



PRELIMINARY JURISDICTIONAL DELINEATION

FALCON POINT ASSOCIATES, LLC CREEKWOOD HOUSING DEVELOPMENT PROJECT

MARCH 2022

PREPARED FOR:

Falcon Point Associates, LLC
3496 Buskirk Ave, Suite 104
Pleasant Hill, CA 94523

PREPARED BY:

Analytical Environmental Services
1801 7th Street, Suite 100
Sacramento, CA 95811
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EXECUTIVE SUMMARY

CREEKWOOD HOUSING DEVELOPMENT PROJECT PRELIMINARY JURISDICTIONAL DELINEATION

Analytical Environmental Services (AES) conducted a wetland delineation of the approximately 6.78-acre Housing Development Project Site (Study Area) on April 15, 2020, June 15, 2020, and November 23, 2021. AES identified the Ordinary High-Water Mark (OHWM) of Adobe Creek totaling approximately 543 linear feet within the Study Area.

This jurisdictional delineation report has been prepared in accordance with the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987), *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (USACE, 2016), *Field Guide to Wetland Delineation* (Wetland Training Institute, Inc., 1995), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE, 2008), the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (USACE and EPA, 2007), and the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al., 1979).

A signed statement from the property owner allowing USACE personnel to enter the property and to collect samples during normal business hours is included as **Appendix A**.

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ACRONYMS

NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
PEM	Palustrine Emergent
SR	State Route
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

SECTION 1.0

INTRODUCTION

Analytical Environmental Services (AES) conducted a wetland delineation on two parcels totaling approximately 6.78-acres (Study Area) for Falcon Point Associates, LLC (Client). The Study Area is located at 256 and 280 Casa Grande Road in the City of Petaluma, Sonoma County, California. This preliminary jurisdictional delineation (report or PJD) describes wetlands identified within the Study Area that may be subject to regulation by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA). Information presented in this report provides data required by the USACE *Guidelines for Submission of Wetland Delineations and Determinations* (USACE, 2019). The wetlands discussed in this report represent a calculated estimate of features within the Study Area, and are subject to modification following the USACE verification process.

1.1 APPLICANT, AGENT, AND PROPERTY OWNER INFORMATION

Applicant/Property Owner

Falcon Point Associates, LLC
Attn: Doyle Heaton
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Pleasant Hill, CA 95423
(925) 939-3473
doyle@drgbuilders.com

Agent

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SECTION 2.0

LOCATION

The Study Area consists of approximately 6.78-acres of land owned by the Developer, located within the city of Petaluma (Figure 1 of **Appendix B**). The Study Area is situated in an Unsectioned Area of the Petaluma River of Township 4 North, Range 7 West of the Mount Diablo meridian, within the Petaluma River, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad), and coincides with Sonoma County Assessor Parcel Number 017-040-051-00 and 017-040-016-00. The centroid of the Study Area is at approximately 38° 14' 29.38" N, 122° 35' 46.88" W.

Land uses on the Study Area include grazing, livestock (sheep), and rural residential. Surrounding land uses consist of a senior living center to the north of the parcel, a school to the west of the Study Area, a metalwork and equipment repair shop to the south, and Adobe Creek to the east of the Study Area. Primary land uses within the region include residential and commercial development. Topography within the Study Area consists of flat terrain, elevations range from approximately 46 feet above mean sea level (amsl) to 51 feet amsl. A topographic map and an aerial photograph of the Study Area are shown in Figures 2 and 3, respectively, of **Appendix B**.

2.1 DRIVING DIRECTIONS

To access the Study Area from Sacramento, take I-80 BUS west towards San Francisco for approximately 52 miles. Take exit 33B to CA-37W for 15.5 miles then turn right onto Lakeville Highway and continue for 10.2 miles to Petaluma. In Petaluma, take a right turn onto s McDowell Blvd and continue for 0.2 miles to then turn right onto Casa Grande Road. Travel for 0.4 miles and the Study Area will be to the east.

SECTION 3.0

METHODOLOGY

This report has been prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE, 2016), the Corps of Engineers Wetland Delineation Manual (Environmental Laboratory, 1987), Field Guide to Wetland Delineation (Wetland Training Institute, Inc., 1995), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE, 2008), the U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook (USACE and EPA, 2007), A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley, 2008), and the Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979). The boundaries of wetlands and other potential waters of the U.S. were delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Wetland Determination Data Forms - Arid West Region. A color aerial photograph was used in the field to assist with this assessment. Munsell Soil Color Charts were used in the field to identify hydric soil features (Munselle, 2019).

3.1 SURVEY METHODOLOGY

A field survey was conducted by AES biologists Cedrick Villaseñor and David Pfuhler on April 15, 2020. An additional survey was conducted by AES biologist David Pfuhler on June 15, 2020, and on November 24, 2021. Prior to the surveys, a background records search was conducted using the following sources:

- Color aerial photography of the Study Area and vicinity including map of the potential inundation area
- Soil survey maps and unit descriptions from the Natural Resources Conservation Service (NRCS) (NRCS, 2020a) (Figure 4 of **Appendix B**)
- Hydric soil information (NRCS, 2020b)
- U.S. Fish and Wildlife Service (USFWS), National Wetlands Inventory (NWI; USFWS, 2020; Figure 5 of **Appendix B**)

During the 2020 and 2021 field surveys, AES biologists walked meandering transects throughout the Study Area to determine locations of potential wetlands and waters of the U.S. Surveys included mapping paired sample point sets to evaluate whether the three parameter criteria (vegetation, soil, and hydrology) supported a wetland or upland determination at these paired sample point locations, one point was situated outside the limits of the estimated wetland area and the other point was situated within the estimated wetland area. Adobe Creek was also examined to determine whether diagnostic characteristics of streams, including ordinary high-water marks (OHWMs), bed and bank, and evidence of ongoing water-driven erosion and deposition were evident at locations. A global positioning systems handheld unit (Trimble GeoXH™) with sub-meter accuracy was used in the field to collect sample points and demarcate wetlands and other water features.

3.2 DETERMINATION METHODOLOGY

3.2.1 WETLANDS AND OTHER WATERS

Locations of wetlands within the Study Area were determined based on the following three parameter criteria, as described in the Arid West Regional Guide (USACE, 2008):

- The majority of dominant plant species are wetland associated species;
- Hydric soils are present; and
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season.

These three criteria are used as evidence that an area experiences saturated conditions during the growing season for a minimum of two weeks in an average year. Other evidence may be used to support this conclusion in the professional judgement of the delineators. Factors used for the three parameter approach are described in detail below.

For identification of water bodies other than wetlands that are subject to federal jurisdiction, two principle field characteristics were evaluated: 1) the presence of a bed and bank; and 2) the presence of an OHWM. The OHWM is defined, in 33 Code of Federal Regulations (CFR) Part 329.11, as the line on the shore established by the fluctuations of water, and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Other characteristics that were noted, where possible, include a description of the hydrologic feature type and length. USACE regulations (33 CFR Part 328) were consulted to make a determination of whether these water bodies constitute waters of the U.S.

3.2.2 VEGETATION

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory, 1987). Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Wetland Training Institute, Inc., 1995). The dominance test is the basic hydrophytic vegetation indicator and was utilized at each sample point location. The “50/20 rule” was used to select the dominant plant species from each stratum of the vegetation community. The rule states that for each stratum in the community, dominant plant species are the most abundant species (when ranked in descending order of coverage and cumulatively totaled) that immediately exceed 50 percent of the total coverage for the stratum, plus any additional plant species that individually comprise 20 percent or more of the total in the stratum (USACE, 2008).

Dominant plant species observed at each sample point were classified according to their indicator status (i.e., probability of occurring in a wetland) (**Table 1**), according to the *2018 National Wetland Plant List* (USACE, 2018). If the majority (greater than 50 percent) of the dominant vegetation on-site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), then the site was considered to be dominated by hydrophytic vegetation. Pursuant to the Arid West Supplement (USACE, 2008), plus (+) and minus (-) modifiers were not used (i.e., FAC- and FAC+ plant species are all considered FAC) and plant species not listed in the National Wetland Plant List (Lichvar et al, 2016) were assumed to be upland (UPL) species (USACE, 2008).

TABLE 1
CLASSIFICATION OF WETLAND-ASSOCIATED PLANT SPECIES

Plant Species Classification	Abbreviation	Probability of Occurring in Wetland
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	1%
No indicator status	NI	Information insufficient to determine indicator status
SOURCE: Lichvar et al, 2016		

In instances where indicators of hydric soil and wetland hydrology were present, but the plant community failed the dominance test, the vegetation was re-evaluated using the prevalence index. The prevalence index is a weighted-average wetland indicator status of all plant species in the sample area, where each indicator status is assigned a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighted by percent cover. If the plant community failed the prevalence index, the morphological adaptations of the plants were evaluated.

3.2.3 SOILS

Hydric soils are defined as soils formed under conditions of saturation, flooding, or ponding during the growing season long enough to develop anaerobic conditions in the upper part (NRCS, 2012). Frequently observed indicators of hydric soils include (but are not limited to) histosols, histic epipedon, hydrogen sulfide, stratified layers, depleted below dark surface, depleted matrix, redox dark surface, depleted dark surface, redox depressions, vernal pools, etc. Soil pits are excavated to the depth necessary to observe and document hydric soils indicators, to confirm the absence of indicators, or until refusal. The soils at each sample point was examined for the presence/absence of indicators. The colors of the examined soils were determined while the soils were moist using the *Munsell Soil Color Charts* (Munsell, 2010).

3.2.4 HYDROLOGY

Wetlands are seasonally or perennially inundated or saturated at or near (within 12 inches of) the soil surface. Primary indicators of wetland hydrology include (but are not limited to) visual observation of surface water, high water table, saturation, water marks (nonriverine), sediment deposits (nonriverine), drift deposits (nonriverine), surface soil cracks, inundation visible on aerial imagery, water stained leaves, salt crust, biotic crust, aquatic invertebrates, hydrogen sulfide odor, oxidized rhizospheres along living roots, etc. Secondary indicators of wetland hydrology include water marks (riverine), sediment deposits (riverine), drainage patterns, dry-season water table, crayfish burrows, etc. Observation of at least one primary indicator or two secondary indicators is required to confirm the presence of wetland hydrology.

SECTION 4.0

EXISTING CONDITIONS

The approximate 6.78-acre Study Area is located on east side of Casa Grande Road within Petaluma, CA, in the Napa-Sonoma-Russian River Valleys subregion of the Central California Foothills and Coastal Mountains ecoregion. This area has a warm-summer Mediterranean climate, characterized by mildly hot and dry summers with cool nights and mild to chilly wet winters. Average highs peak in July at 82 degrees Fahrenheit (° F), and January experiences average lows of 39° F (U.S. Climate Data, 2020). Precipitation in the area averages approximately 25.6 inches per year with a majority of the of the rain fall occurring from November through the end of March (NRCS, 2020C). Characteristic vegetative communities within the Study Area are composed of relatively flat annual grassland habitat that is routinely maintained, disturbed areas containing two homes and a gravel driveway, and riparian habitat and Adobe Creek occurring along the eastern boundary of the Study Area. Characteristic aquatic features of the Study Area is composed of intermittent Adobe Creek.

4.1 LANDSCAPE SETTING

There are two parcels that comprise the Study Area. The Study Area is comprised of two rural residences with the remainder of the site fenced for rangeland (sheep actively grazing at the time of the surveys). The Study Area is located within the San Pablo Bay watershed [USGS hydrologic unit code 18050002] (USGS, 2020). San Pablo Bay is approximately 10.5 miles southeast of the Study Area. The Study Area slopes east towards Adobe Creek occurring along the eastern boundary of the site. Adobe Creek is a blue line stream that generally flows in the south direction where it confluences with the Petaluma River which continues to meander in the south direction, thence San Pablo Bay, thence San Francisco Bay, thence the Pacific Ocean.

4.1.1 SOIL TYPES

Mapped soil types on the Study Area were determined using a Custom Soil Resource Report from the NRCS Web Soil survey and are shown in Figure 4 of **Appendix B** (NRCS, 2020a). One NRCS soil unit was identified within the Study Area which has a map unit name of "Clear Lake clay, sandy substratum, drained, 0 to 2 percent slopes, MLRA 14." This soil type has a map unit symbol of CeA. Clear Lake clay is basin alluvium derived from volcanic and sedimentary rock over fan alluvium derived from volcanic and sedimentary rock. This soil type occurs within basin floors and are poorly drained with more than 80 inches to a restrictive layer. This soil type has a high frequency of ponding and has a hydric soil rating.

4.1.2 TERRESTRIAL HABITATS

Primary terrestrial habitat communities in the Study Area include disturbed, annual grassland, and riparian. Dominant characteristics in each habitat community are discussed below. A habitat map is illustrated in Figure 5 of **Appendix B** and representative photographs are shown in **Appendix C**. A list of plant species observed within the Study Area is included as **Appendix D**. No special-status plants were observed during surveys.

Ruderal/Disturbed

Approximately 1.22 acres of the Study Area consists of disturbed habitat (photos 1 and 2 of **Appendix C**). The majority of this habitat consists of gravel driveways and parking, residential building and out buildings, and associated maintained lawns and ornamental vegetation.

Annual Grassland

Approximately 4.09 acres of the Study Area consists of non-native annual grassland (photo 3 of **Appendix C**). This habitat consists primarily of grasses and forbs consistent with forage crops for grazing animals. The current property owner raises sheep on the property and were actively grazing the Study Area at the time of the site visits. Dominant grass and forb species observed within this grassland habitat consist of wild oat (*Avena fatua*), short podded mustard (*Hirschfeldia incana*), common fiddleneck (*Amsinckia intermedia*), spring vetch (*Vicia sativa*), and prickly lettuce (*Lactuca serriola*).

Riparian

Approximately 1.47 acres of the Study Area consist of riparian habitat occurring along Adobe Creek along the eastern boundary of the Study Area (photos 4 and 5 of **Appendix C**) and has a relatively dense canopy. Dominant plant species observed within this riparian habitat includes Himalayan blackberry (*Rubus armeniacus*), red willow (*Salix laevigata*), California buckeye (*Aesculus californica*), big leaf maple (*Acer macrophyllum*), fennel (*Foeniculum vulgare*), and flat top sedge (*Cyperus eragrostis*).

4.2 AQUATIC RESOURCES

The Aquatic Resource Delineation Map of the Study Area is included as **Appendix E**. The USFWS National Wetlands Inventory (USFWS, 2020) and USGS National Hydrological Dataset (USGS, 2020) was referenced to identify known or previously mapped wetlands or other water features within the Study Area. **Table 2** summarizes NWI aquatic features in the vicinity of the Study Area. Additional NWI Information is shown in Figure 6 of **Appendix B**.

TABLE 2
USFWS NWI FEATURES

Map Symbol	Description	Location
R3UBH	Riverine, upper perennial, unconsolidated bottom, permanently flooded	Occurs within the southeastern portion of the Study Area.
SOURCE: USFWS 2020		

4.2.1 SEASONAL WETLANDS

No Seasonal Wetlands were identified within the Study Area.

4.2.2 OTHER WATERS OF THE U.S.

One intermittent creek (Adobe Creek) was identified within the Study Area. Approximately 543 linear feet of Adobe Creek occurs within the Study Area. 249.9 linear feet of the eastern OHWM and 207.9 linear feet of the western OHWM have been identified. Adobe Creek has a Cowardin classification of R4SB3. A summary of the portion of Adobe Creek that occurs within the Study Area is shown in **Table 3**.

TABLE 3
CREEK IN STUDY AREA

Aquatic Resource Name	Aquatic Resource Classification		
	Cowardin	Location (lat/Long)	Linear Feet
Adobe Creek-East	R4SB3	38.240967°/-122.595642°	249.9
Adobe Creek-West	R4SB3	38.240967°/-122.595642°	207.9
Total			457.8

Adobe Creek

Adobe Creek is a blue-line intermittent creek feature that had flowing water present within the creek channel at the time of the April 15, 2020 survey of the Study Area. During the Jun 15, 2020 survey of the Study Area, no water was present within the creek. At the time of the 2021 survey water was present within the creek and flowed from north to south. This feature enters the Study Area at the northeast corner, flowing along the eastern boundary, and exits at the southeast corner of the Study Area (**Appendix E**). Approximately 457.8 linear feet of Adobe creek flow within the Study Area. No emergent vegetation was observed within the portion of creek channel that occurs within the Study Area. Willows, California buckeye, big leaf maple, and other riparian vegetation were observed growing outside of the channel and hanging over the water's edge (Photo 5 of **Attachment C**). The OHWM within the Study Area was determined by evidence of water staining on cobble, undercut banks, and abrupt change of vegetation along the bank of the creek. Additionally, upstream and downstream of the Study Area, there was evidence of shelving, drift deposits, and a change in particle size which further helped establish an understanding of the location of the OHWM within the Study Area.

SECTION 5.0

CONCLUSION

AES conducted a wetland delineation of the approximate 6.78-acre Study Area on April 15, 2020, June 15, 2020, and November 23, 2021. In total, one aquatic feature was observed within the Study Area. The one aquatic feature identified within the Study Area is Adobe Creek, totaling approximately 457.8 linear feet. The west portion of Adobe Creek identified within the Study Area during the April 15 and June 15, 2020 survey is summarized below in **Table 4**. The east portion was identified and classified in the November 2021 survey.

TABLE 4
SUMMARY TABLE

Aquatic Resource Classification						
Category	Feature Name	Cowardin	Location (Lat/Long)	Acres	Linear Feet	Contiguity
Other Waters	Adobe Creek-E	R4SB3	38.240967°/-122.595642°	-	249.9	Yes
Other Waters	Adobe Creek-W	R4SB3	38.240967°/-122.595642°	-	207.9	Yes
TOTAL				-	457.8	Yes

SECTION 6.0

REFERENCES

- Cowardin, L. M., V. Carter, and E. T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States. Office of Biological Services, U. S. Fish and Wildlife Service, Washington, District of Columbia.
- Environmental Laboratory, 1987. Corps of Engineers, Wetland Delineation Manual. Wetlands Research Program Technical Report Y-87-1 (on-line edition). Accessed on November 2, 2020. Available at <https://www.cpe.rutgers.edu/Wetlands/1987-Army-Corps-Wetlands-Delineation-Manual.pdf>
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- Wetland Training Institute, Inc., 1995. Field guide for wetland delineation: 1987 Corps of Engineers manual. (WTI 95-3). Poolsville, MD

APPENDICES

APPENDIX A

***SIGNED STATEMENT FROM PROPERTY OWNER ALLOWING
ACCESS***

REQUEST FOR AQUATIC RESOURCES DELINEATION VERIFICATION

OR JURISDICTIONAL DETERMINATION

A separate jurisdictional determination (JD) is not necessary to process a permit. An Approved Jurisdictional Determination (AJD) is required to definitively determine the extent of waters of the U.S. and is generally used to disclaim jurisdiction over aquatic resources that are not waters of the U.S., in cases where the review area contains no aquatic resources, and in cases when the recipient wishes to challenge the water of the U.S. determination on appeal. Either an Aquatic Resources Delineation Verification or a Preliminary Jurisdictional Determination (PJD) may be used when the recipient wishes to assume that aquatic resources are waters of the U.S. for the purposes of permitting. In some circumstances an AJD may require more information, a greater level of effort, and more time to produce. If you are unsure which product to request, please speak with your project manager or call the Sacramento District's general information line at (916) 557-5250.

I am requesting the product indicated below from the U.S. Army Corps of Engineers, Sacramento District, for the review area located at:

Street Address: <u>256 and 280 Casa Grande</u> City: <u>Petaluma</u> County: <u>Sonoma</u>	
State: <u>CA</u> Zip: <u>94954</u> Section: <u>Unsectioned</u> Township: <u>T4N</u> Range: <u>R7W</u>	
Latitude (decimal degrees): <u>38.241494°</u> Longitude (decimal degrees): <u>-122.833558°</u>	
The approximate size of the review area for the JD is <u>5.2</u> acres. (Please attach location map)	
Choose one: <input type="radio"/> I own the review area <input type="radio"/> I hold an easement or development rights over the review area <input type="radio"/> I lease the review area <input checked="" type="radio"/> I plan to purchase the review area <input type="radio"/> I am an agent/consultant acting on behalf of the requestor <input type="radio"/> Other: _____	Choose one product: <input type="radio"/> I am requesting an Aquatic Resources Delineation Verification <input type="radio"/> I am requesting an Approved JD <input checked="" type="radio"/> I am requesting a Preliminary JD <input type="radio"/> I am requesting additional information to inform my decision about which product to request
Reason for request: (check all that apply) <input type="checkbox"/> I need information concerning aquatic resources within the review area for planning purposes. <input checked="" type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which would be designed to avoid all aquatic resources. <input type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which would be designed to avoid those aquatic resources determined to be waters of the U.S. <input type="checkbox"/> I intend to construct/develop a project or perform activities in this review area which may require authorization from the Corps; this request is accompanied by my permit application. <input type="checkbox"/> I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district's list of navigable waters under Section 10 of the Rivers and Harbors Act of 1899 and/or is subject to the ebb and flow of the tide. <input type="checkbox"/> My lender, insurer, investors, local unit of government, etc. has indicated that an aquatic resources delineation verification is inadequate and is requiring a jurisdictional determination. <input type="checkbox"/> I intend to contest jurisdiction over particular aquatic resources and request the Corps confirm that these aquatic resources are or are not waters of the U.S. <input type="checkbox"/> I believe that the review area may be comprised entirely of dry land. <input type="checkbox"/> Other: _____	
Attached Information: <input checked="" type="checkbox"/> Maps depicting the general location and aquatic resources within the review area consistent with Map and Drawing Standards for the South Pacific Division Regulatory Program (Public Notice February 2016, http://www.spd.usace.army.mil/Missions/Regulatory/Public-Notices-and-References/Article/651327/updated-map-and-drawing-standards/) <input checked="" type="checkbox"/> Aquatic Resources Delineation Report, if available, consistent with the Sacramento District's Minimum Standards for Acceptance (Public Notice January 2016, http://1.usa.gov/1V68lYa)	
By signing below, you are indicating that you have the authority, or are acting as the duly authorized agent of a person or entity with such authority, to and do hereby grant Corps personnel right of entry to legally access the review area. Your signature shall be an affirmation that you possess the requisite property rights for this request on the subject property.	
*Signature: _____ Date: _____	
Name: <u>Doyle Heaton</u> Company name: <u>Falcon Point Associates, LLC</u>	
Address: <u>3496 Buskirk Ave, Suite 104</u>	
<u>Pleasant Hill, CA, 94523</u>	
Telephone: <u>(925) 939-3473</u> Email: <u>doyle@drbuilders.com</u>	

***Authorities:** Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Program of the U.S. Army Corps of Engineers; Final Rule for 33 CFR Parts 320-332.

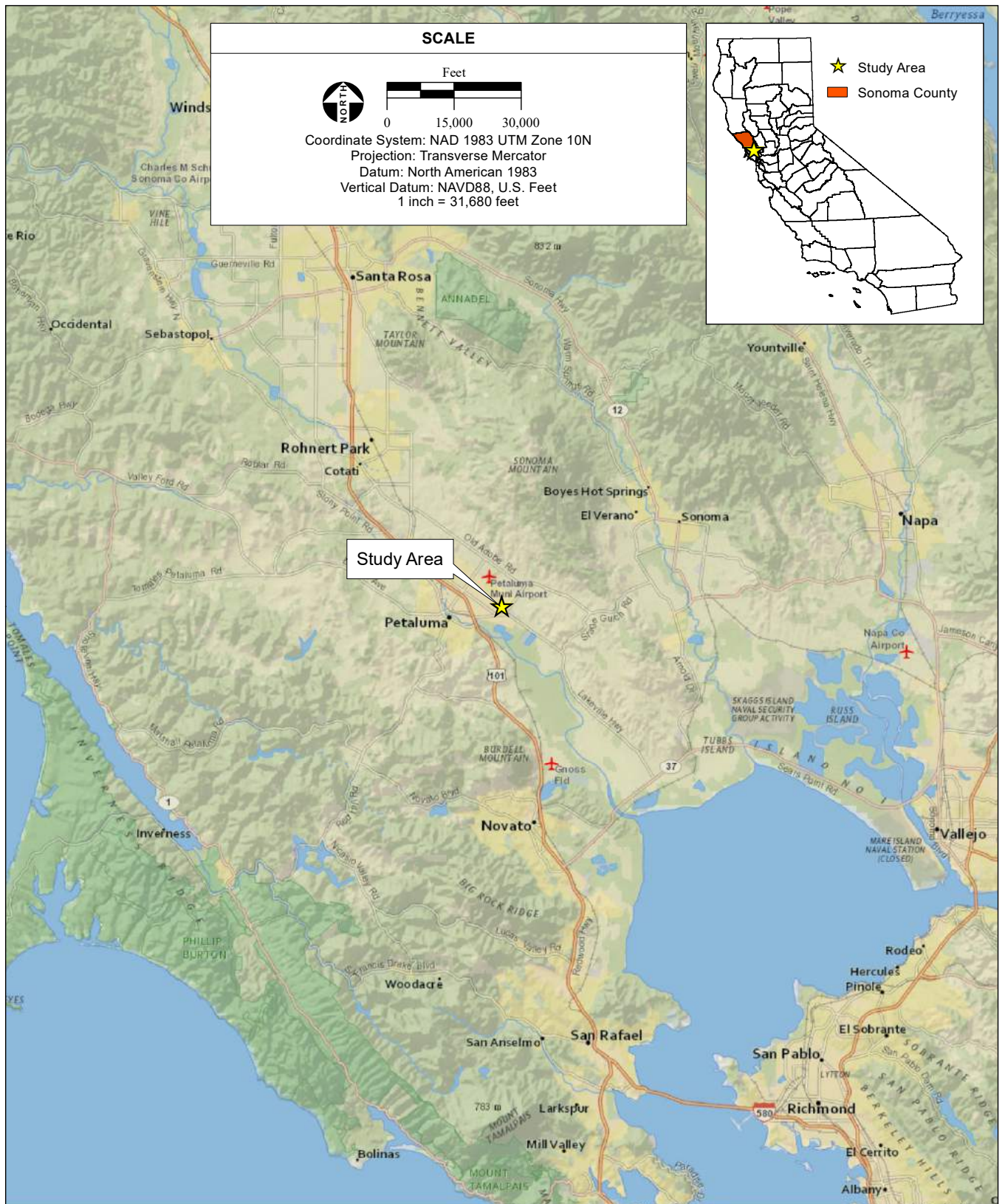
Principal Purpose: The information that you provide will be used in evaluating your request to determine whether there are any aquatic resources within the project area subject to federal jurisdiction under the regulatory authorities referenced above.

Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public, and may be made available as part of a public notice as required by federal law. Your name and property location where federal jurisdiction is to be determined will be included in the approved jurisdictional determination (AJD), which will be made available to the public on the District's website and on the Headquarters USACE website.

Disclosure: Submission of requested information is voluntary; however, if information is not provided, the request for an AJD cannot be evaluated nor can an AJD be issued.

APPENDIX B

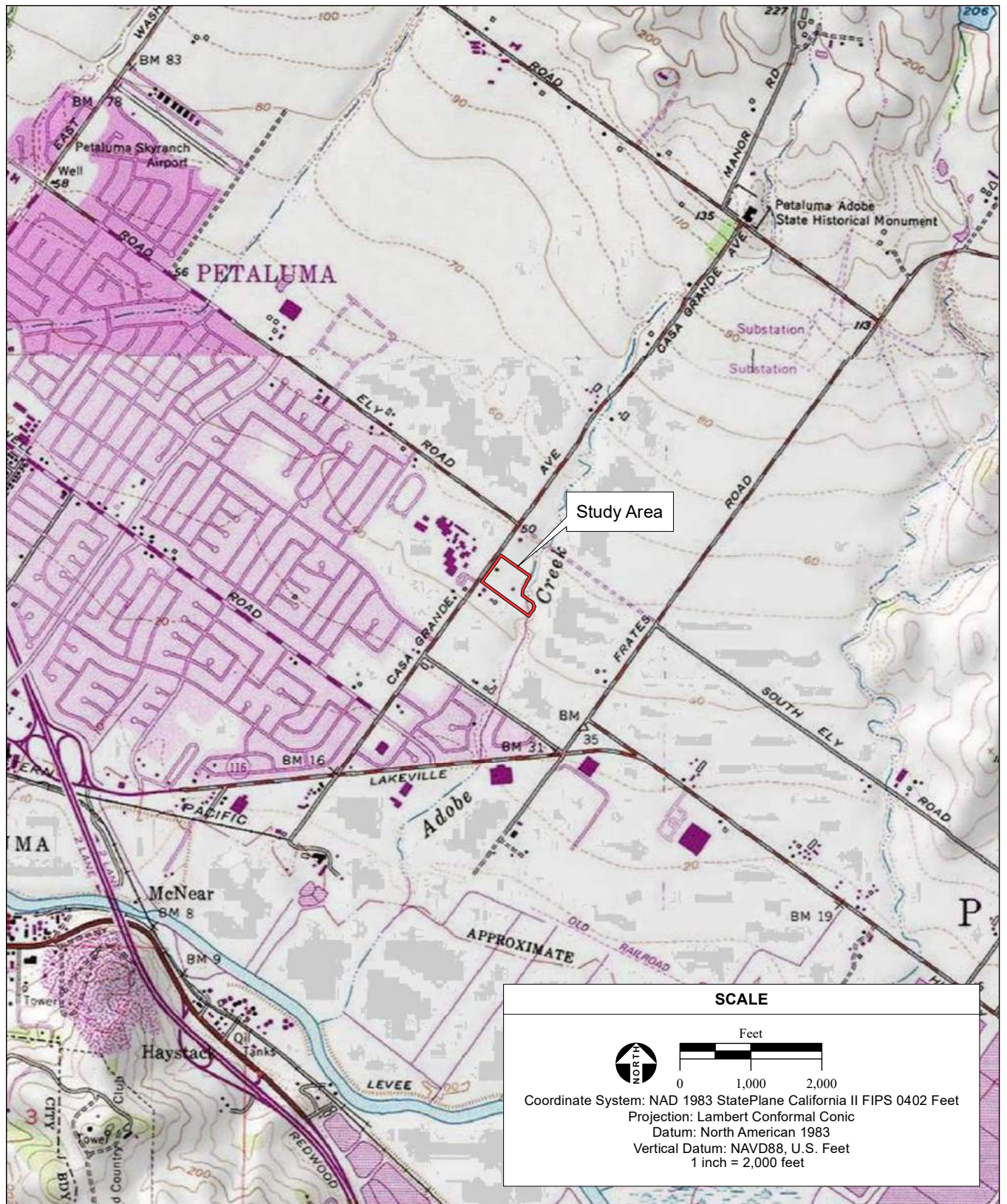
SUPPORTING MAPS



SOURCE: ESRI, 2022; AES, 3/23/2022

Creekwood Housing Development Project Preliminary Jurisdictional Delineation / 220517 ■

Appendix B - Figure 1
Regional Location



SOURCE: "Petaluma River, CA" USGS 7.5 Minute Topographic Quadrangle, T4N R7W, Unsectioned Area of Petaluma River, Mt. Diablo Baseline & Meridian; ESRI, 2022; AES-Montrose, 3/23/2022

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Appendix B - Figure 2
Site and Vicinity



SOURCE: Vivid Maxar aerial photograph, 3/26/2021; ESRI, 2022;
AES, 3/23/2022

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Appendx B - Figure 3

Aerial Photograph



SOURCE: USDA NRCS Soil Survey of Sonoma County, version 15 updated September 29, 2021; Maxar aerial photograph, 3/26/2021; ESRI, 2022; AES, 3/23/2022

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Appendix B - Figure 4

Soil Types



SOURCE: USFWS National Wetlands Inventory, "Santa Rosa NE, CA", 100k Topographics Quadrangle Survey, 1976; Vivid Maxar aerial photograph, 3/26/2021; ESRI, 2022; AES, 3/23/2022

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Appendix B - Figure 5

National Wetlands Inventory



SOURCE: Vivid Maxar aerial photograph, 3/26/2021; ESRI, 2022;
 AES, 3/23/2022

Creekwood Housing Development Project Preliminary Jurisdictional Delineation / 220517 ■

Appendx B - Figure 6

Habitat Types

APPENDIX C

ON-SITE PHOTOGRAPHS



PHOTO 1: Showing a residence occurring within the northern portion of the Study Area, facing northwest towards Casa Grande Road.



PHOTO 3: A representative view of the annual grassland habitat occurring within the Study Area, facing northwest towards Casa Grande Road.



PHOTO 5: Showing the dense riparian habitat along Adobe Creek.



PHOTO 2: Showing a second residence occurring within the southern portion of the Study Area, facing south.



PHOTO 4: Riparian habitat along the eastern boundary of the Study Area.

APPENDIX D

PLANT LIST

Plant Species Found Within the Study Area

Scientific Name	Common Name	WIS
<i>Acer negundo</i>	boxelder	FACW
<i>Acer macrophyllum</i>	big leaf maple	FAC
<i>Aesculus californicum</i>	California buckeye	N/A
<i>Agrostis exarata</i> *	spike bentgrass	FACW
<i>Alisma triviale</i>	water plantain	OBL
<i>Amsinckia intermedia</i>	Common fiddleneck	N/A
<i>Artemisia douglasiana</i>	California mugwort	FAC
<i>Capsella bursa-pastoris</i> *	shepherd's purse	FACU
<i>Cirsium vulgare</i> *	bull thistle	FACU
<i>Conium maculatum</i> *	poison hemlock	FACW
<i>Convolvulus arvensis</i> *	field bindweed	N/A
<i>Cornus sericea</i>	dogwood	N/A
<i>Crataegus monogyna</i> *	hawthorn	FAC
<i>Cyperus eragrostis</i>	tall cyperus	FACW
<i>Dactylis glomerata</i> *	orchard grass	FACU
<i>Dysphania ambrosioides</i> *	Mexican tea	FAC
<i>Baccharis pilularis</i>	coyote bush	N/A
<i>Epilobium ciliatum</i>	slender willow herb	FACW
<i>Festuca perennis</i> *	Italian rye grass	FAC
<i>Fraxinus latifolia</i>	Oregon ash	FACW
<i>Foeniculum vulgare</i> *	fennel	N/A
<i>Hedera helix</i> *	English ivy	FACU
<i>Helminthotheca echioides</i>	Bristly ox-tongue	FACU
<i>Hirschfeldia incana</i> *	short podded mustard	N/A
<i>Lactuca serriola</i> *	prickly lettuce	FACU
<i>Lathyrus sp.</i>	pea	N/A
<i>Lepidium latifolium</i> *	perennial pepperweed	FAC
<i>Lotus corniculatus</i> *	Bird's foot trefoil	FAC
<i>Juncus bufonius</i>	toad rush	FACW
<i>Medicago polymorpha</i> *	bur clover	FACU
<i>Mentha pulegium</i> *	pennyroyal	OBL
<i>Nasturtium officinale</i>	watercress	OBL
<i>Phalaris aquatic</i> *	harding grass	FACU
<i>Quercus agrifolia</i>	coast live oak	N/A
<i>Quercus lobata</i>	valley oak	FACU
<i>Ranunculus sp.</i>	buttercup	N/A
<i>Umbellularia californica</i>	California bay	FAC
<i>Rorippa curvisiliqua</i>	curve-pod yellowcress	OBL
<i>Rubus armeniacus</i> *	Himalayan blackberry	FAC
<i>Rubus ursinus</i>	California blackberry	FAC
<i>Rumex conglomeratus</i>	clustered dock	FACW
<i>Salix laevigata</i>	red willow	FACW
<i>Salix lasiolepis</i>	arroyo willow	FACW
<i>Sequoia sempervirens</i>	coast redwood	N/A
<i>Sonchus oleraceus</i> *	sow thistle	UPL
<i>Stachys ajugoides</i>	Ajuga hedge nettle	OBL
<i>Veronica persica</i> *	birdeye speedwell	N/A
<i>Vicia sativa</i> *	Spring vetch	FACU
<i>Xanthium spinosum</i> *	spiny cocklebur	FACU

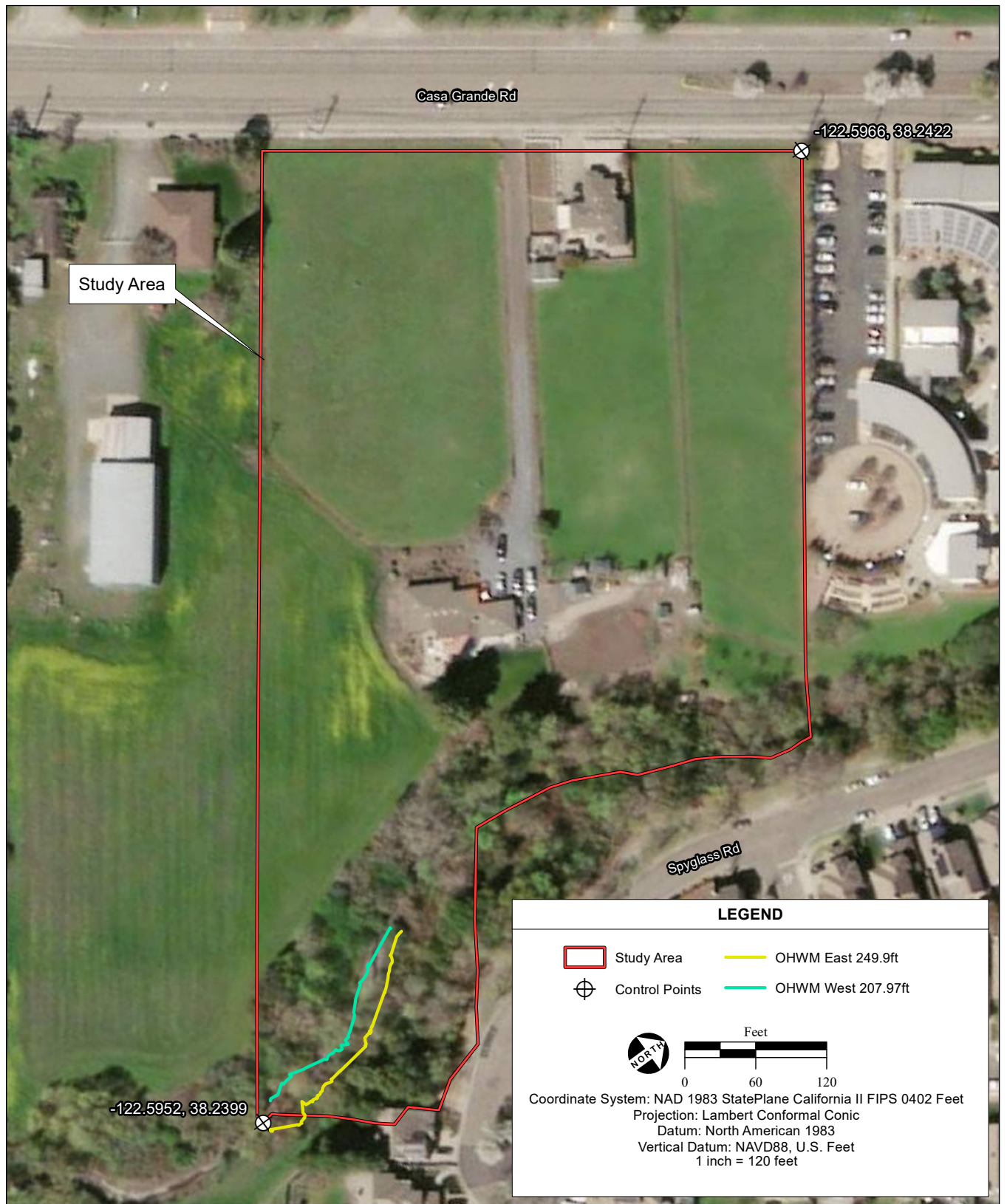
* = Non-native

Wetland Indicator Status (WIS)

OBL	=	Occurs in aquatic resources >99% of time
FACW	=	Occurs in aquatic resources 67-99% of time
FACU	=	Occurs in aquatic resources 34-66% of time
UPL	=	Occurs in aquatic resources 1-33% of time
NI	=	Indicator status not known in this region

APPENDIX E

AQUATIC RESOURCES DELINEATION MAP



SOURCE: Vivid Maxar aerial photograph, 3/26/2021; ESRI, 2020; AES, 3/23/2022

Creekwood Housing Development Project Preliminary Jurisdictional Delineation / 220517 ■

Appendix E

Aquatic Resources Map

APPENDIX F

AQUATIC RESOURCES EXCEL SHEET

Waters_Name			State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units
Adobe Creek			CALIFORNIA	R4SB	RIVERINE	Linear	457.8	FOOT

Waters_Type			Latitude	Longitude	Local_Waterway	Similarly_Situated	Sim_Situated_Aggregated_SPOE	Adjcent_Waters_Sbjct_33USC1344	OHWM_Chg_In_Plant_Communi	OHWM_Bed_And_B	OHWM_P
A1			38.240967°	-122.595642°	Adobe Creek						

ity
anks
break_In_Slope
OHWM_Chg_In_Character_Of_Soil
OHWM_Chg_In_Veg_Densy_Maturty
OHWM_Chg_In_Sediment_Texture
OHWM_Line_Impressed_On_Bank
OHWM_Destr_Of_Terrestrial_Veg
OHWM_Leaf_Litter_Disturbed
OHWM_Multiple_Flow_Events
OHWM_Scour
OHWM_Sediment_Deposition
OHWM_Sediment_Sorting
OHWM_Shefving
OHWM_Litter_and_Debris_Present
OHWM_Wrack_Line_Present
OHWM_Veg_Matted_Bent_Or_A
OHWM_Water_Stain
OHWM_C

absent	
ing	
Other	
OHW_M_Other_Text	
	Func_I_Sediment_Trapping
	Func_II_Nutrient_Recycling
	Func_III_Pollutant_Management
	Func_IV_Retntn_Attenu_Fld_Wtrrs
	Func_V_Runoff_Storage
	Func_VI_Contribution_of_Flow
	Func_VII_Export_Organic_Matter
	Func_VIII_Export_Food_Rsources
	Func_IX_Prov_Life_Cycle_Depdnt