Appendix 2C Jurisdictional Delineation

Sunset Crossings Residential Project Initial Study



November 1, 2022 JN 184659

HIGHPOINTE COMMUNITIES, INC.

Attn: *Ross Yamaguchi* 530 Technology, Suite 100 Irvine, California 92618

SUBJECT: Delineation of State and Federal Jurisdictional Waters for the Sunset Crossing TTM 38442 Project – City of Moreno Valley, County of Riverside, California

Dear Mr. Yamaguchi:

Michael Baker International (Michael Baker) has prepared this report to document the results of a literature review and formal delineation of State and federal jurisdictional waters, including wetlands, that was conducted for the proposed Sunset Crossing TTM 38442 Project (project or project site) located in the City of Moreno Valley, Riverside County, California. Specifically, the delineation was conducted to identify and document the extent of aquatic and other hydrologic features within the project site that potentially fall under the jurisdictional authority of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). This report summarizes the methodology utilized throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by Michael Baker. This report presents Michael Baker's determination of jurisdictional boundaries based on the most up-to-date regulations, written policy, and guidance approved by the regulatory agencies. However, please note that only the regulatory agencies can make a final determination of jurisdictional limits.

PROJECT LOCATION

The project site is located within the City of Moreno Valley, generally to the north of Alessandro Boulevard, east of Nason Street, south of Cottonwood Avenue, and west of Marion Road (refer to Figure 1, *Regional Vicinity*, provided in Attachment A). The project site is depicted in Section 10, Township 3 South, Range 3 West, on the U.S. Geological Survey's (USGS) *Sunnymead, California* 7.5-minute quadrangle map (refer to Figure 2, *Project Vicinity*). Specifically, the project site is located on assessor's parcel numbers (APN) 488-210-020 and 488-210-006, and is bounded by undeveloped land and Cottonwood Avenue to the north; undeveloped land and residential development to the east, Alessandro Boulevard to the south, and mixed development to the west (refer to Figure 3, *Project Site*).

PROJECT DESCRIPTION

The proposed project includes the development of up to 108 residential units, a water basin, a park, and road construction on 19.10 acres. Refer to Appendix A, Conceptual Site Plan.

STATE AND FEDERAL REGULATIONS

There are three key agencies that regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The USACE regulates activities that result in the discharge of dredged or fill material into waters of the U.S. (WoUS), including wetlands, pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the RWQCB regulates discharges to waters of the State (WotS), including wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and, the CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq.* of the California Fish and Game Code (CFGC).

LITERATURE REVIEW

Prior to conducting the field delineation, Michael Baker conducted a review of relevant literature and materials to obtain a general understanding of the environmental setting and preliminarily identify features/areas within the project site that may fall under the jurisdiction of the regulatory agencies. Refer to the subsections below for a summary of relevant materials, databases, technical reports, and guidance documents that were obtained/reviewed by Michael Baker. In addition, a complete list of references is provided as Attachment G to this report.

San Jacinto River Watershed

The project site is located within the Perris Valley Hydrologic Subarea 802.11 (HSA) of the Perris Hydrologic Area 802.10 (HA), which in turn is located within the San Jacinto Valley Hydrologic Unit (802.0) of the larger San Jacinto River Watershed (HUC 18070202). The San Jacinto River Watershed covers approximately 780 square miles within western Riverside County. Flows originate in Santa Rosa and the San Jacinto Mountains and form the San Jacinto River, which flows generally west until terminating at the lowest point within the watershed at Lake Elsinore. Tributaries to the San Jacinto River include Cottonwood Canyon Creek, Canyon Lake, Salt Creek, Perris Valley Channel, Bautista Creek, Indian Creek, North Forks San Jacinto River, Logan Creek, Stone Creek, Black Mountain Creek, Fuller Mill Creek, South Fork San Jacinto River, Dry Creek, Strawberry Creek, Coldwater Creek, Spillway Creek, Canyon Creek, Lake Hemet, Herkey Creek, Fobes Canyon Creek, Pipe Creek, Martinez Creek, Gold Shot Creek, and Penrod Canyon Creek.

Soils

According to the *Custom Soil Resources Report for Western Riverside Area, California* (U.S. Department of Agriculture [USDA] 2022a), the project site is underlain by three soil map units: GyA: Greenfield sandy loam, 0 to 2 percent slopes; HcC: Hanford coarse sandy loam, 2 to 8 percent slopes; and RaB3: Ramona sandy loam, 0 to 5 percent slopes, severely eroded. Michael Baker also reviewed the *Hydric Soils List for California* (USDA 2022b) to preliminarily verify whether any of the soil map units listed above were classified as a "hydric soil" in the Western Riverside Area. According to the list, none of the soil map units listed to occur within the project site are listed as hydric.

National Wetlands Inventory

Based on a review of the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (USFWS 2022), no riparian or wetland features mapped in the NWI directly overlay the project site. However, one feature is mapped beyond the project site north of Cottonwood Avenue and continues south through the adjacent property as an unmapped portion. The unmapped portions of this feature ultimately connect to Aquatic Feature 1 downstream. This wetland feature falls within the riverine system and is described as an intermittent streambed with a seasonally flooded water regime (R4SBC).

Flood Zone

Based on a review of the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer (FEMA 2022), the project site is located within Flood Insurance Rate Map (FIRM) Panel Number 06065C0770G. Specifically, the project site is located in Zone X and described as an area of minimal flood hazard (refer to Attachment C).

National Hydrography Dataset

Based on a review of the National Hydrography Dataset (NHD) Advanced Viewer (USGS 2022b), one ephemeral drainage enters the northeastern corner of the project site and flows generally south before continuing offsite. The upstream portion of this ephemeral feature northeast of the project site appears to coincide with the offsite riverine feature mapped by the NWI (refer to Attachment D).

FIELD METHODOLOGY

Michael Baker wetland delineators Tom Millington and April Nakagawa conducted a jurisdictional delineation/field survey of the project site and an additional 50-foot buffer of survey area around the project site on April 12, 2022, using the most recent, agency approved methodology, to identify and map the extent of State and federal jurisdictional features (i.e., wetland and non-wetland WoUS, waters of the State, streambed, riparian vegetation) located within the boundaries of the project site. Based on the project's location, potential State and federal wetlands were delineated in accordance with the methods and guidance provided in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version*

2.0 (Arid West Regional Supplement; USACE 2008), and the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Water Resources Control Board 2019).

While in the field, jurisdictional features were recorded on an aerial photograph at a scale of 1" = 120' using topographic contours and visible landmarks as guidelines. Data points were recorded in the field using a Garmin GPS Map 64 Global Positioning System (GPS) to identify specific widths and length of jurisdictional features and the location of any ordinary high water mark (OHWM) indicators, photograph points, soil pits, and other pertinent site characteristics. These data were then uploaded as a .shp file and confirmed/refined to ensure accuracy and consistency with hardcopy notes and aerial mapping completed in the field. Michael Baker then used ESRI ArcGIS Pro software to calculate the total acreage of jurisdictional features and prepare final project figures.

RESULTS

Non-Wetland Features

Two ephemeral drainage features, Aquatic Feature 1 (AF-1) and Aquatic Feature 2 (AF-2), were identified within the project site and survey area during the April 12, 2022 site visit (refer to Attachment E, *Site Photographs*).

Aquatic Feature 1

AF-1 collects/transports municipal stormwater from the adjacent residential development and surrounding foothills north of the project site, entering the project site and survey area under a large concrete retaining wall that is located along the southern project site boundary. Flows appear to be conveyed beneath the retaining wall, likely via pipe or culvert; however, a significant amount of sediment deposition has occurred in the immediate vicinity of the retaining wall resulting in reduced visibility.

The onsite portions of AF-1 consist of an earthen channel which generally flows south/southwest through the project site for approximately 1,434 linear feet before draining into a roadside ditch which runs easterly along the northern side of Alessandro Boulevard (beyond the project site and within the survey area) for approximately 220 linear feet before exiting the eastern project site boundary and survey area, and then emptying into a small offsite concrete culvert approximately 300 feet east of the survey area. Flows from AF-1 are then conveyed onto the property south of Alessandro Boulevard via a concrete culvert where AF-1 then transitions to discontinuous unconfined/overland sheet flow which ultimately fans out and infiltrates offsite. Within the project site and survey area, AF-1 exhibited clear evidence of hydrology and an OHWM ranging from 1 to 36 feet in width was observed via the following indicators: via a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving. The offsite upstream portion of AF-1 appears to be the feature that has been mapped by both NWI and NHD. No standing or flowing water was observed in association with the onsite portions of AF-1.

AF-1 exhibited vegetation comprised of upland disturbance-tolerant plant species consistent with the surrounding uplands; however, these species generally occurred in sparser patches within AF-1. Dominant

species included cheeseweed (*Malva parviflora*, UPL), foxtail barley (*Hordeum murinum*, FACU), foxtail brome (*Bromus rubens*, UPL), red maids (*Calandrinia menziesii*, UPL), red stemmed filaree (*Erodium cicutarium*, UPL), ripgut brome (*Bromus diandrus*, UPL), stinknet (*Oncosiphon piluliferum*, FACU), summer mustard (*Hirschfeldia incana*, UPL), tocalote (*Centaurea melitensis*, UPL), and wild radish (*Raphanus sativus*, UPL). Within the project site and survey area, AF-1 measures a total of approximately 1,664 linear feet.

Aquatic Feature 2

AF-2 begins onsite as discontinuous overland sheet flow within the southeastern portion of the project site. AF-2 flows southeast and begins to incise just before exiting the southeastern project boundary and continuing into the survey area. AF-2 flows southeast for approximately 201 linear feet through the project site and survey area before exiting the survey area and ultimately draining into the roadside ditch portion of AF-1 located offsite. Within the project site and survey area, AF-2 exhibited clear evidence of hydrology and an OHWM ranging from 1 to 16 feet in width was observed via the following indicators: via a natural line impressed on the bank, change in particle size distribution, presence of a wrack line, and shelving. No standing or flowing water was observed in association with the onsite portions of AF-2.

AF-2 exhibited the same upland vegetation as AF-1 with a predominance of foxtail brome, ripgut brome, and summer mustard and occasional patches of bare sandy soil. In addition, numerous fiddleneck (*Amsinckia menziesii*, UPL) and silver puffs (*Uropappus lindleyi*, UPL) were noted throughout the channel bottom.

Wetland Features

Both AF-1 and AF-2 exhibited clear signs of wetland hydrology as described above. However, no portions of AF-1 or AF-2 exhibited hydrophytic vegetation. Due to the predominance of upland (FACU and UPL) vegetation and lack of hydrophytic vegetation, no soil pits were dug within the project site and survey area.

FINDINGS

AF-1 generally occurs within the center portion of the project site and survey area and does not exhibit a surface hydrologic connection to any Relatively Permanent Water (RPW) or Traditionally Navigable Water (TNW). Flows from AF-1 continue south offsite and drain into a roadside ditch which runs easterly along the northern side of Alessandro Boulevard before emptying into a small concrete culvert. Flows from AF-1 are then conveyed onto the property south of Alessandro Boulevard via a concrete culvert where AF-1 then transitions to discontinuous unconfined/overland sheet flow which ultimately fans out and infiltrates offsite. Furthermore, AF-1 appears to be an ephemeral feature which flows only in direct response to precipitation. Therefore, AF-1 would not qualify as a WoUS and would not fall under the regulatory authority of the USACE. However, based on the results of the field delineation, AF-1 does comprise approximately 0.17 acre (1,434 linear feet) of RWQCB non-wetland waters of the State/CDFW vegetated streambed (consisting of 0.17 acre located within the project site and an additional <0.01 acre located within

the survey area). Refer to Table 1 below and Figure 4, *Regional Board/CDFW Jurisdictional Map* provided in Attachment A).

AF-2 occurs within the southeastern portion of the project site and survey area and also does not exhibit a surface hydrologic connection to any RPW or TNW. Flows from AF-2 are tributary to AF-1 and appear to be ephemeral, flowing only in direct response to precipitation. Therefore, AF-2 would not qualify as a WoUS and would not fall under the regulatory authority of the USACE. However, based on the results of the field delineation, AF-2 does comprise a total of 0.05 acre (201 linear feet) of RWQCB non-wetland waters of the State/CDFW vegetated streambed. No CDFW associated riparian occurs in association with AF-2).

Acreage within Project Site Acreage within Survey Area RWOCB CDFW RWQCB **CDFW** Class of Feature Cowardin Linear Aquatic Non-Non-Name Class Feet Wetland Wetland Feature Wetland Streambed Wetland Streambed Riparian Riparian WotS WotS WotS WotS Aquatic Non-Feature None 1,434 0.17 0.00 0.17 0.00 0.03 0.00 0.03 0.00 Wetland Aquatic Non-Feature 201 < 0.01 0.00 < 0.01 0.00 0.01 0.00 0.01 0.00 None Wetland 2 TOTAL* 1,635 0.17 0.00 0.17 0.00 0.05 0.00 0.05 0.00

Table 1: State and Federal Jurisdictional Resources

CONCLUSIONS AND RECOMMENDATIONS

The USACE regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. No USACE jurisdiction occurs in association with the project site, as neither AF-1 nor AF-2 exhibit any downstream surface connection (significant nexus) to a RPW or a TNW.

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act. Based on a review of the conceptual site plan, approximately 0.22 acre of impacts to RWQCB jurisdiction (non-wetland WotS) are anticipated, comprised of 0.17 acre of permanent impacts within the project site, and 0.05 acre of temporary impacts within the survey area. Therefore, it would be necessary for the project proponent to obtain a Waste Discharge Requirement (WDR) from the RWQCB prior to impacts occurring within RWQCB jurisdictional areas.

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq*. of the CFGC. Based on a review of the conceptual site plan, a total of 0.22 acre of impacts to CDFW jurisdiction are anticipated. Anticipated impacts consist of 0.17 acre of permanent impacts and 0.05 acre of temporary impacts, all of which would occur to vegetated streambed, and none of which would occur to

^{*}Total may not equal to sum due to rounding.

associated riparian as none occurs on the project site or survey area. Therefore, it would be necessary for the project proponent to obtain a Section 1602 Streambed Alteration Agreement (SAA) from the CDFW prior to impacts occurring within CDFW jurisdictional areas.

Please do not hesitate to contact me at (949) 472-3468 or <u>april.nakagawa@mbakerintl.com</u> should you have any questions or require further information.

Sincerely,

April Nakagawa

Regulatory Specialist

Natural Resources & Environmental Services

Attachments:

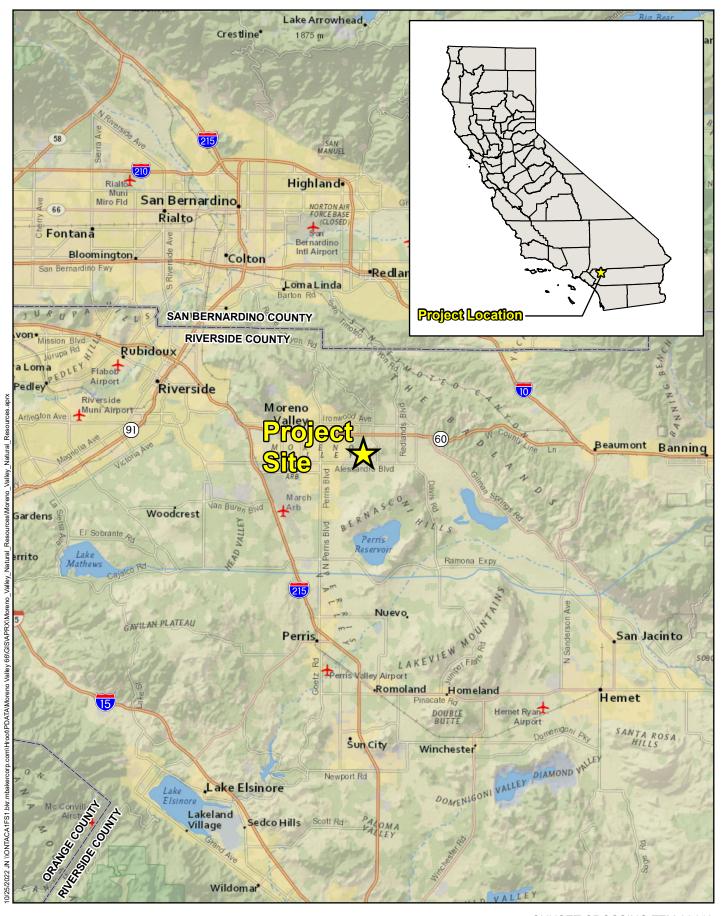
A. Project Figures

April Nakagawa

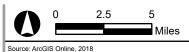
- B. USFWS National Wetlands Inventory Map
- C. FEMA Flood Insurance Rate Map
- D. USGS National Hydrography Dataset Advanced Viewer Map
- E. Site Photographs
- F. References
- G. Appendix A: Conceptual Site Plan

Attachment A

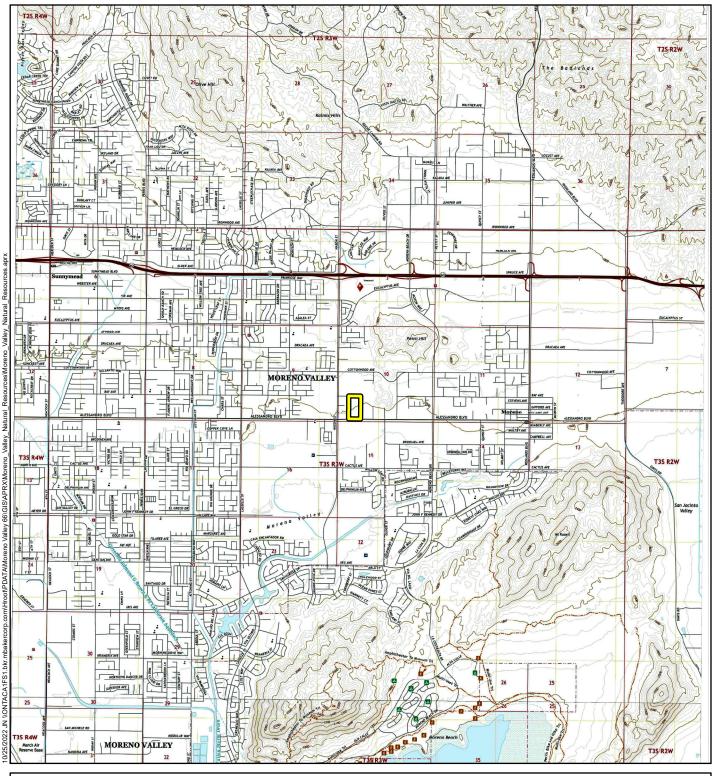
Project Figures

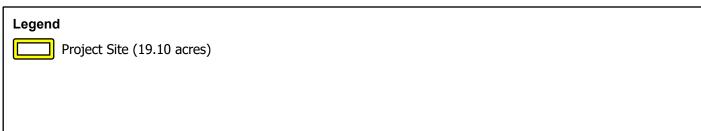






SUNSET CROSSING TTM 38442
DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS





Michael Baker



SUNSET CROSSING TTM 38442
DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS

Project Visinity

Project Vicinity





Project Site (19.10 acres)

Survey Area (22.84 acres)

⊕ Reference Point

ael Baker

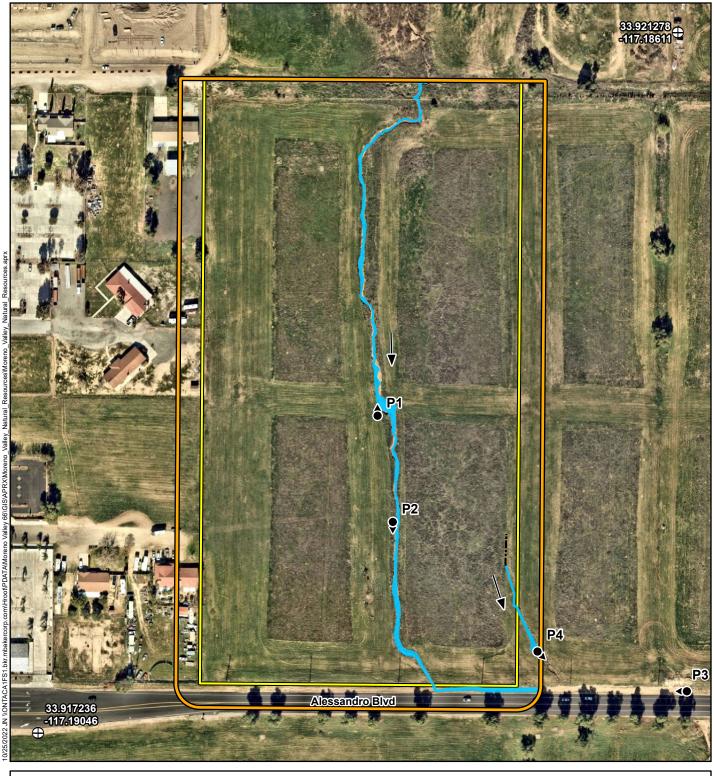
SUNSET CROSSING TTM 38442 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS

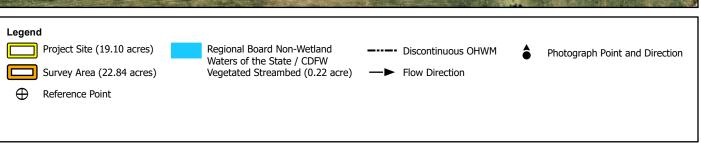
Project Site

200

Feet

100





Michael Baker



SUNSET CROSSING TTM 38442 DELINEATION OF STATE AND FEDERAL JURISDICTIONAL WATERS Regional Board/CDFW Jurisdictional Map

Attachment B

USFWS National Wetlands Inventory Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

Moreno Valley 50 Project



April 12, 2022

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Riverine

Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

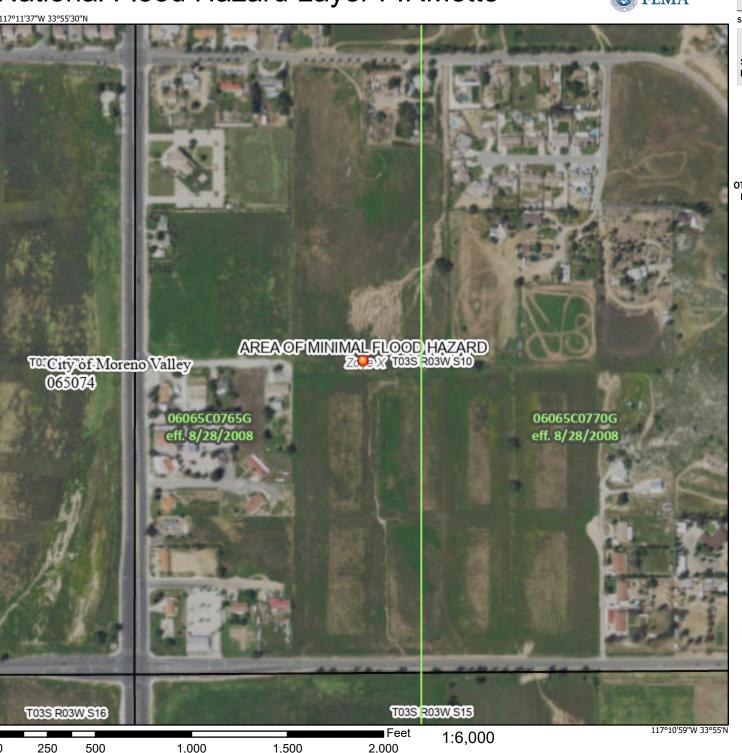
Attachment C

FEMA Flood Insurance Rate Map

National Flood Hazard Layer FIRMette



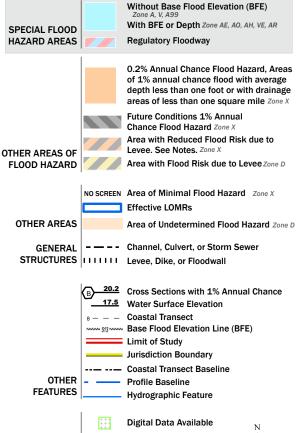
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020



Legend

MAP PANELS

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below.

an authoritative property location.

Unmapped

No Digital Data Available

The pin displayed on the map is an approximate point selected by the user and does not represent

digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

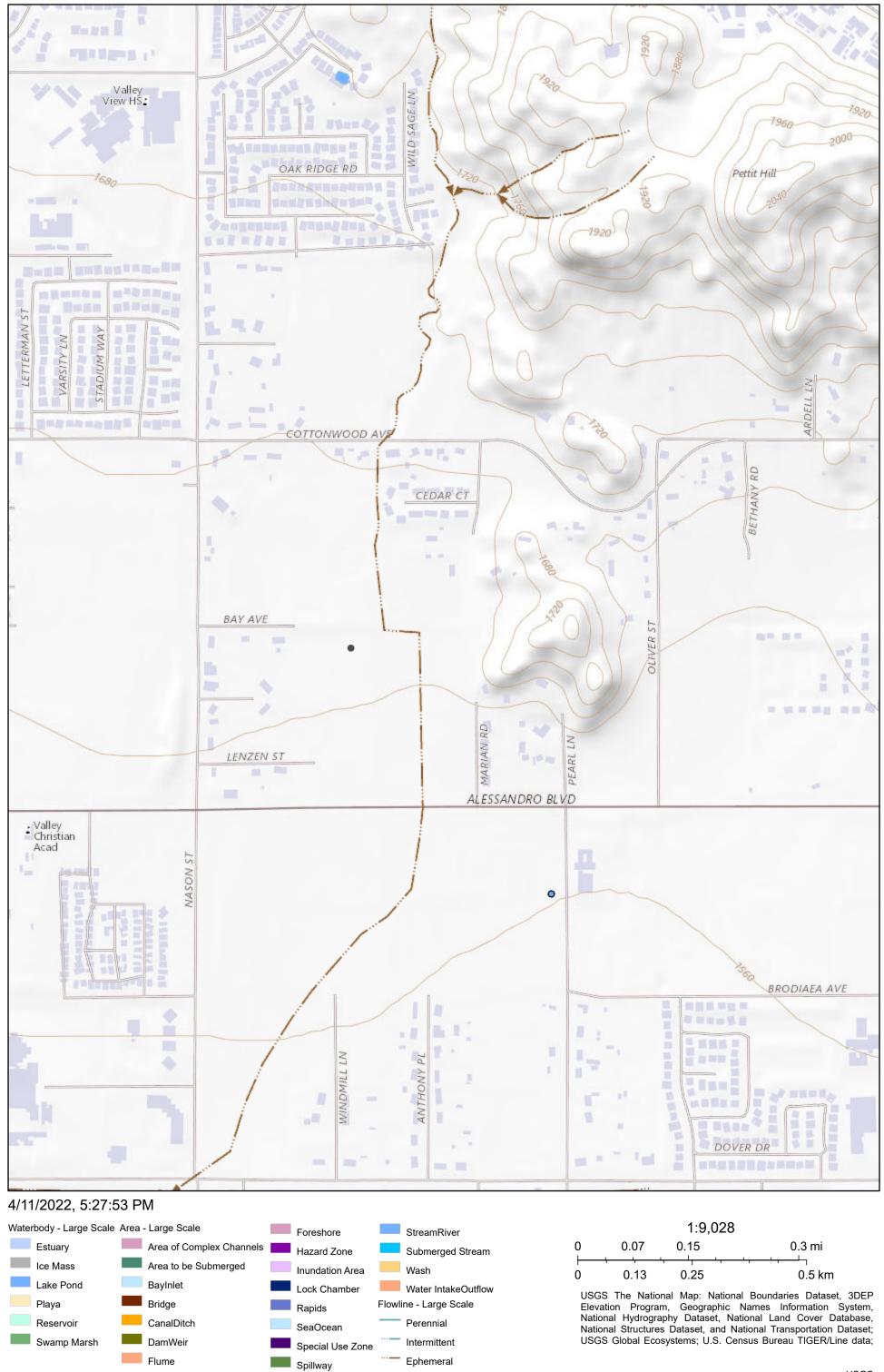
The flood hazard information is derived directly from the

authoritative NFHL web services provided by FEMA. This map was exported on 6/16/2022 at 7:10 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Attachment D USGS National Hydrography Dataset Advanced Viewer Map

The National Map Advanced Viewer



Attachment E Site Photographs



Photograph 1: View facing approximately northwest depicting the widest portion of AF-1 within the project site.



Photograph 3: View facing approximately west depicting the offsite concrete culvert which conveys flows from AF-1 south underneath Alessandro Boulevard, which is visible to the left.



Photograph 2: View facing approximately south depicting typical conditions within AF-1.



Photograph 4: View facing approximately southeast depicting the location where AF-2 connects to the roadside ditch segment of AF-1.

SUNSET CROSSING TTM 384422

Attachment F

References

- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.
- Federal Emergency Management Agency (FEMA). 2022. National Flood Hazard Layer (NFHL) Viewer. Flood Insurance Rate Map (FIRM) Panel Number 06065C0765G. Effective date August 28, 2008. Accessed online at: https://msc.fema.gov/portal/home.
- Google, Inc. 2022. Google Earth Pro Imagery Version 7.3.4.8642, build date May 12, 2022. Historical Aerial Imagery from 1985 to 2021.
- Lake Elsinore and San Jacinto Watersheds Authority. 2022. *The San Jacinto River Watershed*. Accessed online at https://mywatersheds.com/the-san-jacinto-river-watersheds/.
- Lichvar, R.W., D.C. Finnegan, M.P. Ericsson, and W. Ochs. 2006. Distribution of Ordinary High Water Mark Indicators and their Reliability in Identifying the Limits of "Waters of the United States" in the Arid Southwestern Channels. ERDC/CRREL TR-06-5. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.
- Lichvar, R.W., and S.M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.
- Regional Water Quality Control Board (RWQCB). 2019. *Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin (Region 8)*. Updated June 2019. Available online at: https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/.
- State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Effective May 28, 2020. Available online at: https://www.waterboards.ca.gov/water issues/programs/cwa401/wrapp.html.
- U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- USACE. 2016. Special Public Notice: Updated Map and Drawing Standards for the South Pacific Regulatory Division Regulatory Program. Issued on February 10, 2016.
- USACE. 2017. Special Public Notice: Minimum Standards for Acceptance of Aquatic Resources Delineation Reports. Issued on March 16, 2017.

- USACE. 2020. *National Wetland Plant List, Version 3.5*. U.S. Army Corps of Engineers, Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Accessed online at: https://wetland-plants.sec.usace.army.mil/nwpl static/v34/home/home.html.
- U.S. Department of Agriculture (USDA). 2022a. *Custom Soil Resources Report for Western Riverside Area, California*. Accessed online at: https://websoilsurvey.sc.egov.usda.gov/.
- USDA. 2022b. *Hydric Soils List for the Western Riverside Area, California*. Accessed online at: http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.
- U.S. Fish and Wildlife Service (USFWS). 2022. National Wetlands Inventory. Accessed online at: http://www.fws.gov/wetlands/Data/Mapper.html.
- U.S. Geological Survey (USGS). 2022a. Sunnymead, California 7.5-minute Series Topographic Quadrangle Map.
- USGS. 2022b. National Hydrography Dataset Advanced Viewer. Accessed online at: https://viewer.nationalmap.gov/advanced-viewer/.

Attachment G

Appendix A – Conceptual Site Plan

