. The Project site is bordered by Bickmore Avenue to the north, the El Prado Golf Course to the south, Cypress Channel to the east, and Mountain Avenue to the west.

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1.3 Project Description

Discretionary actions requested for the Project include a General Plan Amendment (PL18-0090), a Change of Zone (PL18-0091), a Vesting Tentative Parcel Map (PL18-0119), two (2) Site Approvals (PL18-0118) and (PL18-0120), and a Special Conditional Use Permit (PL19-0011). The Project would involve the construction and operation of two warehouse buildings consisting of 1,168,710 square feet (sf) and 914,040 sf, respectively, on an approximately 97.26-acre

property located at the southeast corner of the intersection of Mountain Avenue and Bickmore Avenue in the City of Chino, San Bernardino County, California. Other physical improvements on the Project site would include, but would not be limited to, automobile and truck parking areas, vehicle drive aisles, landscaping, a water quality/detention basin, public street and utility infrastructure, exterior lighting, and signage.

A majority of the Project site's ground surface elevation is below 566 feet above mean sea level (amsl); the portions of the site located at and below 566 feet amsl are located within the inundation area for the Prado Dam.

In order to develop the Project as proposed, the existing ground surface elevations of the proposed building footprints would need to be raised above the inundation line for the Prado Dam while simultaneously lowering the elevations of other sites within the Inundation Area in order to maintain the Inundation Area's capacity to hold water that may back up behind the Dam during rare and extreme storm events. As such, the Project entails the potential transfer of earthen materials from five (5) off-site "excess fill dirt sites" (referred to as Borrow Sites 1-5 in this report) within the Inundation Area to the Project site in order to raise the proposed building footprints above the inundation line and create additional flood water holding capacity at the excess fill dirt sites.

The Project also entails the construction of an off-site, underground storm drain line that would connect proposed on-site stormwater drainage facilities along the southern boundary of the Project site to the Cypress Channel, which is located approximately 600 feet east of the Project site. This improvement is documented as the Off Site Storm Drain Improvement Area adjacent to the Project Site in this report. A new outlet would be constructed above the "ordinary high water mark" of the Cypress Channel to receive stormwater runoff that would be discharged via the new storm drain line.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled biological data consisting of three main components:

- Performance of a jurisdictional waters and wetlands delineation;
- Performance of vegetation mapping; and
- Performance of habitat assessments and focused surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA.

The focus of the biological study was determined through initial site reconnaissance, a review of the CNDDB [CDFW 2019], CNPS 8th edition online inventory (CNPS 2019), Natural Resource Conservation Service (NRCS) soil data, other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot in the proposed development areas for each target plant or animal species identified below.

Vegetation was mapped directly onto a 200-scale (1"=200') aerial photograph. All flora and fauna identified on site during vegetation mapping was included in floral and faunal compendia prepared for the Project (Appendix A and B, respectively). The site has been historically maintained for agricultural purposes and has been subject to past disking. Due to highly disturbed site conditions there are no natural vegetation alliances or associations fitting or approaching criteria for membership rules in A Manual of California Vegetation, Second Edition or MCVII (Baldwin et al. 2012), which is the California expression of the National Vegetation Classification. Vegetation present is relatively sparse overall and reflects ornamental plantings (e.g. nonnative trees) or spontaneous, herb-dominated species strongly adapted to anthropogenic disturbance. Vegetation present was mapped directly onto a 200-scale (1"=200') aerial photograph.

2.1 Summary of Surveys

GLA conducted biological studies in order to identify and analyze actual or potential impacts to biological resources associated with development of the Study Area. Observations of all plant and wildlife species were recorded during field efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. The studies conducted include the following:

- Performance of vegetation mapping;
- Performance of site-specific habitat assessments to evaluate the potential presence/absence of special-status species (or potentially suitable habitat) to the satisfaction of CEQA and federal and state regulations;
- Performance of focused burrowing owl surveys;
- Performance of focused surveys for the least Bell's vireo;
- Performance of focused surveys for sensitive plant species; and
- Performance of a jurisdictional waters and wetlands delineation;

Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Study Area

Survey Type	2019 Survey Dates	Biologists
Habitat Assessment	3/12/19, 3/13/19, and 4/16/19	ZW, SC, JA, DS
Focused Burrowing Owl Surveys	2/26/19, 2/28/19, 4/16/19, 4/23/19, 5/21/19, 5/22/19, 7/02/19, and 7/03/19	ZW, JA, SC, DS, TM, AN, JS
Focused Least Bell's Vireo Surveys	4/11/19, 4/25/19, 5/08/19, 5/20/19, 5/31/19, 6/11/19, 6/27/19, and 7/08/19	JA, DS
Focused Sensitive Plant Surveys	4/16/19 and 5/10/19	ZW, TM, JA, DS
Jurisdictional Delineation	3/2019, 4/2019, and 5/2019	MR, LLG, AW

DS = David Smith, TM = Trina Ming, MR = Martin Rasnick, LLG = Lesley Lokovic Gamber, ZW = Zack West, SC = Stephanie Cashin, JA = Jeff Ahrens, AW = Amy Walters, AN = April Nakagawa, JS = Jillian Stephens

Individual plants and wildlife species are evaluated in this report based on their "special-status." For the purpose of this report, plants were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

Wildlife species were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State ESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered "special-status" based on one or more of the following criteria:

- Global (G) and/or State (S) ranking of category 3 or less based on CDFW (see Section 3.2.2 below for further explanation); and
- Riparian habitat.

2.2 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Study Area, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Study Area; (3) a field reconnaissance survey; (4) vegetation mapping; and (5) habitat assessments for special-status plants.

2.2.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) for the USGS 7.5' quadrangles: Black Star Canyon, Corona North, Corona South, Guasti, Ontario, Orange, Prado Dam, San Dimas, and Yorba Linda (CNPS 2019); and

- CNDDB for the USGS 7.5' quadrangles: Black Star Canyon, Corona North, Corona South, Guasti, Ontario, Orange, Prado Dam, San Dimas, and Yorba Linda (CNDDB 2019).

2.2.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. With the exception of Borrow Sites 1 and 4, The Project site does not meet the parameters of any natural vegetation classification system. The vegetation communities were named based on the dominant plant species present. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. Vegetation maps are included as Exhibit 4, Sheets 1 through 6. Representative site photographs are included as Exhibit 13.

2.2.3 Special-Status Plant Species and Habitats Evaluated for the Study Area

A literature search was conducted to obtain a list of special status plants with the potential to occur within the Study Area. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2019).

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Study Area were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special status plants that may occur within the Study Area; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Study Area, if applicable.

2.2.4 Botanical Surveys

GLA biologists Stephanie Cashin, Zack West, Jeff Ahrens, and David Smith visited the Study Area on March 12, April 16, and May 10, 2019 to conduct habitat assessments for special-status species, including plants. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Study Area. The habitat assessment was conducted by following meandering transects within the Study Area. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

2.3 Wildlife Resources

Wildlife species were evaluated and detected during the field visit by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Study Area by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Study Area is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the

Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFW 2016), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggert (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7th Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.3.1 General Surveys

Birds

During the general biological and reconnaissance survey within the Study Area, birds were detected incidentally by direct observation and/or by vocalizations, with identifications recorded in field notes.

Mammals

During general biological and reconnaissance survey within the Study Area, mammals were identified and detected incidentally by direct observations and/or by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance surveys within the Study Area, reptiles and amphibians were identified incidentally during surveys. Habitats were examined for diagnostic reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

2.3.2 Special-Status Animal Species Reviewed

A literature search was conducted in order to obtain a list of special-status wildlife species with the potential to occur within the Study Area. Species were evaluated based on two factors: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Study Area, and 2) any other special-status animals that are known to occur within the vicinity of the Study Area, or for which potentially suitable habitat occurs on the Study Area.

2.3.3 Habitat Assessment for Special Status Animal Species

GLA biologists Stephanie Cashin, Zack West, Jeff Ahrens, and David Smith visited the Study Area on March 12, March 13, and April 16, 2019 to conduct a habitat assessment for special-status wildlife species. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Study Area.

Burrowing Owl

GLA biologists Jeff Ahrens, Stephanie Cashin, David Smith, Trina Ming, Jillian Stephens, April Nakagawa, and Zack West conducted focused surveys for the burrowing owl (*Athene cunicularia*) for all suitable habitat areas within the Study Area. Surveys were conducted in accordance with survey guidelines described in the 2012 CDFG Staff Report on Burrowing Owl Mitigation. The guidelines stipulate that four focused survey visits should be conducted between February 15 and July 15, with the first visit occurring between February 15 and April 15. The remaining three visits should be conducted three weeks apart from each other, with at least one visit occurring between June 15 and July 15. Focused surveys for the burrowing owl were conducted for the Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site on February 26, 2019, April 23, 2019, May 22, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Sites 1 and 2 on February 26, 2019, April 16, 2019, May 21, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Site 3 on February 28, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. Focused surveys were conducted for Borrow Sites 4 and 5 on February 27, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. As recommended by the survey guidelines, the survey visits were conducted between morning civil twilight and 10:00 AM, and between two hours before sunset and evening civil twilight. Weather conditions during the surveys were conducive to a high level of bird activity.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 7 – Burrowing Owl Survey Map identifies the burrowing owl survey areas within the Project study area. Transects were spaced between 7 m and 20 m apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 m along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 7 – Burrowing Owl Survey Map provides locations of suitable burrows mapped during the transect surveys. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Survey Location and Survey Number	Biologists	Start/End Time	Start/End Temperature (Fahrenheit)	Wind Speed (mph)	Cloud Cover
2/26/19	Project Site/Off Site Storm Drain Improvement Area Adjacent to the Project Site Survey 1	JA/SC	06:00/10:00	42-55	1-2	Mostly clear
2/26/19	Borrow Site 1 and 2 Survey 1	JA/SC/ZW	06:30/09:45	47-61	1-2	Clear/ Partly Cloudy

Survey Date	Survey Location and Survey Number	Biologists	Start/End Time	Start/End Temperature (Fahrenheit)	Wind Speed (mph)	Cloud Cover
2/27/19	Borrow Site 4 and 5 Survey 1	JA	05:55/09:30	45-54	1-3	Partly Cloudy/ Overcast
2/28/19	Borrow Site 3 Survey 1	DS	06:30/09:00	54-55	0	Overcast
4/16/19	Borrow Site 1 and 2 Survey 2	JA/SC/ZW	06:30/09:45	47-61	1-2	Clear/ Partly Cloudy
4/16/19	Borrow Site 3 Survey 2	JA	05:50/10:00	54-59	2-4	Overcast
4/16/19	Borrow Site 4 and 5 Survey 2	ZW	07:05/09:50	56-59	0-2	Overcast
4/23/19	Project Site/Off Site Storm Drain Improvement Area Adjacent to the Project Site Survey 2	JA	16:00/19:30	78-68	1-5	Mostly Clear
5/21/19	Borrow Site 1 and 2 Survey 3	SC/TM	05:30/07:30	53-54	0-1	Overcast/Cloudy
5/22/19	Borrow Site 3, 4, and 5 Survey 3	JS/AN	05:45/08:15	49-56	0-2	Partially Cloudy
5/22/19	Project Site/Off Site Storm Drain Improvement Area Adjacent to the Project Site Survey 3	DS	05:30/08:00	52-56	0-1	Partially Cloudy
7/02/19	Project Site/Off Site Storm Drain Improvement Area Adjacent to the Project Site Survey 4	DS	06:00/09:00	63-66	0-1	Clear
7/02/19	Borrow Site 1 and 2 Survey 4	AN/JS	06:00/08:15	63-64	0-1	Mostly Clear

Survey Date	Survey Location and Survey Number	Biologists	Start/End Time	Start/End Temperature (Fahrenheit)	Wind Speed (mph)	Cloud Cover
7/03/19	Borrow Sites 3, 4, and 5 Survey 4	TM/JS	05:45/08:00	59-64	0-2	Partially Clear

JA = Jeff Ahrens, ZW = Zack West, SC = Stephanie Cashin, DS = David Smith, JS = Jillian Stephens, AN = April Nakagawa, TM = Trina Ming

Least Bell's Vireo

GLA biologists Jeff Ahrens and David Smith conducted focused surveys for the least Bell's vireo (*Vireo bellii pusillus*) for all suitable habitat areas within the Study Area. Surveys were conducted in accordance with the 2001 USFWS survey guidelines, which stipulate that eight surveys should be conducted between April 10 and July 31, with a minimum of ten days separating each survey visit.

Focused surveys for the least Bell's vireo were conducted on April 11, April 25, May 8, May 20, May 31, June 11, June 27, and July 8, 2019 per the protocol. Pursuant to the survey guidelines, the surveys have been conducted between sunrise and 11:00 a.m. Weather conditions during the surveys were conducive to a high level of bird activity. Table 2-3 summarizes the vireo survey visits. The results of the vireo surveys are documented in Section 4.0 of this report.

Table 2-3. Summary of Least Bell's Vireo Surveys

Survey Date	Biologist	Start/End Time	Start/End Temperature (^{O}F)	Start/End Wind Speed (mph)	Cloud Cover
4/11/19	JA	06:00/08:00	46/56	1-3/1-3	Clear
4/25/19	JA	06:00/08:00	52/60	1-3/1-3	Clear
5/08/19	JA	06:00/08:00	54/60	1-3/1-3	Clear
5/20/19	DS	06:00/09:00	68/70	0-2/0-1	Partly Cloudy
5/31/19	DS	06:30/09:30	75/77	0-1/0-1	Clear
6/11/19	DS	05:30/08:30	63/89	0-1/0-1	Clear
6/27/19	DS	07:00/09:05	65/68	0-1/0-1	Partially Cloudy
7/08/19	DS	07:00/09:55	65/76	0-1/0-1	Clear

JA=Jeff Ahrens, DS = David Smith

Tri-Colored Blackbird

GLA biologist Zack West conducted surveys for the tri-colored blackbird (*Agelaius tricolor*) for all suitable habitat areas within the Study Area as part of GLA's general biological surveys conducted on March 12 and 13, 2019. The surveys were conducted between sunrise and 11:00 a.m. Weather conditions during the surveys were conducive to a high level of bird activity. The results of the blackbird surveys are documented in Section 4.0 of this report.

2.4 Jurisdictional Delineation

In March, April, and May 2019, regulatory specialists Martin Rasnick, Amy Walters, and Lesley Lokovic Gamber performed a jurisdictional delineation of the Study Area. Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[1] to identify the width of Corps jurisdiction and suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[2] (Wetland Manual) and the 2006 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[3] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks.

3.0 REGULATORY SETTING

The Study Area is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as

[1] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States

[2] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[3] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants on Lists 1A, 1B, or 2 of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 or 4.

3.2.2 Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SFP State Fully Protected
- SSC State Species of Special Concern

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Eighth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that are summarized in Table 3-1.

Table 3-1. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California

CNPS Rank	Comments
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act (CWA), the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
> > *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
> > *(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or*

(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.

(8) Waters of the United States do not include prior converted cropland.[4] *Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.*

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

3.3.1.1 Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

3.1.1.2 Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For project sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPMs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the Corps must apply the significant nexus standard.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The Corps and EPA will will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent.

- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

3.3.1.3 Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[56]);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

[5] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[6] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[7] and waters of the state. Waters of the United States are defined above in Section II.A and waters of the state are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

[7] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be “waters of the U.S.” in an approved jurisdictional determination; “waters of the U.S.” identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of “waters of the U.S.” or any current or historic federal regulation defining “waters of the U.S.” under the federal Clean Water Act.

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

3.4 City of Chino, The Preserve Specific Plan Resource Management Plan

Borrow Sites 1-5 are located within the boundary of the City of Chino's "The Preserve Specific Plan" (EDAW AECOM 2011[amended]) and The Preserve, Chino Sphere of Influence – Subarea 2, Environmental Impact Report (EIR) (Michael Brandman Associates, 2003a), but the Project site and the Off Site Storm Drain Improvement Area are not. A Resources Management Plan (RMP) (Michael Brandman Associates, 2003b) was adopted and provides the roadmap for successfully implementing the vision and requirements of the Specific Plan and the EIR. Therefore, this report provides analysis and mitigation consistent with the RMP for resources located within the RMP boundary; specifically, burrowing owl.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments for special-status plants and animals, and a jurisdictional delineation of Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, waters of the State subject to the jurisdiction of the Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

Historically, the Project site and borrow sites have been used for livestock farming and dairy operation with remnants of building foundations within portion of each property in the Study Area. Each site has been heavily disturbed as part of ongoing agriculture and ranching for several decades. Additional descriptions of each property are provided below.

<u>Project Site</u>

The Project site totals approximately 97.26 acres and abuts the Cypress Channel, an off site concrete flood control channel, along a portion outside of its eastern boundary. The soils mapped on the Project site are Chino Silt Loam, Chualar Clay Loam, 0 to 2 Percent Slopes, and Chualar Clay Loam, 2 to 9 Percent Slopes [Exhibit 6, Sheet 2].

<u>Off Site Storm Drain Improvement Area Adjacent to Project Site</u>

The Off Site Storm Drain Improvement Area adjacent to the Project site totals approximately 0.34 acre and is located at latitude 33.954018 and longitude -117.659439 in the City of Chino,

San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. This area is bordered by the Project site to the north, the El Prado Golf Course to the south and west, and existing industrial uses to the east. The Study Area of the Off Site Storm Drain Improvement Area includes a small section of the Cypress Channel. This portion of the Cypress Channel was evaluated because the storm drain will terminate within the concrete headwall structure that conveys the Cypress Channel beneath an earthen road at that location.

Borrow Site 1

Borrow Site 1 totals approximately 43.67 acres and contains a drainage course supporting wetland and riparian habitat, which flows in a north to south direction for 1,645 feet before leaving the Study Area. The soils mapped in Borrow Site 1 are Chino Silt Loam, Chualar Clay Loam, 2 to 9 Percent Slopes, Chualar Clay Loam, 9 to 15 Percent Slopes, and Grangeville Fine Sandy Loam [Exhibit 6, Sheet 3].

Borrow Site 2

Borrow Site 2 totals approximately 38.51 acres and does not contain any drainage courses; only a roadside ditch and former waste treatment facilities are present. The soil mapped in Borrow Site 2 is Chino Silt Loam [Exhibit 6, Sheet 3].

Borrow Site 3

Borrow Site 3 totals approximately 84.25 acres and contains no drainage courses; only former waste treatment facilities are present. The soils mapped in Borrow Site 3 are Chualar Clay Loam, 0 to 2 Percent Slopes and Chualar Clay Loam, 2 to 9 Percent Slopes [Exhibit 6, Sheet 4].

Borrow Site 4

Borrow Site 4 totals approximately 12.92 acres and does not contain any drainage courses. Of the 12.92 acres, approximately 1.09 acres are part of the adjacent Mill Creek Wetlands. The soils mapped in Borrow Site 4 are Chualar Clay Loam, 0 to 2 Percent Slopes, Chualar Clay Loam, 2 to 9 Percent Slopes, and Chualar Clay Loam, 9 to 15 Percent Slopes [Exhibit 6, Sheet 5].

Borrow Site 5

Borrow Site 5 totals approximately 21.28 acres and does not contain any drainage courses; only former waste treatment facilities are present. The soils mapped in Borrow Site 5 are Chino Silt Loam, Chualar Clay Loam, 2 to 9 Percent Slopes, and Grangeville Fine Sandy Loam [Exhibit 6, Sheet 6].

4.2 Vegetation

Project Site

During vegetation mapping of the Project site, one vegetation type was identified. Table 4-1 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 2. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-1. Summary of Vegetation/Land Use Types for the Project Site

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	97.26
TOTAL	**97.26**

Ruderal/Disturbed

Approximately 97.26 acres of the Project site consist of ruderal/disturbed habitat. Vegetation within the Project site consists of Aleppo pine (***Pinus halepensis***), ash (***Fraxinus*** sp.), Bermuda grass (***Cynodon dactylon***), black willow (***Salix gooddingii***), blue elderberry (***Sambucus nigra*** ssp. ***caerulea***), chaparral yucca (***Hesperoyucca whipplei***), cheeseweed mallow (***Malva parviflora***), clover (***Trifolium*** sp), common dandelion (***Taraxacum officinale***), common fiddleneck (***Amsinckia intermedia***), common Mediterranean grass (***Schismus barbatus***), common sunflower (***Helianthus annuus***), curly dock (***Rumex crispus***), desert brittlebush (***Encelia farinosa***), dwarf nettle (***Urtica urens***), field bindweed (***Convolvulus arvensis***), foxtail barley (***Hordeum murinum***), golden crownbeard (***Verbesina enceliodes***), lamb's quarters (***Chenopodium album***), London rocket (***Sisymbrium irio***), Mexican fan palm (***Washingtonia robusta***), milk thistle (***Silybum marianum***), millet (***Eleusine*** sp.), mission cactus (***Opuntia ficus-indica***), Peruvian pepper tree (***Schinus molle***), prostrate knotweed (***Polygonum aviculare***), red brome (***Bromus madritensis***), red stemmed filaree (***Erodium cicutarium***), Russian thistle (***Salsola tragus***), salt cedar (***Tamarix ramosissima***), silver puffs (***Uropappus lindleyi***), southern cattail (***Typha domingensis***), spiny sowthistle (***Sonchus asper***), summer mustard (***Hirschfeldia incana***), tree tobacco (***Nicotiana glauca***), western ragweed (***Ambrosia psilostachya***), and white horehound (***Marrubium vulgare***).

Off Site Storm Drain Improvement Area Adjacent to the Project Site

During vegetation mapping of the Off Site Storm Drain Improvement Area adjacent to the Project Site, one vegetation type was identified. Table 4-2 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 2. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-2. Summary of Vegetation/Land Use Types for Off Site Storm Drain Improvement Area

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ornamental	0.30
Developed	0.03
Ruderal/Disturbed	0.01
TOTAL	**0.34**

Ornamental

Approximately 0.30 acre of the Off Site Storm Drain Improvement Area adjacent to the Project site consists of ornamental habitat. Vegetation within the area appears to be maintained and ornamentally planted species dominated by coyote brush (*Baccharis pilularis*), with a few planted ornamental pines (*Pinus* sp.) and oak (*Quercus* sp.). Other species identified include salt cedar (*Tamarix ramosissima),* milk thistle (*Silybum marianum*), morning glory (*Ipomoea* sp.), and black nightshade (*Solanum americanum*).

Developed

Approximately 0.03 acre is considered developed and consists of an earthen road over the Cypress Channel and a concrete headwall structure (headwall, wingwalls, and bottom) conveying the channel beneath the earthen road.

Ruderal/Disturbed

Approximately 0.01 acre of ruderal/disturbed habitat occurs east of the concrete headwall of the Cypress Channel. Vegetation consists of foxtail barley (*Hordeum murinum*), London rocket (*Sisymbrium irio*), red stemmed filaree (*Erodium cicutarium*), and Russian thistle (*Salsola tragus*).

Borrow Site 1

During vegetation mapping of the Borrow Site 1, three vegetation types were identified. Table 4-3 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 3. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-3. Summary of Vegetation/Land Use Types for Borrow Site 1

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	39.05
Freshwater Marsh/Disturbed Freshwater Marsh	4.46
Southern Willow Scrub	0.16
TOTAL	**43.67**

Ruderal/Disturbed

Approximately 39.05 acres of land consists of ruderal/disturbed habitat within Borrow Site 1. Vegetation consists of jimson weed (*Datura wrightii*), mulefat (*Baccharis salicifolia*), common sunflower (*Helianthus annuus*), Canada horseweed (*Erigeron canadensis*), nightshade (*Solanum* sp.), Russian thistle (*Salsola tragus*), nettle leaf goosefoot (*Chenopodium murale*), tumbleweed (*Amaranthus albus*), cheeseweed mallow (*Malva parviflora*), prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), London rocket (*Sisymbrium irio*), Bermuda grass (*Cynodon dactylon*), red stemmed filaree (*Erodium cicutarium*), prostrate knotweed (*Polygonum aviculare*), tree of heaven (*Ailanthus altissima*), Mexican fan palm (*Washingtonia robusta*), common Mediterranean grass (*Schismus barbatus*), goldentop grass (*Lamarckia aurea*), annual stinging nettle (*Urtica urens*), tree tobacco (*Nicotiana glauca*), mission cactus (*Opuntia ficus-indica*), creeping bentgrass (*Agrostic gigantea*) agave (*Agave attenuata*), and perennial pepperweed (*Lepidium latifolium*).

Freshwater Marsh/Disturbed Freshwater Marsh

Approximately 4.46 acres of land consist of freshwater marsh and disturbed freshwater marsh habitat within Borrow Site 1. Vegetation consists of southern cattail (*Typha domingensis*), yerba mansa (*Anemopsis californica*), Canada horseweed (*Erigeron canadensis*), Mexican sprangletop grass (*Leptochloa fusca* ssp. *uninervia*), common sunflower (*Helianthus annuus*), salt marsh sand spurry (*Spergularia marina*), common knotweed (*Persicaria lapathifolia*), nettle leaf goosefoot (*Chenopodium murale*), flax-leaved horseweed (*Erigeron bonariensis*), summer mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), cheeseweed mallow (*Malva parviflora*), rabbitsfoot grass (*Polypogon monspeliensis*) spiny sowthistle (*Sonchus asper*), sweet clover (*Melilotus sp.*), London rocket (*Sisymbrium irio*), Bermuda grass (*Cynodon dactylon*), tree tobacco (*Nicotiana glauca*), Mexican fan palm (*Washingtonia robusta*), golden crownbeard (*Verbesina encelioides*), and perennial pepperweed (*Lepidium latifolium*).

Southern Willow Scrub

Approximately 0.16 acre of land consists of southern willow scrub habitat within Borrow Site 1. Vegetation consists of black willow (*Salix gooddingii*) and salt cedar (*Tamarix ramosissima*).

Borrow Site 2

During vegetation mapping of the Borrow Site 2, one vegetation type was identified. Table 4-4 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 3. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-4. Summary of Vegetation/Land Use Types for Borrow Site 2

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	38.51
TOTAL	**38.51**

Ruderal/Disturbed

All 38.51 acres of Borrow Site 2 consist of ruderal/disturbed habitat. Vegetation within Borrow Site 2 consists of Chinese parsley (*Heliotropium curassavicum*), telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola tragus*), spiny sowthistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheeseweed mallow (*Malva parviflora*), italian rye grass (*Festuca perennis*), poison hemlock (*Conium maculatum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), bull thistle (*Cirsium vulgare*), bristly ox-tongue (*Helminthotheca echioides*), prostrate knotweed (*Polygonum aviculare*), shamel ash (*Fraxinus* uhdei), field bindweed (*Convolvulus arvensis*), curly dock (*Rumex crispus*), sweet clover (*Melilotus sp.*), and Asian ponyfoot (*Dichondra micrantha*).

Borrow Site 3

During vegetation mapping of the Borrow Site 3, one vegetation type was identified. Table 4-5 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 4. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-5. Summary of Vegetation/Land Use Types for Borrow Site 3

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	84.25
TOTAL	**84.25**

Ruderal/Disturbed

All 84.25 acres of Borrow Site 3 consist of ruderal/disturbed habitat. Vegetation within Borrow Site 3 consists of Mexican fireweed (*Bassia scoparia*), five-hook bassia (*Bassia hyssopifolia*), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*), soft chess (*Bromus tectorum*), wild oat (*Avena fatua*), goldentop grass (*Lamarkia aurea*), sunflower (*Heliantus annuus*), cheeseweed mallow (*Malva parviflora*), coyote brush (*Baccharis pilularis*), London rocket (*Sisymbrium irio*), Italian thistle (*Carduus* sp.), Bermuda grass (*Cynodon dactylon*), tumbleweed (*Amaranthus albus*), prickly sow-thistle (*Sonchus asper*), rabbitsfoot grass (*Polypogon monspeliensis*), common knotgrass (*Polygonum aviculare*), Australian saltbush (*Atriplex semibaccata*), big saltbush (*Atriplex lentiformis*), purple needlegrass (*Stipa pulchra*), salt heliotrope (*Heliotropium curassavicum*), Italian rye grass (*Festuca perennis*), wall barley

(*Hordeum marinum*), pigweed (*Chenopodium album*), London rocket (*Sysimbrium irio*), Mediterranean grass (*Schismus barbatus*), perennial pepperweed (*Lepidium latifolium*), milk thistle (*Silybum marianum*), golden crownbeard (*Verbesina encelioides*), and California brittlebrush (*Encilia californica*).

Borrow Site 4

During vegetation mapping of Borrow Site 4, two vegetation types were identified. Table 4-6 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 5. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-6. Summary of Vegetation/Land Use Types for Borrow Site 4

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	11.83
Coastal Sage Scrub	1.09
TOTAL	**12.92**

Ruderal/Disturbed

Approximately 11.83 acres of Borrow Site 4 consist of ruderal/disturbed habitat. This area primarily consists of disturbed open space which is regularly maintained for weed abatement. This area is dominated with non-native species including cheeseweed (*Malva parviflora*), Russian thistle (*Salsola tragus*), nettle leaf goosefoot (*Chenopodium murale*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), tumbleweed (*Amaranthus albus*), common red sage (*Kochia scoparia*), annual stinging nettle (*Urtica urens*), prickly lettuce (*Lactuca serriola*), and Bermuda grass (*Cynodon dactylon*). This vegetation/land use type also accounts for the unpaved access roads occurring along the western and southern portions of Borrow Site 4 which are devoid of vegetation.

Coastal Sage Scrub

Approximately 1.09 acres along the southern and eastern boundaries of Borrow Site 4 consist of a planted coastal sage scrub (CSS) vegetation community.[8] This area is part of a native restoration effort associated with the adjacent Mill Creek Wetlands and is dominated with native species including coast goldenbush (*Isocoma menziesii*), California sagebrush (*Artemisia californica*), golden crownbeard (*Verbesina encelioides*), California brittlebush (*Encelia californica*), and coyote brush (*Baccharis pilularis*). Scattered trees also occur throughout this area including toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and coast live oak (*Quercus agrifolia*).

[8] Of the 1.06 acres of CSS, 0.97 acre occur within U.S. Army Corps of Engineer owned land.

Borrow Site 5

During vegetation mapping of the Borrow Site 5, one vegetation type was identified. Table 4-7 provides a summary of vegetation/land uses and the corresponding acreage. Detailed descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 4, Sheet 6. Photographs depicting the various vegetation types are attached as Exhibit 13.

Table 4-7. Summary of Vegetation/Land Use Types for Borrow Site 5

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	21.28
TOTAL	**21.28**

Ruderal/Disturbed

All 21.28 acres of Borrow Site 5 consist of ruderal/disturbed habitat. Vegetation within Borrow Site 5 consists of common sunflower (*Helianthus annuus*), Russian thistle (*Salsola tragus*), common red sage (*Kochia scoparia*), spiny sowthistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheeseweed mallow (*Malva parviflora*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), milk thistle (*Silybum marianum*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), and annual stinging nettle (*Urtica urens*).

4.3 Wildlife

On March 12, March 13, and April 16, 2019, biologist Zack West conducted a habitat assessment of the Study Area, during which all detected wildlife was recorded. No special status species were detected, though portions of the Study Area do constitute potential habitat for the burrowing owl (*Athene cunicularia*), tri-colored blackbird (*Agelaius tricolor*), and the least Bell's vireo (*Vireo bellii pusillus*).
Species detected within the Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site included:

- Invertebrates: painted lady (*Vanessa cardui*);

- Birds: American coot (*Fulica americana*), American crow (*Corvus brachyrhynchos*), American pipit (*Anthus rubescens*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), blue-gray gnatcatcher (*Polioptila caerulea*), Brewer's blackbird (*Euphagus cyanocephalus*), Canada goose (*Branta canadensis*), Cassin's kingbird (*Tyrannus vociferans*), common raven (*Corvus corax*), common yellowthroat (*Geothlypis trichas*), Eurasian-collared dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), great-tailed grackle (*Quiscalus mexicanus*), house finch (*Haemorhous mexicanus*), killdeer (*Charadrius vociferous*), lesser goldfinch (*Spinus psaltria*), mallard (*Anas platyrhynchos*), northern harrier (*Circus hudsonius*), red-tailed hawk (*Buteo jamaicensis*), ring-billed gull (*Larus delawarensis*), Say's phoebe (*Sayornis saya*), song

sparrow (*Melospiza melodia*), tree swallow (*Tachycineta bicolor*), turkey vulture (*Cathartes aura*), willet (*Tringa semipalmata*), yellow-rumped warbler (*Setophaga coronata*);

- Reptiles and Amphibians: western fence lizard (*Sceloporus occidentalis*), western toad (*Anaxyrus boreas*); and

- Mammals: California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*).

Species detected in Borrow Sites 1 and 2 included:

- Invertebrates: Painted lady (*Vanessa cardui*);

- Birds: American crow (*Corvus brachyrhynchos*), American pipit (*Anthus rubescens*), black phoebe (*Sayornis nigricans*), Brewer's blackbird (*Euphagus cyanocephalus*), Canada goose (*Branta canadensis*), common raven (*Corvus corax*), common yellowthroat (*Geothlypis trichas*), Cooper's hawk (*Accipiter cooperi*), double-crested cormorant (*Phalacrocorax auratus*), Eurasian-collared dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), great egret (*Ardea alba*), great-tailed grackle (*Quiscalus mexicanus*), greater yellowlegs (*Tringa melanoleuca*), horned lark (*Eremophila alpestris*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), killdeer (*Charadrius vociferous*), mallard (*Anas platyrhynchos*), northern flicker (*Colaptes auratus*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), rock pigeon (*Columba livia),* rufous hummingbird (*Selasphorus rufus*), savannah sparrow (*Passerculus sandwichensis*), Say's phoebe (*Sayornis saya*), song sparrow (*Melospiza melodia*), white-crowned sparrow (*Zonotrichia leucophrys*), white-faced ibis (*Plegadis chihi*), yellow-rumped warbler (*Setophaga coronata*); and

- Mammals: Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), common raccoon (*Procyon lotor*).

Species detected in Borrow Site 3 included:

- Birds: American crow (*Corvus brachyrhynchos*), cinnamon teal (*Spatula cyanoptera*), European starling (*Sturnus vulgaris*), greater yellowlegs (*Tringa melanoleuca*), house wren (*Troglodytes aedon*), killdeer (*Charadrius vociferous*), lark sparrow (*Chondestes grammacus*), lesser scaup (*Aythya affinis*), northern flicker (*Colaptes auratus*), northern shoveler (*Spatula clypeata*), red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), tree swallow (*Tachycineta bicolor*), turkey vulture (*Cathartes aura*), western meadowlark (*Sturnella neglecta*), western sandpiper (*Calidris mauri*), willet (*Tringa semipalmata*).

Species detected in Borrow Sites 4 and 5 included:

- Invertebrates: painted lady (*Vanessa cardui*);

- Birds: American kestrel (*Falco sparverius*), peregrine falcon (), barn swallow (*Hirundo rustica*), black phoebe (*Sayornis nigricans*), Brewer's blackbird (*Euphagus cyanocephalus*), brown-headed cowbird (*Molothrus ater*), California gull (*Larus californicus*), California thrasher (*Toxostoma redivivum*), California towhee (*Melozone crissalis*), Canada goose (*Branta canadensis*), common raven (*Corvus corax*), blue-gray gnatcatcher (*Polioptila caerulea*), common yellowthroat (*Geothlypis trichas*), Cooper's hawk (*Accipiter cooperi*), northern harrier (*Circus hudsonius*), Eurasian-collared dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), great-tailed grackle (*Quiscalus mexicanus*), house finch (*Haemorhous mexicanus*), killdeer (*Charadrius vociferous*), northern mockingbird (*Mimus polyglottos*), northern rough-winged swallow (*Stelgidopteryx serripennis*), red-tailed hawk (*Buteo jamaicensis*), red-winged blackbird (*Agelaius phoeniceus*), savannah sparrow (*Passerculus sandwichensis*), song sparrow (*Melospiza melodia*), tricolored blackbird (*Agelaius tricolor*), western kingbird (*Tyrannus verticalis*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*);

- Reptiles and Amphibians: western fence lizard (*Sceloporus occidentalis*); and

- Mammals: Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*).

4.4 Special-Status Vegetation Communities (Habitats)

The CNDDB identifies the following 11 special-status vegetation communities for the Black Star Canyon, Corona North, Corona South, Guasti, Ontario, Orange, Prado Dam, San Dimas, and Yorba Linda quadrangle maps: Southern California Arroyo Chub/Santa Ana Sucker Stream, Riversidian Alluvial Fan Sage Scrub, Southern Riparian Forest, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Sycamore Alder Riparian Woodland, Southern Riparian Scrub, Southern Willow Scrub, California Walnut Woodland, Walnut Forest, and Southern Interior Cypress Forest.

The Study Area contains two special-status vegetation types, southern willow scrub and freshwater marsh/disturbed freshwater marsh habitat. A total of 0.16 acre of southern willow scrub habitat is present and a total of 4.46 acres of freshwater marsh/disturbed freshwater marsh habitat is present.

4.5 Special-Status Plants

No special-status plants were detected within the Study Area. Species within Table 4-8 provide a list of special-status plants evaluated for the Study Area through a general biological survey and habitat assessment. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Study Area, and 2) any other special-status plants that are known to occur within

the vicinity of the Study Area, or for which potentially suitable habitat occurs within the Study Area.

Table 4-8. Special-Status Plants Evaluated for the Study Area

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

CNPS Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Occurrence

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	Status	Habitat Requirements	Occurrence
Allen's pentachaeta *Pentachaeta aurea* ssp. *allenii*	Federal: None State: None CNPS: Rank 1B.1	Openings in coastal sage scrub, and valley and foothill grasslands.	Does not occur.
Brand's star phacelia *Phacelia stellaris*	Federal: None State: None CNPS: Rank 1B.1	Coastal dunes and coastal sage scrub.	Does not occur
Braunton's milk-vetch *Astragalus brauntonii*	Federal: FE State: None CNPS: Rank 1B.1	Closed-cone coniferous forest, chaparral, coastal sage scrub, valley and foothill grassland. Usually carbonate soils. Recent burn or disturbed areas.	Does not occur.
California beardtongue *Penstemon californicus*	Federal: None State: None CNPS: Rank 1B.2	Sandy soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
California saw-grass *Cladium californicum*	Federal: None State: None CNPS: Rank 2B.2	Meadows and seeps, and alkaline or freshwater marshes and swamps.	Does not occur.
Chaparral nolina *cismontana*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub. Occurring on sandstone or gabbro substrates.	Does not occur
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CNPS: Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: Rank 1B.1	Sandy soils in chaparral, coastal sage scrub.	Does not occur
Coulter's saltbush *Atriplex coulteri*	Federal: None State: None CNPS: Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland. Occurring on alkaline or clay soils.	Does not occur
Gambel's water cress *Nasturtium gambelii*	Federal: FE State: ST CNPS: Rank 1B.1	Marshes and swamps (freshwater or brackish).	Absent
Heart-leaved pitcher sage *Lepechinia cardiophylla*	Federal: None State: None CNPS: Rank 1B.2	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CNPS: Rank 1B.2	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur
Intermediate monardella *Monardella hypoleuca ssp.intermedia*	Federal: None State: None CNPS: Rank 1B.3	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur
Jokerst's monardella *Monardella australis* ssp. *jokerstii*	Federal: None State: None CNPS: Rank 1B.1	Steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes. Chaparral, lower montane coniferous forest.	Does not occur
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: Rank 1B.2	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur
Lucky morning-glory *Calystegia felix*	Federal: None State: None CNPS: Rank 3.1	Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly silty loam and alkaline soils. Meadows and seeps (sometimes alkaline), riparian scrub (alluvial).	Absent
Malibu baccharis *Baccharis malibuensis*	Federal: None State: None CNPS: Rank 1B.1	Chaparral, cismontane woodland, coastal sage scrub.	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CNPS: Rank 1B.1	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur
Prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CNPS: Rank 1B.1	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Does not occur
Rigid fringepod *Thysanocarpus rigidus*	Federal: None State: None CNPS: Rank 1B.2	Dry rocky slopes in pinyon and juniper woodland.	Does not occur
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Does not occur
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CNPS: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur
San Fernando Valley spineflower *Chorizanthe parryi* var. *fernandina*	Federal: FPT State: SE CNPS: Rank 1B.1	Coastal sage scrub, occurring on sandy soils.	Does not occur
Santa Ana River woolly star *Eriastrum densifolium* ssp. *sanctorum*	Federal: FE State: SE CNPS: Rank 1B.1	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils.	Does not occur
Santiago Peak phacelia *Phacelia keckii*	Federal: None State: None CNPS: Rank 1B.3	Closed-cone coniferous forest, chaparral	Does not occur
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: Rank 1B.1	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: Rank 1B.1	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Absent
Southern tarplant *Centromadia parryi* ssp. *australis*	Federal: None State: None CNPS: Rank 1B.1	Disturbed habitats, margins of marshes and swamps, vernally mesic valley and foothill grassland, vernal pools.	Absent

Species Name	Status	Habitat Requirements	Occurrence
Tecate cypress *Hesperocyparis forbesii*	Federal: None State: None CNPS: Rank 1B.1	Closed-cone coniferous forest, chaparral.	Does not occur
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Does not occur

4.5.1 Special-Status Plants Detected within the Study Area

No special-status plants were detected within the Study Area and none are expected. The vast majority of the Study Area has been either a working farm or dairy operation for several decades and although there are lands that are dominated by non-native grasses and forbes, there is no potential for the lands to function as a natural vegetation community that would support special-status plants. The approximately 1.09 acres of CSS along the southern and eastern boundaries of Borrow Site 4 were planted as part of a native restoration effort associated with the adjacent Mill Creek Wetlands and no special-status plants were detected during focused plant surveys.

4.6 Special-Status Animals

Table 4-9 provides a list of special-status animals evaluated for the Study Area through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Study Area, and 2) any other special-status animals that are known to occur within the vicinity of the Study Area, for which potentially suitable habitat occurs on the site.

Table 4-9. Special Status Animals Evaluated for the Study Area

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
BGEPA– Bald and Golden Eagle Protection Act
SSC – Species of Special Concern

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
CFP – California Fully-Protected Species

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

Occurrence

- Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Delhi-sands flower-loving fly *Raphiomidas terminatus abdominalis*	Federal: FE State: None	Fine, sandy soils, often associated with wholly or partially consolidated dunes referred to as the "Delhi" series. Vegetation consists of a sparse cover, including California buckwheat, California croton, deerweed, and evening primrose.	Does not occur
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None	Seasonal vernal pools	Does not occur
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None	Seasonal vernal pools	Does not occur
Fish			
Arroyo chub *Gila orcutti*	Federal: None State: SSC	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
Santa Ana sucker *Catostomus santaanae*	Federal: FT State: None	Small, shallow streams, less than 7 meters in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates.	Does not occur
Amphibians			
Arroyo toad *Anaxyrus californicus*	Federal: FE State: SSC	Breed, forage, and/or aestivate in aquatic habitats, riparian, coastal sage scrub, oak, and chaparral habitats. Breeding pools must be open and shallow with minimal current, and with a sand or pea gravel substrate overlain with sand or flocculent silt. Adjacent banks with sandy or gravely terraces and very little herbaceous cover for adult and juvenile foraging areas, within a moderate riparian canopy of cottonwood, willow, or oak.	Does not occur
Coast Range newt *Taricha torosa*	Federal: None State: SSC	Found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, drier chaparral, oak woodland, and grasslands are used.	Does not occur
Northern leopard frog *Lithobates pipiens*	Federal: None State: SSC	Inhabits grassland, wet meadows, potholes, forests, woodland, brushlands, springs, canals, bogs, marshes, reservoirs. Generally prefers permanent water with abundant aquatic vegetation.	Does not occur
Western spadefoot *Spea hammondii*	Federal: None State: SSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur.
Reptiles			

Species Name	Status	Habitat Requirements	Occurrence
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Does not occur
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Does not occur
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: SSC	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats that any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Does not occur
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Not expected to occur
Western pond turtle *Emys marmorata*	Federal: None State: SSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary,	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
		including logs, rocks, submerged vegetation, and undercut banks.	
Birds			
American peregrine falcon (nesting) *Falco peregrinus anatum*	Federal: Delisted State: Delisted, FP	Breeding habitat consists of high cliffs, tall buildings, and bridges along the coast and inland. Foraging habitat primarily includes open areas near wetlands, marshes, and adjacent urban landscapes.	Foraging only
Bald eagle (nesting & wintering) *Haliaeetus leucocephalus*	Federal: Delisted State: SE, FP	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	Foraging only
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Present within project site. Moderate potential to occur within the Off Site Storm Drain Improvement Area adjacent to the Project Site and Borrow Sites 1-5.
California black rail *Laterallus jamaicensis coturniculus*	Federal: None State: ST, FP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Does not occur
Coastal cactus wren (San Diego & Orange County only) *Campylorhynchus brunneicapillus sandiegensis*	Federal: None State: SSC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Does not occur
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: None State: FP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Foraging only

Species Name	Status	Habitat Requirements	Occurrence
Grasshopper sparrow (nesting) *Ammodramus savannarum*	Federal: None State: SSC	Open grassland and prairies with patches of bare ground.	Does not occur
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Present within Borrow Site 1 and adjacent to Borrow Sites 2 and 5. No suitable habitat in Borrow Sites 3 or 4. Very low potential to occur in Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site.
Long-eared owl (nesting) *Asio otus*	Federal: None State: SSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Does not occur
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST	Summer in wide open spaces of the American West. Nest in grasslands, but can use sage flats and agricultural lands. Nests are placed in lone trees.	Foraging only
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: SE	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Present in foraging role within and adjacent to Borrow Site 4. No suitable foraging or breeding habitat present within Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 1, 2, 3, and 5.
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT State: SE	Dense, wide riparian woodlands with well-developed understories.	Does not occur
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Foraging only.
Yellow rail *Coturnicops noveboracensis*	Federal: None State: SSC	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
		marshes, as well as dense, deep grass, and rice fields.	
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Moderate potential to occur in Borrow Site 1. No suitable habitat is present in Project site, the Off Site Storm Drain Improvement Area Adjacent to the Project Site, or Borrow Sites 2, 3, 4, or 5.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Moderate potential to occur in Borrow Site 1. No suitable habitat present in Project site, the Off Site Storm Drain Improvement Area Adjacent to the Project Site, or Borrow Sites 2, 3, 4, or 5.
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Absent
Big free-tailed bat *Nyctinomops macrotis*	Federal: None State: SSC WBWG: MH	Roost mainly in crevices and rocks in cliff situations; also utilize buildings, caves, and tree cavities.	Foraging only
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur
Mexican long-tongued bat *Choeronycteris mexicana*	Federal: None State: SSC WBWG: H	Variety of habitats ranging from desert, montane, riparian, to pinyon-juniper habitats. Found roosting in desert canyons, deep caves, mines, or rock crevices. Can use abandoned buildings.	Does not occur
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Does not occur
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Roosting: Low potential to occur within project site, the Off Site Storm Drain Improvement Area Adjacent to the Project Site and Borrow Site 5. No suitable habitat for

Species Name	Status	Habitat Requirements	Occurrence
			roosting in Borrow Sites 1, 2, 3, or 4.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Does not occur
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Absent
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Does not occur
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Roosting: Low potential to occur within Project site, the Off Site Storm Drain Improvement Area Adjacent to the Project Site and Borrow Site 5. No suitable habitat for roosting in Borrow Sites 1, 2, 3, or 4.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Roosting: Low potential to occur within Project site, the Off Site Storm Drain Improvement Area Adjacent to the Project Site and Borrow Site 5. No suitable habitat for roosting in Borrow Sites 1, 2, 3, or 4.
Yuma myotis *Myotis yumanensis*	Federal: None State: None WBWG: LM	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Foraging only.

4.6.1 Special-Status Wildlife Species Observed within the Study Area

Three special-status wildlife species were detected within the Study Area. These species are the least Bell's vireo, burrowing owl, and tri-colored blackbird.

Burrowing Owl (*Athene cunicularia*)

Focused surveys for the burrowing owl were conducted for the Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site on February 26, 2019, April 23, 2019, May 22, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Sites 1 and 2 on February 26, 2019, April 16, 2019, May 21, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Site 3 on February 28, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. Focused surveys were conducted for Borrow Sites 4 and 5 on February 27, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. No burrowing owls were detected within Borrow Sites 1 through 5, or within the Off Site Storm Drain Improvement Area adjacent to the Project Site. Two burrowing owls were detected within a remnant dairy portion of the Project Site (Exhibit 7 – Burrowing Owl Survey Area Map). These owls are assumed to be a breeding pair based upon their presence during the breeding season. These owls occur within the portion of the Project Study Area located outside of the RMP. There is potential for burrowing owls to occur within an approximate 298.19-acre portion of the Study Area, which encompasses all locations within the Study Area except for the 0.03-acre Developed portion of the Off Site Storm Drain Improvement Area.

Least Bell's Vireo (*Vireo bellii pusillus*)

Focused surveys for the least Bell's vireo were conducted on April 11, April 25, May 8, May 20, May 31, June 11, June 27, and July 8, 2019 per the protocol. The Least Bell's vireo has been detected within Borrow Site 1, and off site within the vicinity of Borrow Sites 2 and 5 but has not been detected within the remainder of the Study Area (Project site, Off Site Storm Drain Improvement Area adjacent to the Project Site, and Borrow Sites 3 and 4) as these other borrow sites do not support suitable habitat for this species. It is assumed that the vireo may be nesting within approximately 0.16 acre of riparian habitat and foraging within 4.46 acres of Borrow Site 1 (black willow thickets, tamarisk thickets, cattail marshes) in the Study Area. It is not expected that the vireo will be temporarily or permanently affected in Borrow Sites 2 or 5 as no foraging habitat for this species is present within either Borrow Site 2 or 5. No suitable habitat for this species is present within Borrow Sites 3 or 4. The Project Site and the Off Site Storm Drain Improvement Area adjacent to the Project Site have very low potential to support vireo due to the lack of suitable habitat, and superior habitat is present within further off site areas, such as the Prado Basin.

Yellow Warbler (*Setophaga petechia*)

Focused surveys for the least Bell's vireo were conducted between mid-April and July 2019. The habitat requirements for the least Bell's vireo generally overlap with the habitat requirements for the yellow warbler. Suitable habitat for the yellow warbler is present within Borrow Site 1, and off site within the vicinity of Borrow Sites 2 and 5. The yellow warbler was

not detected within Borrow Site 1, 2, or 5. The yellow warbler was also not detected within the remainder of the Study Area (Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 3 and 4) as these areas do not support suitable habitat for this species. It is not expected that the yellow warbler will be temporarily or permanently affected in Borrow Sites 2 or 5 as they were not detected. No suitable nesting habitat for this species is present within Borrow Sites 3 or 4. The Project site and the Off Site Storm Drain Improvement Area have very low potential to support the yellow warbler due to the lack of suitable nesting habitat present within either site, and superior nesting habitat present within off site areas nearby.

Yellow-Breasted Chat (*Icteria virens*)

Focused surveys for the least Bell's vireo were conducted between mid-April and July 2019. The habitat requirements for the least Bell's vireo generally overlap with the habitat requirements for the yellow-breasted chat. Suitable habitat for the yellow-breasted chat is present within Borrow Site 1, and off site within the vicinity of Borrow Sites 2 and 5. The yellow-breasted chat was not detected within Borrow Site 1, 2, or 5. The yellow-breasted chat was also not detected within the remainder of the Study Area (Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 3 and 4) as these areas do not support suitable habitat for this species. It is not expected that the yellow-breasted chat will be temporarily or permanently affected in Borrow Sites 2 or 5 as they were not detected. No suitable nesting habitat for this species is present within Borrow Sites 3 or 4. The Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site have very low potential to support the yellow-breasted chat due to the lack of suitable nesting habitat present within either site, and superior nesting habitat present within off site areas nearby the Project site.

Tri-Colored Blackbird (*Agelaius tricolor*)

The tricolored blackbird is listed as a Threatened species by the state. The tri-colored blackbird was observed foraging within and adjacent to Borrow Site 4 near a known population of blackbirds associated with the Mill Creek Wetlands. GLA biologists did not detect the tri-colored blackbird within the Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 1, 2, 3, or 5.

4.6.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur within the Study Area

There is moderate potential for the state Fully Protected white-tailed kite (*Elanus leucurus*) to nest within large ornamental trees and forage within the Project site, but not within Borrow Sites 1-5.

The state listed as Endangered bald eagle (*Haliaeetus leucocephalus*) has the potential to forage within the Project Study Area; however, this species is not expected to nest within the Project Study Area, as it is located approximately one-half to one mile from the nearest large body of open water.

The state listed as Threatened Swainson's hawk (*Buteo swainsoni*) has the potential to forage within the Project Study Area; however, the Project Study Area is located outside of the nesting range for this species.

The state Fully Protected golden eagle (*Aquila chrysaetos*) has the potential to forage within the Project Study Area; however, the Project Study Area does not contain the high cliffs and rocky escarpments used for nesting by this species.

The state Fully Protected American peregrine falcon (*Falco peregrinus anatum*) has the potential to forage within the Project Study Area; however, the Project study area does not contain the high cliffs, tall buildings, and bridges used for nesting by this species.

Five special-status bats have potential to forage within the Project study area: big free-tailed bat (*Nyctinomops macrotis*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), western yellow bat (*Lasiurus xanthinus*), and Yuma myotis (*Myotis yumanensis*).

None of these species are state or federally listed but four of the five are state Species of Special Concern. Of these, the western yellow bat has the potential to roost within ornamental trees within the site and the two sycamore trees within Borrow Site 5. No suitable habitat is present within the remainder of the Study Area.

4.6.3 Critical Habitat

The Project site, as well as Borrow Sites 2 and 4, are not located within USFWS-designated critical habitat areas, but the Off Site Storm Drain Improvement Area adjacent to the Project Site, and Borrow Sites 1, 3, and 5 are within mapped designated Critical Habitat for the least Bell's vireo, a state and federal endangered songbird. Exhibit 9, Sheet 1 through 6 depict Critical Habitat within the Study Area.

4.7 Raptor Use

The Study Area has the potential to support raptor foraging habitat for several species and nesting habitat for burrowing owl. The four most regionally abundant raptor species, red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), Great Horned Owl (*Bubo virginianus*), and Barn Owl (*Tyto alba*), may forage on the site throughout the year. As indicated above in Section 4.6.2, the burrowing owl is present within the Project site and has the potential to be present in Borrow Sites 1-5, but surveys for the burrowing owl documented its absence in Borrow Sites 1-5.

There are approximately 298.19 acres of raptor foraging habitat within the Study Area. This includes the entire Study Area except for the 0.03-acre of developed land within the Off Site Storm Drain Improvement Area.

4.8 Nesting Birds

The Study Area contains trees, shrubs, and ground cover that provide suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[9]

4.9 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

The Study Area does not support any habitat linkage or wildlife corridor.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

The Study Area does not support a wildlife nursery.

4.10 Jurisdictional Delineation

The Study Area contains three drainage features: 1) Cypress Channel, a concrete flood control channel within the Off Site Storm Drain Improvement Area, 2) one drainage, Drainage 1, within Borrow Site 1, and 3) one artificially created roadside ditch, Ditch 1, within Borrow Site 2 [Exhibit 5A Sheets 1 and 2 – Corps/Regional Board Jurisdictional Delineation Map and Exhibit 5B Sheets 1 and 2 – CDFW Jurisdictional Delineation Map].

Cypress Channel

The Cypress Channel is a concrete-lined, concrete-bottomed flood control channel that flows in a north to south direction immediately east of the Project site. It enters the Study Area near the southeast corner of the Project site within the Off Site Storm Drain Improvement Area. The only portion of the Cypress Channel that is included in the Study Area is where the channel outlets

[9] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

from beneath an earthen road. At this location, the Cypress Channel conveys perennial flows for 22 linear feet through a 28-foot wide headwall structure that consists of the concrete headwall, vertical wingwalls, and bottom. Downstream of the Study Area, the channel enters the Prado Basin. Approximately 0.01 acre of Corps, Regional Board, and CDFW jurisdiction is present within the Cypress Channel.

Drainage 1

Drainage 1 is an intermittent channel located in the central portion of Borrow Site 1. Drainage 1 enters Borrow Site 1 beneath Pine Avenue to the north and flows in a north to south direction for 1,645 feet before leaving Borrow Site 1 and entering the Prado Basin. Approximately 4.59 acres of Corps and Regional Board jurisdiction, and 4.81 acres of CDFW jurisdiction, are present within Drainage 1.

Ditch 1

Ditch 1 is an artificially created roadside ditch located parallel to Johnson Avenue within Borrow Site 2. Ditch 1 enters the Study Area beneath Pine Avenue to the north and flows in a north to south direction for 2,366 feet before leaving Borrow Site 2 and entering the Prado Basin. Approximately 0.27 acre of Regional Board and CDFW jurisdiction is present within Ditch 1. There is no Corps jurisdiction within Ditch 1 as it would not be regulated under 33 CFR Section 328.3.

The Study Area jurisdictional delineation report is attached as Appendix C.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project, but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other off site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise,

the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2019 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
>
> *d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.*
>
> *e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
>
> *f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

5.2 Impacts to Native Vegetation

Tables 5-1 through 5-7 provide a summary of vegetation community impacts. There are three native vegetation communities present within the Study Area: Freshwater Marsh/Disturbed Freshwater Marsh, Southern Willow Scrub, and Coastal Sage Scrub. The proposed Project will result temporary impacts of up to 0.76 acre of CSS habitat within Borrow Site 4. No impact to native habitat communities will occur in the Project Site, the Off Site Storm Drain Improvement Area adjacent to the Project Site or at any of the other borrow sites as there are no native vegetation communities present in those areas. The native vegetation communities within Borrow Site 1 will not be impacted as a result of the proposed Project.

Grading activities at the Project Site will permanently impact the entire 97.26 acres of non-native vegetation in the form of ruderal/disturbed habitat. As discussed in Section 4.2, the ruderal/disturbed habitat is not considered a natural vegetation community since these areas are dominated by non-native grass and forb species. The majority of the Study Area has been historically used for agriculture and ranching (dairy).

Grading activities within the Borrow Sites will permanently impact 110.43 acres of non-native vegetation in the form of ruderal/disturbed habitat. The breakdown of acreage impacts at each borrow site is provided in the tables below. As discussed in Section 4.2, the ruderal/disturbed habitat is not considered a natural vegetation community since these areas are dominated by non-native grass and forb species. The majority of the borrow sites has been historically used for agriculture and ranching (dairy). Once borrow activities have been completed within Borrow Sites 1 through 5, the Project will include application of a native hydroseed mix to each borrow site to avoid the spread of non-native, invasive plant species. Additionally, as a project design feature, the temporary impact to 0.76 acre of CSS along the southern and eastern boundary of Borrow Site 4 will be reseeded with a specific CSS seed mix comprising the same species currently present.

The permanent removal of up to 207.69 acres of ruderal/disturbed lands within all areas of the Project site and borrow sites would not be a significant impact under CEQA. These lands are not expected to support quality habitat for plants and animals due to the decades of disking and pasture use by dairy cattle. Similarly, permanent removal of up to 0.30 acre of ornamental vegetation within the Off Site Storm Drain Improvement Area would not be a significant impact under CEQA as these lands do not support quality habitat for plants and animals. The connection of the off site storm drain to the developed/disturbed land (concrete headwall structure) would also not be a significant impact under CEQA as it will not impact any jurisdictional portion of the Cypress Channel. The storm drain connection will terminate within the concrete headwall structure, above the OHWM, and the headwall structure will remain in the same location post-construction.

The temporary impact to 0.76 acre of CSS habitat within Borrow Site 4 would not be considered significant pursuant under CEQA because the project incorporates a design feature of reseeding of this area with a specific CSS seed mix. No mitigation would be required.

Vegetation impact maps are attached as Exhibit 11, Sheet 1 through 6.

Table 5-1. Summary of Vegetation/Land Use Impacts, Project Site

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	97.26
TOTAL	**97.26**

Table 5-2. Summary of Vegetation/Land Use Impacts, Off Site Storm Drain Improvement Area Adjacent to the Project Site

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ornamental	0.30
Developed/Disturbed	0.00 (Connection to Concrete Headwall only)
TOTAL	**0.30**

Table 5-3. Summary of Vegetation/Land Use Impacts, Borrow Site 1

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	28.51
TOTAL	**28.51**

Table 5-4. Summary of Vegetation/Land Use Impacts, Borrow Site 2

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	20.79
TOTAL	**20.79**

Table 5-5. Summary of Vegetation/Land Use Impacts, Borrow Site 3

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	31.97
TOTAL	**31.97**

Table 5-6. Summary of Vegetation/Land Use Impacts, Borrow Site 4

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	10.58
Coastal Sage Scrub	0.76 (temporary)
TOTAL	**11.34**

Table 5-7. Summary of Vegetation/Land Use Impacts, Borrow Site 5

VEGETATION TYPE/ LAND USE TYPE	ACREAGE
Ruderal/Disturbed	18.58
TOTAL	**18.58**

5.3 Impacts to Special-Status Plants

The proposed Project in the Study Area will not impact special-status plants as there is no potential for any to occur.

5.4 Impacts to Special-Status Animals

The proposed Project in the Study Area has the potential to impact burrowing owl, least Bell's vireo, tri-colored blackbird, as well as raptors such as the white-tailed kite, bald eagle, golden eagle, peregrine falcon, and Swainson's hawk, if any of these species are present during construction. The Project may also potentially affect the big free-tailed bat, pallid bat, western mastiff bat, western yellow bat, and Yuma myotis.

Focused surveys for the burrowing owl were conducted for the Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site on February 26, 2019, April 23, 2019, May 22, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Sites 1 and 2 on February 26, 2019, April 16, 2019, May 21, 2019, and July 2, 2019. Focused surveys were conducted for Borrow Site 3 on February 28, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. Focused surveys were conducted for Borrow Sites 4 and 5 on February 27, 2019, April 16, 2019, May 22, 2019, and July 3, 2019. As discussed in Section 4.6.1, there are burrows on the Project Site that are potentially suitable for burrowing owl and a pair of burrowing owls have been observed within the Project Site. There were also potentially suitable burrows for the burrowing owl on Borrow Sites 1 through 5, but no owls were detected within the borrow sites. No suitable burrows were observed within the Off Site Storm Drain Improvement Area adjacent to the Project Site. The potential presence of burrowing owls within the Project site is a potentially significant impact under CEQA. Refer to Section 6 to address this potential impact.

Focused surveys for the least Bell's vireo were conducted on April 11, April 25, May 8, May 20, May 31, June 11, June 27, and July 8, 2019 per the protocol. One detection of least Bell's vireo was made at the southern boundary of Borrow Site 1 within the freshwater marsh and southern willow scrub habitat [Exhibit 8]. The Project will not impact the freshwater marsh or southern willow scrub habitat and therefore no direct take of this species would occur; however, grading activities would occur within approximately 125 feet of the detection location. The applicant will conduct borrow activities within Borrow Site 1 outside of the nesting season for the vireo (March 15th to September 15th) to the greatest extent feasible. If this is not possible, sound walls will be erected or other noise attenuation measures will be implemented to ensure that the vireo is not affected by borrow activities.

The habitat requirements for the least Bell's vireo generally overlap with the habitat requirements for the yellow warbler. Suitable habitat for the yellow warbler is present within Borrow Site 1, and off site within the vicinity of Borrow Sites 2 and 5. The yellow warbler was not detected within Borrow Site 1, 2, or 5. The yellow warbler was also not detected within the remainder of the Study Area (Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 3 and 4) as these areas do not support suitable habitat for this species. It is not expected that the yellow warbler will be temporarily or permanently affected in Borrow Sites 2 or 5 as they were not detected. No suitable nesting habitat for this species is present within Borrow Sites 3 or 4. The Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site have very low potential to support the warbler due to the lack of suitable nesting habitat present within either site, and superior nesting habitat present within off site areas nearby the Project site, such as the Prado Basin.

Suitable habitat for the yellow-breasted chat is present within Borrow Site 1, and off site within the vicinity of Borrow Sites 2 and 5. The yellow-breasted chat was not detected within Borrow Site 1, 2, or 5. The yellow-breasted chat was also not detected within the remainder of the Study Area (Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or Borrow Sites 3 and 4) as these areas do not support suitable habitat for this species. It is not expected that the yellow warbler will be temporarily or permanently affected in Borrow Sites 2 or 5 as they were not detected. No suitable nesting habitat for this species is present within Borrow Sites 3 or 4. The Project site and the Off Site Storm Drain Improvement Area adjacent to the Project Site have very low potential to support the yellow-breasted chat due to the lack of suitable nesting habitat present within either site, and superior nesting habitat present within off site areas nearby the Project site, such as the Prado Basin.

Surveys for the tri-colored blackbird were conducted in March 2019. A total of 10.58 acres of foraging habitat (consisting of ruderal/disturbed habitat) for the blackbird are being impacted, all of which are on Borrow Site 4. The tri-colored blackbird was not detected on The Project site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, or on Borrow Sites 1, 2, 3, and 5. The blackbirds located on Borrow Site 4 were foraging only and not nesting; therefore, the potential to incidentally take this species is very low given the more suitable nesting habitat within the Mill Creek Wetlands adjacent to the site. The applicant will conduct borrow activities within Borrow Site 4 outside of the nesting season for the blackbird (March 15th to September 15th) to the greatest extent feasible. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

The Study Area impact boundary provides 207.99 acres of potential foraging habitat for white-tailed kite, bald eagle, golden eagle, peregrine falcon, and Swainson's hawk. The lands include 207.69 acres of ruderal/disturbed habitats and are not good quality given the amount of disturbance over the years. An additional 0.30 acre of ornamental vegetation would also be permanently impacted. The removal of up to 207.99 acres of potential foraging habitat for these species would be less than significant under CEQA given the higher quality habitat surrounding

the Study Area in Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains, and given these species remain common in the region. Additionally, the Project would include application of a native hydroseed mix to each borrow site following completion of borrow activities to avoid the spread of non-native, invasive plant species.

The Study Area impact boundary provides 207.99 acres of potential foraging habitat for the big free-tailed bat (*Nyctinomops macrotis*), pallid bat (*Antrozous pallidus*), western mastiff bat (*Eumops perotis californicus*), western yellow bat (*Lasiurus xanthinus*), and Yuma myotis (*Myotis yumanensis*). However, based on the level of ongoing human disturbance within the Project study area, application of a native hydroseed mix to each borrow site following completion of borrow activities to avoid the spread of non-native, invasive plant species, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, the loss of up to 207.99 acres of low-quality potential bat foraging habitat is not judged to be significant under CEQA.

5.5 Impacts to Critical Habitat

The proposed Project in the Study Area will result in permanent impact to 0.23 acre of areas of designated critical habitat for least Bell's vireo at Borrow Site 1 and permanent impact to 0.14 acre of designated critical habitat within the Off Site Storm Drain Improvement Area adjacent to the Project site. The impacts within Borrow Site 1 occur in ruderal habitats and the impacts within the Off Site Storm Drain Improvement Area occur in ornamental habitat and developed lands that do not contain the primary constituent elements or physical/biological attributes [riparian woodland habitat that generally contains both canopy and shrub layers] which could be utilized by the vireo for foraging or nesting. No impacts to designated critical habitat will occur at Borrow Sites 2, 3, 4, or 5. Borrow Sites 2 and 4 are not within designated critical habitat, nor is the Project Site. Critical Habitat impact maps are attached as Exhibit 12, Sheet 1 through 6.

5.6 Raptor Use

The proposed Project would remove up to 207.99 acres of potential foraging habitat for species common to the region.

However, based on the level of ongoing human disturbance within the Project Study Area, and due to the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains, the loss of 207.99 acres of low-quality potential raptor foraging habitat is not judged to be significant under CEQA

5.7 Impacts to Nesting Birds

The proposed Project in the Study Area has the potential to impact active bird nests if vegetation is removed during the nesting season (generally February 1 to August 31). Impacts to nesting native birds are prohibited by the MBTA and California Fish and Game Code. A Project-specific mitigation measure is identified in Section 6.2 of this report to avoid impacts to native nesting birds. Although impacts to native birds are prohibited by MBTA and similar provisions

of California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are extremely common to the region and highly adapted to human landscapes (Anna's Hummingbird, House Finch). The number of individuals potentially affected by the Project would not significantly affect regional, let alone local, populations of such species. Thus, the impacts to nesting birds is not judged to be significant under CEQA.

5.8 Wildlife Migration/Nurseries

The proposed Project in the Study Area would not interfere or impact the movement of native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. The Study Area lacks migratory wildlife corridors and wildlife nursery sites, although they are nearby. The impacts on the movement of native resident or migratory wildlife species, or native resident or wildlife corridors or nursery sites is not judged to be significant under CEQA.

5.9 Impacts to Jurisdictional Waters

The proposed Project has been designed to avoid impact to all areas of Corps, CDFW, and Regional Board jurisdictional waters [Exhibits 10A Sheets 1 and 2, and 10B Sheets 1 and 2]. The grading limits at Borrow Site 1 will remain outside of Corps, CDFW, and Regional Board jurisdiction and the off site storm drain connection to the Cypress Channel has been designed to avoid impacts to jurisdictional areas within the Cypress Channel. Specifically, the storm drain connection at the Cypress Channel will be constructed primarily from the west side (back side) of the concrete wing wall bordering the west side of the Cypress Channel. A tarp will be installed above the OHWM on the east face of the concrete wing wall to prevent construction debris from entering into the Cypress Channel during the construction process. Access into the channel during the construction process will be made on foot and using hand tools. No mechanized equipment will be brought into the channel and storm drain connection will terminate within the concrete wing wall, above the OHWM and jurisdictional extent of the channel.

5.10 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to native open space. Potential indirect effects associated with development include water quality impacts associated with drainage into adjacent open space/downstream aquatic resources; dust effects; lighting effects; noise effects; invasive plant species from landscaping; and effects from human entry into adjacent open space, such as recreational activities (including hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

There would be potential for these indirect effects to occur temporarily during construction and also in the long-term by the proposed development. These potential indirect effects can degrade the existing functions and values of creek and habitat areas and include introduction of non-native invasive plants that outcompete native riparian plant species and thus cause reduced value

to native plants and wildlife; and a temporary reduction of insect production (which may reduce available food sources for bats). These impacts can occur to non-special status as well as special-status species (e.g. western Mastiff bat, nesting hawks).

There would be potential for indirect effects to occur temporarily during construction and also in the long-term by the proposed development. These potential indirect effects can degrade the existing functions and values of creek and habitat areas and include increased depredation of wildlife from noise and lighting, and dissuaded use of creeks or natural areas by wildlife from noise and lighting.

However, based on the level of ongoing human disturbance within the Project Study Area, and the regional availability of habitat and foraging resources available to these species in the vicinity of the Project site, such as the Prado Regional Park, Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, these temporary impacts described above are not judged to be significant under CEQA.

Noise

The Project Noise Study notes that the Equivalent Continuous [Average] Sound Level (Leq) during construction activity ranges from 28.9 to 67.5 dBA L_{eq} at noise-sensitive receiver locations. It also ranges from 34.2 to 83.2 dBA L_{eq} in open space receiver locations. The threshold for special-status wildlife species (i.e., least Bell's vireo and tricolored blackbird) is 65 dBA Leq, which would be exceeded during construction soil import/export operations at Borrow Sites 1, 3, and 4. This noise impact to special-status species is potentially significant under CEQA prior to mitigation; however, a Project specific measure is included in Section 6.7 to reduce this impact to a level of less than significant.

Construction noise levels are below the 65 dBA Leq level at the Project Site, the Off Site Storm Drain Improvement Area adjacent to the Project Site, and Borrow Sites 2 and 5; therefore, the noise levels at these locations are considered less than significant under CEQA.

Operational noise levels are all below the 65 dBA Leq level for areas that may support sensitive wildlife within the Study Area; therefore, these noise levels are considered less than significant under CEQA.

Lighting

Activities may include working at night within portions of the Project Site, the Off Site Storm Drain Improvement Area adjacent to the Project Site or Borrow Sites 1 through 5. Night working activities would include erecting and installing lighting, and the use of heavy equipment. The same noise measures noted above would be followed as project design features at night to minimize the potential effect of lighting on sensitive wildlife species. Night lighting would be shielded and directed away from known sensitive habitat areas within the Study Area. Night work and lighting would also be limited around areas supporting, or with the potential to support, sensitive wildlife species.

Based on the presence of the least Bell's vireo in Borrow Site 1 and its presence within the vicinity of Borrow Sites 2 and 5, and the presence of the tri-colored blackbird (in a foraging role) in Borrow Site 4, night lighting would be shielded and directed away from foraging or nesting habitat areas for these species, and would not affect sensitive wildlife species more than 500 feet from known vireo territories in Borrow Site 1 and in the vicinity of Borrow Sites 2 and 5, and known nesting locations of the tri-colored blackbird in Borrow Site 4. With the mitigation measures noted above, lighting effects on the Study Area within Borrow Sites 1, 2, 4, and 5 would be reduced to a less than significant level.

Night work and lighting would not be considered significant under CEQA at the Project Site, the Off Site Storm Drain Improvement Area adjacent to the Project Site or Borrow Site 3 with the incorporation of the project design features noted above (shielded and directional lighting).

Streambed Habitat

No streambeds subject to the jurisdiction of the Corps, CDFW, or Regional Board would be impacted by the Project. The off site storm drain connection to the Cypress Channel has been designed to avoid impacts to jurisdictional areas within the Cypress Channel. Specifically, the storm drain connection will terminate within the concrete headwall structure, above the jurisdictional extent of the channel.

Bats

As it relates to bats, based on the level of ongoing human disturbance within the Project Study Area, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains, the potential indirect effect to bat foraging habitat is not judged to be significant under CEQA

Sensitive Bird Species

Potential indirect impacts to yellow warbler, yellow breasted chat, least Bell's vireo, and tri-colored blackbird would be adverse but not significant. These species have remained common to many riparian habitats and only a small number of individuals would be expected to be potentially affected by the proposed project (two to three pairs or less). The yellow warbler and yellow-breasted chat were not detected during surveys conducted for the least Bell's vireo, which is found in habitat areas overlapping those of the warbler and chat. Additionally, with the regional availability of foraging and nesting habitat in the vicinity of the Project Study Area, such as the Prado Basin, Prado Regional Park, Chino Hills State Park, and the Santa Ana Mountains, the potential indirect effect to these species would not be judged to be significant under CEQA.

The biological resources within the Study Area are degraded and heavily dominated by nonnative species, as are the biological resources adjacent to the site. The potential for the Study Area to indirectly impact biological resources to a significant degree is less than reasonable. The Study Area lacks significant natural lands, other than the 4.46-acre Freshwater Marsh/Disturbed Freshwater Marsh and 0.16-acre Southern Willow Scrub habitats within Borrow Site 1, all of

which will be avoided by the Project, and portions of the Study Area are adjacent to active agriculture and ranching (dairy). Potential indirect impacts would be mitigated to less than significant levels with potential mitigation documented in Section 6 below.

5.11 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

There is potential for burrowing owl, least Bell's vireo, and tri-colored blackbird to be present. As such, the Project in the Study Area could make a cumulatively considerable contribution to regional impacts to these species (if present). Refer to Section 6 to address this potential impact and its reduction to a less than significant level.

For other biological resources potentially present and impacted by the Project Study Area (such as such as the yellow bat), the degree of contribution to the regional decline of these resources is judged to not be considerable at the project and regional levels.

Based on the level of ongoing human disturbance within the Project Study Area, and the regional availability of foraging habitat in the vicinity of the Study Area, such as the Prado Regional Park, Prado Basin, Chino Hills State Park, and the Santa Ana Mountains, the loss of 207.99 acres of mostly low-quality potential raptor and/or bat foraging habitat is not judged to be significant under CEQA

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 14 days prior to site disturbance.

If the species is absent, no additional mitigation will be required. If burrowing owl(s) is(are) detected within the Study Area's disturbance footprint in the City of Chino RMP boundary, the owl(s) are required to be handled as indicated by the RMP:

The RMP addresses mitigation requirements for impacts to burrowing owls. The RMP states that the 1995 CDFG Staff Report on Burrowing Owl Mitigation (as supplemented by the RMP) shall be followed when burrowing owls are detected on properties. If avoidance of occupied

habitat is infeasible, provisions shall be made to passively relocate owls from sites in accordance with the current 2012 CDFG Staff Report (supersedes 1995 CDFG Staff Report).

According to the Preserve EIR and RMP, Burrowing Owls to be relocated from properties within the City's Subarea 2 are intended to be accommodated within a "300-acre conservation area" and/or additional Candidate Relocation Areas as described on Page 4-16 and 4-21 of the RMP. One such contingency conservation area is identified in the RMP as "Drainage Area B".

Drainage Area B consists of a series of Natural Treatment System (NTS) facilities that were constructed south of Kimball Avenue and west of Mill Creek Road. When the NTS facilities were constructed, approximately 50 artificial owl burrows were installed within the basins to accommodate relocated owls and additional owls dispersing to the site. This location was given top priority as an owl relocation site by the RMP due to its proximity to areas that have been and will be converted to urban development. If Burrowing Owls are present at the Project site at time of site disturbance, the Burrowing Owls would be more likely to initially relocate to the immediately surrounding properties, including additional locations within the Chino Airport. However, the NTS basins represent the nearest conservation area providing regional mitigation for the loss of burrowing owl habitat.

Consistent with the RMP, the following measures shall apply to the portion of the Project site within the RMP boundary regarding burrowing owl mitigation:

- Prior to disturbance of the occupied burrows, suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within the City of Chino designated relocation area (e.g. the NTS basins). A qualified biologist through coordination with the City shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.

- Until suitable replacement burrows have been provided/confirmed within the designated relocation area (e.g. the NTS basins), no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).

- Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- If Burrowing Owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be excluded from the site following the 2012 CDFG Staff Report and Table 4-6 of the RMP.

- Pursuant to mitigation measure B-3(8) of The Preserve EIR, and as noted on Page 4-39 of the RMP, the Project applicant shall pay the required mitigation fee prior to initiation of ground disturbing activities. One priority for funding supported by the mitigation fees is

the establishment and long-term management of burrowing owl habitat within the Drainage Area B conservation area.

If burrowing owl(s) is(are) detected within the Study Area's proposed disturbance footprint outside of the RMP boundary:

- Prior to disturbance of the occupied burrows, suitable and unoccupied replacement burrows shall be provided at a ratio of 2:1 within designated off-site conserved lands to be identified through coordination with the City in which the burrowing owl(s) is(are) detected (City of Chino). A qualified biologist shall confirm that the artificial burrows are currently unoccupied and suitable for use by owls.

- Until suitable replacement burrows have been provided/confirmed within the off-site conserved lands to be identified through coordination with the City of Chino, no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season (September 1 through January 31) or within 75 meters (approximately 250 feet) during the breeding season (February 1 through August 31).

- Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- If burrowing owls are present at the time that the occupied burrows are to be disturbed, then the owls shall be excluded from the site following the 2012 CDFG Staff Report.

With the implementation of these mitigation measures, impacts to burrowing owls will be reduced to below a level of significance.

6.2 Nesting Birds

Vegetation clearing should be conducted outside of the nesting season (February 1 through August 31). If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

6.3 Jurisdictional Waters

The proposed Project has been designed to avoid impact to all areas of Corps, CDFW, and Regional Board jurisdictional waters. Therefore, no mitigation is required.

6.4 Least Bell's Vireo Critical Habitat

The impacts to critical habitat for least Bell's vireo within Borrow Site 1 and the Off Site Storm Drain Improvement Area occur in ruderal and ornamental habitat, or developed land. The ornamental habitat does not contain the primary constituent elements or physical/biological attributes [riparian woodland habitat that generally contains both canopy and shrub layers] which could be utilized by the vireo for foraging or nesting; therefore, the impact to 0.14 acre within the Off Site Storm Drain Improvement Area should be deemed less than significant.

The impact to 0.23 acre of designated critical habitat for the least Bell's vireo at Borrow Site 1 would occur in ruderal habitats. Mitigation, if required, would be determined through the Section 7 consultation with the U.S. Fish and Wildlife Service and could take place in the form of the onsite application of a native hydroseed mix at Borrow Site 1 following completion of the borrow activities at that location. The entire 28.51 acres at Borrow Site 1 would receive the native hydroseed mix and would more than offset the impact to 0.23 acre of critical habitat comprising ruderal vegetation. With implementation of this mitigation measure, impacts to 0.23 acre of critical habitat within Borrow Site 1 will be reduced to below a level of significance.

6.5 Least Bell's Vireo

No direct impact to vireo habitat where the species was detected at Borrow Site 1 will occur. Borrow activities will occur outside of the nesting season for the vireo (March 15th to September 15th) to the greatest extent feasible. If this is not possible, the Project applicant will conduct noise monitoring and, if necessary, erect sound wall(s), hay bales, or other measures outside of the nesting season [for use during the nesting season] to ensure that vireo is not affected by borrow activities conducted during the nesting season.

6.6 Tri-Colored Blackbird

Impacts to up to 10.58 acres of tri-colored blackbird foraging habitat will be limited to Borrow Site 4. Borrow activities will occur outside of the nesting season for the blackbird (March 15th to September 15th) to the greatest extent feasible. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

6.7 Noise (Construction)

Soil import and/or export work should be conducted outside of the breeding season (March 15th to September 15th)) at Borrow Sites 1, 3, and 4 to reduce potential indirect noise effects on special-status wildlife. If this is not feasible, then sound walls, hay bales, or other measures designed to reduce effects from Project noise levels on special-status wildlife species would be installed/erected prior to the commencement of ground-disturbing activities and sound monitoring would occur as needed, within 500 feet of known least Bell's vireo territories and

tricolored blackbird nesting colonies to ensure that noise levels at these locations are below the 65 dBA Leq level and would not affect special-status wildlife species.

6.8 Lighting

Based on the presence of the least Bell's vireo at the southern boundary of Borrow Site 1 and its presence within the vicinity of Borrow Sites 2 and 5, and the presence of the tri-colored blackbird (in a foraging role) in Borrow Site 4, night lighting would be shielded and directed away from foraging or nesting habitat areas, and would be placed in a manner that would not cause a significant effect on sensitive wildlife species at least 500 feet from known vireo territories in Borrow Site 1 and in the vicinity of Borrow Sites 2 and 5, and known nesting locations of the tri-colored blackbird in Borrow Site 4.

7.0 REFERENCES

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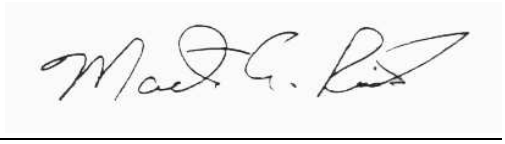
8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed:__  _____ Date: ___01/17/20__

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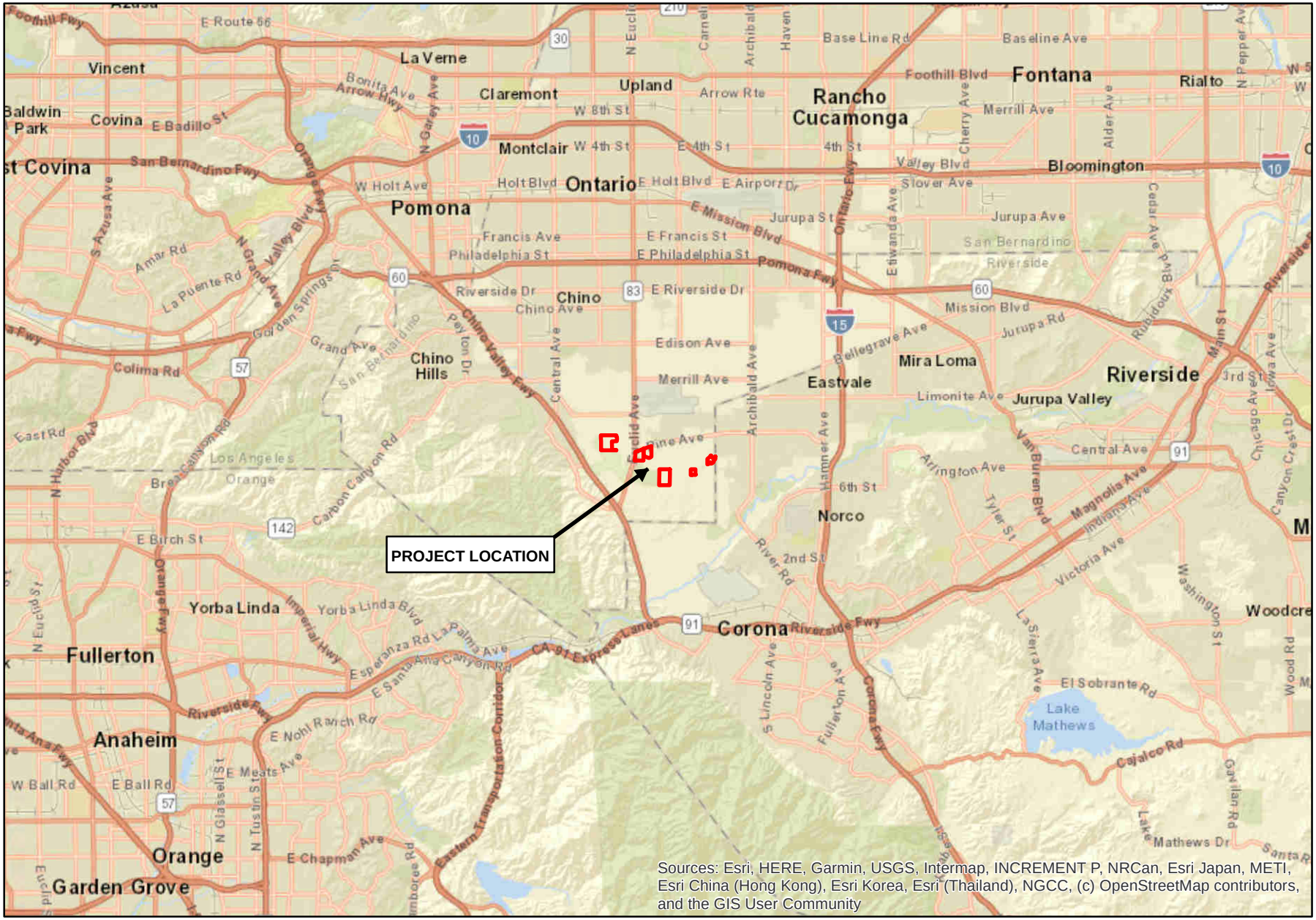


Source: ESRI World Street Map

N

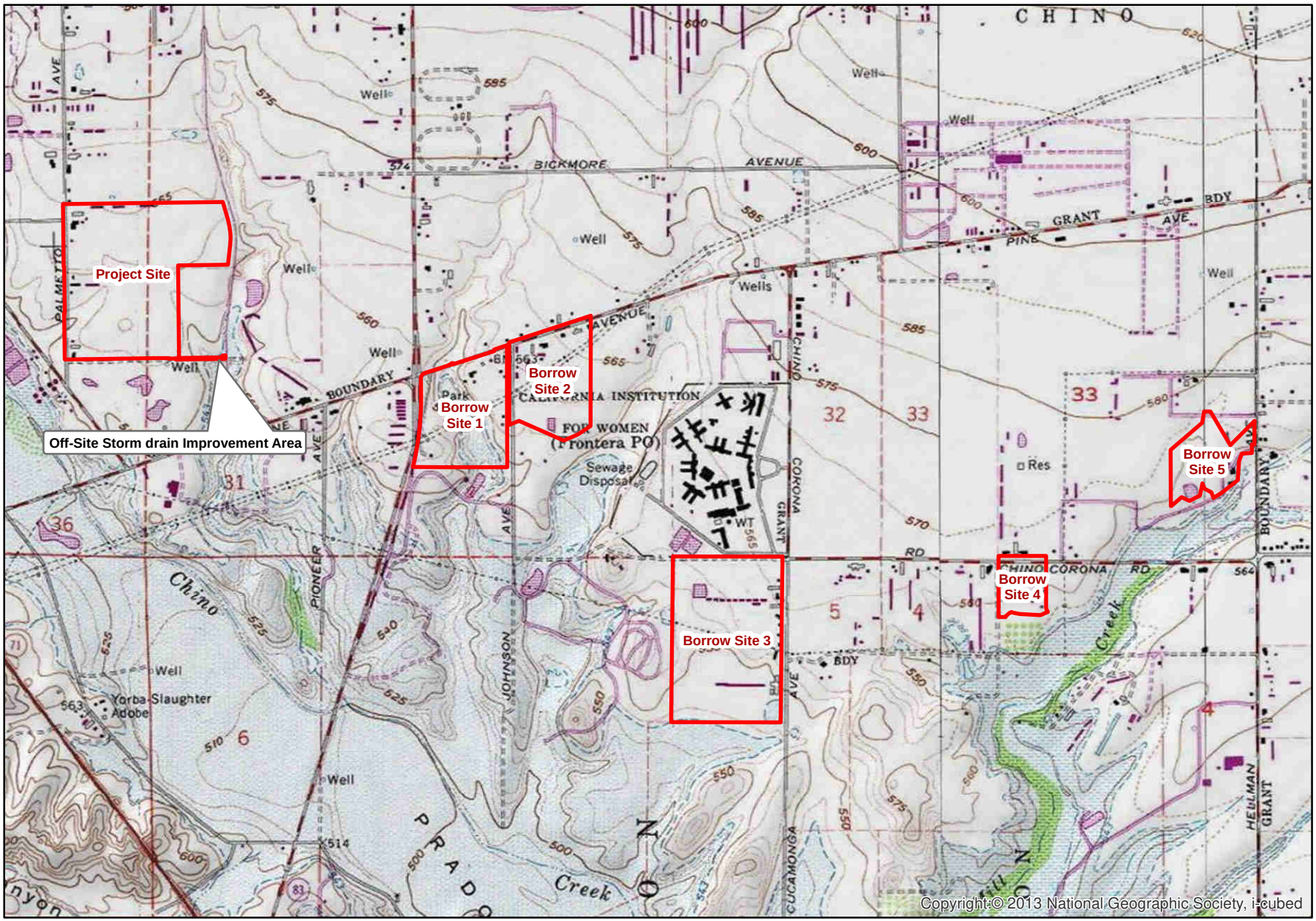
0 2 4 8 Miles

MAJESTIC CHINO HERITAGE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Corona North & Prado Dam, CA quadrangle

N

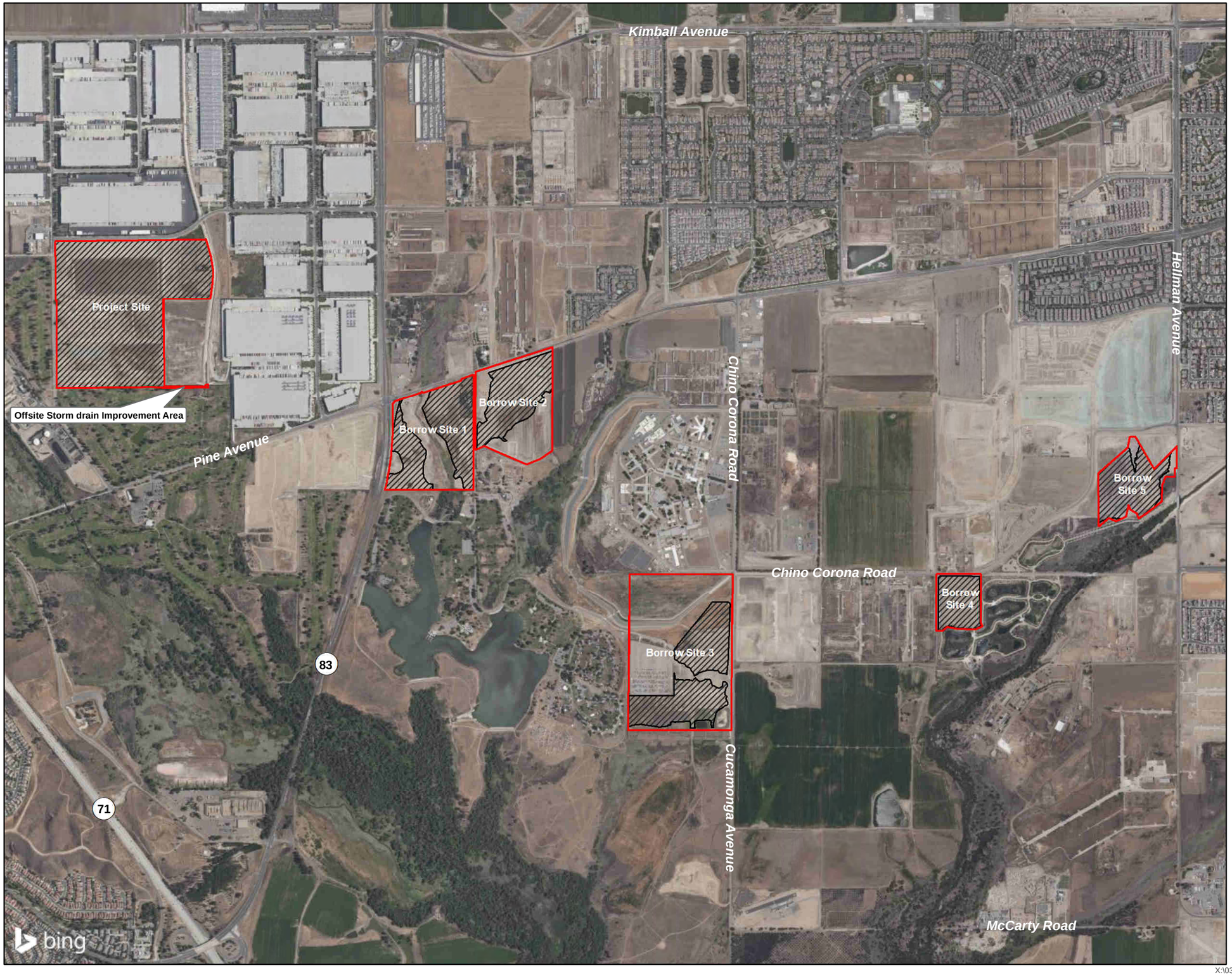
0 1,000 2,000 4,000 Feet

MAJESTIC CHINO HERITAGE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Study Area Boundary

Limits of Grading

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_ImpactsKeyMap.mxd

Study Area Boundary

Limits of Grading

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan, Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_ImpactsProjectSite.mxd

Study Area Boundary

Limits of Grading

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 3

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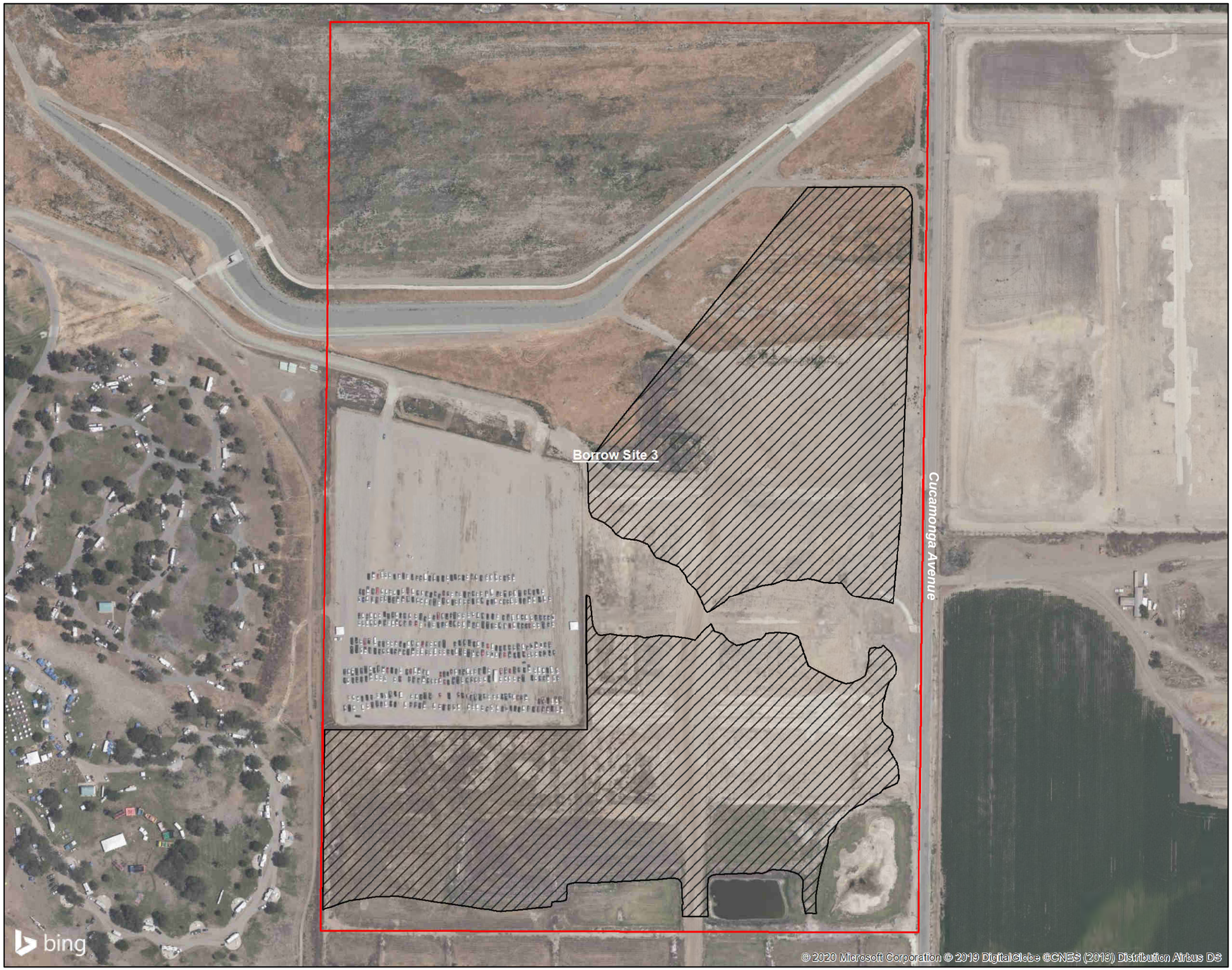

Study Area Boundary

Limits of Grading

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 4

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_ImpactsBorrowSite3.mxd

Study Area Boundary

Limits of Grading

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 5

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_ImpactsBorrowSite4.mxd

Study Area Boundary

Limits of Grading

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Grading Plan - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 3 - Sheet 6

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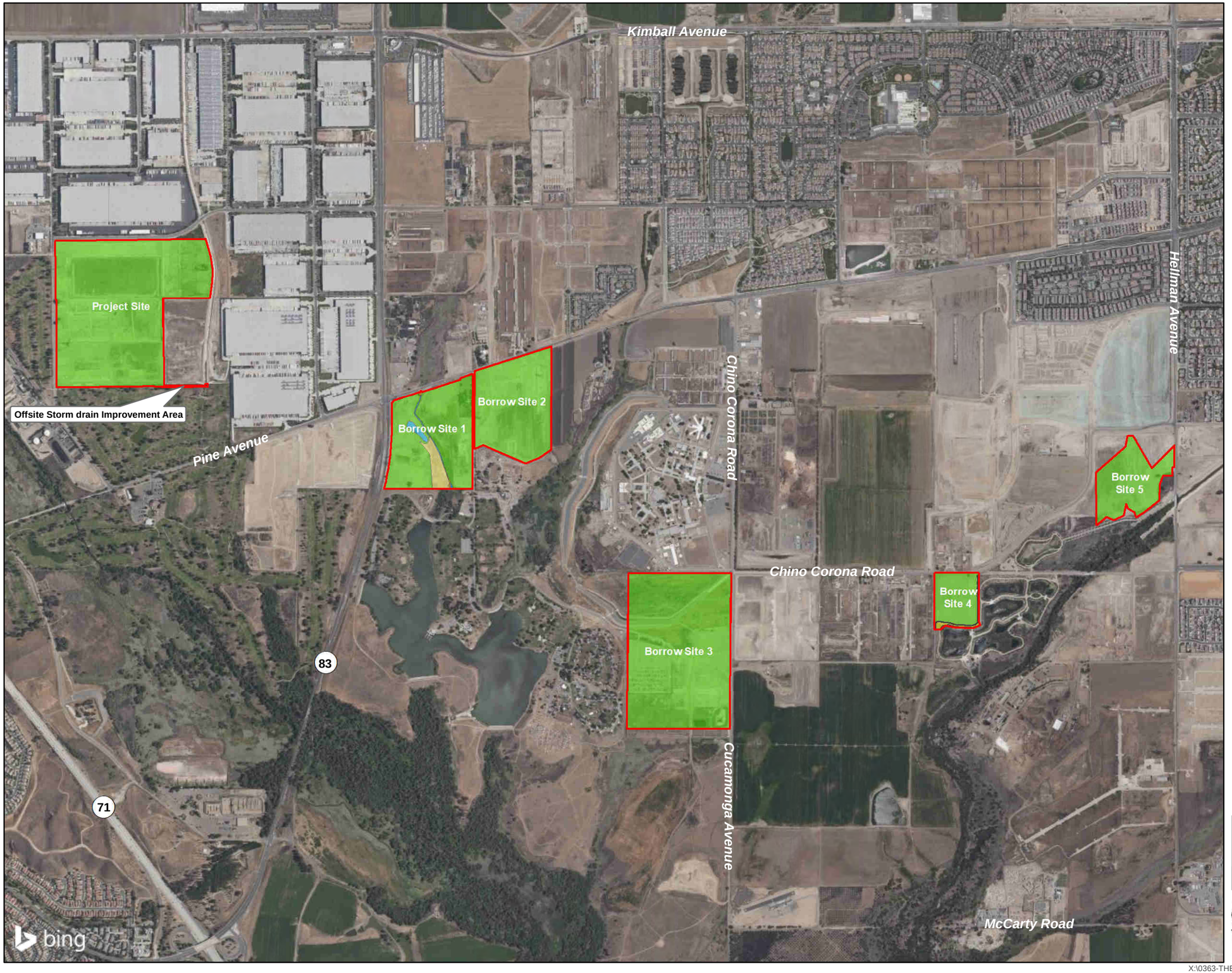

- Study Area Boundary
- Coastal Sage Scrub
- Freshwater Marsh
- Disturbed Freshwater Marsh
- Ruderal / Disturbed
- Southern Willow Scrub
- Ornamental
- Developed

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\VegetationGIS\1090-2_Vegetation_KeyMap.mxd

Study Area Boundary

Ruderal / Disturbed

Ornamental

Developed

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Map, Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 2

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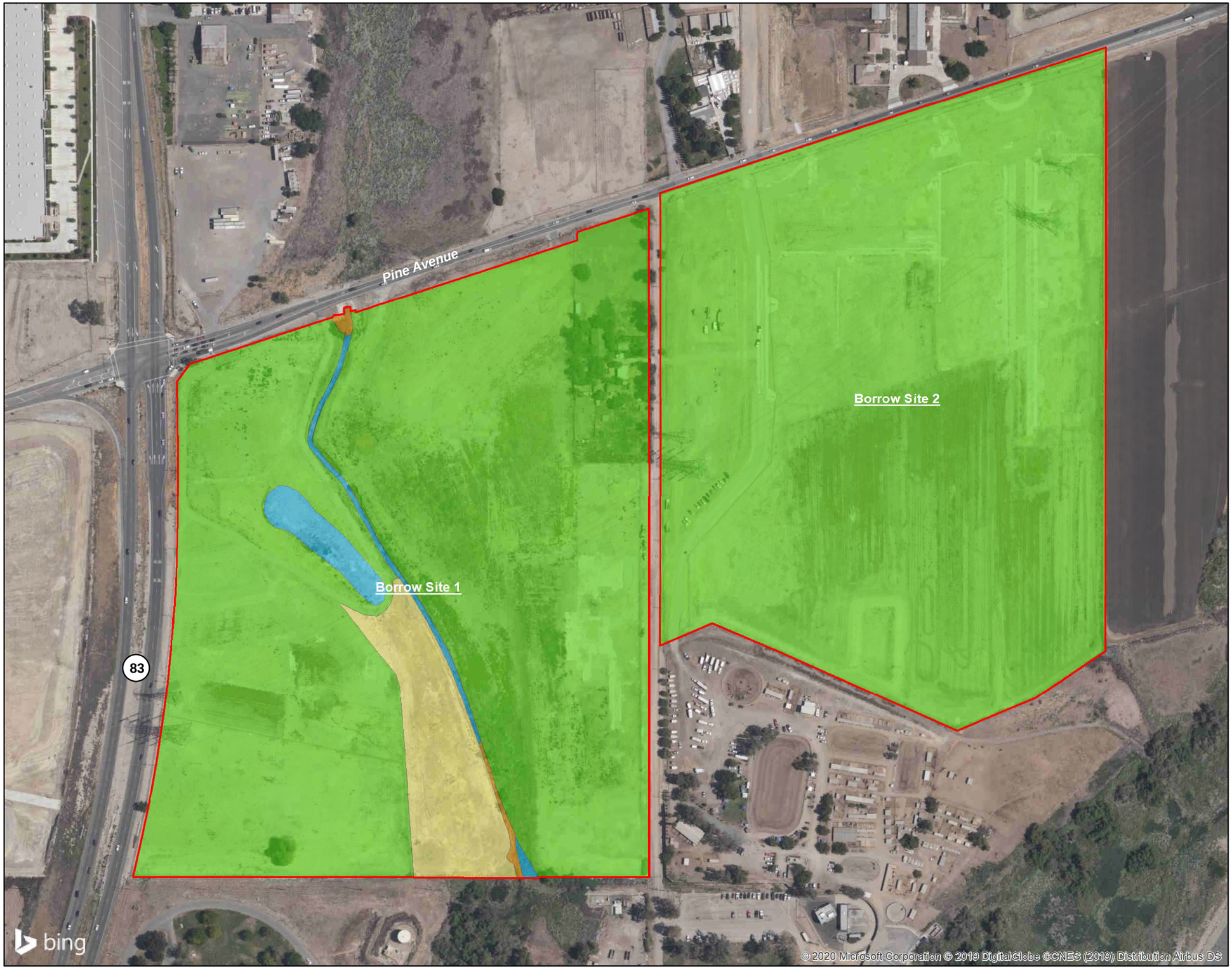

Study Area Boundary
Freshwater Marsh
Disturbed Freshwater Marsh
Ruderal / Disturbed
Southern Willow Scrub

N

0 125 250 500
Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\VegetationGIS\1090-2_Vegetation_BorrowSite1-2.mxd

Study Area Boundary

Ruderal / Disturbed

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 4

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\VegetationGIS\1090-2_Vegetation_BorrowSite3.mxd

Study Area Boundary

Coastal Sage Scrub

Ruderal / Disturbed

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 5

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Study Area Boundary

Ruderal / Disturbed

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 4 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\VegetationGIS\1090-2_Vegetation_BorrowSite5.mxd

Study Area Boundary

Corps/RWQCB Non-Wetland Waters

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Corps/Regional Board Jurisdictional Delineation Map - Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 5A - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\DelineationGIS\1090-2_Corps_ProjectSite.mxd

Study Area Boundary

RWQCB Non-Wetland Waters Jurisdiction Only

Corps/RWQCB Wetland Waters

5 Width in Feet

W indicates Borrow Site 1 Wetland in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Corps/RWQCB Jurisdictional Delineation Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 5A - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\DelineationGIS\1090-2_Corps_BorrowSite1-2.mxd

Study Area Boundary

CDFW Non-Riparian Streambed

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation Map -
Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 5B - Sheet 1

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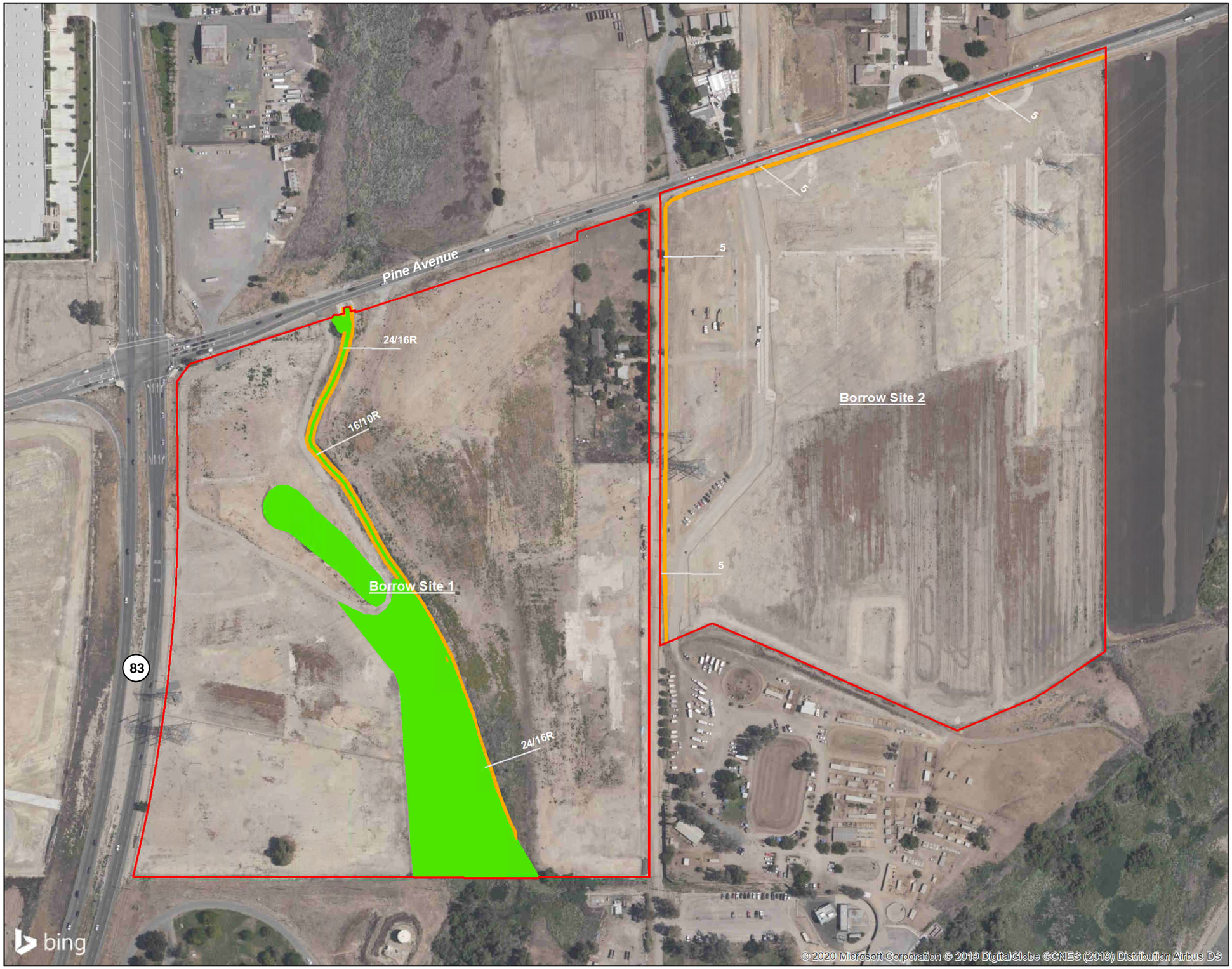

Study Area Boundary

CDFW Non-Riparian Streambed

CDFW Riparian

5 Width in Feet

R indicates Borrow Site 1 Riparian in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 5B - Sheet 2

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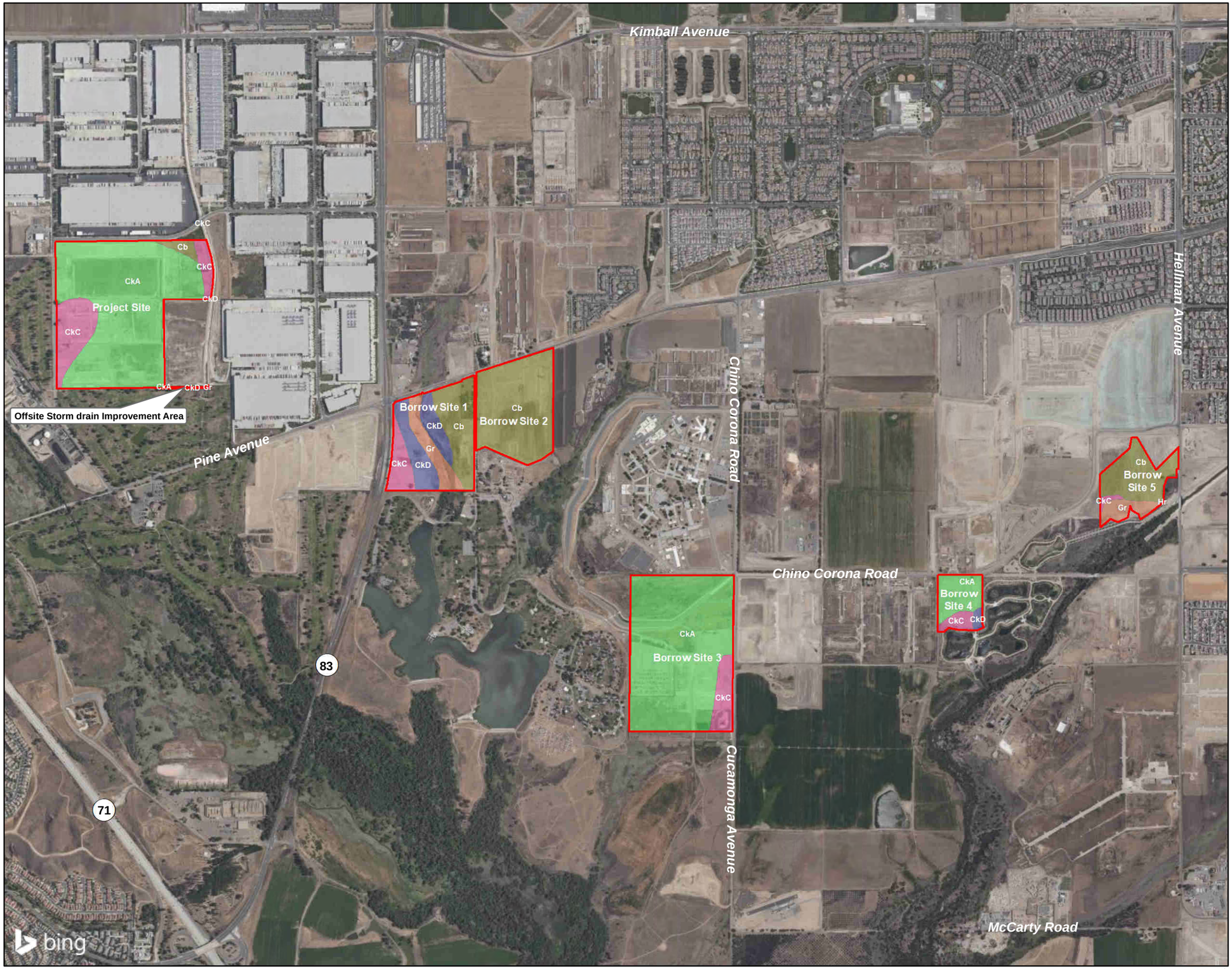

Study Area Boundary

Cb - CHINO SILT LOAM

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

Hr - HILMAR LOAMY FINE SAND

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_KeyMap.mxd

Study Area Boundary

Cb - CHINO SILT LOAM

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map, Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_ProjectSite.mxd

Study Area Boundary

Cb - CHINO SILT LOAM

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 3

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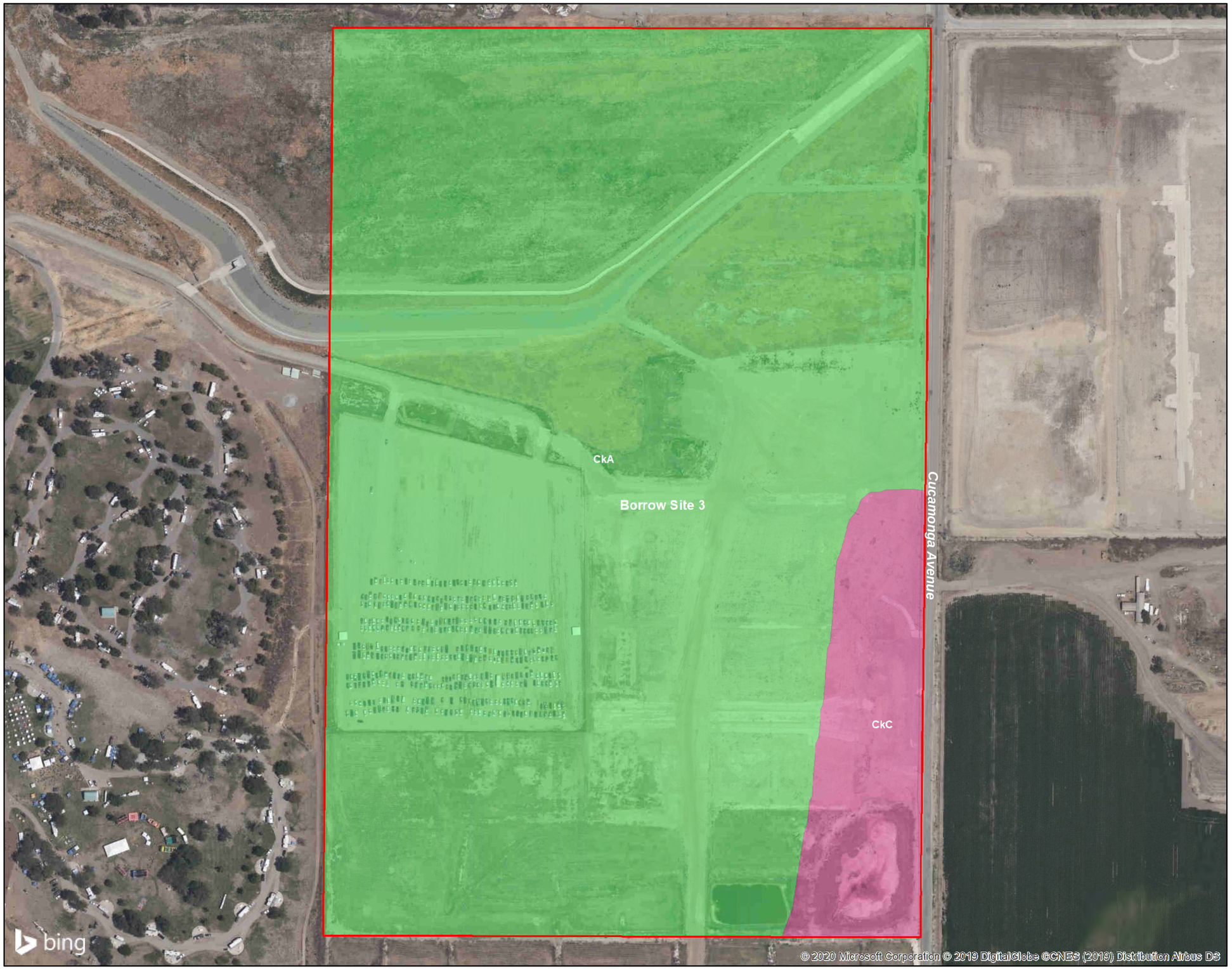

Study Area Boundary

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 4

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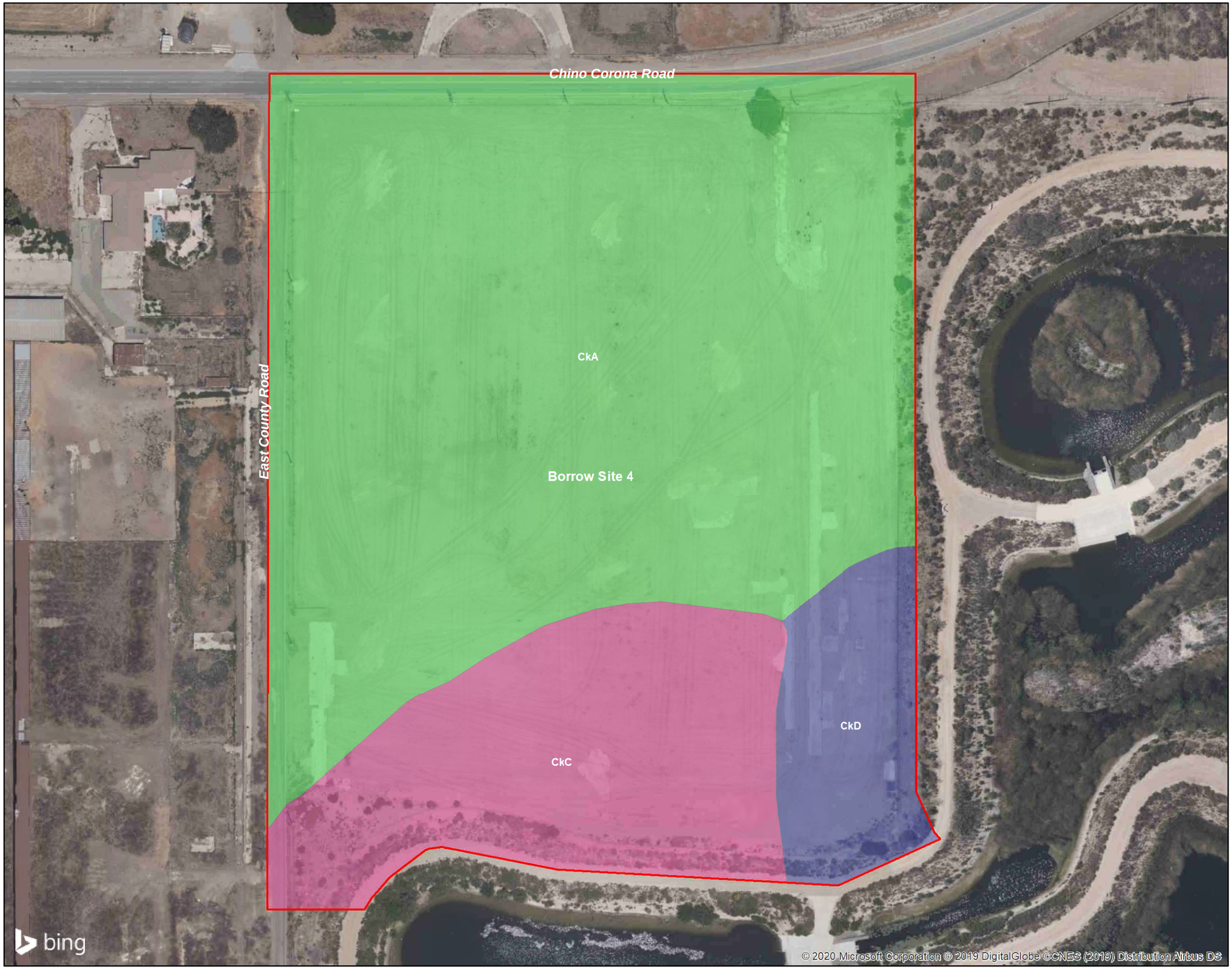

Study Area Boundary

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 5

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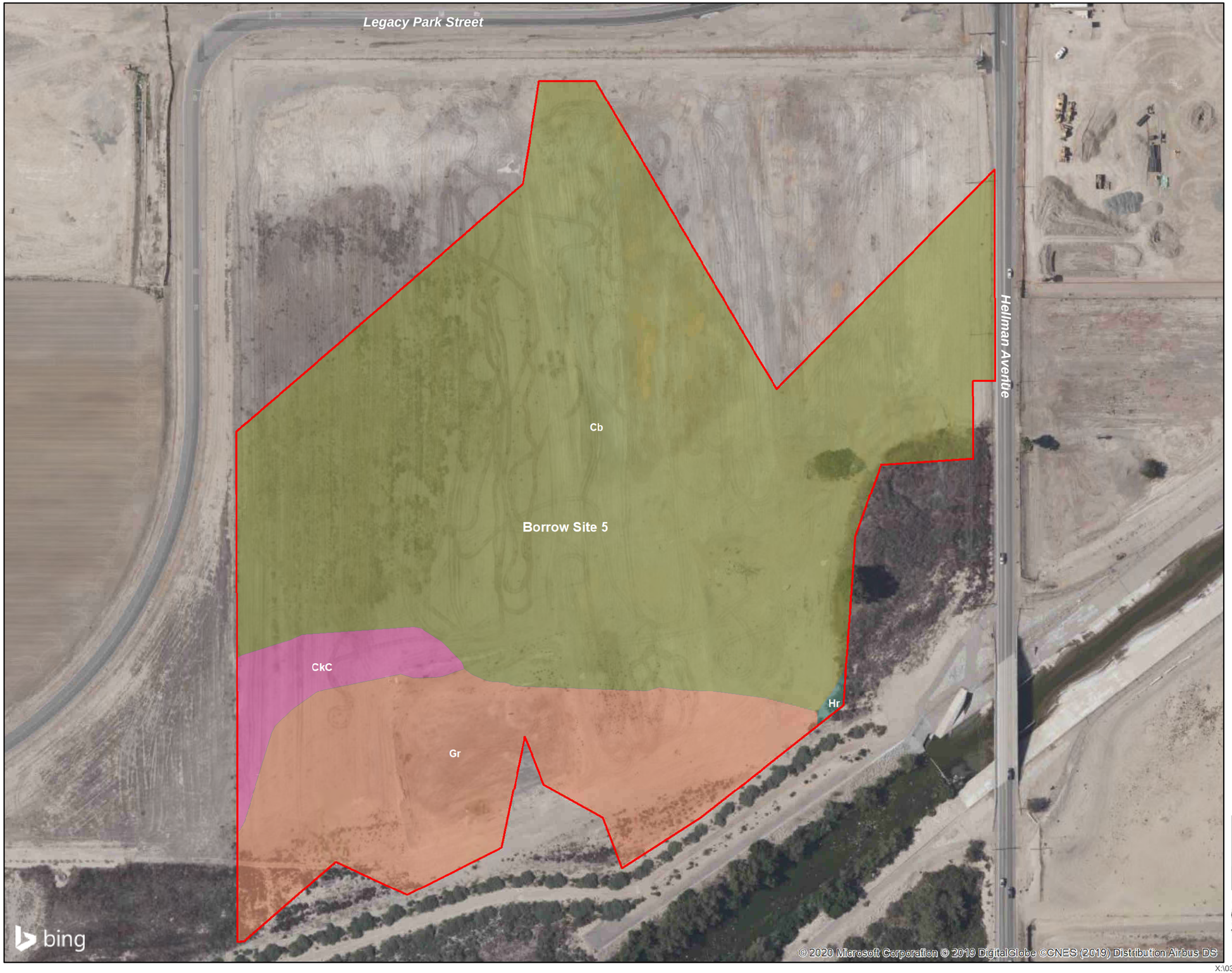


Study Area Boundary

Cb - CHINO SILT LOAM

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

Hr - HILMAR LOAMY FINE SAND

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

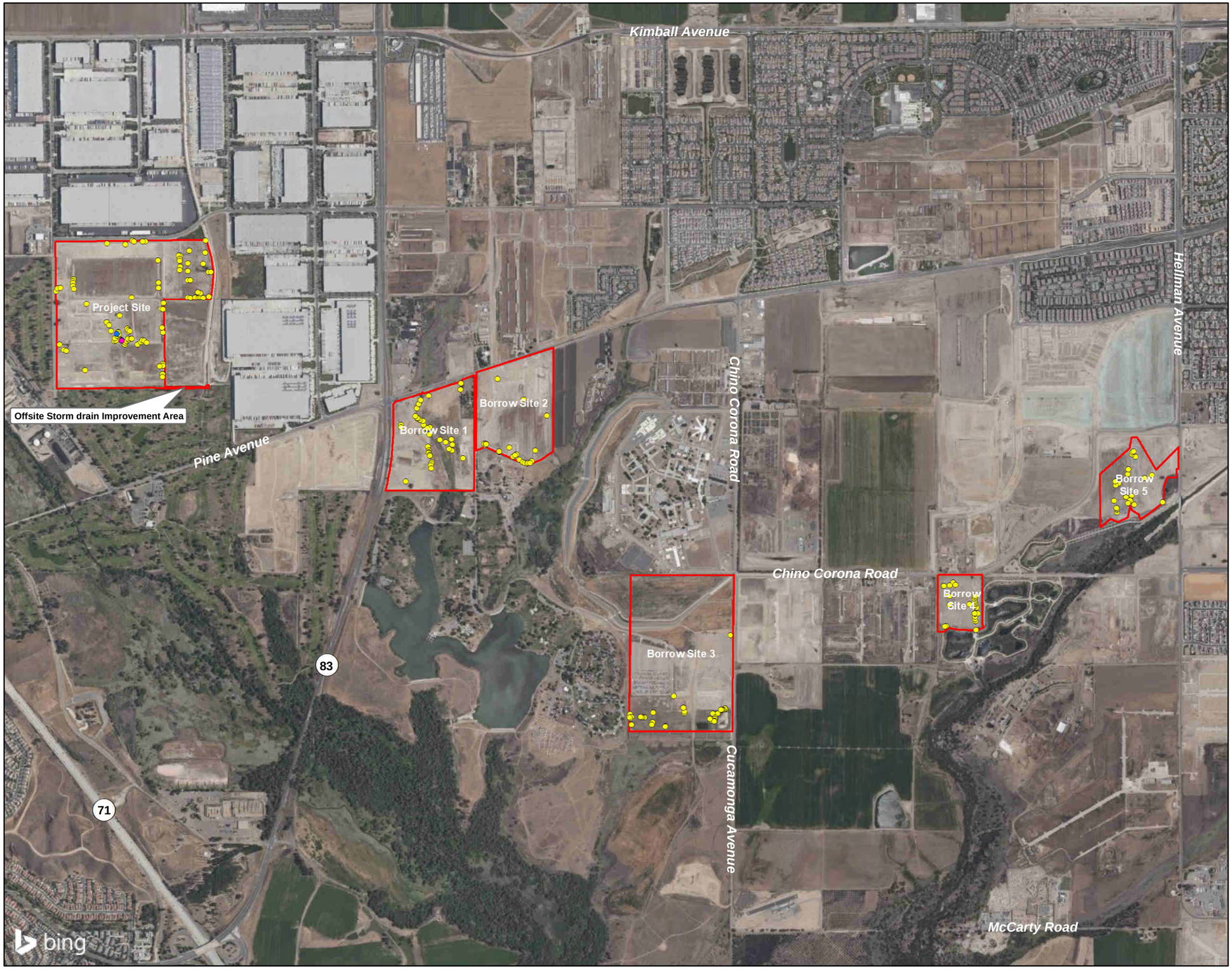
MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_BorrowSite5.mxd



Study Area Boundary

Burrowing Owl

Burrow With Owl Sign

Burrows

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

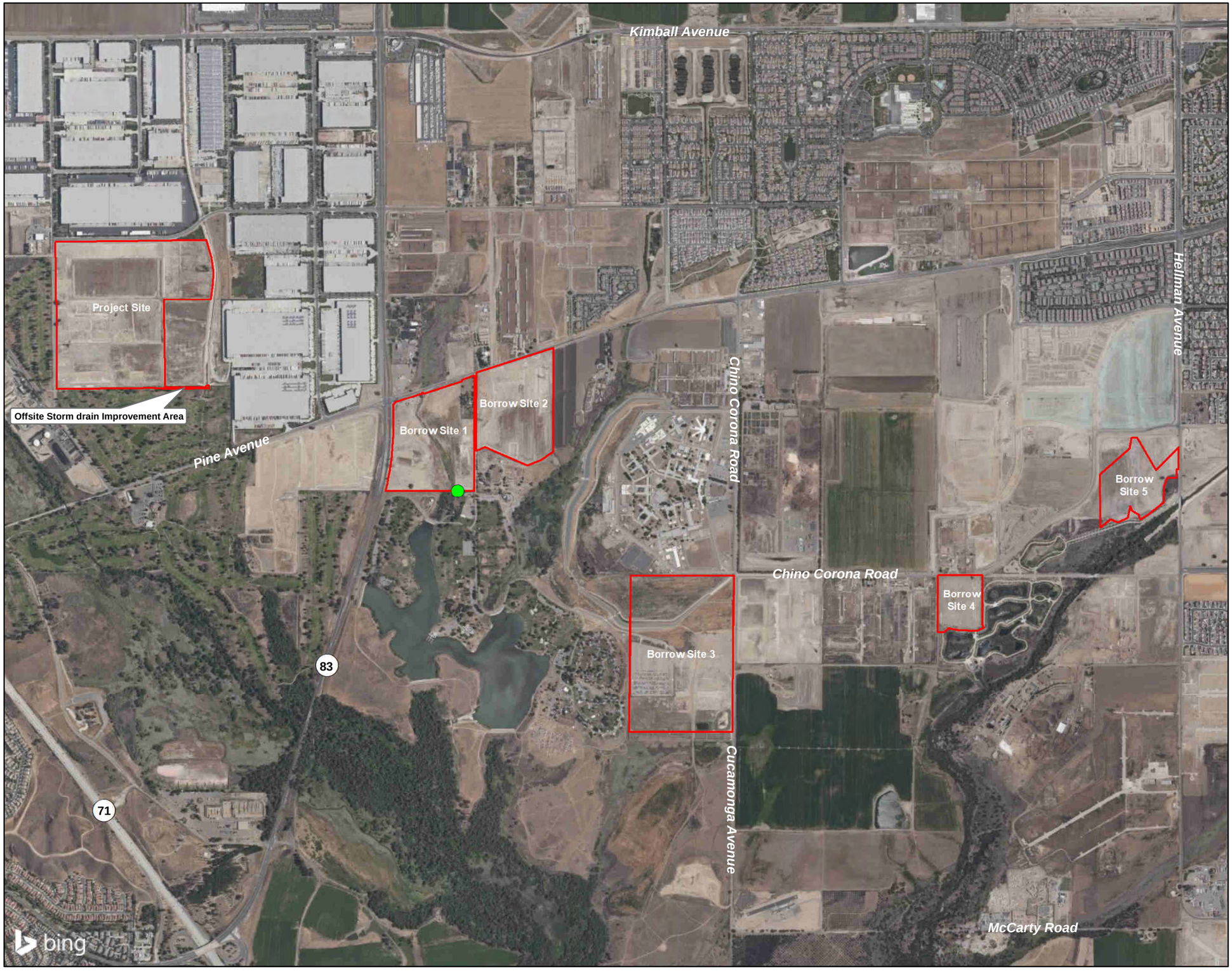
MAJESTIC CHINO HERITAGE PROJECT

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_BUOW Survey.mxd



Study Area Boundary

Least Bell's Vireo

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

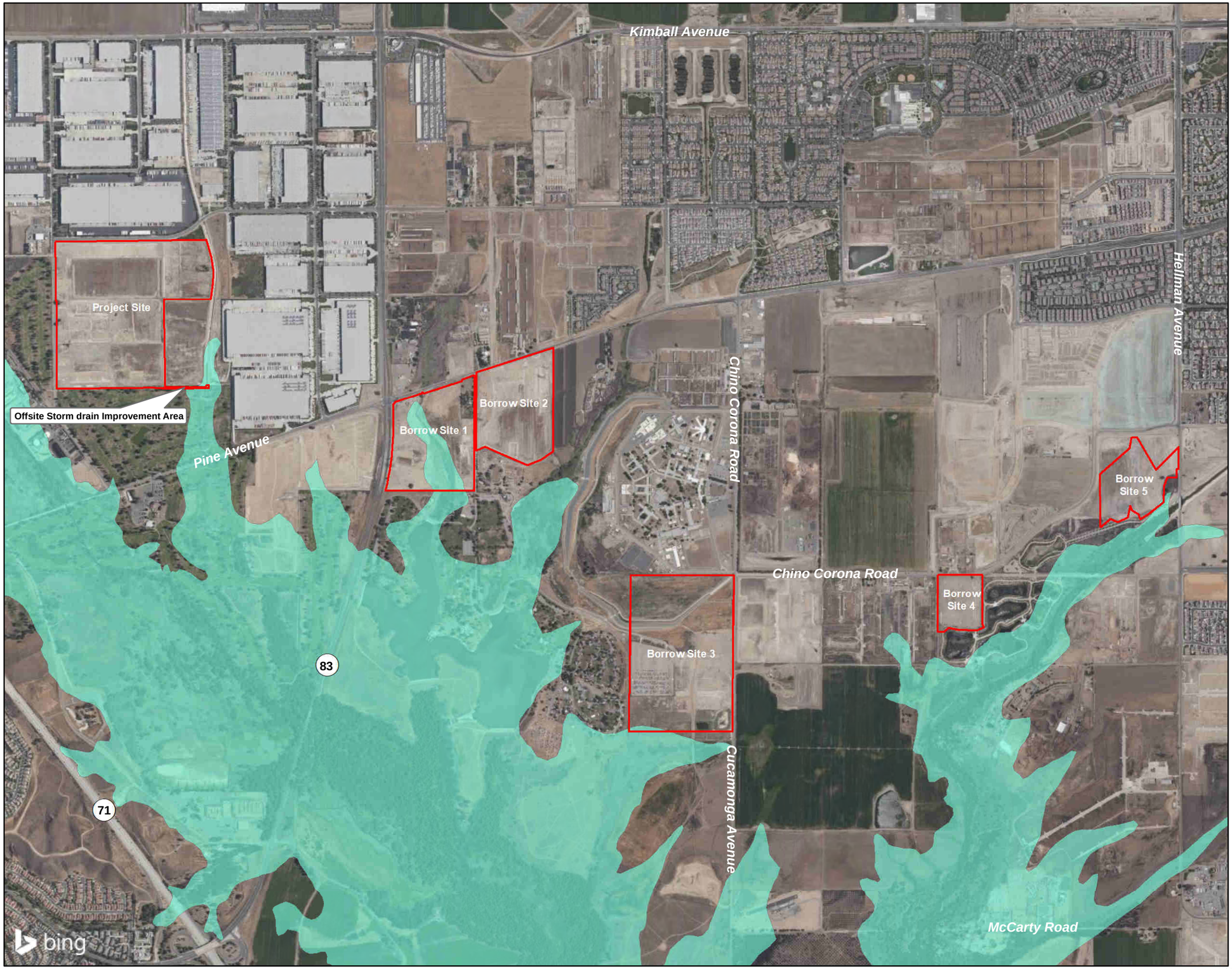
MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 8

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV Survey.mxd



Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_KeyMap.mxd

Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map,
Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_ProjectSite.mxd

Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

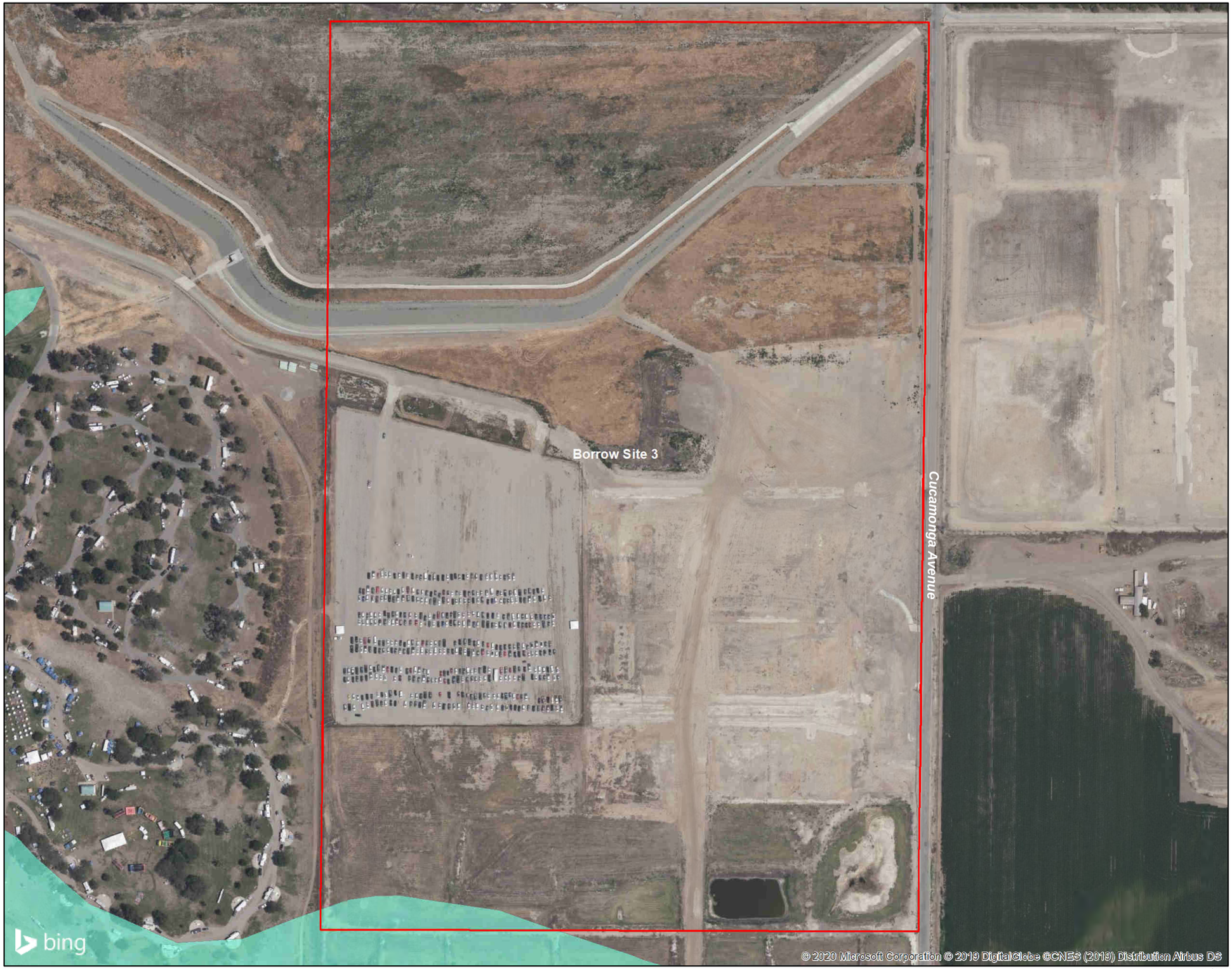
MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_BorrowSite1-2.mxd



Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 4

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_BorrowSite3.mxd

Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 5

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_BorrowSite4.mxd

Study Area Boundary

Least Bell's Vireo Critical Habitat

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 9 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\BirdsGIS\1090-2_LBV_CH_BorrowSite5.mxd

Study Area Boundary

Limits of Grading

Corps/RWQCB Non-Wetland Waters

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

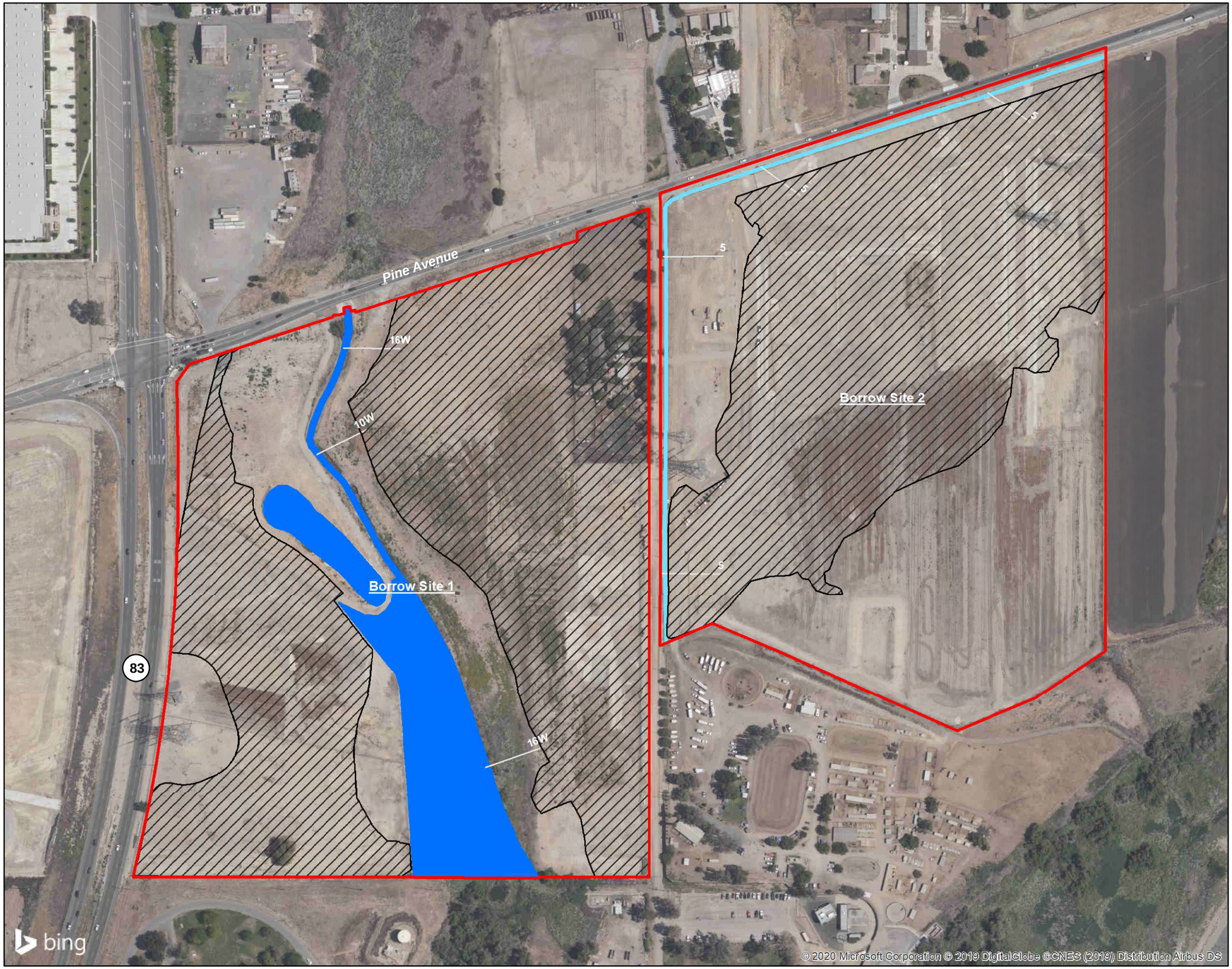
MAJESTIC CHINO HERITAGE PROJECT

Corps/Regional Board Jurisdictional Delineation/Impact Map - Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 10A - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Corps_ImpactsProjectSite.mxd



Study Area Boundary

Limits of Grading

RWQCB Non-Wetland Waters Jurisdiction Only

Corps/RWQCB Wetland Waters

5 Width in Feet

W indicates Borrow Site 1 Wetland in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Corps/RWQCB Jurisdictional Delineation/
Impact Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 10A - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Corps_Impacts_BorrowSite1-2.mxd

Study Area Boundary

Limits of Grading

CDFW Non-Riparian Streambed

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

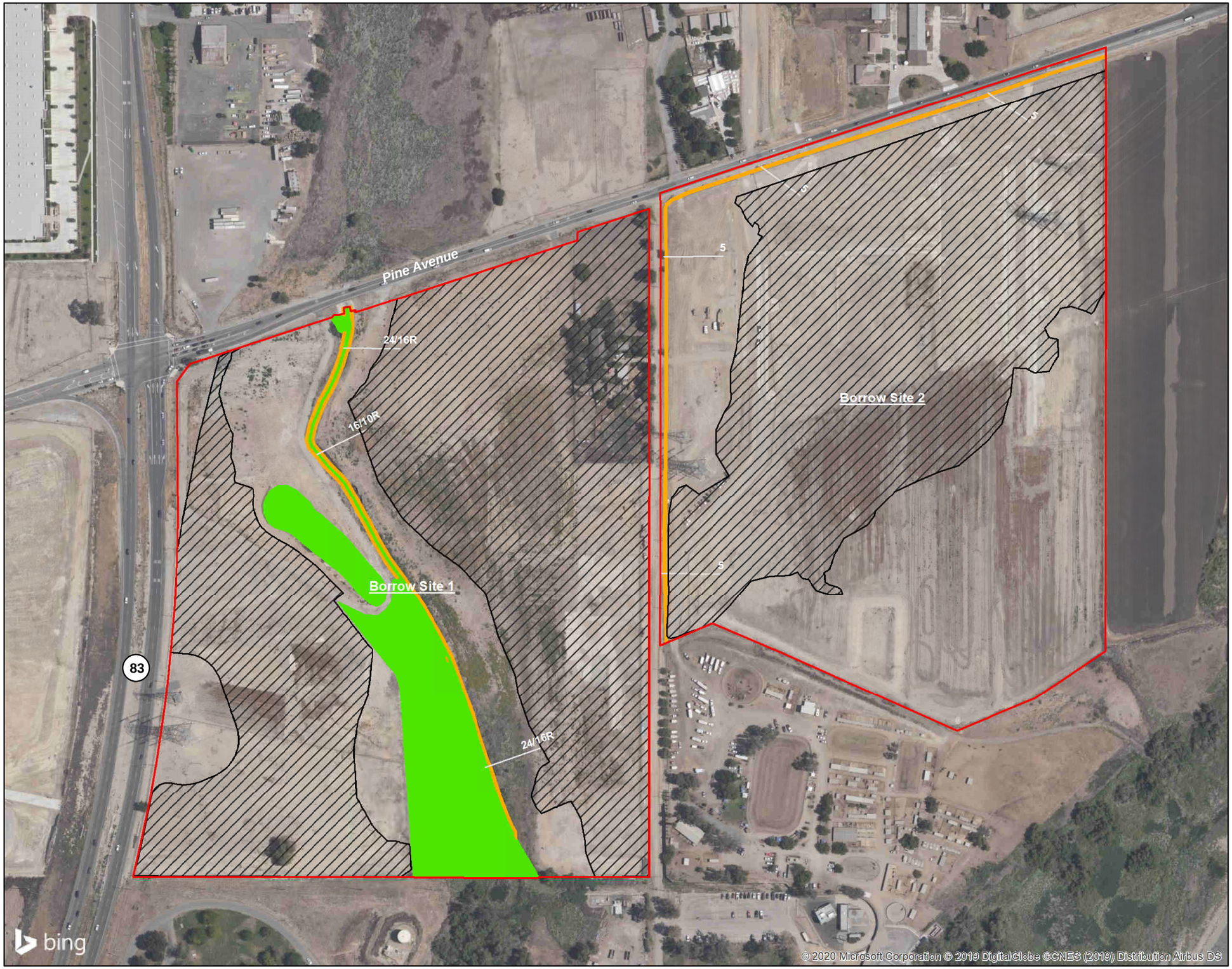
MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation/Impact Map -
Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 10B - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_CDFW_Impacts_ProjectSite.mxd



Study Area Boundary

Limits of Grading

CDFW Non-Riparian Streambed

CDFW Riparian

5 Width in Feet

R indicates Borrow Site 1 Riparian in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

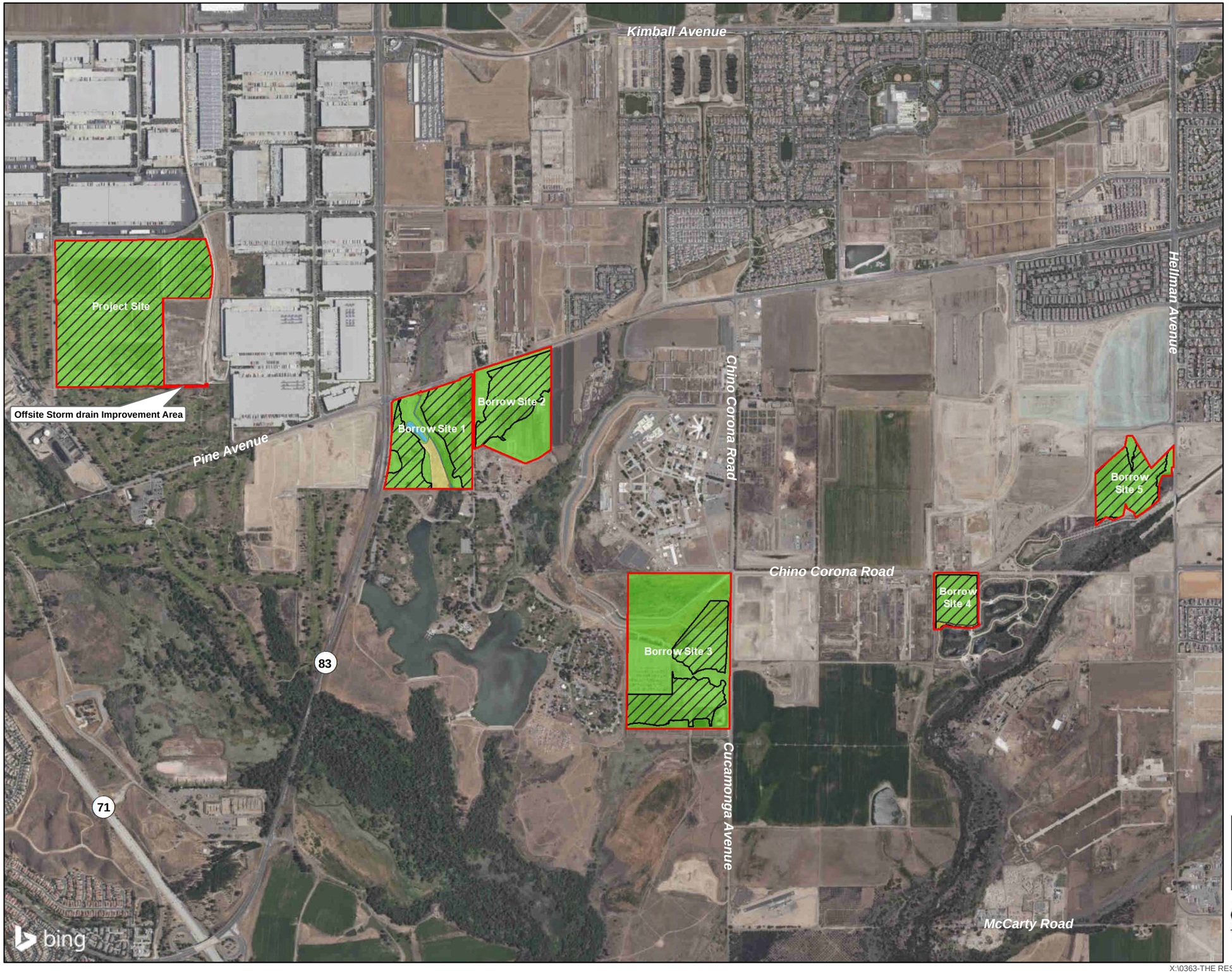
MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation/
Impact Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 10B - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_CDFW_Impacts_BorrowSite1-2.mxd



- Study Area Boundary
- Limits of Grading
- Coastal Sage Scrub
- Freshwater Marsh
- Disturbed Freshwater Marsh
- Ruderal / Disturbed
- Southern Willow Scrub
- Ornamental
- Developed

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsKeyMap.mxd

Study Area Boundary

Limits of Grading

Ruderal / Disturbed

Ornamental

Developed

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

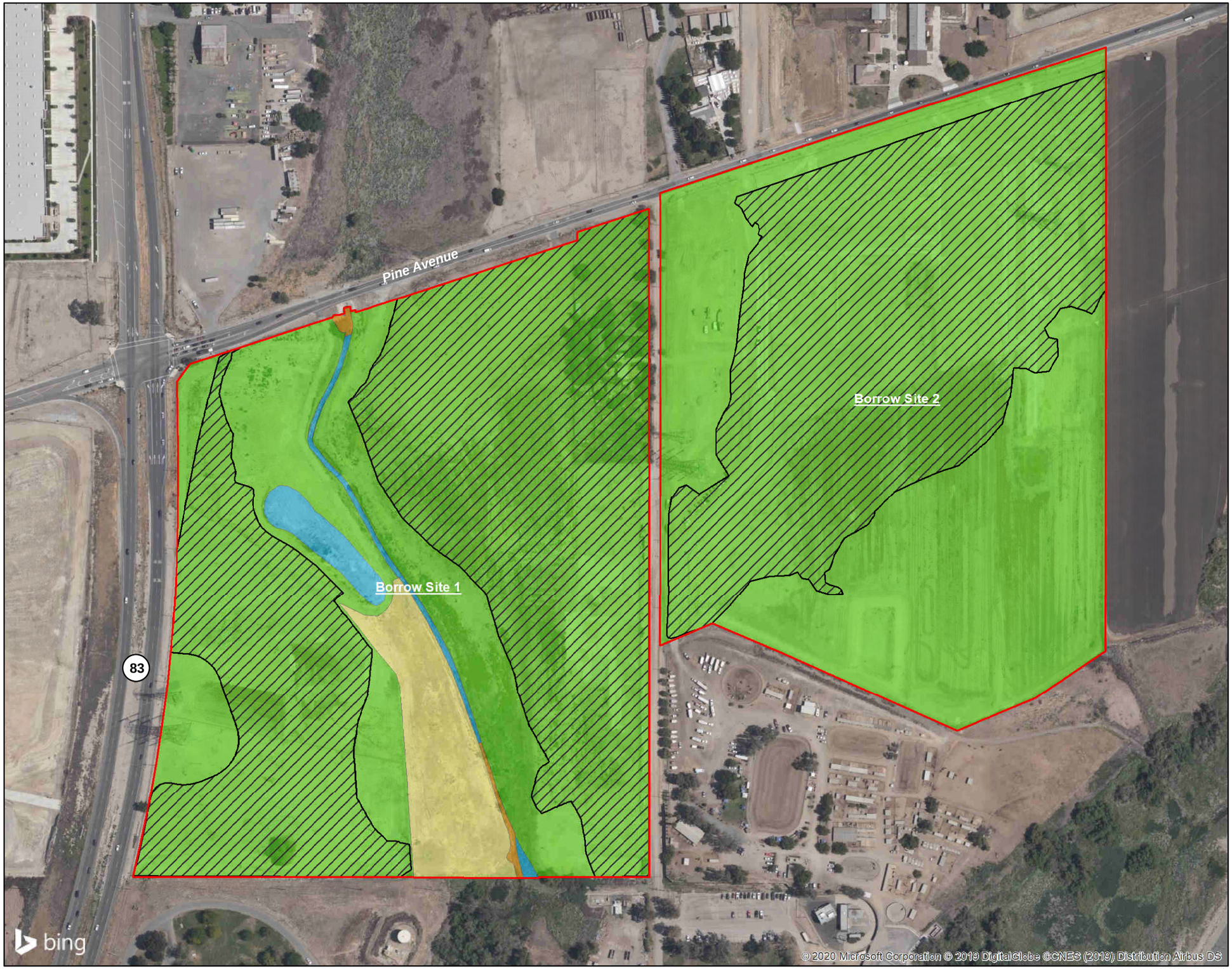
MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map, Project Site and
Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsProjectSite.mxd



Study Area Boundary

Limits of Grading

Freshwater Marsh

Disturbed Freshwater Marsh

Ruderal / Disturbed

Southern Willow Scrub

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

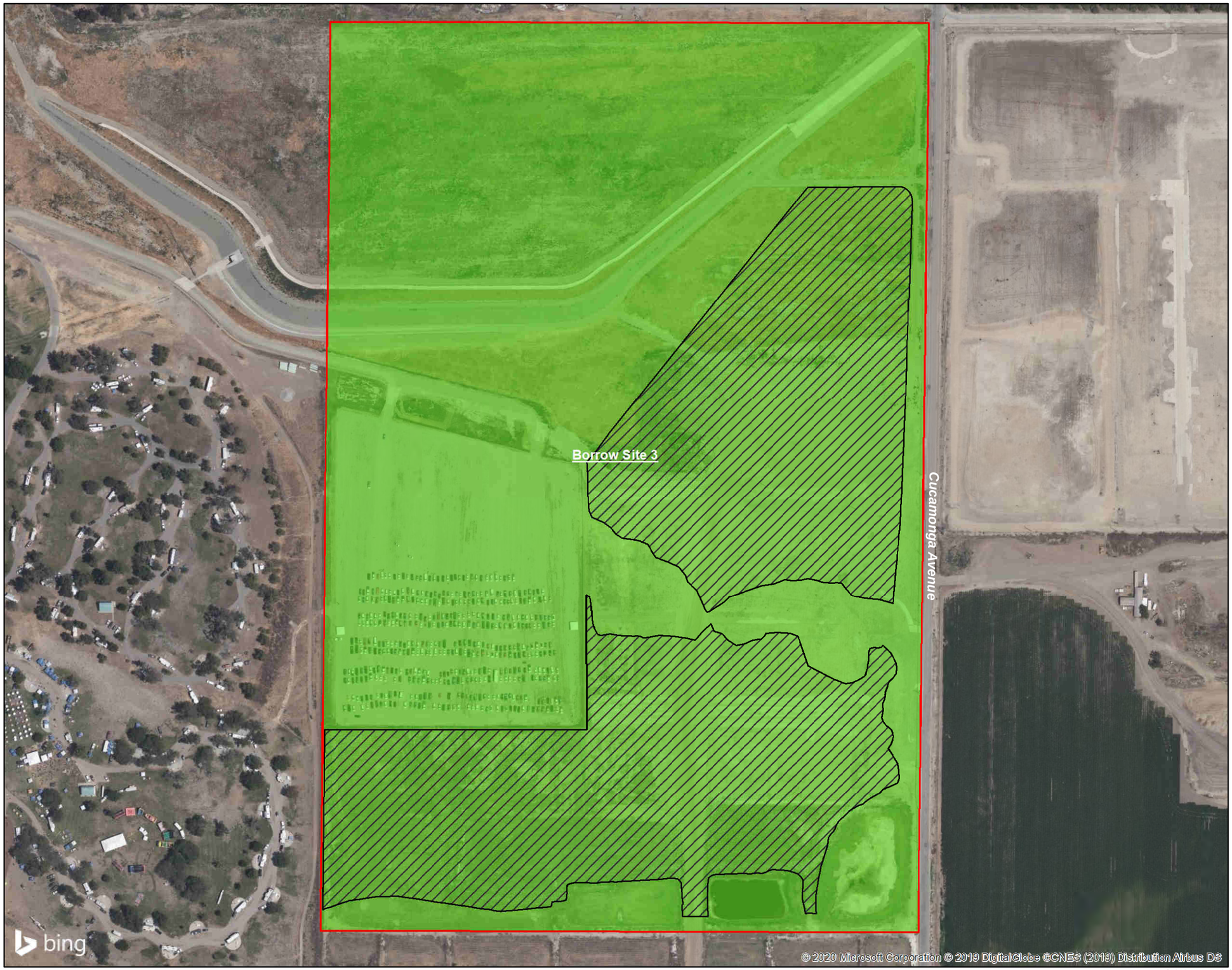
MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsBorrowSite1-2.mxd



Study Area Boundary

Limits of Grading

Ruderal / Disturbed

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 4

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsBorrowSite3.mxd

Study Area Boundary

Limits of Grading

Coastal Sage Scrub

Ruderal / Disturbed

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

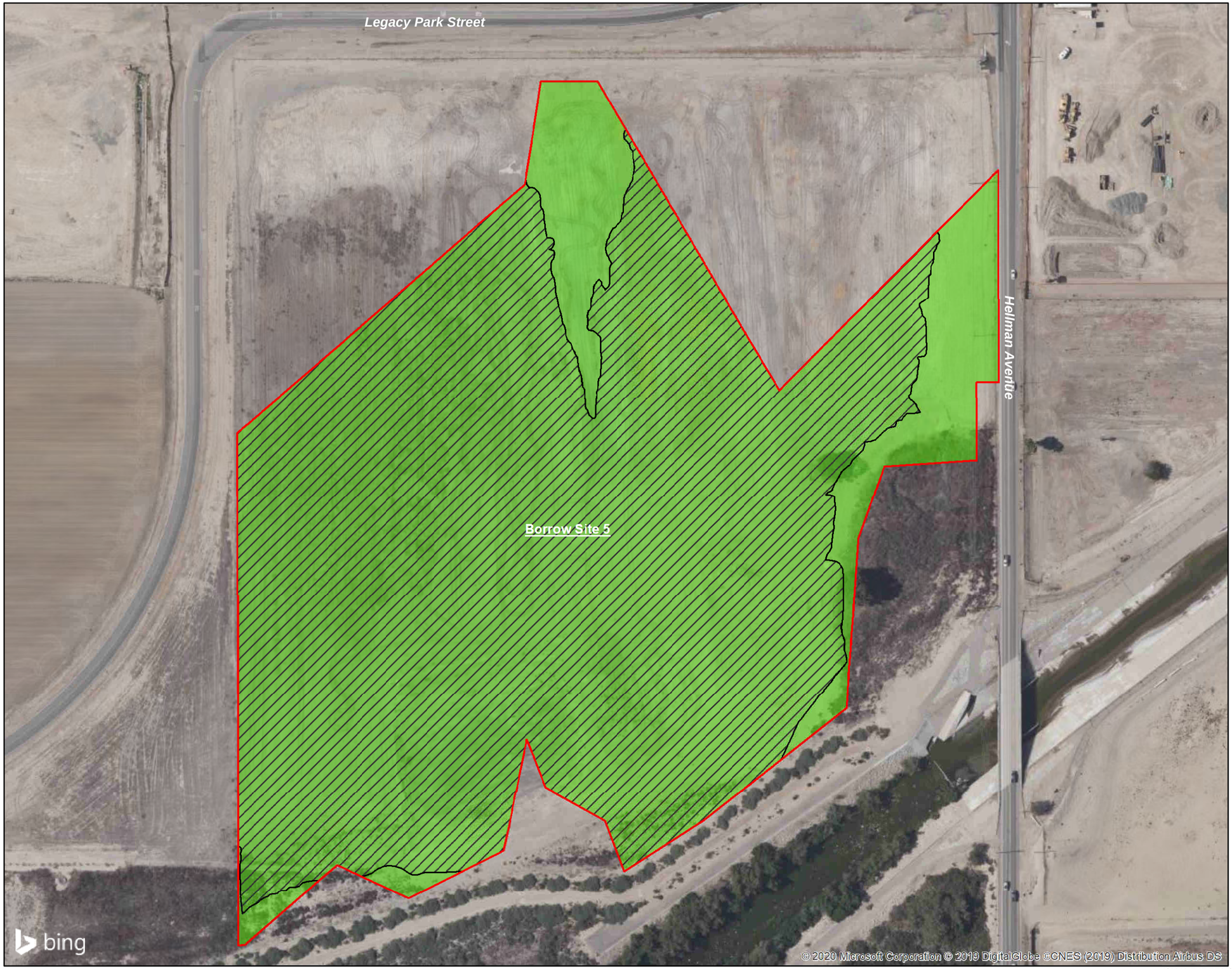
MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 5

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsBorrowSite4.mxd



Study Area Boundary

Limits of Grading

Ruderal / Disturbed

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

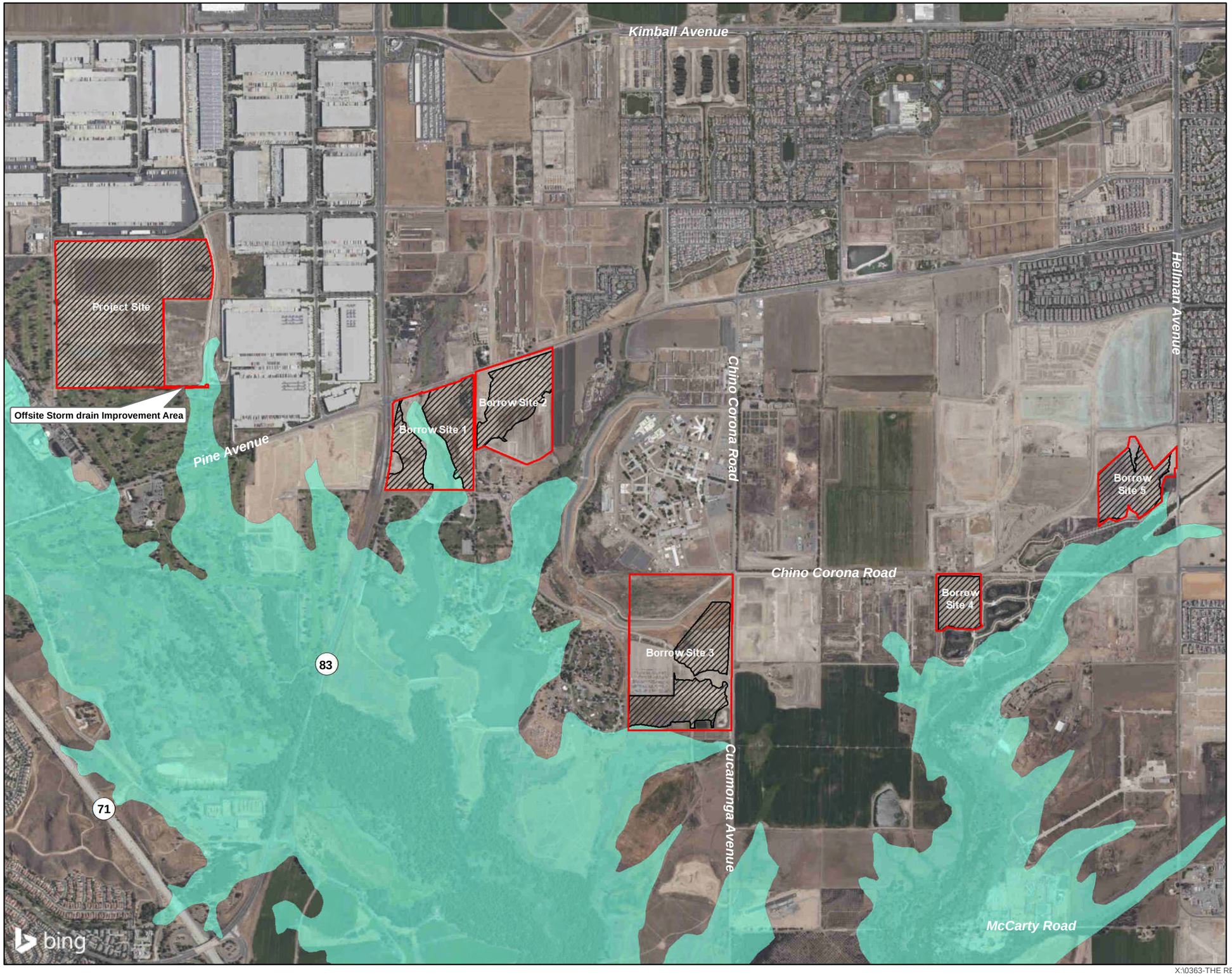
MAJESTIC CHINO HERITAGE PROJECT

Vegetation Impact Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 11 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Vegetation_ImpactsBorrowSite5.mxd



Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_KeyMap.mxd

Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

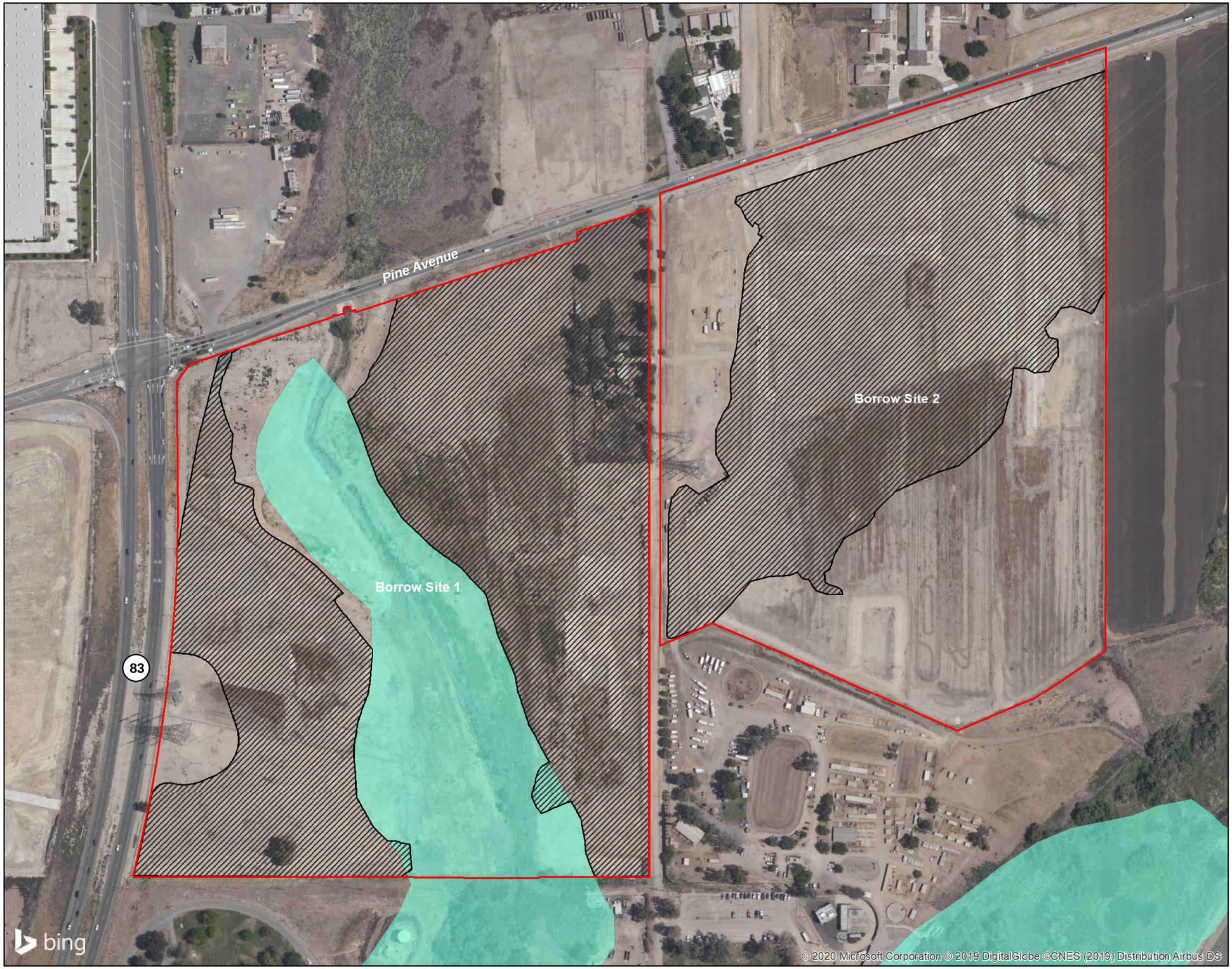
MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map, Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_ProjectSite.mxd



Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

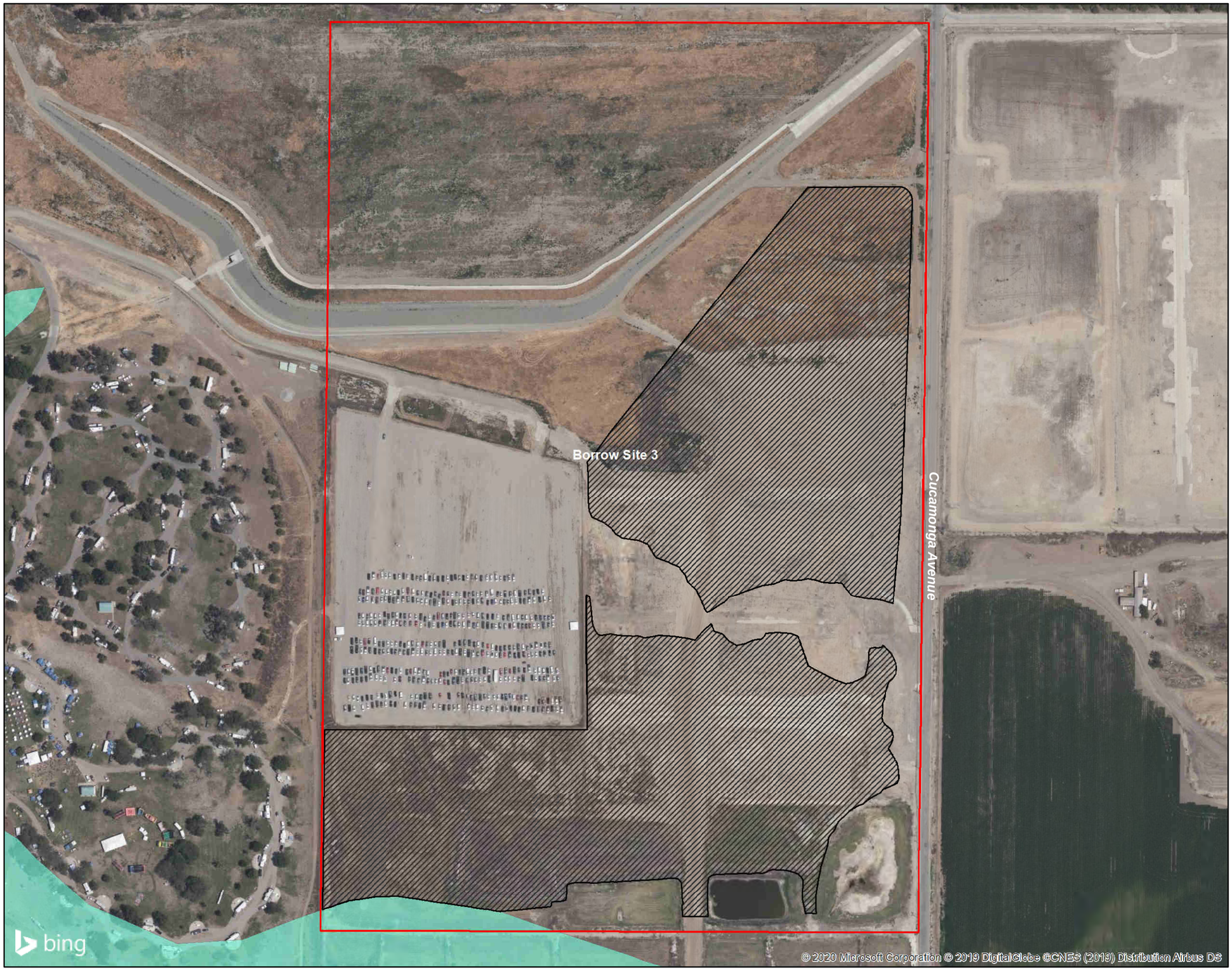
MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_BorrowSite1-2.mxd



Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 4

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_BorrowSite3.mxd

Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

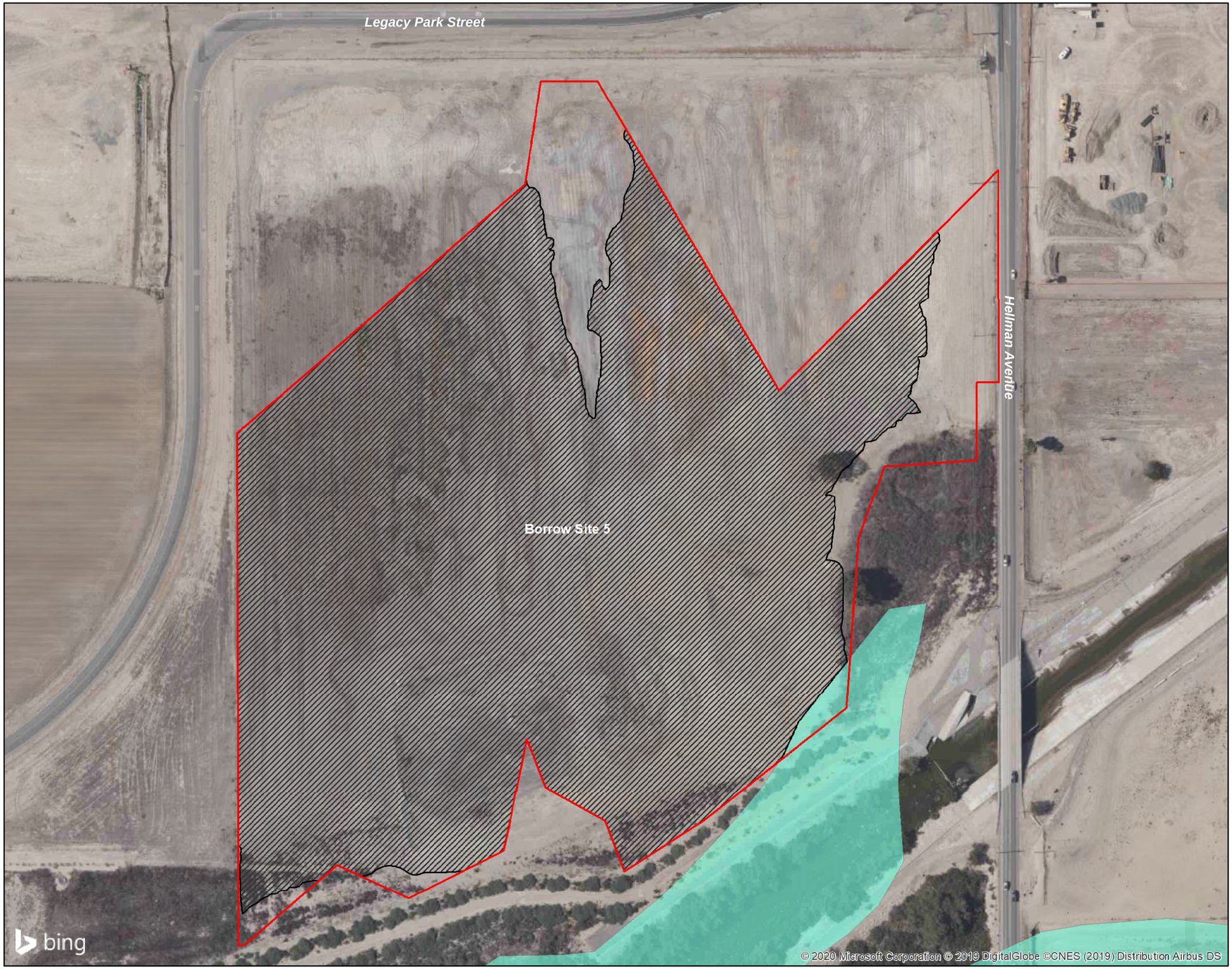
MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 5

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_BorrowSite4.mxd



Study Area Boundary

Limits of Grading

Least Bell's Vireo Critical Habitat

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Least Bell's Vireo Critical Habitat Impact Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 12 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\ImpactsGIS\1090-2_Impacts_LBV_CH_BorrowSite5.mxd

Photograph 1: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 2: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 3: Photograph depicting typical waste treatment pond within Project Site.

Photograph 4: Photograph depicting Project Site. Note the disturbed condition of the site.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photoaraphs – Project Site

Photograph 5: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 6: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 7: Photograph depicting Project Site. Note the presence of a typical waste treatment pond on site.

Photograph 8: Photograph depicting Project Site. Note the disturbed condition of the site.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Borrow Site 3

Photograph 9: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 10: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 11: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 12: Photograph depicting Project Site. Note the disturbed condition of the site.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Borrow Site 4

Photograph 13: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 14: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 15: Photograph depicting Project Site. Note the disturbed condition of the site.

Photograph 16: Photograph depicting Project Site. Note the disturbed condition of the site.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Borrow Site 5

Photograph 17: Photograph depicting Drainage 1 and freshwater marsh habitat on site.

Photograph 18: Photograph depicting freshwater marsh/seep area within Borrow Site 1 westerly of Drainage 1.

Photograph 19: Photograph depicting Drainage 1 and freshwater marsh habitat on site.

Photograph 20: Photograph depicting disturbed freshwater marsh area on site.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Borrow Site 1

Photograph 21: Photograph depicting Cypress Channel. Note the concrete sides and bottom.

Photograph 22: Photograph depicting Cypress Channel. Note the concrete sides and bottom.

GLENN LUKOS ASSOCIATES

Exhibit 13

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Cypress Channel

APPENDIX A: FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level plant surveys conducted for the Study Area. Taxonomy typically follows Jepson Flora Project (2013)[1]. An asterisk (*) denotes a non-native species.

MAGNOLIIDS

Saururaceae – Lizard's-Tail Family
Anemopsis californica, Yerba Mansa

GYMNOSPERMS

Pinaceae – Pine Family
* ***Pinus halepensis***, Aleppo Pine

EUDICOTS

Adoxaceae – Moschatel Family
Sambucus nigra ssp. ***caerulea***, Blue Elderberry

Amarnthaceae – Amaranth Family
* ***Amaranthus albus***, Tumbleweed

Anacardiaceae – Sumac Family
Malosma laurina, Laurel Sumac
Rhus integrifolia, Lemonade Berry
***** ***Schinus molle,*** Peruvian Pepper Tree

Apiaceae – Umbellifer Family
***** ***Conium maculatum***, Poison Hemlock

Apocynaceae – Dogbane Family
* ***Nerium oleander***, Oleander

Asteraceae – Sunflower Family
Ambrosia psilostachya, Western Ragweed
Artemisia californica, California Sagebrush

[1] Jepson Flora Project (B. D. Baldwin, D. J. Keil, S. Markos, B. D. Mishler, R. Patterson, T. J. Rosatti, and D. H. Wilken, eds.) [JFP]. 2013. ***Jepson Flora Project***. Accessed through 31 Oct 2014. Facets of this extensive online resource include the Jepson eFlora, available at http://ucjeps.berkeley.edu//IJM.html and Jepson Online Interchange (JOI), available at http://ucjeps.berkeley.edu/interchange.html. The latter enables searches of the Index to California Plant Names (ICPN) for nomenclature, status, and relationships, often with links to helpful details and discussion. All information incorporated here was accessed after, or confirmed accurate through, inclusion of the "Errata and Small Changes" at http://ucjeps.berkeley.edu/JM12_errata.html (dated 01 Jul 2013) and "Supplement 1 to" TJM2 at http://ucjeps.berkeley.edu/IJM_suppl_summary.html, (dated Jul 2013).

Baccharis pilularis, Coyote Brush
Baccharis salicifolia, Mulefat
* ***Cirsium vulgare***, Bull Thistle
Encelia californica, California brittlebush
Encelia farinosa, Desert Brittlebush
* ***Erigeron bonariensis***, Flax-leaved Horseweed
Erigeron canadensis, Canada Horseweed
Helianthus annuus, Common Sunflower
* ***Helminthotheca echioides***, Bristly Ox-Tongue
Heterotheca grandiflora, Telegraph Weed
Isocoma mensiesii, Coast Goldenbush
* ***Lactuca serriola***, Prickly Lettuce
* ***Sonchus asper***, Spiny Sowthistle
* ***Silybum marianum***, Milk Thistle
* ***Taraxacum officinale***, Common Dandelion
Uropappus lindleyi, Silver Puffs
* ***Verbesina enceliodes***, Golden Crownbeard

Boraginaceae – Forget-Me-Not Family
Amsinckia intermedia, Common Fiddleneck
Heliotropium curassavicum, Chinese Parsley

Brassicaceae – Mustard Family
* ***Hirschfeldia incana***, Summer Mustard
* ***Lepidium latifolium***, Perennial Pepperweed
* ***Raphanus sativus***, Wild Radish
* ***Sisymbrium irio***, London Rocket

Cactaceae – Cactus Family
* ***Opuntia ficus-indica***, Mission Cactus

Caryophyllaceae – Pink Family
Spergularia marina, Salt Marsh Sand Spurry

Chenopodiaceae – Goosefoot Family
Atriplex sp., Saltbush species
Atriplex lentiformis, Big Saltbush
* ***Chenopodium album***, Lamb's Quarters
* ***Chenopodium murale***, Nettle-leaf Goosefoot
* ***Kochia scoparia***, Common Red Sage
* ***Salsola tragus***, Russian Thistle

Cleomaceae – Goosefoot Family
Peritoma arborea, Bladderpod

Convolvulaceae – Morning-Glory Family
* ***Convolvulus arvensis,*** Field Bindweed
* ***Dichondra micrantha***, Asian Ponyfoot

Fabaceae – Pea Family
Acmison americanus, Spanish Lotus
* ***Melilotus*** sp. Sweet Clover

Fagaceae – Oak Family
Quercus agrifolia, Coast Live Oak

Geraniaceae – Geranium Family
* ***Erodium cicutarium***, Red stemmed Filaree

Lamiaceae – Mint Family
* ***Marrubium vulgare***, White Horehound
Salvia apiana, White Sage
Salvia mellifera, Black Sage

Malvaceae – Mallow Family
Malacothamnus fasciculatus, chaparral bush mallow
* ***Malva parviflora***, Cheeseweed Mallow

Oleaceae – Olive Family
Fraxinus uhdei., Shamel Ash

Platanaceae – Plane-Tree Family
Platanus racemosa, Western Sycamore

Polygonaceae – Knotweed Family
Eriogonum fasciculatum, California Buckwheat
* ***Polygonum aviculare***, Prostrate Knotweed
* ***Rumex crispus***, Curly Dock

Rosaceae – Rose Family
Heteromeles arbutifolia, Toyon
Rosa californica, California Rose

Salicaeae – Willow Family
Salix gooddingii, Goodding's Black Willow

Simaroubaceae – Quassia Family
* ***Ailanthus altissima***, Tree of Heaven

Solanaeceae – Nightshade Family
Datura wrightii, Jimsonweed

***** ***Nicotiana glauca***, Tree Tobacco
Solanum sp., Nightshade

Tamaricaceae – Tamarisk Family
***** ***Tamarix ramosissima***, Salt Cedar

Urticaceae – Nettle Family
***** ***Urtica urens***, Annual Stinging Nettle

MONOCOTS

Agavaceae – Agave Family
* ***Agave americana***, American Century Plant
* ***Agave attenuata***, Agave
Hesperoyucca whipplei, Chaparral Yucca

Arecaceae – Palm Tree Family
***** ***Washingtonia robusta***, Mexican Fan Palm

Poaceae – Grass Family
* ***Agrostis gigantea***, Creeping Bentgrass
* ***Bromus madritensis***, Red Brome
* ***Cynodon dactylon***, Bermuda Grass
Distichlis spicata, Saltgrass
* ***Eleusine*** sp., Millet
Elymus triticoides, Creeping Wild Rye
* ***Festuca perennis***, Italian Rye Grass
* ***Hordeum murinum***, Foxtail Barley
* ***Lamarckia aurea,*** Goldentop Grass
Leptochloa fusca ssp. ***uninervia***, Mexican Sprangletop
Muhlenbergia rigens, Deergrass
* ***Polypogon monspeliensis***, Rabbitsfoot Grass
* ***Schismus barbatus***, Common Mediterranean Grass
Typha domingensis, Southern Cattail

APPENDIX B: FAUNAL COMPENDIUM

The faunal compendium lists species that were either observed within or adjacent to the Project site. Taxonomy and common names are taken from Pelham (2008)[2] for butterflies, AOU (1998 et seq.)[3] for birds, Crother (2012)[4] for amphibian, turtle, and reptile taxonomy, and Wilson and Reeder (2005)[5] for mammals.

INVERTEBRATES

Nymphalidae - Brush-Footed Butterflies
Vanessa cardui, Painted Lady

REPTILES AND AMPHIBIANS

Bufonidae – True Toad Family
Anaxyrus boreas, Western Toad

Phrynosomatidae - Phrynosomatid Lizards
Sceloporus occidentalis, Western Fence Lizard

BIRDS

Accipitridae – Diurnal Raptor Family
Accipiter cooperi, Cooper's Hawk
Buteo jamaicensis, Red-tailed Hawk
Circus hudsonius, Northern Harrier

Aegithalidae – Bushtit Family
Psaltriparus minimus, Bushtit

Alaudidae – Lark Family
Eremophila alpestris, Horned Lark

Anatidae – Duck, Geese, and Swan Family
Anas platyrhynchos, Mallard
Aythya affinis, Lesser Scaup

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[2] Jonathan Pelham. 2008. Catalogue of the Butterflies of the United States and Canada. Journal of Research on the Lepidoptera 40: xiv + 658 pp.

[3] American Ornithologists' Union 1998. The A.O.U. Checklist of North American Birds, seventh edition. American Ornithologists' Union, Washington D.C.; and 2000, 2002, 2003, and 2004 supplements.

[4] Crother, B. I., ed. 2012. ***Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding, 7th Edition***. SSAR Herpetological Circular 39:1-92. Shoreview, MN: Society for the Study of Amphibians and Reptiles, Committee On Standard English And Scientific Names.

[5] Wilson, D. E., and D. M. Reeder, eds. 2005. ***Mammal Species of the World: A Taxonomic and Geographic Reference, 3rd Edition***. Baltimore, MD: Johns Hopkins University Press. Available online at http://www.bucknell.edu/msw3/browse.asp. No separate corrigenda or updates since initial publication.

Branta canadensis, Canada Goose
Spatula clypeata, Northern Shoveler
Spatula cyanoptera, Cinnamon Teal

Ardeidae – Heron Family
Ardea alba, Great Egret

Cathartidae – New World Vulture Family
Cathartes aura, Turkey Vulture

Charadriidae – Plover Family
Charadrius vociferous, Killdeer

Columbidae – Pigeon and Dove Family
* ***Columba livia***, Rock Pigeon
* ***Streptopelia decaocto***, Eurasian-collared Dove
Zenaida macroura, Mourning Dove

Corvidae – Jay and Crow Family
Corvus brachyrhynchos, American Crow
Corvus corax, Common Raven

Falconidae – Falcons and Caracaras
Falco peregrinus, Peregrine Falcon
Falco sparverius, American Kestrel

Fringillidae – Finch Family
Haemorhous mexicanus, House Finch
Spinus psaltria, Lesser Goldfinch

Hirundinidae – Swallow Family
Hirundo rustica, Barn Swallow
Stelgidopteryx serripennis, Northern Rough-winged Swallow
Tachycineta bicolor, Tree Swallow

Icteridae – Icterid Family
Agelaius phoeniceus, Red-winged Blackbird
Agelaius tricolor, Tricolored Blackbird
Euphagus cyanocephalus, Brewer's Blackbird
* ***Molothrus ater***, Brown-headed Cowbird
Quiscalus mexicanus, Great-tailed Grackle
Sturnella neglecta, Western Meadowlark
Xanthocephalus xanthocephalus, Yellow-headed Blackbird

Laniidae – Shrike Family
Lanius ludovicianus, Loggerhead Shrike

Laridae – Gull and Tern Family
Larus californicus, California Gull
Larus delawarensis, Ring-billed Gull

Mimidae – Thrasher Family
Mimus polyglottos, Northern Mockingbird
Toxostoma redivivum, California Thrasher

Motacillidae – Wagtail and Pipit Family
Anthus rubescens, American Pipit

Parulidae – Wood-Warbler Family
Geothlypis trichas, Common Yellowthroat
Setophaga coronata, Yellow-rumped Warbler

Passerellidae – New World Sparrow Family
Chondestes grammacus, Lark Sparrow
Melospiza melodia, Song Sparrow
Melozone crissalis, California Towhee
Passerculus sandwichensis Savannah Sparrow
Zonotrichia leucophrys, White-crowned Sparrow

Passeridae – Old World Sparrow Family
* ***Passer domesticus***, House Sparrow

Phalacrocoracidae – Cormorant Family
Phalacrocorax auratus, Double-crested Cormorant

Picidae – Woodpecker Family
Colaptes auratus, Northern Flicker

Polioptilidae – Gnatcatcher Family
Polioptila caerulea, Blue-gray Gnatcatcher

Rallidae – Rail Family
Fulica americana, American Coot

Recurvirostridae – Stilts and Avocets
Himantopus mexicanus, Black-necked Stilt

Scolopacidae – Sandpiper Family
Calidris mauri, Western Sandpiper
Calidris minutilla, Least Sandpiper
Gallinago delicata, Wilson's Snipe
Tringa flavipes, Lesser Yellowlegs

Tringa melanoleuca, Greater Yellowlegs
Tringa semipalmata, Willet

Strigidae – True Owl Family
Athene cunicilaria, Burrowing Owl

Sturnidae – Starling Family
* ***Sturnus vulgaris***, European Starling

Threskiornithidae – Ibis and Spoonbill Family
Plegadis chihi, White-faced Ibis

Trochilidae – Hummingbird Family
Calypte anna, Anna's Hummingbird
Selasphorus rufus, Rufous Hummingbird

Troglodytidae – Wren Family
Troglodytes aedon, House Wren

Tyrannidae – Tyrant Flycatcher Family
Sayornis nigricans, Black Phoebe
Sayornis saya, Say's Phoebe
Tyrannus verticalis, Western Kingbird
Tyrannus vociferans, Cassin's Kingbird

MAMMALS

Canidae – Canid Family
Canis latrans, Coyote

Geomyidae – Pocket Gopher Family
Thomomys bottae, Botta's Pocket Gopher

Leporidae – Hare and Rabbit Family
Sylvilagus audubonii, Desert Cottontail

Procyonidae – Raccoon and Allies Family
Procyon lotor, Common Raccoon

Sciuridae – Squirrel Family
Otospermophilus beecheyi, California Ground Squirrel

GLENN LUKOS ASSOCIATES

Regulatory Services

January 17, 2020

John Burroughs
Majestic Realty Co.
13191 Crossroads Parkway North
Sixth Floor
City of Industry, California 91746

SUBJECT: Jurisdictional Delineation of the Majestic Chino Heritage Project and Five Borrow Sites, a Total of Approximately 298.22 Acres of Property Located in the City of Chino, San Bernardino County, California.

Dear Mr. Burroughs:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Santa Ana Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

Project Location

The Majestic Chino Heritage Development Project (Project) totals approximately 97.26 acres and is located at latitude 33.957541 and longitude -117.662515 in the City of Chino, San Bernardino County, California [Exhibit 1]. The Project occurs within an unsectioned area and Section 31, Township 2 South, and Range 7 West, and Section 36, Township 2 South, and Range 8 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. The Project site is bordered by Bickmore Avenue to the north, the El Prado Golf Course to the south, Cypress Channel to the east, and Mountain Avenue to the west.

The Off Site Storm Drain Improvement Area adjacent to the Project Site totals approximately 0.34 acre and is located at latitude 33.954018 and longitude -117.659439 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations and written policy and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries. If a final jurisdictional determination is required, GLA can assist in getting written confirmation of jurisdictional boundaries from the agencies.

(dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. This area is bordered by the Project site to the north, the El Prado Golf Course to the south and west, and industrial development to the east.

Borrow Site One (Borrow Site 1) totals approximately 43.67 acres and is located at latitude 33.952213 and longitude -117.648256 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 1 is bordered by Pine Avenue to the north, the Prado Regional Park to the south, Johnson Avenue to the east, and Euclid Avenue to the west.

Borrow Site Two (Borrow Site 2) totals approximately 38.51 acres and is located at latitude 33.952641 and longitude -117.644448 in the City of Chino, San Bernardino County, California [Exhibit 1] within an unsectioned area of Township 2 South and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 2 is bordered by Pine Avenue to the north, the Prado Regional Park and the Prado Equestrian Center to the south, the California Institute for Women to the east, and Johnson Avenue to the west.

Borrow Site Three (Borrow Site 3) totals approximately 84.25 acres and is located at latitude 33.941462 and longitude -117.635815 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 5, Township 3 South, and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Prado Dam (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 3 is bordered by the California Institute for Women to the north, the Prado Basin to the south and west, and Cucamonga Avenue to the east.

Borrow Site Four (Borrow Site 4) totals approximately 12.92 acres and is located at latitude 33.945011 and longitude -117.622304 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 4, Township 3 South, and Range 7 West of the U.S. Geological Survey (USGS) 7.5" quadrangle map Corona North (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 4 is bordered by Chino-Corona Road to the north, the Mill Creek Wetlands to the south and east, and Comet Avenue to the west.

Borrow Site Five (Borrow Site 5) totals approximately 21.28 acres and is located at latitude 33.949712 and longitude -117.613437 in the City of Chino, San Bernardino County, California [Exhibit 1] within Section 33, Township 2 South, and Range 7 West, of the U.S. Geological Survey (USGS) 7.5" quadrangle map Corona North (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. Borrow Site 5 is bordered by undeveloped land to the north and south, Hellman Avenue to the east, and Chino-Corona Road to the west.

Jurisdictional Delineation

In March, April, and May 2019, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project Site, Off Site Storm Drain Improvement Area and Borrow Sites (collectively, the "Study Area") to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC) [the Porter-Cologne Water Quality Act (Porter-Cologne)], and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1617 of the California Fish and Game Code.

Enclosed are an aerial map [Exhibit 3] that depicts the Study Area, and exhibits that depict the areas of potential Corps/Regional Board (Exhibit 4A, Sheets 1 and 2) and CDFW jurisdiction (Exhibit 4B, Sheets 1 and 2) within these locations. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 5 and maps depicting the soils are included as Exhibit 6, Sheets 1 through 6.

Corps jurisdiction associated with the Study Area is 4.60 acres, of which 4.59 acres consists of jurisdictional wetlands. A total of 1,667 linear feet of streambed is present.

Regional Board jurisdiction associated with the Study Area is 4.87 acres, of which 4.59 acres consists of jurisdictional wetlands. A total of 4,033 linear feet of streambed is present.

CDFW jurisdiction associated with the Study Area totals 5.09 acres, of which 4.62 acres consists of riparian habitat and 0.47 acre consists of non-riparian streambed. A total of 4,033 linear feet of streambed is present.

Project Site

There is no Corps, CDFW, or Regional Board jurisdiction associated with the Project Site. Immediately east of the off site storm drain improvement area is the Cypress Channel; however, the Project will not encroach into any portion of the channel that would be regulated by the Corps, CDFW, or Regional Board.

Off Site Storm Drain Improvement Area

Corps, CDFW, and Regional Board jurisdiction associated with the Off Site Storm Drain Improvement Area totals 0.01 acre within the Cypress Channel, none of which consists of jurisdictional wetlands or riparian habitat. A total of 22 linear feet of jurisdictional waters are present.

Borrow Site 1

Corps and Regional Board jurisdiction associated with Borrow Site 1 totals 4.59 acres, all of which consists of jurisdictional wetlands. A total of 1,645 linear feet of stream are present associated with Drainage 1.

CDFW jurisdiction within Borrow Site 1 totals 4.81 acres, of which 4.62 acres consists of riparian habitat and 0.19 acre consists of non-riparian streambed. A total of 1,645 linear feet of stream are associated with Drainage 1.

Borrow Site 2

There is no Corps jurisdiction associated with Borrow Site 2 as the only drainage feature present is a roadside ditch which would not be regulated by the Corps under Section 404 of the Clean Water Act.

Regional Board jurisdiction associated with Borrow Site 2 totals 0.27 acre, none of which consists of jurisdictional wetlands. A total of 2,366 linear feet of stream is associated with Ditch 1, which is a roadside ditch located along the western boundary of Borrow Site 2 and adjacent to Johnson Avenue.

CDFW jurisdiction within Borrow Site 2 totals 0.27 acre, all of which consists of non-riparian streambed associated with Ditch 1. A total of 2,366 linear feet of streambed is present associated with Drainage 1.

Borrow Site 3

There is no Corps, CDFW, or Regional Board jurisdiction associated with Borrow Site 3.

Borrow Site 4

There is no Corps, CDFW, or Regional Board jurisdiction associated with Borrow Site 4.

Borrow Site 5

There is no Corps, CDFW, or Regional Board jurisdiction associated with Borrow Site 5.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction and suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2006 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the project site:

Project Site

Chino Silt Loam (Cb)

The Chino series consists of somewhat poorly drained, nearly level soils. These soils formed on flood plains and in basins in moderately fine textured alluvium. Slopes are zero to two percent and elevations range from 700 to 750 feet. Vegetation consists of annual grasses and forbs.

In a typical surface layer, soils are gray silt loam about 16 inches thick. The underlying material is gray light silty clay loam and silty clay loam that extends to a depth of 60 inches or more. Chino soils are moderately alkaline and strongly calcareous throughout.
These soils are used for irrigated alfalfa, grains, corn silage, and pasture plants. Small areas are used for homesites and related uses.

Chualar clay loam, 0 to 2 Percent Slopes (CkA), Chualar clay loam, 2 to 9 Percent Slopes (CkC)

[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States
[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Off Site Storm Drain Improvement Area Adjacent to the Project Site

Chualar clay loam, 0 to 2 Percent Slopes (CkA), Chualar clay loam, 2 to 9 Percent Slopes (CkC), and Chualar clay loam, 9 to 15 Percent Slopes (CkD

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Grangeville fine sandy loam (Gr)

The Grangeville series consists of somewhat poorly drained soils. These soils are formed on slopes of alluvial fans in moderately coarse textured granitic alluvium. The vegetation commonly associated with Grangeville soils includes annual grasses and forbs and scattered cottonwood trees. Grangeville soils are used for irrigated alfalfa, small grain and pasture plants.

Borrow Site 1

Chino Silt Loam (Cb)

The Chino series consists of somewhat poorly drained, nearly level soils. These soils formed on flood plains and in basins in moderately fine textured alluvium. Slopes are zero to two percent and elevations range from 700 to 750 feet. Vegetation consists of annual grasses and forbs.

In a typical surface layer, soils are gray silt loam about 16 inches thick. The underlying material is gray light silty clay loam and silty clay loam that extends to a depth of 60 inches or more. Chino soils are moderately alkaline and strongly calcareous throughout.
These soils are used for irrigated alfalfa, grains, corn silage, and pasture plants. Small areas are used for homesites and related uses.

Chualar clay loam, 2 to 9 Percent Slopes (CkC) and Chualar clay loam, 9 to 15 Percent Slopes (CkD)

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Grangeville fine sandy loam (Gr)

The Grangeville series consists of somewhat poorly drained soils. These soils are formed on slopes of alluvial fans in moderately coarse textured granitic alluvium. The vegetation commonly associated with Grangeville soils includes annual grasses and forbs and scattered cottonwood trees. Grangeville soils are used for irrigated alfalfa, small grain and pasture plants.

Borrow Site 2

Chino Silt Loam (Cb)

The Chino series consists of somewhat poorly drained, nearly level soils. These soils formed on flood plains and in basins in moderately fine textured alluvium. Slopes are zero to two percent and elevations range from 700 to 750 feet. Vegetation consists of annual grasses and forbs.

In a typical surface layer, soils are gray silt loam about 16 inches thick. The underlying material is gray light silty clay loam and silty clay loam that extends to a depth of 60 inches or more. Chino soils are moderately alkaline and strongly calcareous throughout.

These soils are used for irrigated alfalfa, grains, corn silage, and pasture plants. Small areas are used for homesites and related uses.

Borrow Site 3

Chualar clay loam, 0 to 2 Percent Slopes (CkA) and Chualar clay loam, 2 to 9 Percent Slopes (CkC)

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Borrow Site 4

Chualar clay loam, 0 to 2 Percent Slopes (CkA); Chualar clay loam, 2 to 9 Percent Slopes (CkC); and Chualar clay loam, 9 to 15 Percent Slopes (CkD)

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Borrow Site 5

Chino Silt Loam (Cb)

The Chino series consists of somewhat poorly drained, nearly level soils. These soils formed on flood plains and in basins in moderately fine textured alluvium. Slopes are zero to two percent and elevations range from 700 to 750 feet. Vegetation consists of annual grasses and forbs.

In a typical surface layer, soils are gray silt loam about 16 inches thick. The underlying material is gray light silty clay loam and silty clay loam that extends to a depth of 60 inches or more. Chino soils are moderately alkaline and strongly calcareous throughout.

These soils are used for irrigated alfalfa, grains, corn silage, and pasture plants. Small areas are used for homesites and related uses.

Chualar clay loam, 2 to 9 Percent Slopes (CkC)

The Chualar series consists of well-drained soils. These soils are formed on alluvial fans and terraces in mixed, moderately fine textured alluvium. The vegetation commonly associated with Chualar soils includes annual grasses and forbs. Chualar soils are used for irrigated small grains, pasture plants, alfalfa, and silage. Some areas are used for dry farmed small grains and pasture plants.

Grangeville fine sandy loam (Gr)

The Grangeville series consists of somewhat poorly drained soils. These soils are formed on slopes of alluvial fans in moderately coarse textured granitic alluvium. Slopes are typically zero to two percent. The vegetation commonly associated with Grangeville soils includes annual grasses and forbs and scattered cottonwood trees. Grangeville soils are used for irrigated alfalfa, small grain and pasture plants.

Hilmar Loamy Fine Sand (Hr)

The Hilmar series consists of somewhat poorly drained, nearly level soils on alluvial valley floors and fans. These soils formed on wind-laid, coarse-textured material underlain by medium-textured granitic alluvium. The vegetation commonly associated with this soil unit includes annual grasses and forbs. Hilmar soils are used for irrigated crops such as grapes, alfalfa, pasture plants, and small grains.

These soil units are not identified as hydric in the SCS's publication, Hydric Soils of the United States.[5] None of these soils are identified as hydric for the local Hydric Soils List of Southwestern San Bernardino County, however, inclusions of the Chino, Chualar, and Grangeville soil may be considered hydric for soils in the Aquic suborder, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great groups of vertisols, Pachic subgroups, or Cumulic subgroups, which have a frequently occurring water table at less than 1.5 feet from the surface for a significant period (usually more than two weeks) during the growing season if permeability is less than 6.0 inches an hour in all layers within 20 inches and/or soils that are frequently ponded for a long duration during the growing season. It would also be considered hydric under FSA items 1, 4, and/or 5 due to saturation, seasonally flooded or ponded areas, and/or areas farmed under natural conditions without removing woody vegetation or other manipulation.

It is important to note that under the Arid West Region Supplement, the presence of mapped hydric soils is no longer dispositive for the presence of hydric soils. Rather, the presence of hydric soils must now be confirmed in the field.

II. JURISDICTION

A. Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act (CWA), the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*

[5] United States Department of Agriculture, Soil Conservation Service. 1991. Hydric Soils of the United States, 3rd Edition, Miscellaneous Publication Number 1491. (In cooperation with the National Technical Committee for Hydric Soils.)

(2) All interstate waters including interstate wetlands;
(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:
(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
(ii) From which fish or shell fish are or could be taken and sold in interstate or foreign commerce; or
(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...
(4) All impoundments of waters otherwise defined as waters of the United States under the definition;
(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
(6) The territorial seas;
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.
(8) Waters of the United States do not include prior converted cropland.[6] *Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.*

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

1. Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the

interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

2. Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For project sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPMs) tributary to TNWs and/or their adjacent wetlands as set forth in the chart below, the Corps must apply the significant nexus standard.

For “isolated” waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The Corps and EPA will will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

3. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and

duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[7][8]);

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

B. Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[9] and waters of the

[7] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[8] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

[9] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report

state. Waters of the United States are defined above in Section II.A and waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

C. California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as "a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

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verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

III. RESULTS

A. Corps Jurisdiction

Corps jurisdiction associated with the Study Area totals 4.60 acres, of which 4.59 acres consist of jurisdictional wetlands. A total of 1,667 linear feet of streambed is present. Corps jurisdiction within the Study Area is limited to the reach of the Cypress Channel contained within the Off Site Storm Drain Improvement Area and Drainage 1, an unnamed tributary located within Borrow Site 1 near the intersection of Pine Avenue and Euclid Avenue.

There are no Corps jurisdictional waters located within the Project Site or at Borrow Sites 2, 3, 4, or 5. Exhibit 4A Sheets 1 and 2 depict the limits of Corps jurisdiction within the Off Site Storm Drain Improvement Area and at Borrow Site 1. Table 1 describes total Corps jurisdiction within the Study Area.

Project Site

There is no Corps jurisdiction associated with the Project Site. The riparian trees/shrubs identified in this report include salt cedar (*Tamarix ramosissima*), mulefat (*Baccharis salicifolia*), and black willow (*Salix gooddingii*), which are all located within several non-jurisdictional waste treatment ponds constructed within the Project Site. As stated above in the Corps regulations, "Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States." Therefore, the waste treatment ponds at the Project Site would not be jurisdictional under Section 404 of the Clean Water Act.

Other vegetation within the Project Site consists of Aleppo pine (*Pinus halepensis*), ash (*Fraxinus* sp), Bermuda grass (*Cynodon dactylon*), black willow (*Salix gooddingii*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), chaparral yucca (*Hesperoyucca whipplei*), cheeseweed mallow (*Malva parviflora*), clover (*Trifolium* sp), common dandelion (*Taraxacum officinale*), common fiddleneck (*Amsinckia intermedia*), common Mediterranean grass (*Schismus barbatus*), common sunflower (*Helianthus annuus*), curly dock (*Rumex crispus*), desert brittlebush (*Encelia farinosa*), dwarf nettle (*Urtica urens*), field bindweed (*Convolvulus arvensis*), foxtail barley (*Hordeum murinum*), golden crownbeard (*Verbesina enceliodes*), lamb's quarters (*Chenopodium album*), London rocket (*Sisymbrium irio*), Mexican fan palm (*Washingtonia robusta*), milk thistle (*Silybum marianum*), millet (*Eleusine* sp.), mission cactus (*Opuntia ficus-indica*), Peruvian pepper tree (*Schinus molle*), prostrate knotweed (*Polygonum aviculare*), red brome (*Bromus madritensis*), red stemmed filaree (*Erodium cicutarium*), Russian thistle (*Salsola tragus*), salt cedar (*Tamarix ramosissima*), silver puffs (*Uropappus lindleyi*), southern cattail (*Typha domingensis*), spiny sowthistle (*Sonchus asper*), summer mustard

(*Hirschfeldia incana*), tree tobacco (*Nicotiana glauca*), western ragweed (*Ambrosia psilostachya*), and white horehound (*Marrubium vulgare*).

Off Site Storm Drain Improvement Area

Corps jurisdiction associated with the Off Site Storm Drain Improvement Area totals 0.01 acre within the Cypress Channel, none of which consists of jurisdictional wetlands. A total of 22 linear feet of Corps stream is present.

The Cypress Channel is a concrete-lined, concrete-bottomed flood control channel that flows in a north to south direction immediately east of the Project site. It enters the Study Area near the southeast corner of the Project site within the Off Site Storm Drain Improvement Area. The only portion of the Cypress Channel that is included in the Study Area is where the channel outlets from beneath an earthen road. At this location, the Cypress Channel conveys perennial flows for 22 linear feet through a 28-foot wide headwall structure that consists of the concrete headwall, vertical wingwalls, and bottom. The OHWM within the Cypress Channel is 28 feet and corresponds to the width between the wingwalls at the concrete headwall structure. At the time of the jurisdictional delineation, the depth of standing water to the concrete bottom within the Cypress Channel was approximately one foot. Downstream of the Study Area, the channel enters the Prado Basin.

Borrow Site 1

Borrow Site 1 previously supported a combination of a dairy operation, which was recently abandoned, and a residence.

Corps jurisdiction associated with Borrow Site 1 is limited to Drainage 1, an unnamed intermittent tributary located near the intersection of Pine Avenue and Euclid Avenue. Corps jurisdiction associated with Drainage 1 totals 4.59 acres, all of which consist of jurisdictional wetlands. A total of 1,645 linear feet of Corps stream is present.

Drainage 1 enters Borrow Site 1 from a culvert and pipe beneath Pine Avenue near its intersection with Euclid Avenue. The drainage flows in a north to south direction for 1,645 linear feet before leaving Borrow Site 1 and entering the Prado Basin. Ultimately, flows from Drainage 1enter the lakes located at the El Prado Golf Course before flowing into Prado Basin.

Drainage 1 is contained in a defined channel. The OHWM within Drainage 1 ranges from 10 to 16 feet in width and is all wetland.

Vegetation within Drainage 1 consists of black willow (*Salix gooddingii*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), cheeseweed mallow (*Malva parviflora*), common

Mediterranean grass (*Schismus barbatus*), common sunflower (*Helianthus annuus*), curly dock (*Rumex crispus*), salt cedar (*Tamarix ramosissima*), southern cattail (*Typha domingensis*), wild radish (*Raphanus raphanistrum*), prostrate knotweed (*Polygonum aviculare*), duckweed (*Lemna sp*.), and Yerba mansa (*Anemopsis californica*).

Drainage 1 was considered a wetland based on its existing condition of flowing water (hydrology), the presence of dominant hydrophytic vegetation, and hydric soils. There is also an adjacent wetland next to Drainage 1. This adjacent wetland has been significantly disturbed by past clearing and maintenance operations. Currently, the area is dominated by Bermuda grass; however, it also supports southern cattail (*Typha domingensis*), salt grass (*Distichlis spicata*), salt marsh sand spurry (*Spergularia marina*), pepperweed (*Lepidium latifolium*), and stinging nettle (*Urtica dioica*). Data Point 2 documents the vegetation within the data point area as well as the presence of wetland hydrology and hydric soils. This adjacent wetland also supports surface water, contains soil cracks, ponding, and discoloration of the soil surface typical of an anaerobic and wetland condition.

Due to the amount of disturbance (vegetation maintenance) in this adjacent wetland area, it is considered a problematic situation under the Corps' Arid West Supplement and would meet the criteria for a jurisdictional wetland due to the presence of hydric soils and wetland hydrology, absent the presence of hydrophytic vegetation[10].

Borrow Site 2

There is no Corps jurisdiction associated with Borrow Site 2. Borrow Site 2 previously supported a dairy operation which was recently abandoned, and approximately three waste treatment ponds remaining from that dairy operation. As stated above in the Corps regulations, "Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States." Therefore, the waste treatment ponds at Borrow Site 2 would not be jurisdictional under Section 404 of the Clean Water Act.

Borrow Site 2 also conveys a roadside ditch along the western and northern edge of the borrow area. As stated above in the Corps regulations, the agencies generally will not assert jurisdiction over ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water. Therefore, Ditch one at Borrow Site 2 would not be jurisdictional under Section 404 of the Clean Water Act.

[10] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Vegetation within Borrow Site 2 consists of Chinese parsley (*Heliotropium curassavicum*), telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola tragus*), spiny sow thistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheese weed mallow (*Malva parviflora*), Italian rye grass (*Festuca perennis*), poison hemlock (*Conium maculatum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), bull thistle (*Cirsium vulgare*), bristly ox-tongue (*Helminthotheca echioides*), prostrate knotweed (*Polygonum aviculare*), shamel ash (*Fraxinus* uhdei), field bindweed (*Convolvulus arvensis*), curly dock (*Rumex crispus*), sweet clover (*Melilotus sp.*), and Asian ponyfoot (*Dichondra micrantha*).

Borrow Site 3

There is no Corps jurisdiction associated with Borrow Site 3. Borrow Site 3 previously supported a dairy operation which was recently abandoned, and several waste treatment ponds remaining from that dairy operation. As stated above in the Corps regulations, "Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States." Therefore, the waste treatment ponds at Borrow Site 3 would not be jurisdictional under Section 404 of the Clean Water Act.

Vegetation within Borrow Site 3 includes Mexican fireweed (*Bassia scoparia*), five-hook bassia (*Bassia hyssopifolia*), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*), soft chess (*Bromus tectorum*), wild oat (*Avena fatua*), goldentop grass (*Lamarkia aurea*), sunflower (*Heliantus annuus*), cheeseweed mallow (*Malva parviflora*), coyote brush (*Baccharis pilularis*), London rocket (*Sisymbrium irio*), Italian thistle (*Carduus* sp.), Bermuda grass (*Cynodon dactylon*), tumbleweed (*Amaranthus albus*), prickly sow-thistle (*Sonchus asper*), rabbitfoot grass (*Polypogon monspeliensis*), common knotgrass (*Polygonum aviculare*), Australian saltbush (*Atriplex semibaccata*), big saltbush (*Atriplex lentiformis*), purple needlegrass (*Stipa pulchra*), salt heliotrope (*Heliotropium curassavicum*), Italian rye grass (*Festuca perennis*), wall barley (*Hordeum marinum*), pigweed (*Chenopodium album*), London rocket (*Sysimbrium irio*), Mediterranean grass (Schismus barbatus), perennial pepperweed (*Lepidium latifolium*), milk thistle (*Silybum marianum*), golden crownbeard (*Verbesina encelioides*), and California brittlebrush (*Encilia californica*).

Borrow Site 4

There is no Corps jurisdiction associated with Borrow Site 4. Borrow Site 4 previously supported a dairy operation which was recently abandoned, but no jurisdictional waters were present on site. Borrow Site 4 is located adjacent to the Mill Creek Wetlands but as noted, does not support Corps jurisdictional waters.

Vegetation within Borrow Site 4 consists of coyote brush (*Baccharis pilularis*), coast goldenbush (*Isocoma menziesii*), common sunflower (*Helianthus annuus*), toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), creeping wild rye (*Elymus triticoides*), laurel sumac (*Malosma laurina*), deergrass (*Muhlenbergia rigens*), California sagebrush (*Artemisia californica*), Spanish lotus (*Acmispon americanus*), brittlebush (*Encelia farinosa*), mulefat (*Baccharis salicifolia*), saltgrass (*Distichlis spicata*), cheeseweed mallow (*Malva parviflora*), curly dock (*Rumex crispus*), Russian thistle (*Salsola tragus*), nettle leaf goosefoot (*Chenopodium murale*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), tumbleweed (*Amaranthus albus*), common red sage (*Kochia scoparia*), annual stinging nettle (*Urtica urens*), prickly lettuce (*Lactuca serriola*), Peruvian pepper tree (*Schinus molle*), Mexican fan palm (*Washingtonia robusta*), Bermuda grass (*Cynodon dactylon*), golden crownbeard (*Verbesina encelioides*). Scattered trees also occur throughout this area including toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and coast live oak (*Quercus agrifolia*).

Borrow Site 5

There is no Corps jurisdiction associated with Borrow Site 5. Borrow Site 5 previously supported a dairy operation which was recently abandoned, and approximately two to three waste treatment ponds remaining from that dairy operation. As stated above in the Corps regulations, "Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States." Therefore, the waste treatment ponds at Borrow Site 4 would not be jurisdictional under Section 404 of the Clean Water Act.

Vegetation within Borrow Site 5 consists of common sunflower (*Helianthus annuus*), Russian thistle (*Salsola tragus*), common red sage (*Kochia scoparia*), spiny sow thistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheeseweed mallow (*Malva parviflora*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), milk thistle (*Silybum marianum*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), and annual stinging nettle (*Urtica urens*). There is also one California sycamore (*Platanus racemosa*).

TABLE 1. Total Corps Jurisdiction within the Study Area

Feature	Non-Wetland Waters	Wetland	Total Corps Jurisdiction (acres)	Linear Feet
Cypress Channel	0.01	0.00	0.01	22
Drainage 1	0.00	4.59	4.59	1,645
Ditch 1	0.00	0.00	0.00	0
Total	**0.01**	**4.59**	**4.60**	**1,667**

B. Regional Board Jurisdiction

Regional Board jurisdiction associated with the Study Area totals 4.87 acres, of which 4.59 acres consists of jurisdictional wetlands. A total of 4,033 linear feet of stream is present. Regional Board jurisdiction within the Study Area is limited to the reach of the Cypress Channel contained within the Off Site Storm Drain Improvement Area, Drainage 1, an unnamed tributary located within Borrow Site 1 near the intersection of Pine Avenue and Euclid Avenue, and Ditch 1, a roadside ditch constructed in the uplands adjacent to Johnson Avenue in Borrow Site 2.

There are no Regional Board jurisdictional waters located within the Project Site or at Borrow Sites 3, 4, or 5. Exhibit 4A Sheets 1 and 2 depict the limits of Regional Board jurisdiction within the Off Site Storm Drainage Improvement Area and at Borrow Sites 1 and 2. Table 2 describes total Regional Board jurisdiction within the Study Area.

Project Site

The Project Site previously supported a dairy operation which was recently abandoned, and several waste treatment ponds remaining from that dairy operation. None of these features would be subject to Regional Board jurisdiction as they do not support beneficial uses that would be regulated under the Regional Board's Basin Plan.

Off Site Storm Drain Improvement Area

Regional Board jurisdiction associated with the Off Site Storm Drain Improvement Area totals 0.01 acre within the Cypress Channel, none of which consists of jurisdictional wetlands. A total of 22 linear feet of Regional Board stream is present.

Borrow Site 1

Borrow Site 1 previously supported a combination of a dairy operation, which was recently abandoned, and a residence. Regional Board jurisdiction associated with Borrow Site 1 is limited to Drainage 1, an unnamed tributary located near the intersection of Pine Avenue and Euclid Avenue. Regional Board jurisdiction associated with Drainage 1 totals 4.59 acres, all of which consist of jurisdictional wetlands. A total of 1,645 linear feet of Regional Board stream is present.

Drainage 1 enters Borrow Site 1 from a culvert and pipe beneath Pine Avenue near its intersection with Euclid Avenue. The drainage flows in a north to south direction for 1,645 linear feet before leaving Borrow Site 1 and entering the Prado Basin. Ultimately, flows from Drainage 1enter the lakes located at the El Prado Golf Course before flowing into Prado Basin.

Drainage 1 is contained in a defined channel. The OHWM within Drainage 1 ranges from 10 to 16 feet in width and is all wetland.

Borrow Site 2

Regional Board jurisdiction within Borrow Site 2 is limited to a roadside ditch along the western and northern edge of the borrow area. Regional Board jurisdiction associated with Ditch 1 totals 0.27 acre, none of which consist of jurisdictional wetlands. A total of 2,366 linear feet of stream is present. Ditch 1 is a soft-bottomed ditch located parallel to Johnson Avenue along the western edge of the borrow area. Ditch 1 enters the Study Area at Pine Avenue located and flows in a north to south or east to west direction for 2,366 linear feet before leaving the Study Area and continuing to flow southerly into the Prado Basin. The OHWM within Ditch 1 is about five feet wide.

Borrow Site 2 previously supported a dairy operation which was recently abandoned, and approximately three waste treatment ponds remaining from that dairy operation. None of these features would be subject to Regional Board jurisdiction as they do not support beneficial uses that would be regulated under the Regional Board's Basin Plan.

Borrow Site 3

There is no Regional Board jurisdiction associated with Borrow Site 3. Borrow Site 3 previously supported a dairy operation which was recently abandoned, and several waste treatment ponds remaining from that dairy operation. None of these features would be subject to Regional Board jurisdiction as they do not support beneficial uses that would be regulated under the Regional Board's Basin Plan.

Borrow Site 4

There is no Regional Board jurisdiction associated with Borrow Site 4. Borrow Site 4 previously supported a dairy operation which was recently abandoned, but no jurisdictional waters were present on site. Borrow Site 4 is located adjacent to the Mill Creek Wetlands but as noted, does not support Regional Board jurisdictional waters.

Borrow Site 5

There is no Regional Board jurisdiction associated with Borrow Site 5. Borrow Site 5 previously supported a dairy operation which was recently abandoned, and approximately two to three waste treatment ponds remaining from that dairy operation. None of these features would be subject to Regional Board jurisdiction as they do not support beneficial uses that would be regulated under the Regional Board's Basin Plan.

TABLE 2. Total Regional Board Jurisdiction within the Study Area

Feature	Non-Wetland Waters	Wetland	Total Regional Board Jurisdiction (acres)	Linear Feet
Cypress Channel	0.01	0.00	0.01	22
Drainage 1	0.00	4.59	4.59	1,645
Ditch 1	0.27	0.00	0.27	2,366
Total	**0.28**	**4.59**	**4.87**	**4,033**

C. CDFW Jurisdiction

CDFW jurisdiction associated with the Study Area totals 5.09 acres, of which 4.62 acres consists of riparian habitat and 0.47 acre consists of non-riparian streambed. A total of 4,033 linear feet of streambed is present.

CDFW jurisdiction within the Study Area is limited to the reach of the Cypress Channel contained within the Off Site Storm Drain Improvement Area, Drainage 1, an unnamed tributary located within Borrow Site 1 near the intersection of Pine Avenue and Euclid Avenue, and Ditch 1, a roadside ditch constructed in the uplands adjacent to Johnson Avenue in Borrow Site 2. There is no CDFW jurisdiction located within the Project Site or at Borrow Sites 3, 4, or 5. Exhibit 4B Sheets 1 and 2 depict the limits of CDFW jurisdiction within the Off Site Storm Drain Improvement Area and at Borrow Sites 1 and 2. Table 3 describes total CDFW jurisdictional within the Study Area.

Project Site

The Project Site previously supported a dairy operation which was recently abandoned, and several waste treatment ponds remaining from that dairy operation. Despite the presence of riparian vegetation, none of these features would be subject to CDFW jurisdiction as they are not rivers, streams, or lakes and their disturbance will not occur in the bed, bank, or channel of a river, stream, or lake.

Off Site Storm Drain Improvement Area

CDFW jurisdiction associated with the Off Site Storm Drain Improvement Area totals 0.01 acre within the Cypress Channel, none of which consists of riparian habitat. A total of 22 linear feet of CDFW stream is present.

The Cypress Channel is a concrete-lined, concrete-bottomed flood control channel that flows in a north to south direction immediately east of the Project site. It enters the Study Area near the southeast corner of the Project site within the Off Site Storm Drain Improvement Area. The only portion of the Cypress Channel that is included in the Study Area is where the channel outlets from beneath an earthen road. At this location, the Cypress Channel conveys perennial flows for 22 linear feet through a 28-foot wide headwall structure that consists of the concrete headwall, vertical wingwalls, and bottom. The stream width within the Cypress Channel is 28 feet and corresponds to the width between the wingwalls at the concrete headwall structure. At the time of the jurisdictional delineation, the depth of standing water to the concrete bottom within the Cypress Channel was approximately one foot. Downstream of the Study Area, the channel enters the Prado Basin.

Borrow Site 1

Borrow Site 1 previously supported a combination of a dairy operation, which was recently abandoned, and a residence. CDFW jurisdiction associated with Borrow Site 1 is limited to Drainage 1 located near the intersection of Pine Avenue and Euclid Avenue. CDFW jurisdiction associated with Drainage 1 totals 4.81 acres, of which 4.62 acres consist of riparian habitat and 0.19 acre consists of non-riparian streambed. A total of 1,645 linear feet of CDFW stream is present.

Drainage 1 enters Borrow Site 1 from a culvert and pipe beneath Pine Avenue near its intersection with Euclid Avenue. The drainage flows in a north to south direction for 1,645 linear feet before leaving Borrow Site 1 and entering the Prado Basin. Ultimately, flows from Drainage 1enter the lakes located at the El Prado Golf Course before flowing into Prado Basin. Drainage 1 is contained in a channel with a defined bed and bank. The stream within Drainage 1 ranges from 16 to 24 feet in width.

Vegetation within Drainage 1 consists of black willow (*Salix gooddingii*), blue elderberry (*Sambucus nigra* ssp. *caerulea*), cheeseweed mallow (*Malva parviflora*), common Mediterranean grass (*Schismus barbatus*), common sunflower (*Helianthus annuus*), curly dock (*Rumex crispus*), salt cedar (*Tamarix ramosissima*), southern cattail (*Typha domingensis*), wild radish (*Raphanus raphanistrum*), prostrate knotweed (*Polygonum aviculare*), duckweed (*Lemna sp*.), and Yerba mansa (*Anemopsis californica*).

Drainage 1 was considered a wetland/riparian habitat area based on its existing condition of flowing water (hydrology), the presence of dominant hydrophytic vegetation, and hydric soils. There is also an adjacent wetland/riparian area next to Drainage 1. This adjacent wetland/riparian area has been significantly disturbed by past clearing and maintenance operations. Currently, the area is dominated by Bermuda grass; however, it also supports southern cattail (*Typha domingensis*), salt grass (*Distichlis spicata*), salt marsh sand spurry (*Spergularia marina*), pepperweed (*Lepidium latifolium*), and stinging nettle (*Urtica dioica*). This adjacent wetland/riparian area also supports surface water, contains soil cracks, ponding, and discoloration of the soil surface typical of an anaerobic and wetland condition.

Based on the presence of riparian habitat upstream and downstream of this maintained, disturbed area, it is assumed that riparian habitat would re-establish if maintenance would cease. As such, this feature would be considered as CDFW jurisdiction.

Borrow Site 2

CDFW jurisdiction within Borrow Site 2 is limited to a roadside ditch along the western edge of the borrow area. CDFW jurisdiction associated with Ditch 1 totals 0.27 acre, all of which consists of non-riparian roadside ditch. A total of 2,366 linear feet of stream is present. Ditch 1 is a soft-bottomed ditch located parallel to Johnson Avenue and/or Pine Avenue along the western and northern edge of the borrow area. Ditch 1 enters the Study Area at :Pine Avenue and flows in a north to south or east to west direction for 2,366 linear feet before leaving the Study Area and continuing to flow southerly into the Prado Basin.

The stream width within Ditch 1 is about five feet wide. Vegetation within Ditch 1 consists of Russian thistle (*Salsola tragus*), wild oat (*Avena fatua*), brome grasses (*Bromus sp*.), barnyard grass (*Echinochloa crus-galli*), and bull thistle (*Cirsium vulgare*).

Borrow Site 2 previously supported a dairy operation which was recently abandoned, and approximately three waste treatment ponds remaining from that dairy operation. These features would not be subject to CDFW jurisdiction as they are not rivers, streams, or lakes and their disturbance will not occur in the bed, bank, or channel of a river, stream, or lake, nor will they affect riparian habitat protected by Section 1602 of the State of California Fish and Game Code.

Vegetation within Borrow Site 2 consists of Chinese parsley (*Heliotropium curassavicum*), telegraph weed (*Heterotheca grandiflora*), Russian thistle (*Salsola tragus*), spiny sow thistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheeseweed mallow (*Malva parviflora*), Italian rye grass (*Festuca perennis*), poison hemlock (*Conium maculatum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), bull thistle (*Cirsium vulgare*), bristly ox-tongue (*Helminthotheca echioides*), prostrate knotweed (*Polygonum aviculare*), shamel ash (*Fraxinus* uhdei), field bindweed (*Convolvulus arvensis*), curly dock (*Rumex crispus*), sweet clover (*Melilotus sp.*), and Asian ponyfoot (*Dichondra micrantha*).

Borrow Site 3

There is no CDFW jurisdiction associated with Borrow Site 3. Borrow Site 3 previously supported a dairy operation which was recently abandoned, and several waste treatment ponds remaining from that dairy operation. None of these features would be subject to CDFW jurisdiction as they are not rivers, streams, or lakes and their disturbance will not occur in the bed, bank, or channel of a river, stream, or lake, nor will they affect riparian habitat protected by Section 1602 of the State of California Fish and Game Code.

Vegetation within Borrow Site 3 includes Mexican fireweed (*Bassia scoparia*), five-hook bassia (*Bassia hyssopifolia*), prickly lettuce (*Lactuca serriola*), Russian thistle (*Salsola tragus*), soft chess (*Bromus tectorum*), wild oat (*Avena fatua*), goldentop grass (*Lamarkia aurea*), sunflower (*Heliantus annuus*), cheeseweed mallow (*Malva parviflora*), coyote brush (*Baccharis pilularis*), London rocket (*Sisymbrium irio*), Italian thistle (*Carduus* sp.), Bermuda grass (*Cynodon dactylon*), tumbleweed (*Amaranthus albus*), prickly sow-thistle (*Sonchus asper*), rabbitfoot grass (*Polypogon monspeliensis*), common knotgrass (*Polygonum aviculare*), Australian saltbush (*Atriplex semibaccata*), big saltbush (*Atriplex lentiformis*), purple needlegrass (*Stipa pulchra*), salt heliotrope (*Heliotropium curassavicum*), Italian rye grass (*Festuca perennis*), wall barley (*Hordeum marinum*), pigweed (*Chenopodium album*), London rocket (Sysimbrium irio), Mediterranean grass (Schismus barbatus), perennial pepperweed (*Lepidium latifolium*), milk thistle (*Silybum marianum*), golden crownbeard (*Verbesina encelioides*), and California brittlebrush (*Encilia californica*).

Borrow Site 4

There is no CDFW jurisdiction associated with Borrow Site 4. Borrow Site 4 previously supported a dairy operation which was recently abandoned, but no jurisdictional waters were present on site. Borrow Site 4 is located adjacent to the Mill Creek Wetlands but as noted, does not support CDFW jurisdiction.

Vegetation within Borrow Site 4 consists of coyote brush (*Baccharis pilularis*), coast goldenbush (*Isocoma menziesii*), common sunflower (*Helianthus annuus*), toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), creeping wild rye (*Elymus triticoides*), laurel sumac (*Malosma laurina*), deergrass (*Muhlenbergia rigens*), California sagebrush (*Artemisia californica*), Spanish lotus (*Acmispon americanus*), brittlebush (*Encelia farinosa*), mulefat (*Baccharis salicifolia*), saltgrass (*Distichlis spicata*), cheeseweed mallow (*Malva parviflora*), curly dock (*Rumex crispus*), Russian thistle (*Salsola tragus*), nettle leaf goosefoot (*Chenopodium murale*), London rocket (*Sisymbrium irio*), flax-leaved horseweed (*Erigeron bonariensis*), tumbleweed (*Amaranthus albus*), common red sage (*Kochia scoparia*), annual stinging nettle (*Urtica urens*), prickly lettuce (*Lactuca serriola*), Peruvian pepper tree (*Schinus molle*), Mexican fan palm (*Washingtonia robusta*), Bermuda grass (*Cynodon dactylon*), golden crownbeard (*Verbesina encelioides*). Scattered trees also occur throughout this area including toyon (*Heteromeles arbutifolia*), lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and coast live oak (*Quercus agrifolia*).

Borrow Site 5

There is no CDFW jurisdiction associated with Borrow Site 5. Borrow Site 5 previously supported a dairy operation which was recently abandoned, and approximately two to three waste treatment ponds remaining from that dairy operation. None of these features would be subject to CDFW jurisdiction as they are not rivers, streams, or lakes and their disturbance will not occur in the bed, bank, or channel of a river, stream, or lake, nor will they affect riparian habitat protected by Section 1602 of the State of California Fish and Game Code.

Vegetation within Borrow Site 5 consists of common sunflower (*Helianthus annuus*), Russian thistle (*Salsola tragus*), common red sage (*Kochia scoparia*), spiny sow thistle (*Sonchus asper*), nettle leaf goosefoot (*Chenopodium murale*), cheeseweed mallow (*Malva parviflora*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), London rocket (*Sisymbrium irio*), milk thistle (*Silybum marianum*), flax-leaved horseweed (*Erigeron bonariensis*), Bermuda grass (*Cynodon dactylon*), and annual stinging nettle (*Urtica urens*).

TABLE 3. Total CDFW Jurisdiction within the Study Area

Feature	Non-Riparian Stream	Riparian-Vegetated Stream	Total CDFW Jurisdiction (acres)	Linear Feet
Cypress Channel	0.01	0.00	0.01	22
Drainage 1	0.19	4.62	4.81	1,645
Ditch 1	0.27	0.00	0.27	2,366
Total	**0.47**	**4.62**	**5.09**	**4,033**

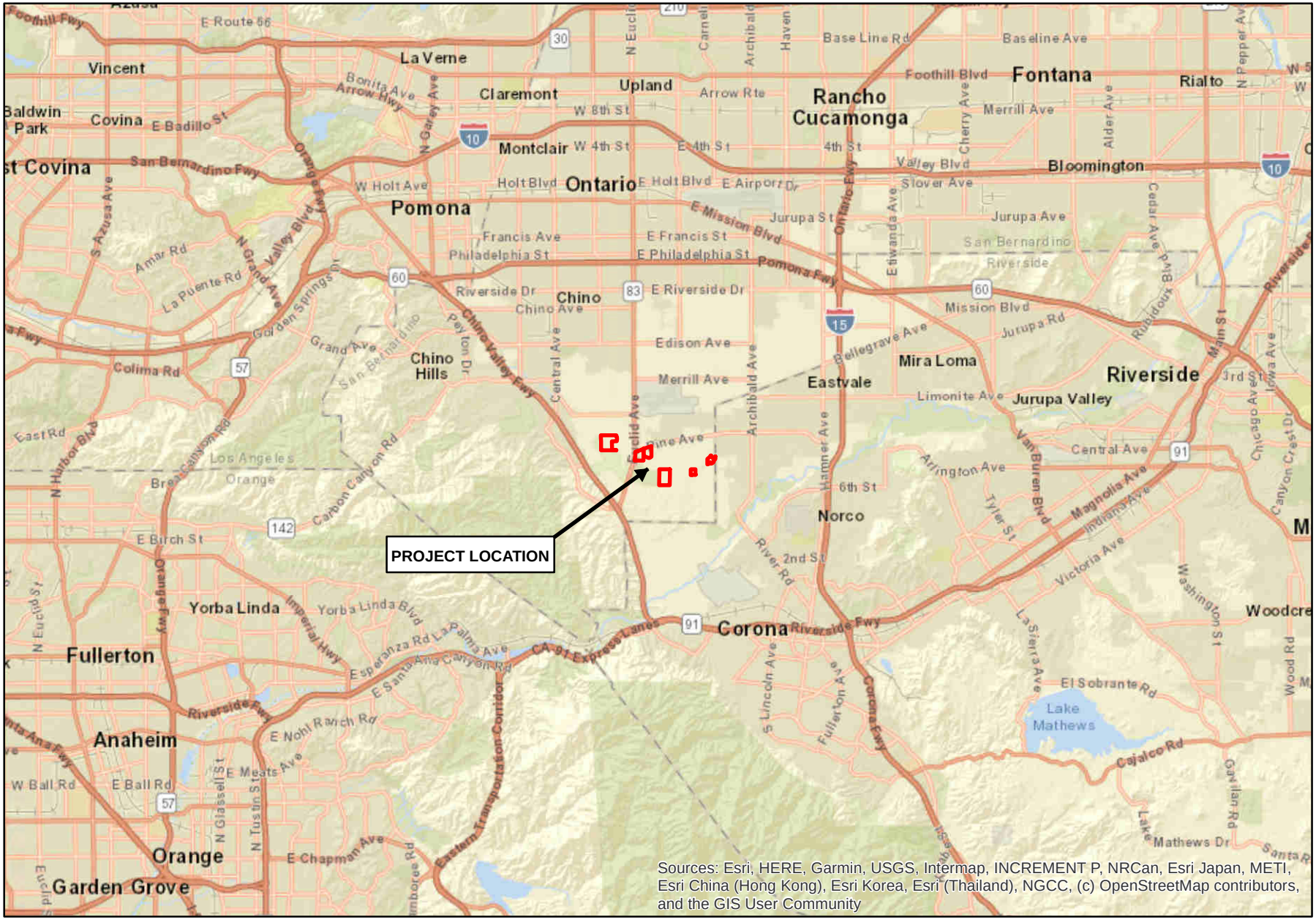
If you have any questions about this letter report, please contact me at (949) 340-3851.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.

Martin A. Rasnick
Principal/Senior Regulatory Specialist

p: 1090-2b.jd.f.rpt



Source: ESRI World Street Map

N

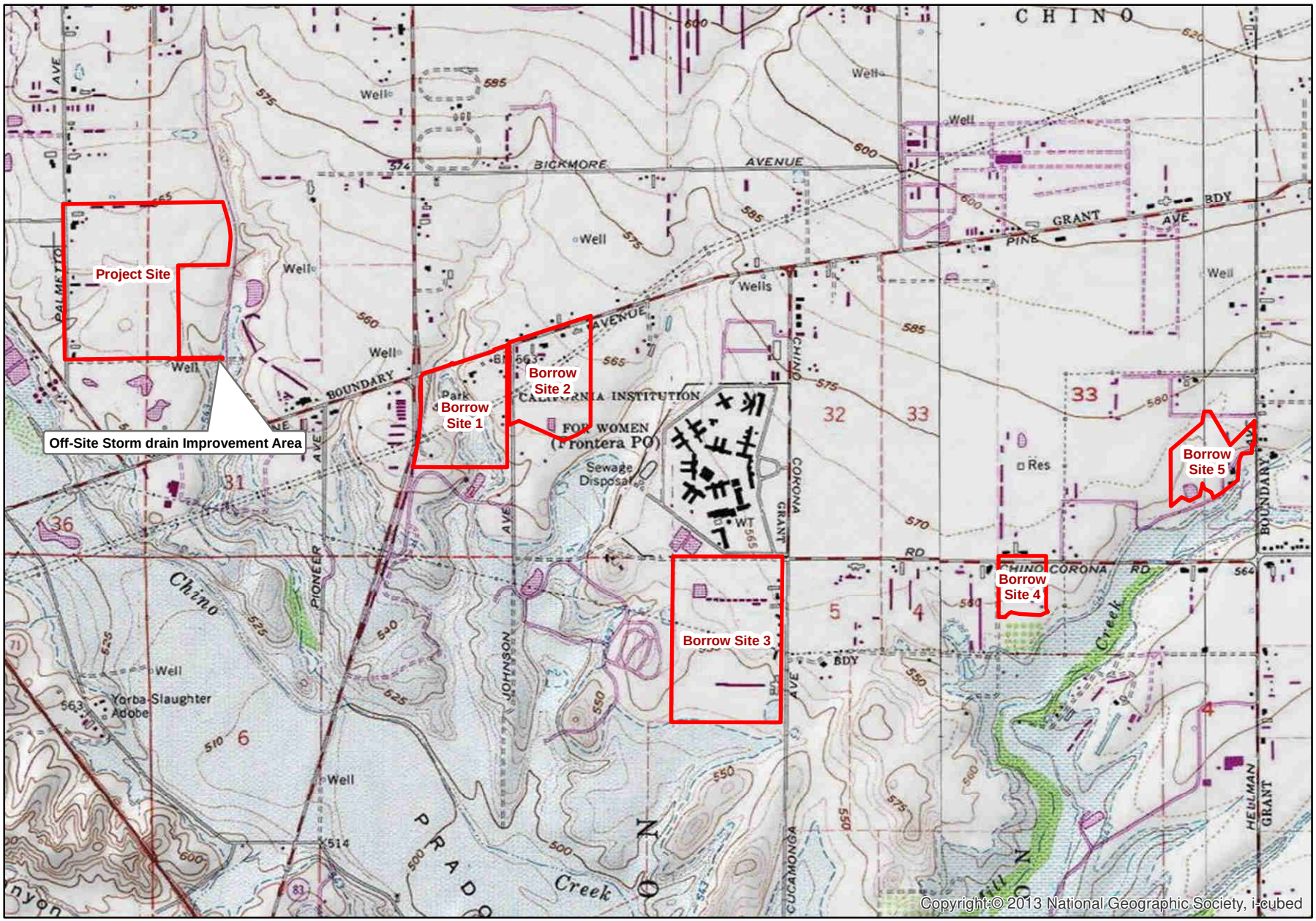
0 2 4 8 Miles

MAJESTIC CHINO HERITAGE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Corona North & Prado Dam, CA quadrangle

N

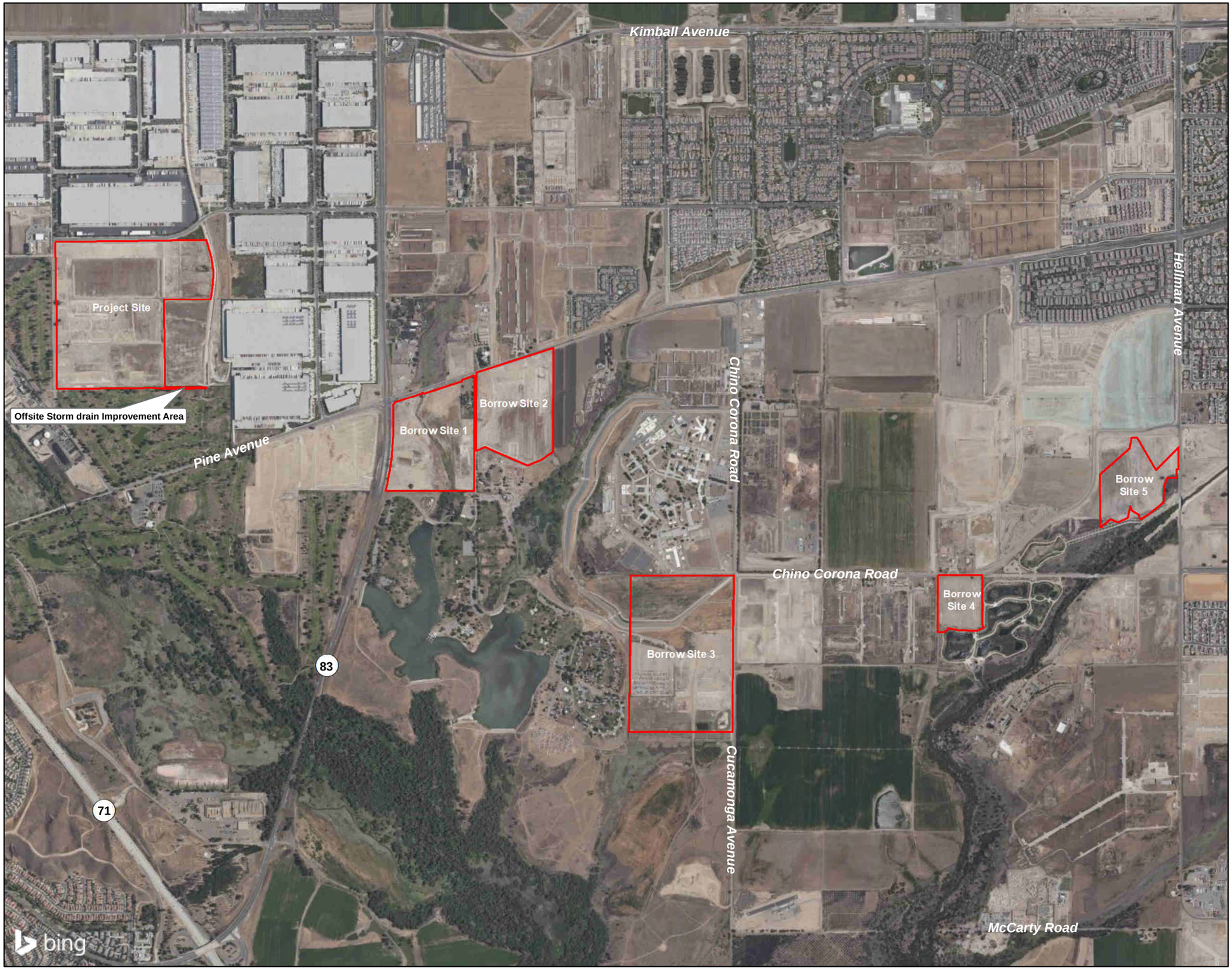
0 1,000 2,000 4,000 Feet

MAJESTIC CHINO HERITAGE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Study Area Boundary

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\1090-2_Aerial.mxd

Study Area Boundary

Corps/RWQCB Non-Wetland Waters

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Corps/Regional Board Jurisdictional Delineation Map - Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 4A - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\DelineationGIS\1090-2_Corps_ProjectSite.mxd

Study Area Boundary

RWQCB Non-Wetland Waters Jurisdiction Only

Corps/RWQCB Wetland Waters

5 Width in Feet

W indicates Borrow Site 1 Wetland in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Corps/RWQCB Jurisdictional Delineation Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 4A - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\DelineationGIS\1090-2_Corps_BorrowSite1-2.mxd

Study Area Boundary

CDFW Non-Riparian Streambed

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation Map -
Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 4B - Sheet 1

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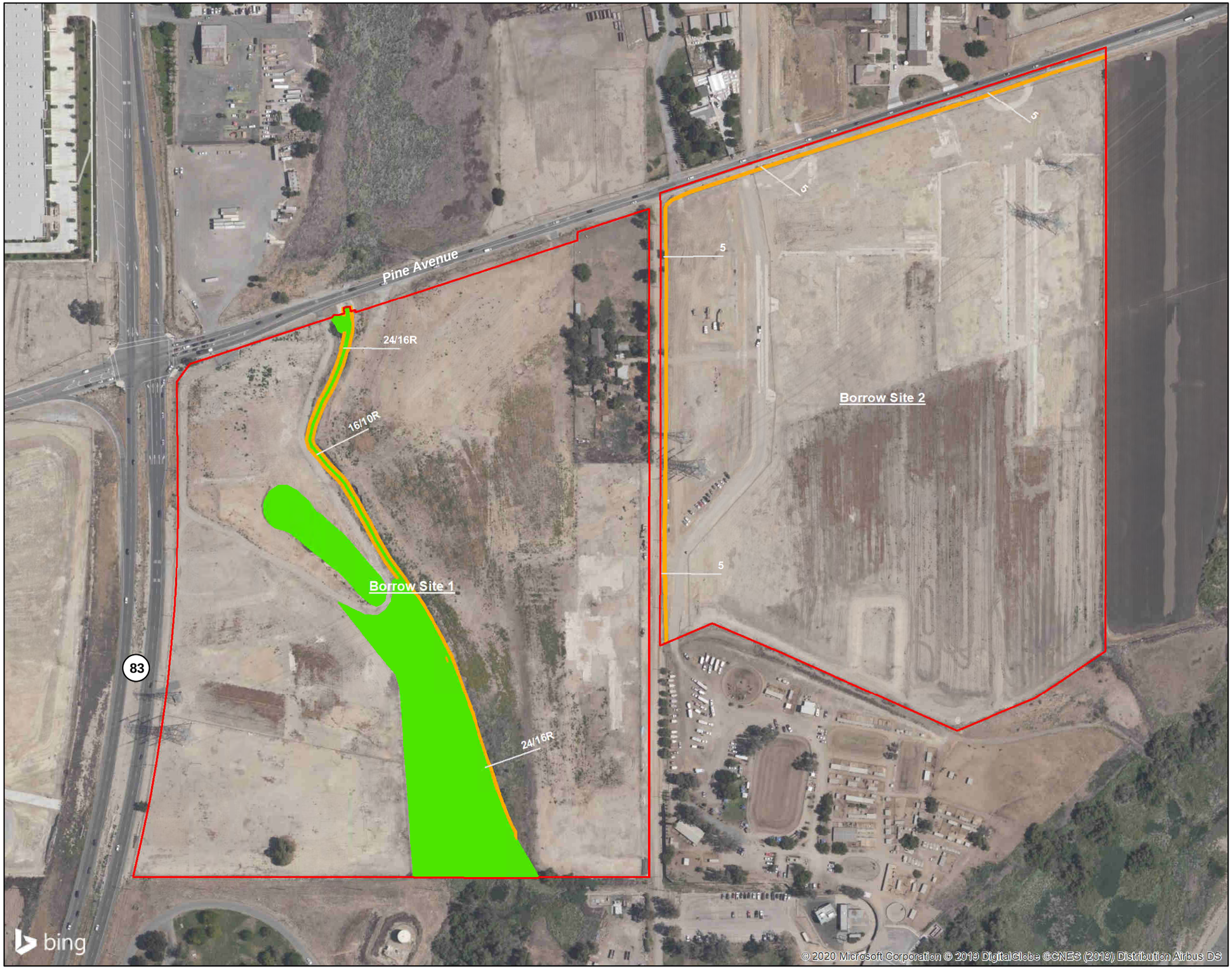


Study Area Boundary

CDFW Non-Riparian Streambed

CDFW Riparian

5 Width in Feet

R indicates Borrow Site 1 Riparian in Channel

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

CDFW Jurisdictional Delineation Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 4B - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\DelineationGIS\1090-2_CDFW_BorrowSite1-2.mxd

Photograph 1: Photograph depicting Drainage 1 and freshwater marsh habitat on site.

Photograph 2: Photograph depicting freshwater marsh/seep area within Borrow Site 1 westerly of Drainage 1.

Photograph 3: Photograph depicting Drainage 1 and freshwater marsh habitat on site.

Photograph 4: Photograph depicting disturbed freshwater marsh area on site.

GLENN LUKOS ASSOCIATES

Exhibit 5

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Borrow Site 1

Photograph 5: Photograph depicting Cypress Channel. Note the concrete sides and bottom.

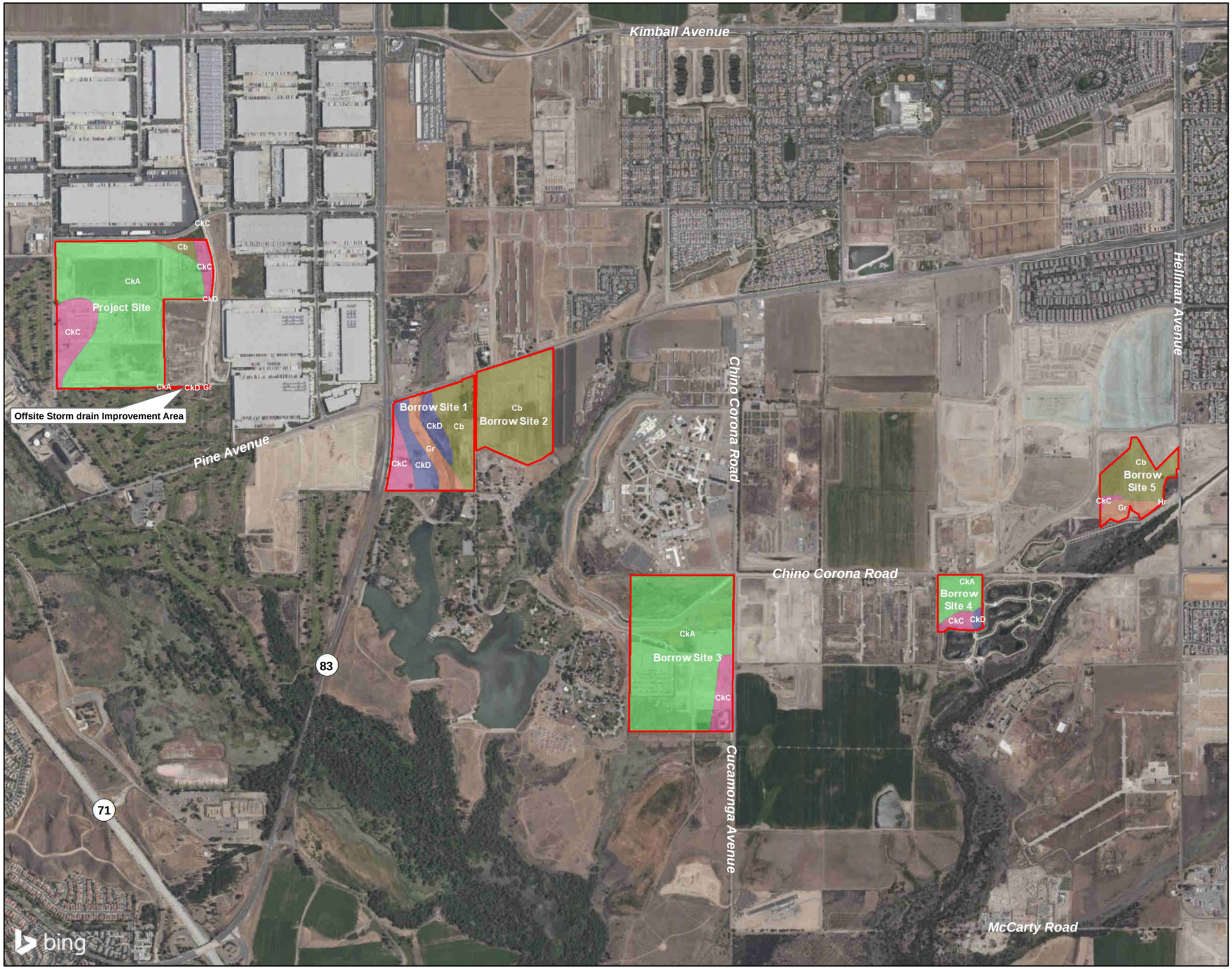
Photograph 6: Photograph depicting Cypress Channel. Note the concrete sides and bottom.

GLENN LUKOS ASSOCIATES

Exhibit 5

MAJESTIC CHINO HERITAGE PROJECT

Site Photographs – Cypress Channel



Study Area Boundary

Cb - CHINO SILT LOAM

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

Hr - HILMAR LOAMY FINE SAND

N

0 725 1,450 2,900

Feet

1 inch = 1,450 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils - Key Map

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 1

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_KeyMap.mxd

Study Area Boundary

Cb - CHINO SILT LOAM

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

N

0 137.5 275 550

Feet

1 inch = 275 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map, Project Site and Off Site Storm Drain Improvement Area

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 2

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_ProjectSite.mxd

Study Area Boundary

Cb - CHINO SILT LOAM

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

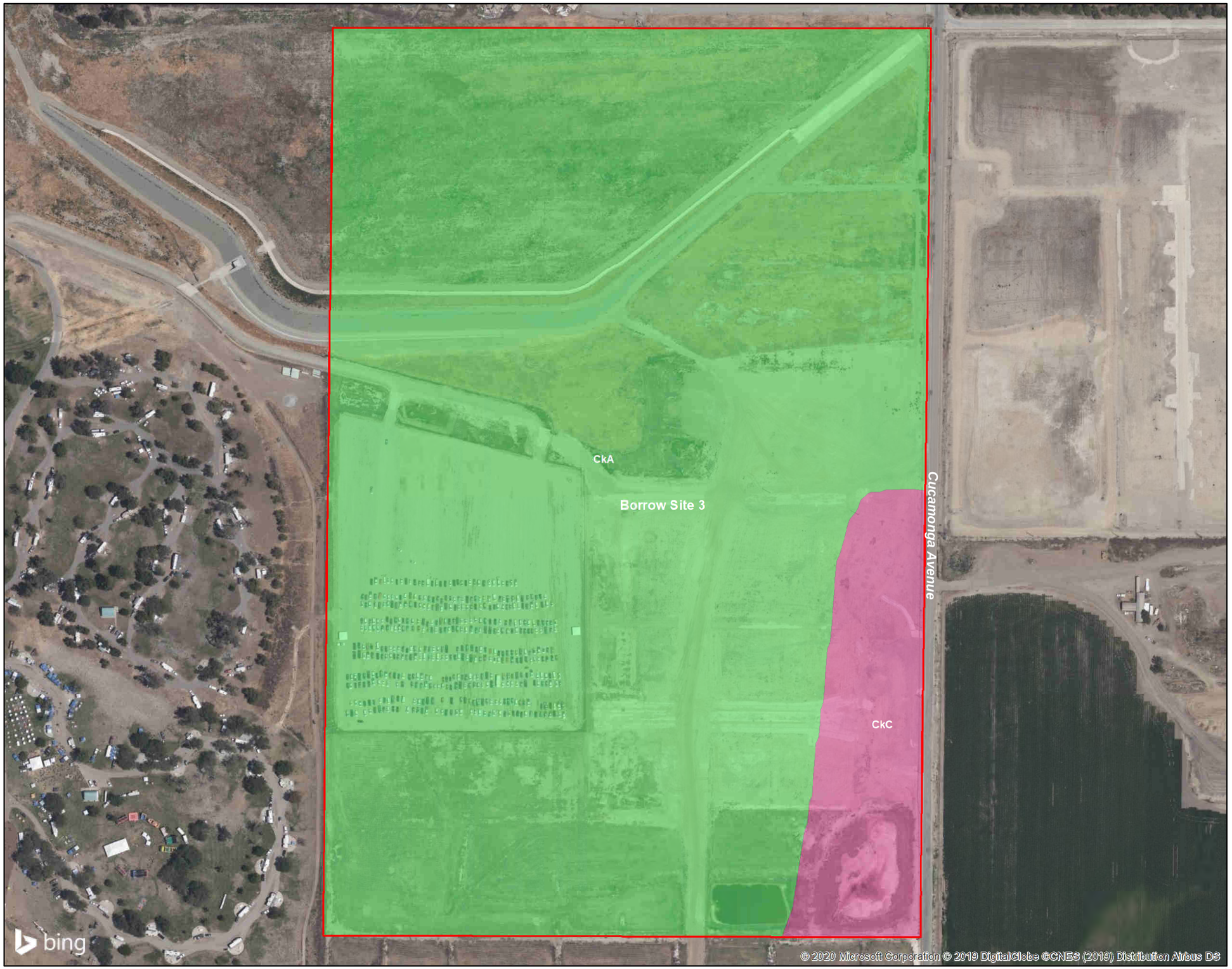
MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Sites 1 & 2

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 3

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_BorrowSite1-2.mxd



Study Area Boundary

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

N

0 125 250 500

Feet

1 inch = 250 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 3

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 4

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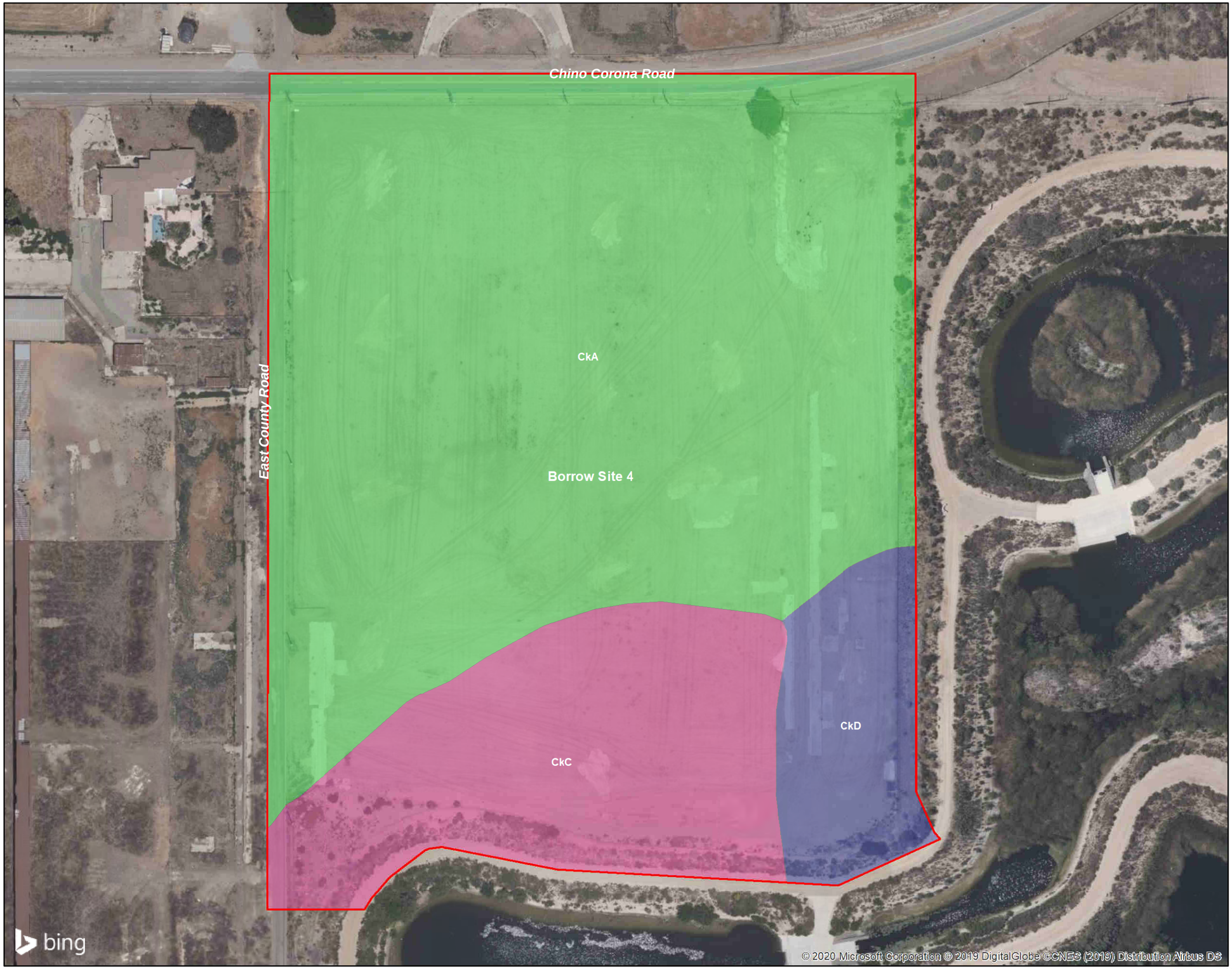


Study Area Boundary

CkA - CHUALAR CLAY LOAM, 0 TO 2 PERCENT SLOPES

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

CkD - CHUALAR CLAY LOAM, 9 TO 15 PERCENT SLOPES

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

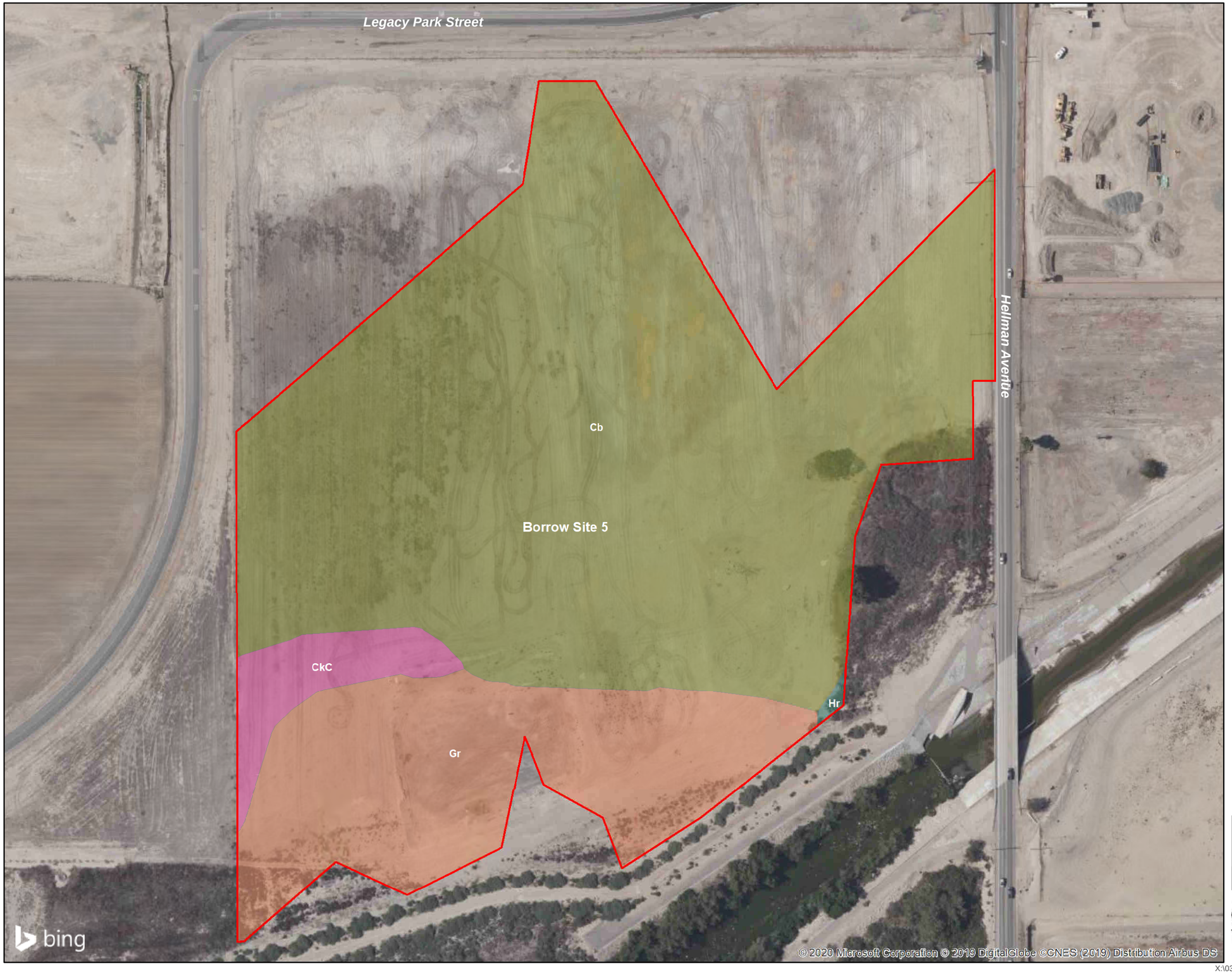
MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 4

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 5

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_BorrowSite4.mxd



Study Area Boundary

Cb - CHINO SILT LOAM

CkC - CHUALAR CLAY LOAM, 2 TO 9 PERCENT SLOPES

Gr - GRANGEVILLE FINE SANDY LOAM

Hr - HILMAR LOAMY FINE SAND

N

0 75 150 300

Feet

1 inch = 150 feet

Coordinate System: State Plane 5 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 9, 2020

MAJESTIC CHINO HERITAGE PROJECT

Soils Map - Borrow Site 5

GLENN LUKOS ASSOCIATES

Exhibit 6 - Sheet 6

X:\0363-THE REST\1090-02CHNO\1090-02_GIS\SoilsGIS\1090-2_Soils_BorrowSite5.mxd