

Aquatic Resources Delineation for the Century Palms Project

Sacramento County, California

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
Agencies	U.S. Environmental Protection Agency and Department of the Army
APT	Antecedent Precipitation Tool
CFR	Code of Federal Regulations
CWA	Clean Water Act
ECORP	ECORP Consulting, Inc.
FAC	Facultative
FACU	Facultative Upland
FACW	Facultative Wetland
FR	Federal Register
GPS	Global Positioning System
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OBL	Obligate
OHWM	Ordinary High Water Mark
ORM	Operations and Maintenance Business Information Link Regulatory Module
PJD	Preliminary Jurisdictional Determination
Project	Century Palms Project
RWQCB	Regional Water Quality Control Board
Study Area	The Approximately 14.02-Acre Century Palms Project
UPL	Upland
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the U.S.

1.0 INTRODUCTION

On behalf of DR Horton CA2, Inc., ECorp Consulting, Inc. conducted an aquatic resources delineation for the approximately 14.02-acre Century Palms Project (Study Area) located in Sacramento County, California. The Study Area is located southwest of the intersection of M Street and Rio Linda Boulevard (Figure 1). The Study Area corresponds to a portion of the unsectioned Del Paso Land Grant of the "Rio Linda, California" 7.5-minute quadrangle (U.S. Geological Survey [USGS] 1992). The approximate center of the Study Area is located at 38.690248° latitude and -121.458671 longitude within the Lower America Watershed (Hydrologic Unit Code #18020111, USGS 2025). Driving directions to the Study Area are included as Appendix A.

This report describes aquatic resources identified within the Study Area that may be regulated by the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the federal Clean Water Act (CWA). The information presented in this report provides data required by the USACE Sacramento District's Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2016a). The aquatic resource boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the Study Area and are subject to modification following the USACE verification process.

The purpose of this report is to provide adequate information to USACE for the issuance of an Aquatic Resources Verification or Preliminary Jurisdictional Determination (PJD).

2.0 REGULATORY SETTING

2.1 Waters of the United States

This report describes aquatic resources, including wetlands, that may be regulated by USACE under Section 404 and/or the Regional Water Quality Control Board (RWQCB) under Section 401 of the federal CWA. The following sections define these regulations.

2.1.1 Wetlands

Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (51 Federal Register [FR] 41250, Nov. 13, 1986, as amended at 58 FR 45036, Aug. 25, 1993). Wetlands can be perennial or intermittent.

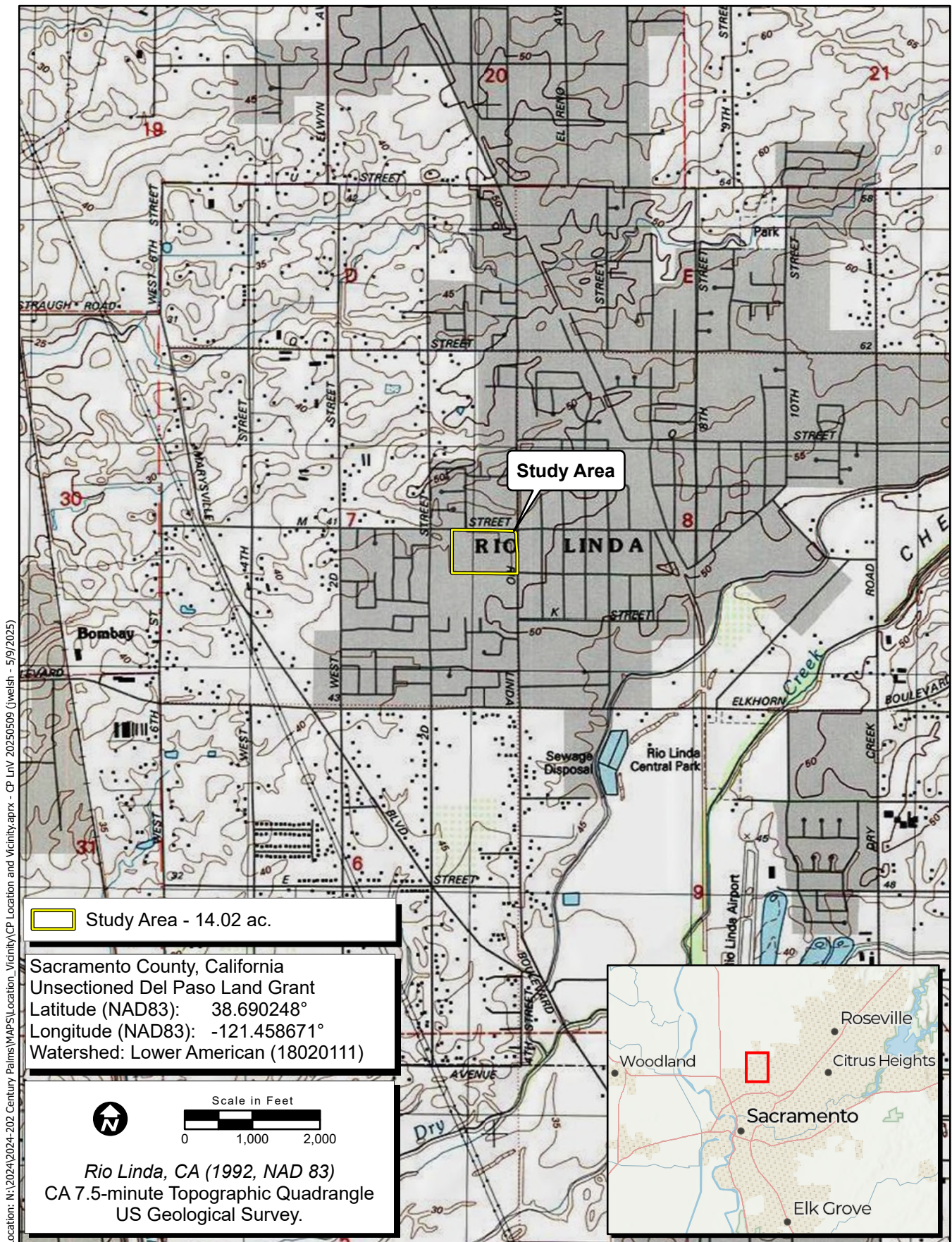


Figure 1. Project Location and Vicinity

2.1.2 Other Waters

“Other waters” are nontidal, perennial, and intermittent watercourses and tributaries to such watercourses [51 FR 41250, Nov. 13, 1986, as amended at 58 FR 45036, August 25, 1993]. The limit of USACE jurisdiction for nontidal watercourses (without adjacent wetlands) is defined in 33 Code of Federal Regulations (CFR) 328.4(c)(1) as the “ordinary high water mark” (OHWM). The OHWM is defined as the “line on the shore established by the fluctuations 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” approximation of the lateral limit of USACE jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

2.2 Clean Water Act

The USACE regulates discharge of dredged or fill material into Waters of the U.S. under Section 404 of the CWA. “Discharges of fill material” is defined as the addition of fill material into Waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 CFR § 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into Waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards.

Substantial impacts to wetlands, over 0.5 acre of impact, may require an individual permit. Projects that only minimally affect wetlands, less than 0.5 acre of impact, may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the RWQCB.

2.3 Jurisdictional Assessment

On December 22, 2022, the U.S. Environmental Protection Agency and Department of the Army (Agencies) announced a final rule defining Waters of the United States. The definition was founded upon the pre-2015 “Rapanos” decision, updated to reflect consideration of Supreme Court decisions, the science, and the Agencies’ technical expertise. The final rule was published in the Federal Register on January 18, 2023 and effective as of March 20, 2023.

On May 25, 2023, the Supreme Court of the United States adopted a narrower definition of Waters of the U.S. (WOTUS) in the case *Sackett v. Environmental Protection Agency*. Under the majority opinion, WOTUS refers to “geographical features that are described in ordinary parlance as ‘streams, oceans, rivers, and lakes’ and to adjacent wetlands that are ‘indistinguishable’ from those bodies of water due to a continuous surface connection.”

On August 29, 2023, the U.S. Environmental Protection Agency and the Department of the Army (Agencies) issued a final rule to amend the final “*Revised Definition of ‘Waters of the United States’*” rule, published in the FR on January 18, 2023. This final rule conforms the definition of “waters of the United States” to the U.S. Supreme Court’s May 25, 2023, decision in the case of *Sackett v. Environmental Protection Agency*. Parts of the January 2023 Rule are invalid under the Supreme Court’s interpretation of the CWA in the Sackett decision. Therefore, the Agencies have amended key aspects of the regulatory text to conform to the Court’s decision.

The conforming rule became effective upon publication in the FR on September 9, 2023. Where the January 2023 Rule is not enjoined, the agencies will implement the January 2023 Rule, as amended by the conforming rule.

In summary, under the conforming rule, the term Waters of the United States will mean:

- 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;
- the territorial seas;
- interstate waters;
- impoundments of waters otherwise defined as waters of the United States under this definition;
- tributaries that are relatively permanent, standing or continuously flowing bodies of water of a) 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, b) the territorial seas, and c) interstate waters;
- wetlands adjacent to a) 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, b) the territorial seas, and c) interstate waters; or
- wetlands adjacent (defined as having a continuous surface connection) to relatively permanent, standing or continuously flowing bodies of water identified as impoundments of waters and with a continuous surface connection to those waters; or
- intrastate lakes and ponds that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the water previously identified.

Waters excluded from this definition include prior converted cropland (defined by the U.S. Department of the Agriculture), waste treatment systems, ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water, artificially irrigated areas that would revert to dry land if the irrigation ceased, artificial lakes or ponds, artificial reflecting pools or swimming pools, waterfilled depressions (e.g. created in dry land incidental to construction activity, pits excavated in dry land for purposes of obtaining fill, sand, or gravel), swales and erosional features (e.g. gullies, small washes) that are characterized by low volume, infrequent, or short duration flow.

2.4 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb 1.0 or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the state” (Water Code 13260(a)). Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of a Waste Discharge Requirements for these activities).

3.0 METHODS

This aquatic resources delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement) (USACE 2008). The boundaries of aquatic resources were delineated through standard field methods (e.g., paired sample set analyses) and aerial photograph interpretation. Field data were recorded on Wetland Determination Data Forms – Arid West Region Datasheet (Appendix B). Color aerial photographs available on Google Earth® were used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Munsell Color 2009) and the *Web Soil Survey* (Natural Resources Conservation Service [NRCS] 2025a) were used to aid in identifying hydric soils in the field. The *Jepson eFlora* (Jepson eFlora Project [eds.] 2025) was used for plant nomenclature and identification.

Field surveys were conducted on October 30, 2024 and on April 18, 2025 by ECORP biologist Daniel Wong. Mr. Wong walked the entire approximately 14.02-acre Study Area to determine the location and extent of aquatic resources within the Study Area. Paired locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported an aquatic resource determination. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. Additional non-paired locations were sampled to document marginal areas that were determined not to be aquatic resources because they lacked hydrophytic vegetation, hydric soils, and/or wetland hydrology. Aquatic resources within the Study Area were recorded in the field using a post-processing capable Global Positioning System (GPS) unit with sub-meter accuracy (e.g., Samsung Galaxy tablet, FieldMaps for ArcGIS application with Juniper Systems Geode submeter GPS unit with real-time correction).

A typical year analysis of the Study Area was conducted via a single-point method using the USACE Antecedent Precipitation Tool (APT; USACE 2025). The APT is an automation tool that utilizes standardized methodology to calculate precipitation normalcy at a given location using publicly available data sources.

The APT analysis determines whether precipitation, drought, and other climatic conditions from the previous three months are *wet*, *normal*, or *dry* for the geographic area based on a rolling 30-year period (USACE 2025).

3.1 Routine Determinations for Wetlands

To be determined a wetland, the following three criteria must be met:

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

3.1.1 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 permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987)." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The dominance test is the basic hydrophytic vegetation indicator and was applied at each sampling point location. The "50/20 rule" was used to select the dominant plant species from each stratum of the community. The rule states that for each stratum in the plant community, dominant species are the most abundant plant 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 species that individually comprise 20 percent or more of the total cover in the stratum (USACE 1992, 2008).

Dominant plant species observed at each sampling point were then classified according to their indicator status (probability of occurrence in wetlands; Table 1), *National Wetland Plant List* (USACE 2022). If the majority (more than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC), rather than Facultative Upland (FACU) or upland (UPL), the site was considered to be dominated by hydrophytic vegetation.

Table 1. Classification of Wetland-Associated Plant Species¹		
Plant Species Classification	Abbreviation	Probability of Occurring in Wetland
Obligate	OBL	Almost always occur in wetlands
Facultative Wetland	FACW	Usually occur in wetlands, but may occur in non-wetlands
Facultative	FAC	Occur in wetlands and non-wetlands
Facultative Upland	FACU	Usually occur in non-wetlands, but may occur in wetlands
Upland	UPL	Almost never occur in wetlands

Table 1. Classification of Wetland-Associated Plant Species¹

Plant Species Classification	Abbreviation	Probability of Occurring in Wetland
Plants That Are Not Listed (assumed upland species)	N/L	Does not occur in wetlands in any region.

¹Source: U.S. Army Corps of Engineers 2022

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 sampling plot, where each indicator status category is given a numeric code (OBL=1, FACW=2, FAC=3, FACU=4, and UPL=5) and weighting is by abundance (percent cover). If the plant community failed the Prevalence Index, the presence/absence of plant morphological adaptations to prolonged inundation or saturation in the root zone was evaluated.

3.1.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (NRCS 2003). Indicators that a hydric soil is present include, but are not limited to, histosols, histic epipedon, hydrogen sulfide, depleted below dark surface, sandy redox, loamy gleyed matrix, depleted matrix, redox dark surface, redox depressions, and vernal pools.

At each sampling point a soil pit was excavated to the depth needed to document an indicator, to confirm the absence of indicators, or until refusal at each sampling point. The soil was then examined for hydric soil indicators. Soil colors were determined while the soil was moist using the *Munsell Soil Color Charts* (Munsell Color 2009). Hydric soils are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. These processes and the features in the soil that develop can be identified by looking at the color and texture of the soils.

3.1.3 Hydrology

Wetlands, by definition, 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 saturated soils, visual observation of inundation, surface soil cracks, inundation visible on aerial imagery, water-stained leaves, oxidized rhizospheres along living roots, aquatic invertebrates, water marks (secondary indicator in riverine environments), drift lines (secondary indicator in riverine environments), and sediment deposits (secondary indicator in riverine environments). The occurrence of one primary indicator is sufficient to conclude that wetland hydrology is present. If no primary indicators are observed, two or more secondary indicators are required to conclude wetland hydrology is present. Secondary indicators include, but are not limited to: drainage patterns, crayfish burrows, FAC-neutral test, and shallow aquitard.

4.0 RESULTS

4.1 Existing Site Conditions

The Study Area is located within relatively flat terrain situated at an elevational range of approximately 39 to 41 feet above mean sea level in the Sacramento Valley Subregion of the Great Central Valley floristic region of California (Baldwin et al. 2012). The average winter low temperature in the vicinity of the Study Area is 37.9 degrees Fahrenheit (°F) and the average summer high temperature is 92.0°F. Average annual precipitation is approximately 16.17 inches (National Oceanic and Atmospheric Administration 2025) which falls as rain.

The Project Area consists of a disturbed grassland which is occasionally plowed for fire risk reduction along the margins and has been impacted by off-road vehicle traffic. A dirt trail/road bisects the Project Area creating northeastern and southwestern portions, and loops back through the northeastern portion of the site.

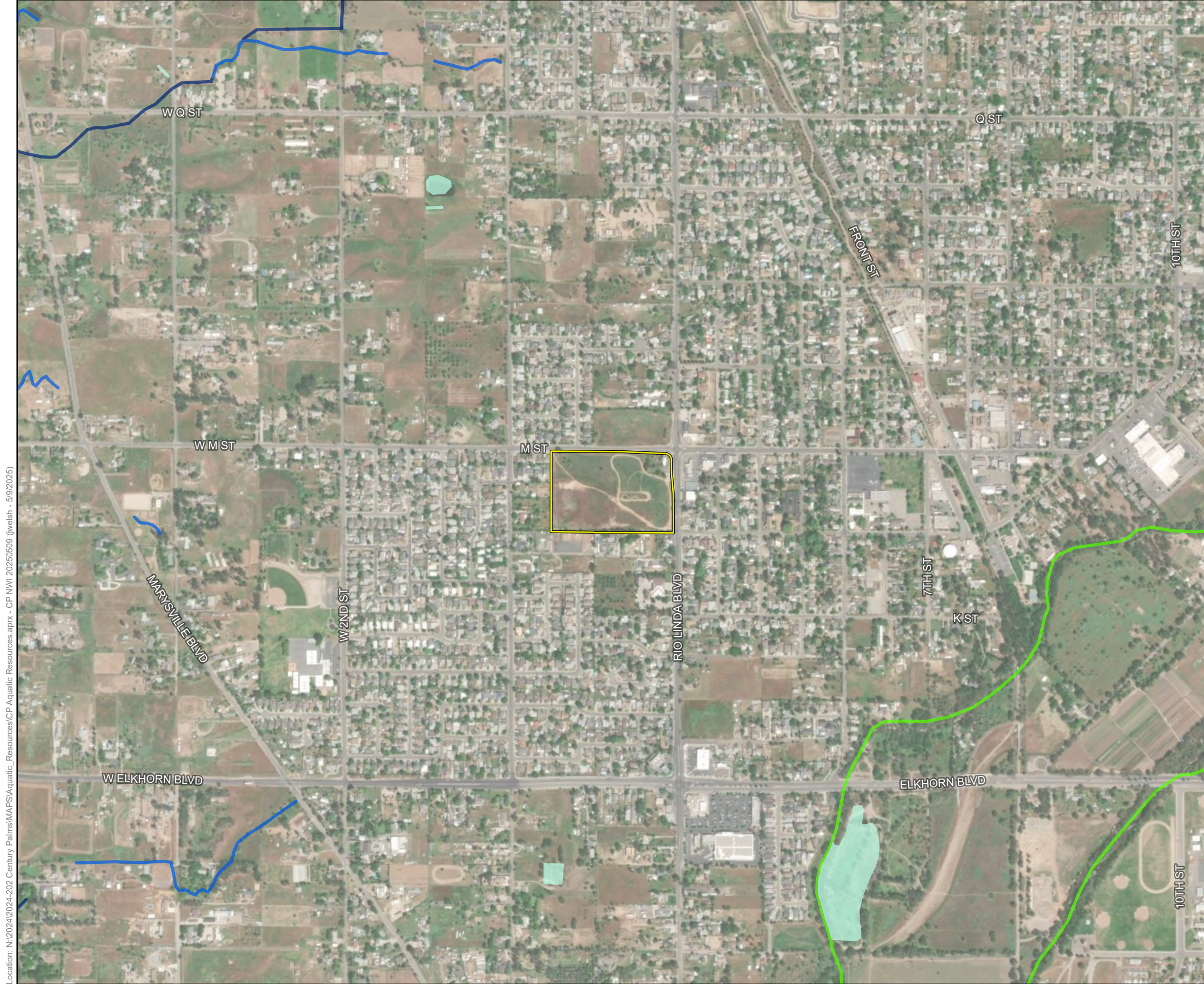
The Project Area consists entirely of annual grassland prevalent throughout the Sacramento Valley (Jepson eFlora 2025). The northeastern annual grassland in the Project Area is dominated by wild oats (*Avena* sp.), foxtail barley (*Hordeum murinum*), and hairy vetch (*Vicia villosa*). The southwestern portion of the Project Area is dominated by perennial ryegrass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum*), and curly dock (*Rumex crispus*).

A preliminary aquatic resources delineation was initially conducted in October 2024, outside the blooming season for most plant species. However, Mr. Wong conducted additional surveys on April 2025 to verify or modify aquatic resources delineated during the October survey. The April survey was conducted at an acceptable time of the year to observe wetland hydrology, and to observe the wetland plant species bloom or fruit.

The APT was run for the Study Area for the date the field delineation data were collected, October 30, 2024 and April 18, 2025. The APT demonstrated the October 2024 survey was conducted during normal conditions within the dry season of the year under a moderate regional drought. The April survey was during drier than normal conditions within the dry season of the year, and under a mild regional drought (USACE 2025; Appendix C).

4.1.1 National Wetlands Inventory

The U.S. Fish and Wildlife Service (USFWS) has established the National Wetlands Inventory (NWI) to conduct a nationwide inventory of U.S. wetlands to provide biologists and others with information on the distribution and type of wetlands to aid in conservation efforts (USFWS 2025, Figure 2). The USFWS's objective of mapping wetlands and deep-water habitats is to produce reconnaissance-level information on the location, type, and size of these resources. The maps are prepared from the analysis of high-altitude imagery. Wetlands are identified based on vegetation, visible hydrology, and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.



Map Contents

Study Area - 14.02 ac.

NWI Type

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Riverine

Sources: CBGCE, ESRI, Maxar (2022), Sacramento County, USFWS NWI (2024)

Figure 2. National Wetlands Inventory

2024-202 Century Palms

Location: N:\2024\2024-202 Century Palms\AQUATIC_RESOURCES\CP NWI 20250509 (jwelsh - 5/9/2025)

According to NWI, there have been no wetlands previously mapped onsite.

4.1.2 Soils

According to the Web Soil Survey (NRCS 2025a), two soil map units have been mapped within the Study Area (Figure 3):

- 211 – San Joaquin fine sandy loam, 0 to 3 percent slopes; and
- 212 – San Joaquin fine sandy loam, 3 to 8 percent slopes.

The San Joaquin series consists of moderately deep to a duripan, well and moderately well drained soils that formed in alluvium derived from mixed but dominantly granitic rock sources. They are on undulating low terraces with slopes of 0 to 9 percent (NRCS 2025a). These two soil units do not contain any hydric components (NRCS 2025b)

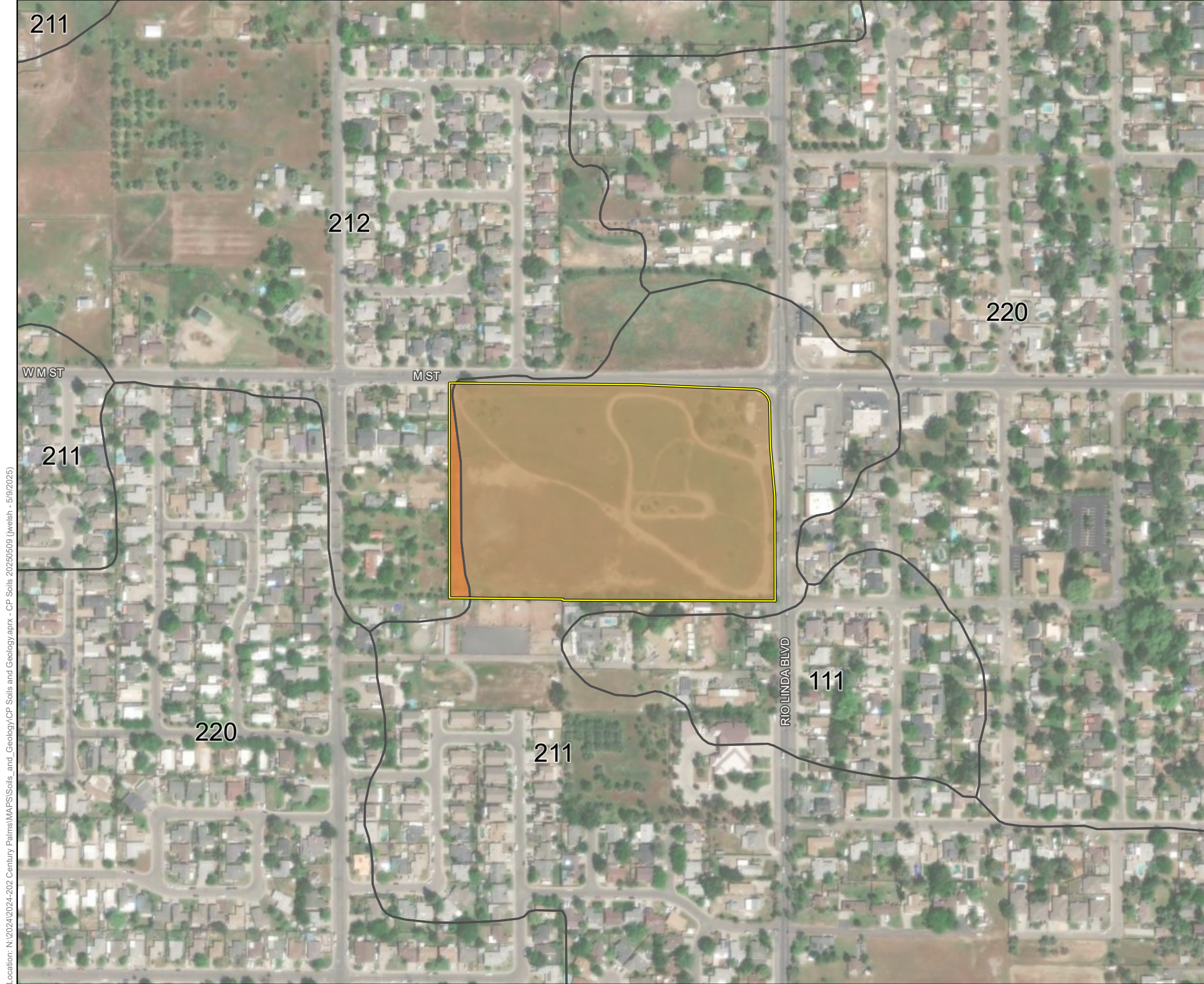
4.2 Aquatic Resources

A total of 0.135 acre of aquatic resources were mapped within the Study Area (Table 2). The wetland determination data forms are included in Appendix B, and a list of plant species observed within the Study Area is included as Appendix D. A discussion of the aquatic resources is presented below, and the aquatic resources delineation map is presented in Figure 4.

Table 2. Aquatic Resources	
Type	Acreage¹
Wetlands	
Seasonal Wetland	0.118
Vernal Pool	0.017
Total:	0.135

Notes: ¹Acreages represent a calculated estimation and are subject to modification following the U.S. Army Corps of Engineers verification process.

Representative site photographs are included as Appendix E. The USACE Operations and Maintenance Business Information Link Regulatory Module (ORM) aquatic resources table of potential Waters of the U.S. is included in Appendix F.



Map Contents

 Study Area - 14.02 ac.

NRCS Soil Type

-  211 - San Joaquin fine sandy loam, 0 to 3 percent slopes
-  212 - San Joaquin fine sandy loam, 3 to 8 percent slopes

Sources: CBGCE, ESRI, Maxar (2022), Sacramento County, USDA NRCS SSURGO (2019)



Location: N:\2024\2024-202 Century Palms\MAPS\Soils_and_Geology\CP Soils 20250509 (jwelsh - 5/9/2025)

Map Date: 5/9/2025



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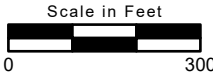


**Figure 3. Natural Resources
Conservation Service Soils**
2024-202 Century Palms



Map Contents

Study Area - 14.02 ac.

Reference Coordinate

Sample Point

◆ Upland

◆ Waters

Aquatic Resource Types - 0.135 ac.

Seasonal Wetland - 0.118 ac.

Vernal Pool - 0.017 ac.

Photo Source: Maxar (2022)
Boundary Source: CBGCE/Sacramento County
Delineator(s): Daniel Wong
Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet

Subject to U.S. Army Corps of Engineers verification. This exhibit depicts information and data produced in accordance with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 as well as the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program as amended on February 10, 2016, and conforms to Sacramento District specifications. However, feature boundaries have not been legally surveyed and may be subject to minor adjustments if more accurate locations are required.
The acreage value for each feature has been rounded to the nearest 1/1000 decimal. Summation of these values may not equal the total potential Waters of the U.S. acreage reported.

4.2.1 Wetlands

4.2.1.1 Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by nonnative annual and sometimes perennial hydrophytic species. Four seasonal wetlands were mapped within the Study Area, two of which were disturbed by off-road vehicle traffic. Sampling point 5 was collected within one of the disturbed seasonal wetlands. Observed dominant vegetation within seasonal wetlands include slender popcorn-flower (*Plagiobothrys stipitatus*; FACW), perennial ryegrass (*Festuca perennis*; FAC), and aquatic pygmy-weed (*Crassula aquatica*; OBL).

The soil matrix color within the seasonal wetland at sampling point 5 was 5YR 4/1 with 40 percent redox concentrations colored 5YR 4/4. Soils at sampling point 5 were determined to be hydric based on the presence of hydric soil indicator Depleted Matrix (F3). Wetland hydrology indicators observed within the seasonal wetlands included Surface Soil Cracks (B6), Biotic Crust (B12), and Aquatic Invertebrates (B13).

4.2.1.2 Vernal Pool

Vernal pools are topographic basins within a grassland community that are typically underlain with an impermeable or semi-permeable soil layer near the surface, such as a hardpan or duripan. Direct rainfall and surface runoff inundate the pools during the wet season. The pools typically remain inundated and/or saturated through spring and are dry by late spring through the following wet season. Two disturbed vernal pools were mapped within the Study Area along the dirt road. Sampling point 3 was taken in a vernal pool and dominant plant species identified included slender popcorn-flower (FACW), short woolly-marbles (*Psilocarphus brevissimus*; FACW), and interwoven navarretia (*Navarretia intertexta*; FACW).

Sampled soil at sampling point 3 has a matrix color of 5YR 4/1 with 40 percent redox concentrations in the matrix colored 5YR 3/4. Soils within the vernal pool were determined to be hydric based on the presence of field indicator Depleted Matrix (F3). Wetland hydrology indicators observed within the vernal pool included surface soil cracks (B6) and biotic crust (B6).

5.0 JURISDICTIONAL ASSESSMENT

Per Regulatory Guidance Letter 16-01, an applicant may request a PJD:

... in order to move ahead expeditiously to obtain a Corps permit authorization where the requestor determines that it is in his or her best interest to do so... even where initial indications are that the aquatic resources on a parcel may not be jurisdictional (USACE 2016b).

The following assessment is provided for general planning purposes and would require USACE verification to support permit applications. It is reasonable to assume the seasonal wetlands and vernal pools within the Study Area may not be considered Waters of the U.S. because they are ephemeral and/or isolated waterbodies with no continuous surface connection to a navigable water.

Regardless of CWA Section 404 jurisdictional status, all the aquatic features mapped onsite would likely be considered Waters of the State.

6.0 CONCLUSION

A total of 0.135 acre of aquatic resources have been mapped within the Study Area. This acreage represents a calculated estimation of the extent of aquatic resources within the Study Area and is subject to modification following USACE review and/or the verification process. The placement of dredge or fill material into Waters of the State that are not Waters of the U.S. would require issuance of Waste Discharge Requirements by the State or Regional Water Quality Control Board.

7.0 REFERENCES

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LIST OF APPENDICES

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Appendix G – Wetland Delineation Shape File (to be included with USACE submittal only)

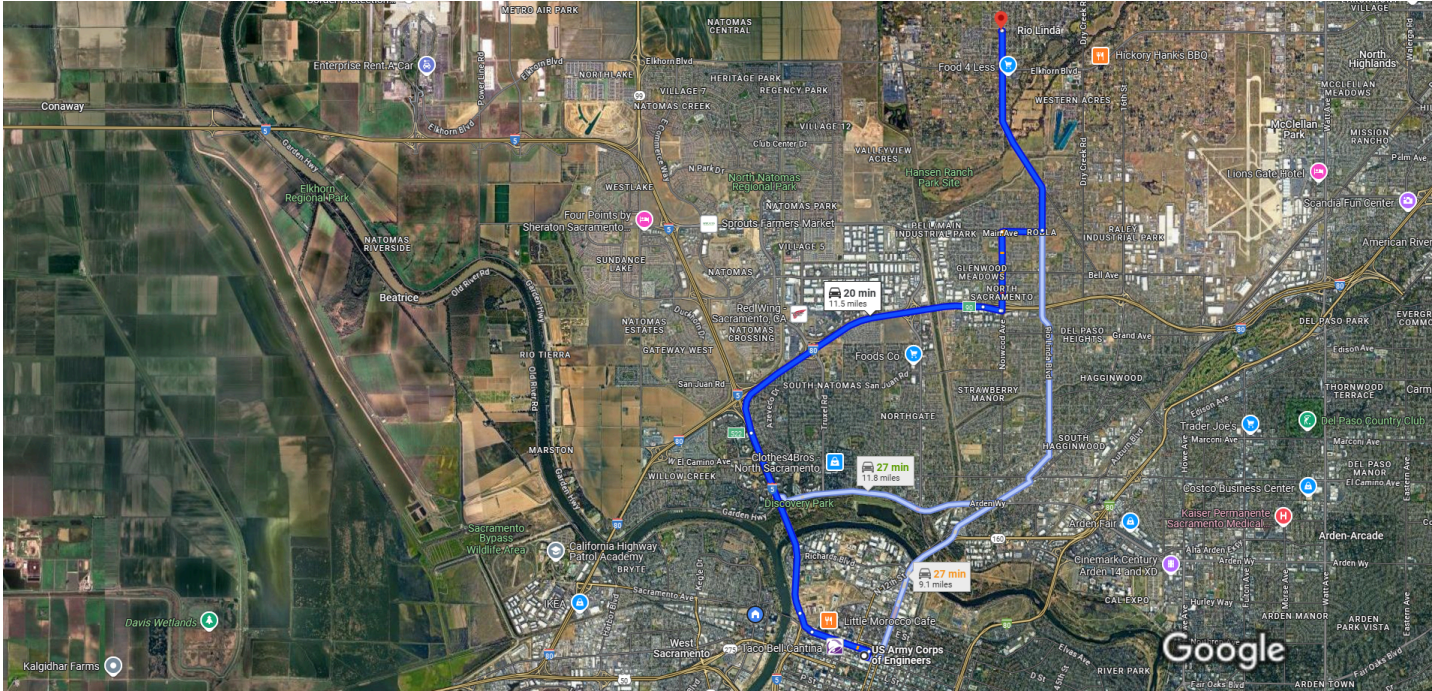
APPENDIX A

Driving Directions to Study Area

Google Maps

US Army Corps of Engineers, 1325 J St
Room 1640, Sacramento, CA 95814 to 6730-6780 Rio Linda Blvd, Rio Linda, CA 95673

Drive 11.5 miles, 20 min



Imagery ©2025 Airbus, Landsat / Copernicus, Maxar Technologies, Map data ©2025 Google 1 mi

US Army Corps of Engineers
1325 J St Room 1640, Sacramento, CA 95814

Get on I-5 N from I St

- ↑

1. Head east on J St toward 14th St

4 min (1.1 mi)
- ↶

2. Turn left onto 14th St

184 ft
- ↶

3. Turn left onto I St

417 ft
- ↗

4. Use the right 2 lanes to turn right onto the I-5 N/State Hwy 99 ramp to Redding/Yuba City

0.7 mi
- 0.3 mi

Continue on I-5 N. Take I-80 E to Norwood Ave. Take exit 90 from I-80 E

- ↗

5. Merge onto I-5 N

6 min (6.3 mi)
- ↘

6. Use the right 2 lanes to take exit 522 to merge onto I-80 E toward Reno

2.3 mi
- 3.7 mi

7. Take exit 90 for Norwood Ave

8. Use any lane to take the Norwood Avenue N ramp

131 ft

Continue on Norwood Ave to your destination in Rio Linda

9 min (4.1 mi)

9. Use any lane to turn left onto Norwood Ave

! Pass by Jack in the Box (on the right)

1.0 mi

10. Turn right onto Main Ave

0.5 mi

11. Turn left onto Rio Linda Blvd

2.6 mi

12. Turn left

52 ft

13. Turn left

! Destination will be on the right

56 ft

6730-6780 Rio Linda Blvd
Rio Linda, CA 95673

Wetland Determination Data Forms - Arid West Region

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Century Palms</u>	City/County: <u>Sacramento County</u>	Sampling Date: <u>10/30/2024</u>
Applicant/Owner: <u>D.R. HORTON CA2, Inc.</u>	State: <u>CA</u>	Sampling Point: <u>01</u>
Investigator(s): <u>D.Wong</u> Section, Township, Range: <u>Unsectioned Del Paso Land Grant</u>		
Landform (hillside, terrace, etc.): <u>Plain</u>	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>0-2</u>
Subregion (LRR): <u>LRR C</u>	Lat: <u>38.69032133</u>	Long: <u>-121.45746</u> Datum: <u>NAD83</u>
Soil Map Unit Name: <u>211 - San Joaquin fine sandy loam, 0 to 3 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No <u> </u> (If no, explain in Remarks.)		
Are Vegetation <u> </u> , Soil <u> </u> , or Hydrology <u> </u> significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No <u> </u>		
Are Vegetation <u> </u> , Soil <u> </u> , or Hydrology <u> </u> naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u> Hydric Soil Present? Yes <u> </u> No <u>X</u> Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Remarks: Within a slight depression within annual grassland, with different vegetation dominance	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
		=Total Cover			
Sapling/Shrub Stratum	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
		=Total Cover			
Herb Stratum	(Plot size: <u>10x10'</u>)				
1.	<u>Cichorium intybus</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
2.	<u>Centaurea solstitialis</u>	<u>5</u>	<u>No</u>	<u>UPL</u>	
3.	<u>Festuca perennis</u>	<u>70</u>	<u>Yes</u>	<u>FAC</u>	
4.	<u>Lactuca serriola</u>	<u>2</u>	<u>No</u>	<u>FACU</u>	
5.	<u>Avena barbata</u>	<u>2</u>	<u>No</u>	<u>UPL</u>	
6.					
7.					
8.					
		<u>99</u> =Total Cover			
Woody Vine Stratum	(Plot size: <u> </u>)				
1.					
2.					
		=Total Cover			
% Bare Ground in Herb Stratum <u>0</u>		% Cover of Biotic Crust <u> </u>			
Remarks:					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>70</u>	x 3 = <u>210</u>
FACU species <u>22</u>	x 4 = <u>88</u>
UPL species <u>7</u>	x 5 = <u>35</u>
Column Totals: <u>99</u> (A)	<u>333</u> (B)
Prevalence Index = B/A = <u>3.36</u>	

Hydrophytic Vegetation Indicators:

 Dominance Test is >50%

 Prevalence Index is ≤3.0¹

 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No X

SOIL

Sampling Point: 01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	5YR 4/4	100					Loamy/Clayey	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 1 cm Muck (A9) (LRR C)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ 2 cm Muck (A10) (LRR B)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)	☐ Red Parent Material (F21)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u>X</u>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)	

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Century Palms City/County: Sacramento County Sampling Date: 10/30/2024
Applicant/Owner: D.R. HORTON CA2, Inc. State: CA Sampling Point: 02
Investigator(s): D.Wong Section, Township, Range: Unsectioned Del Paso Land Grant
Landform (hillside, terrace, etc.): Plain Local relief (concave, convex, none): None Slope (%): 0-1
Subregion (LRR): LRR C Lat: 38.69055431 Long: -121.458863 Datum: NAD83
Soil Map Unit Name: 211 - San Joaquin fine sandy loam, 0 to 3 percent slopes NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present? Yes <u> </u> No <u>X</u>	
Wetland Hydrology Present? Yes <u> </u> No <u>X</u>	
Remarks: Represnetative upland grassland point	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> =Total Cover				Prevalence Index worksheet: <table><tr><td>Total % Cover of:</td><td>Multiply by:</td></tr><tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr><tr><td>FACW species <u>0</u></td><td>x 2 = <u>0</u></td></tr><tr><td>FAC species <u>0</u></td><td>x 3 = <u>0</u></td></tr><tr><td>FACU species <u>45</u></td><td>x 4 = <u>180</u></td></tr><tr><td>UPL species <u>55</u></td><td>x 5 = <u>275</u></td></tr><tr><td>Column Totals: <u>100</u> (A)</td><td><u>455</u> (B)</td></tr><tr><td colspan="2">Prevalence Index = B/A = <u>4.55</u></td></tr></table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>45</u>	x 4 = <u>180</u>	UPL species <u>55</u>	x 5 = <u>275</u>	Column Totals: <u>100</u> (A)	<u>455</u> (B)	Prevalence Index = B/A = <u>4.55</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>45</u>	x 4 = <u>180</u>																			
UPL species <u>55</u>	x 5 = <u>275</u>																			
Column Totals: <u>100</u> (A)	<u>455</u> (B)																			
Prevalence Index = B/A = <u>4.55</u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>																				
2. <u> </u>																				
3. <u> </u>																				
4. <u> </u>																				
5. <u> </u>																				
<u> </u> =Total Cover																				
Herb Stratum (Plot size: <u>10x10'</u>)				Hydrophytic Vegetation Indicators: <u> </u> Dominance Test is >50% <u> </u> Prevalence Index is ≤3.0 ¹ <u> </u> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Bromus diandrus</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Avena barbata</u>	<u>15</u>	<u>Yes</u>	<u>UPL</u>																	
3. <u>Vicia sativa</u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u>Bromus hordeaceus</u>	<u>25</u>	<u>Yes</u>	<u>FACU</u>																	
5. <u>Madia elegans</u>	<u>10</u>	<u>No</u>	<u>UPL</u>																	
6. <u>Brodiaea elegans</u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
7. <u>Dichelostemma multiflorum</u>	<u>5</u>	<u>No</u>	<u>UPL</u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u>100</u> =Total Cover																				
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>																				
2. <u> </u>																				
<u> </u> =Total Cover																				
% Bare Ground in Herb Stratum <u> </u> % Cover of Biotic Crust <u> </u>																				
Remarks:																				

SOIL

Sampling Point: 02

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☒ Depth (inches): (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: <u>Century Palms</u>	City/County: <u>Sacramento County</u>	Sampling Date: <u>10/30/2024</u>
Applicant/Owner: <u>D.R. HORTON CA2, Inc.</u>	State: <u>CA</u>	Sampling Point: <u>03</u>
Investigator(s): <u>D.Wong</u> Section, Township, Range: <u>Unsectioned Del Paso Land Grant</u>		
Landform (hillside, terrace, etc.): <u>Plain</u>	Local relief (concave, convex, none): _____	Slope (%): <u>0</u>
Subregion (LRR): <u>LRR C</u>	Lat: <u>38.69027293</u>	Long: <u>-121.4593953</u> Datum: <u>NAD83</u>
Soil Map Unit Name: <u>211 - San Joaquin fine sandy loam, 0 to 3 percent slopes</u>		NWI classification: <u>N/A</u>
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>X</u> No _____ (If no, explain in Remarks.)		
Are Vegetation _____, Soil <u>X</u> , or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes <u>X</u> No _____		
Are Vegetation _____, Soil <u>X</u> , or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Within depression along dirt road significantly disturbed from erosion. Shallow soil profile due to hardpan.	

VEGETATION – Use scientific names of plants.

<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Tree Stratum</th> <th style="text-align: left;">(Plot size: _____)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">=Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Sapling/Shrub Stratum</th> <th style="text-align: left;">(Plot size: _____)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>3.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">=Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Herb Stratum</th> <th style="text-align: left;">(Plot size: <u>5x5'</u>)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td><u>Navarretia intertexta</u></td><td style="text-align: center;">25</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>2.</td><td><u>Juncus bufonius</u></td><td style="text-align: center;">25</td><td style="text-align: center;">Yes</td><td style="text-align: center;">FACW</td></tr> <tr><td>3.</td><td><u>Alopecurus saccatus</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">OBL</td></tr> <tr><td>4.</td><td><u>Bromus hordeaceus</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">FACU</td></tr> <tr><td>5.</td><td><u>Holocarpha virgata</u></td><td style="text-align: center;">5</td><td style="text-align: center;">No</td><td style="text-align: center;">UPL</td></tr> <tr><td>6.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td style="text-align: center;">65</td> <td colspan="2" style="text-align: right;">=Total Cover</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Woody Vine Stratum</th> <th style="text-align: left;">(Plot size: _____)</th> <th style="text-align: center;">Absolute % Cover</th> <th style="text-align: center;">Dominant Species?</th> <th style="text-align: center;">Indicator Status</th> </tr> <tr><td>1.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2.</td><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td colspan="2"></td> <td colspan="3" style="text-align: right;">=Total Cover</td> </tr> </table> % Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust <u>20</u>	Tree Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	1.	_____	_____	_____	_____	2.	_____	_____	_____	_____	3.	_____	_____	_____	_____	4.	_____	_____	_____	_____			=Total Cover			Sapling/Shrub Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	1.	_____	_____	_____	_____	2.	_____	_____	_____	_____	3.	_____	_____	_____	_____	4.	_____	_____	_____	_____	5.	_____	_____	_____	_____			=Total Cover			Herb Stratum	(Plot size: <u>5x5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	1.	<u>Navarretia intertexta</u>	25	Yes	FACW	2.	<u>Juncus bufonius</u>	25	Yes	FACW	3.	<u>Alopecurus saccatus</u>	5	No	OBL	4.	<u>Bromus hordeaceus</u>	5	No	FACU	5.	<u>Holocarpha virgata</u>	5	No	UPL	6.	_____	_____	_____	_____	7.	_____	_____	_____	_____	8.	_____	_____	_____	_____			65	=Total Cover		Woody Vine Stratum	(Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	1.	_____	_____	_____	_____	2.	_____	_____	_____	_____			=Total Cover			Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B) Prevalence Index worksheet: <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">Total % Cover of:</th> <th style="text-align: left;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = _____</td> </tr> </table> Hydrophytic Vegetation Indicators: ☒ Dominance Test is >50% ☐ Prevalence Index is ≤3.0¹ ☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
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SOIL

Sampling Point: 03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	5YR 4/1	60	5YR 3/4	40	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 1 cm Muck (A9) (LRR C)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ 2 cm Muck (A10) (LRR B)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Stratified Layers (A5) (LRR C)	☒ Depleted Matrix (F3)	☐ Red Parent Material (F21)
☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present?	
Type: <u>Hardpan</u>		Yes ☒	No ☐
Depth (inches): <u>3</u>			

Remarks:
Very shallow profile due to disturbance or erosion exposing hardpan

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☒ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☒ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☒ FAC-Neutral Test (D5)	

Field Observations:				Wetland Hydrology Present?	
Surface Water Present?	Yes ☐	No ☒	Depth (inches): <u> </u>	Yes ☒	No ☐
Water Table Present?	Yes ☐	No ☒	Depth (inches): <u> </u>		
Saturation Present?	Yes ☐	No ☒	Depth (inches): <u> </u>		
(includes capillary fringe)					

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

SOIL

Sampling Point: 04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	5YR 4/4	60	5YR 4/1	40	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 1 cm Muck (A9) (LRR C)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ 2 cm Muck (A10) (LRR B)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
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☐ 1 cm Muck (A9) (LRR D)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):		Hydric Soil Present?	
Type: <u>Hardpan</u>		Yes ☐	No ☒
Depth (inches): <u>8</u>			

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)	

Field Observations:				Wetland Hydrology Present?	
Surface Water Present?	Yes ☐	No ☒	Depth (inches): <u> </u>	Yes ☐	No ☒
Water Table Present?	Yes ☐	No ☒	Depth (inches): <u> </u>		
Saturation Present?	Yes ☐	No ☒	Depth (inches): <u> </u>		
(includes capillary fringe)					

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R	OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)
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Project/Site: Century Palms City/County: Sacramento County Sampling Date: 10/30/2024

Applicant/Owner: D.R. HORTON CA2, Inc. State: CA Sampling Point: 05

Investigator(s): D.Wong Section, Township, Range: Unsectioned Del Paso Land Grant

Landform (hillside, terrace, etc.): Plain Local relief (concave, convex, none): Concave Slope (%): 0-3

Subregion (LRR): LRR C Lat: 38.69045167 Long: -121.4599613 Datum: NAD83

Soil Map Unit Name: 211 - San Joaquin fine sandy loam, 0 to 3 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil X, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u> Hydric Soil Present? Yes <u>X</u> No <u> </u> Wetland Hydrology Present? Yes <u>X</u> No <u> </u>	Is the Sampled Area within a Wetland? Yes <u>X</u> No <u> </u>
Remarks: Disturbed seasonal wetland from erosion; shallow soil profile	

VEGETATION – Use scientific names of plants.

Tree Stratum	(Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.					
2.					
3.					
4.					
					=Total Cover
Sapling/Shrub Stratum	(Plot size: <u> </u>)				
1.					
2.					
3.					
4.					
5.					
					=Total Cover
Herb Stratum	(Plot size: <u>5x5'</u>)				
1.	<u>Festuca perennis</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
2.	<u>Deschampsia danthonioides</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	
3.	<u>Hordeum marinum</u>	<u>2</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Plagiobothrys stipitatus</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	
5.	<u>Epilobium campestre</u>	<u>2</u>	<u>No</u>	<u>OBL</u>	
6.	<u>Lythrum hyssopifolium</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>	
7.	<u>Juncus bufonius</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	
8.					
					<u>34</u> =Total Cover
Woody Vine Stratum	(Plot size: <u> </u>)				
1.					
2.					
					=Total Cover
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust <u>50</u>			
Remarks:					

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u> </u>	x 1 = <u> </u>
FACW species <u> </u>	x 2 = <u> </u>
FAC species <u> </u>	x 3 = <u> </u>
FACU species <u> </u>	x 4 = <u> </u>
UPL species <u> </u>	x 5 = <u> </u>
Column Totals: <u> </u> (A)	<u> </u> (B)
Prevalence Index = B/A = <u> </u>	

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

 Prevalence Index is ≤3.0¹

 Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

SOIL

Sampling Point: 05

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☒ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☒ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
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☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☒ FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	
Water Table Present?	Yes ☐ No ☒	Depth (inches):	
Saturation Present?	Yes ☐ No ☒	Depth (inches):	
(includes capillary fringe)		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

SOIL

Sampling Point: 06

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☐ Depth (inches): (includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

OMB Control #: 0710-0024, Exp: 11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Within a lower elevational portion of the survey area, with greater cover of FAC/FACW plants, and lesser level of disturbance than sample point 06. Shallow soil profile due to hardpan. No hydrology indicators.

<u>Tree Stratum</u>	(Plot size: _____)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>
1. _____		_____	_____	_____
2. _____		_____	_____	_____
3. _____		_____	_____	_____
4. _____		_____	_____	_____
		_____ = Total Cover		
<u>Sapling/Shrub Stratum</u>	(Plot size: _____)			
1. _____		_____	_____	_____
2. _____		_____	_____	_____
3. _____		_____	_____	_____
4. _____		_____	_____	_____
5. _____		_____	_____	_____
		_____ = Total Cover		
<u>Herb Stratum</u>	(Plot size: <u>10x10'</u>)			
1. <i>Festuca perennis</i>		80	Yes	FAC
2. <i>Rumex crispus</i>		20	Yes	FAC
3. _____		_____	_____	_____
4. _____		_____	_____	_____
5. _____		_____	_____	_____
6. _____		_____	_____	_____
7. _____		_____	_____	_____
8. _____		_____	_____	_____
		100 = Total Cover		
<u>Woody Vine Stratum</u>	(Plot size: _____)			
1. _____		_____	_____	_____
2. _____		_____	_____	_____
		_____ = Total Cover		
<u>% Bare Ground in Herb Stratum</u>		<u>% Cover of Biotic Crust</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ 2 (A)

Total Number of Dominant Species Across All Strata: _____ 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)
Prevalence Index = B/A = _____	

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

_____ Prevalence Index is ≤3.0¹

_____ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation

Present?	Yes	X	No

Remarks:

SOIL

Sampling Point: 07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	5YR 3/1	95	5YR 4/4	5	C	M	Loamy/Clayey	Distinct redox concentrations

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	☐ Sandy Redox (S5)	☐ 1 cm Muck (A9) (LRR C)
☐ Histic Epipedon (A2)	☐ Stripped Matrix (S6)	☐ 2 cm Muck (A10) (LRR B)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1)	☐ Iron-Manganese Masses (F12) (LRR D)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Reduced Vertic (F18)
☐ Stratified Layers (A5) (LRR C)	☐ Depleted Matrix (F3)	☐ Red Parent Material (F21)
☐ 1 cm Muck (A9) (LRR D)	☒ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (F22)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Other (Explain in Remarks)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Hardpan</u> Depth (inches): <u>8</u>	Hydric Soil Present? Yes ☒ No ☐
Remarks:	

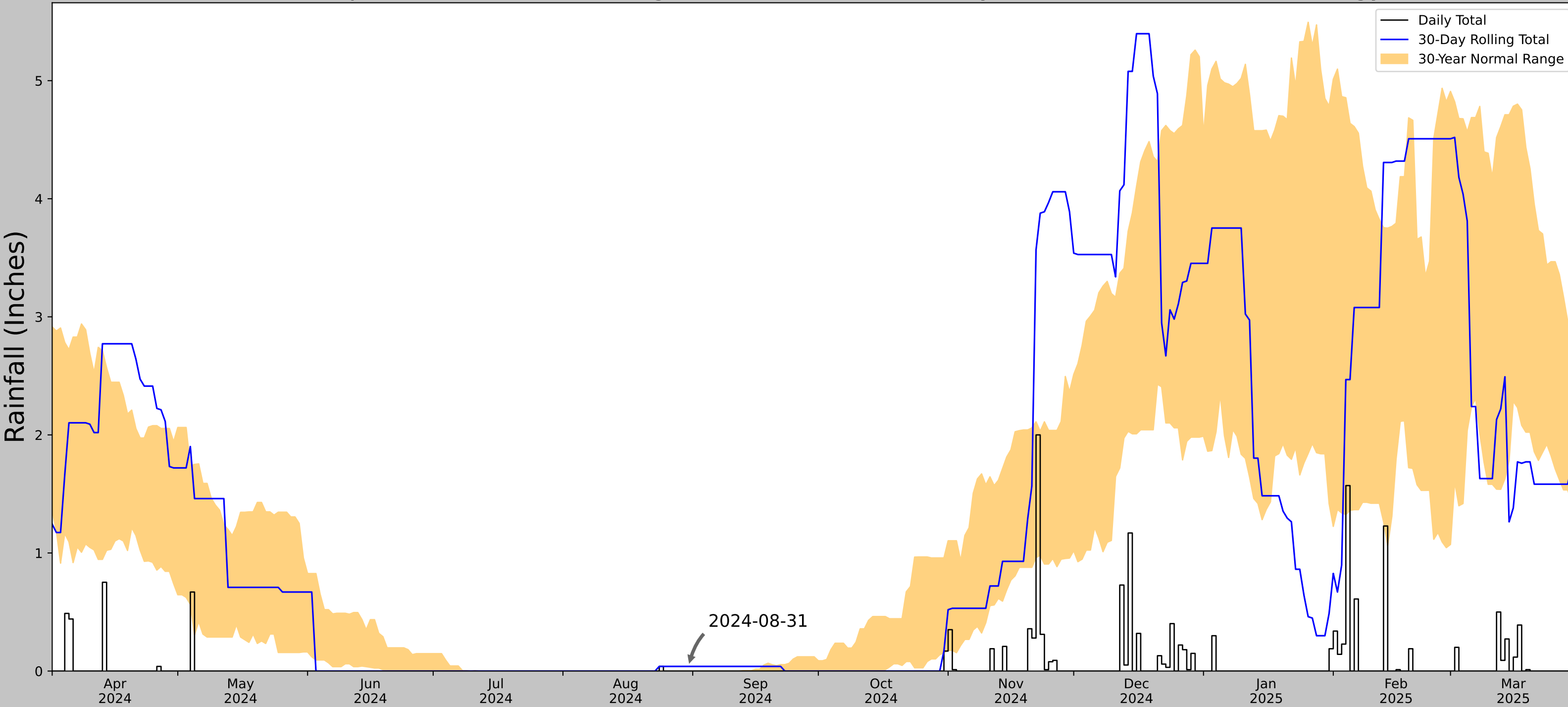
HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ Surface Water (A1)	☐ Salt Crust (B11)	☐ Water Marks (B1) (Riverine)	☐ Sediment Deposits (B2) (Riverine) ☐ Drift Deposits (B3) (Riverine) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5)
☐ High Water Table (A2)	☐ Biotic Crust (B12)	☐ Sediment Deposits (B2) (Riverine)	
☐ Saturation (A3)	☐ Aquatic Invertebrates (B13)	☐ Drift Deposits (B3) (Riverine)	
☐ Water Marks (B1) (Nonriverine)	☐ Hydrogen Sulfide Odor (C1)	☐ Drainage Patterns (B10)	
☐ Sediment Deposits (B2) (Nonriverine)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Dry-Season Water Table (C2)	
☐ Drift Deposits (B3) (Nonriverine)	☐ Presence of Reduced Iron (C4)	☐ Crayfish Burrows (C8)	
☐ Surface Soil Cracks (B6)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Thin Muck Surface (C7)	☐ Shallow Aquitard (D3)	
☐ Water-Stained Leaves (B9)	☐ Other (Explain in Remarks)	☐ FAC-Neutral Test (D5)	

Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): <u> </u> Water Table Present? Yes ☐ No ☒ Depth (inches): <u> </u> Saturation Present? Yes ☐ No ☒ Depth (inches): <u> </u> (includes capillary fringe)	Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Antecedent Precipitation Tool

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.690248, -121.458671
Observation Date	2024-10-30
Elevation (ft)	50.429
Drought Index (PDSI)	Moderate drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-10-30	0.138189	0.958268	0.0	Dry	1	3	3
2024-09-30	0.0	0.120866	0.0	Normal	2	2	4
2024-08-31	0.0	0.0	0.03937	Wet	3	1	3
Result							Normal Conditions - 10



**US Army Corps
of Engineers®**



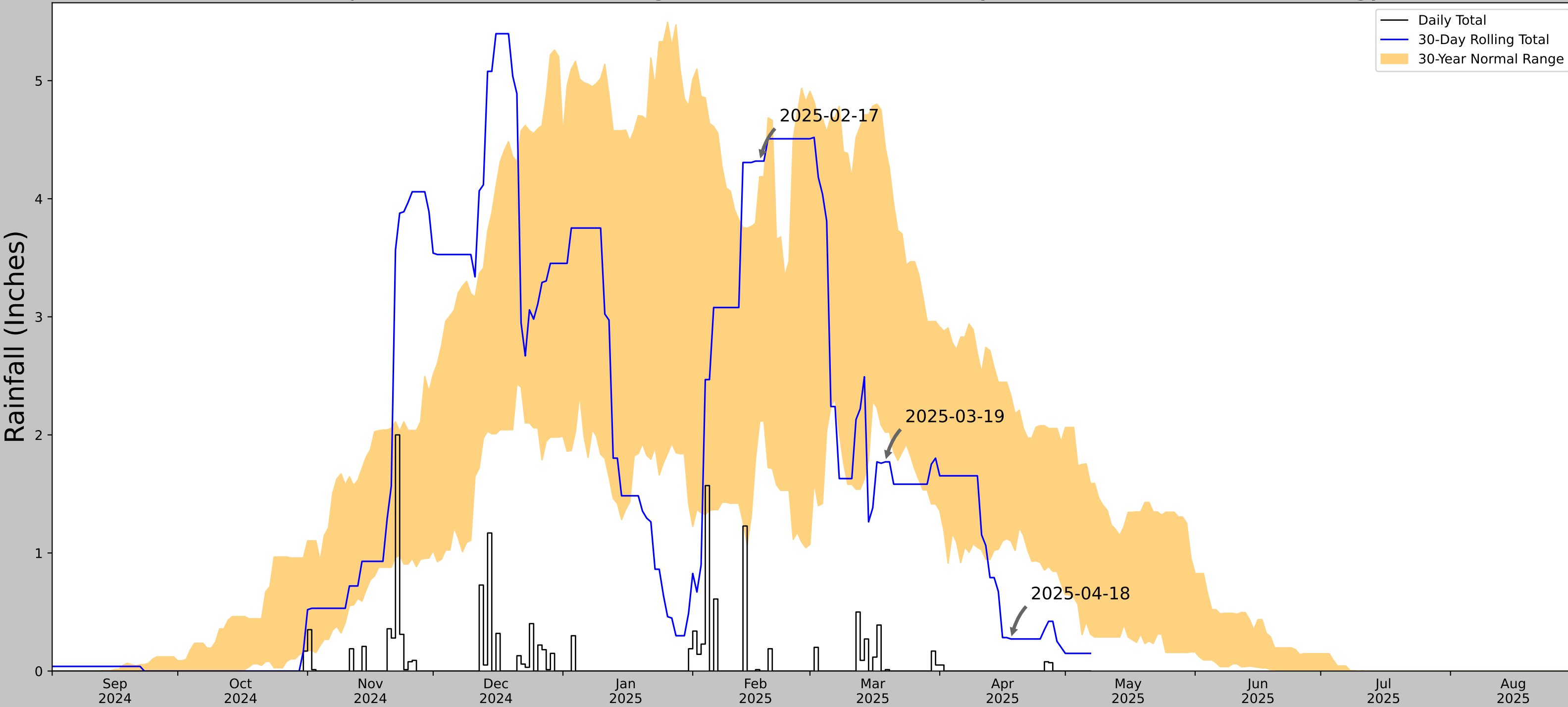
ERDC
ENGINEER RESEARCH & DEVELOPMENT CENTER

Figures and tables made by the
Antecedent Precipitation Tool
Version 2.0

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SACRAMENTO 5 ESE	38.5553, -121.4183	38.058	9.575	12.371	4.427	11353	90

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	38.690248, -121.458671
Observation Date	2025-04-18
Elevation (ft)	50.429
Drought Index (PDSI)	Mild drought
WebWIMP H ₂ O Balance	Dry Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-04-18	1.101575	2.334252	0.271654	Dry	1	3	3
2025-03-19	2.022835	4.434252	1.771654	Dry	1	2	2
2025-02-17	2.114961	4.187008	4.318898	Wet	3	1	3
Result							Drier than Normal - 8



**US Army Corps
of Engineers®**

Figures and tables made by the
Antecedent Precipitation Tool
Version 2.0

Developed by:
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Development Center



ERDC
ENGINEER RESEARCH & DEVELOPMENT CENTER

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
SACRAMENTO 5 ESE	38.5553, -121.4183	38.058	9.575	12.371	4.427	11353	90

Plant Species Observed Onsite

Appendix D – Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME	Indicator Status
ALISMATACEAE	WATER-PLANTAIN FAMILY	–
<i>Damasonium californicum</i>	California damasonium	OBL
AMARANTHACEAE	AMARANTH FAMILY	–
<i>Amaranthus albus*</i>	Pigweed amaranth	FACU
APIACEAE	CARROT FAMILY	–
<i>Eryngium castrense</i>	Great Valley button-celery	OBL
APOCYNACEAE	DOGBANE FAMILY	
<i>Asclepias eriocarpa</i>	Woollypod milkweed	N/L
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	FAC
ASTERACEAE	SUNFLOWER FAMILY	–
<i>Achyrrachaena mollis</i>	Blow wives	FAC
<i>Baccharis pilularis</i>	Coyote brush	N/L
<i>Centaurea solstitialis*</i>	Yellow star-thistle	N/L
<i>Centromadia fitchii</i>	Fitch's spikeweed	FACU
<i>Cichorium intybus*</i>	Chicory	FACU
<i>Dittrichia graveolens*</i>	Stinkwort	N/L
<i>Grindelia camporum</i>	Common gumplant	FACW
<i>Holocarpha virgata</i> ssp. <i>virgata</i>	Narrow tarplant	N/L
<i>Hypochaeris radicata*</i>	Rough cat's-ear	FACU
<i>Lactuca salina*</i>	Narrow leaved wild lettuce	UPL
<i>Lactuca serriola*</i>	Prickly lettuce	FACU
<i>Lasthenia glaberrima</i>	Smooth goldfields	OBL
<i>Leontodon saxatilis*</i>	Hairy hawkbit	FACU
<i>Logfia gallica*</i>	Narrowleaf cotton rose	N/L
<i>Madia elegans</i>	Common madia	N/L
<i>Matricaria discoidea</i>	Pineapple weed	FACU
<i>Psilocarphus brevissimus</i> var. <i>brevissimus</i>	Short woolly-marbles	FACW
<i>Psilocarphus oregonus</i>	Oregon woolly-heads	OBL
<i>Psilocarphus tenellus</i>	Slender woolly-heads	OBL

An asterisk (*) indicates a non-native species.

Appendix D – Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME	Indicator Status
<i>Wyethia angustifolia</i>	Narrow leaved mule ears	FACU
BORAGINACEAE	BORAGE FAMILY	–
<i>Amsinckia menziesii</i>	Small flowered fiddleneck	N/L
BORAGINACEAE	BORAGE FAMILY	–
<i>Plagiobothrys stipitatus</i>	Slender popcorn-flower	FACW
BRASSICACEAE	MUSTARD FAMILY	–
<i>Hirschfeldia incana</i> *	Shortpod mustard	N/L
<i>Lepidium nitidum</i>	Shining peppergrass	FAC
<i>Raphanus sativus</i> *	Purple wild radish	N/L
CARYOPHYLLACEAE	PINK FAMILY	–
<i>Spergula arvensis</i> *	Corn spurry	N/L
<i>Stellaria media</i> *	Common chickweed	FACU
CONVOLVULACEAE	MORNING-GLORY FAMILY	–
<i>Convolvulus arvensis</i> *	Field bindweed	N/L
CRASSULACEAE	STONECROP FAMILY	–
<i>Crassula aquatica</i>	Aquatic pygmy-weed	OBL
CYPERACEAE	SEDGE FAMILY	–
<i>Eleocharis macrostachya</i>	Creeping spikerush	OBL
EUPHORBIACEAE	SPURGE FAMILY	–
<i>Croton setiger</i>	Turkey mullein	N/L
FABACEAE	LEGUME FAMILY	–
<i>Acmispon americanus</i> var. <i>americanus</i>	Spanish clover	UPL
<i>Acmispon brachycarpus</i>	Short-podded lotus	N/L
<i>Acmispon</i> sp.	Lotus	–
<i>Lupinus bicolor</i>	Bicolored lupine	N/L
<i>Lupinus nanus</i>	Sky lupine	N/L
<i>Robinia pseudoacacia</i> *	Black locust (cultivated)	FACU
<i>Trifolium hirtum</i> *	Rose clover	N/L

An asterisk (*) indicates a non-native species.

Appendix D – Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME	Indicator Status
<i>Trifolium repens</i> *	White clover	FACU
<i>Trifolium</i> sp.	Clover	–
<i>Vicia sativa</i> *	Spring vetch	FACU
<i>Vicia villosa</i> *	Hairy vetch	N/L
FAGACEAE	OAK FAMILY	–
<i>Quercus lobata</i>	Valley oak	FACU
GENTIANACEAE	GENTIAN FAMILY	–
<i>Cicendia quadrangularis</i>	Oregon timwort	FAC
GERANIACEAE	GERANIUM FAMILY	–
<i>Erodium brachycarpum</i> *	Short fruited filaree	N/L
<i>Erodium cicutarium</i> *	Red-stemmed filaree	N/L
<i>Erodium moschatum</i> *	White-stemmed filaree	N/L
JUNCACEAE	RUSH FAMILY	–
<i>Juncus bufonius</i>	Toad rush	FACW
<i>Juncus capitatus</i> *	Capped rush	FACU
<i>Juncus effusus</i>	Soft rush	FACW
JUNCAGINACEAE	ARROW-GRASS FAMILY	–
<i>Triglochin scilloides</i>	Flowering quillwort	OBL
LAMIACEAE	MINT FAMILY	–
<i>Trichostema lanceolatum</i>	Vinegar weed	FACU
LYTHRACEAE	LOOSESTRIFE FAMILY	–
<i>Lythrum hyssopifolia</i> *	Hyssop loosestrife	OBL
ONAGRACEAE	EVENING PRIMROSE FAMILY	–
<i>Epilobium brachycarpum</i>	Panicled willow-herb	N/L
OROBANCHACEAE	BROOMRAPE FAMILY	–
<i>Castilleja attenuata</i>	Narrow leaved owl's clover	N/L
<i>Triphysaria eriantha</i> ssp. <i>eriantha</i>	Butter 'n' eggs	N/L

An asterisk (*) indicates a non-native species.

Appendix D – Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME	Indicator Status
PAPAVERACEAE	POPPY FAMILY	–
<i>Eschscholzia californica</i>	California poppy	N/L
PLANTAGINACEAE	PLANTAIN FAMILY	–
<i>Gratiola ebracteata</i>	Bractless hedge hyssop	OBL
<i>Plantago coronopus</i> *	Cut-leaf plantain	FAC
<i>Plantago erecta</i>	California plantain	N/L
<i>Plantago lanceolata</i> *	English plantain	FAC
<i>Plantago major</i> *	Broad-leaf plantain	FAC
POACEAE	GRASS FAMILY	–
<i>Avena fatua</i> *	Wild oat	N/L
<i>Avena sp.</i> *	Wild oat	–
POACEAE	GRASS FAMILY	–
<i>Briza minor</i> *	Little quaking grass	FAC
<i>Bromus diandrus</i> *	Ripgut brome	N/L
<i>Bromus hordeaceus</i> *	Soft brome	FACU
<i>Cynodon dactylon</i> *	Bermuda grass	FACU
<i>Elymus caput-medusae</i> *	Medusahead grass	N/L
<i>Festuca myuros</i> *	Rat-tail fescue	FACU
<i>Festuca perennis</i> *	Perennial ryegrass	FAC
<i>Hordeum marinum ssp. gussoneanum</i> *	Mediterranean barley	FAC
<i>Hordeum murinum ssp. glaucum</i> *	Foxtail barley	FACU
<i>Poa annua</i> *	Annual bluegrass	FAC
POLEMONIACEAE	PHLOX FAMILY	–
<i>Navarretia intertexta</i>	Interwoven navarretia	FACW
POLYGONACEAE	BUCKWHEAT FAMILY	–
<i>Polygonum aviculare</i> *	Prostrate knotweed	FAC
<i>Rumex crispus</i> *	Curly dock	FAC
RANUNCULACEAE	BUTTERCUP FAMILY	–
<i>Ranunculus bonariensis var. trisepalus</i>	Carter's buttercup	OBL

An asterisk (*) indicates a non-native species.

Appendix D – Plant Species Observed Onsite

SCIENTIFIC NAME	COMMON NAME	Indicator Status
ROSACEAE	ROSE FAMILY	–
<i>Prunus</i> sp.*	Prunus (cultivated)	–
RUBIACEAE	MADDER FAMILY	–
<i>Galium aparine</i>	Common bedstraw	FACU
SALICACEAE	WILLOW FAMILY	–
<i>Salix laevigata</i>	Red willow	FACW
SIMAROUBACEAE	QUASSIA FAMILY	–
<i>Ailanthus altissima</i> *	Tree-of-heaven	FACU
THEMIDACEAE	BRODIAEA FAMILY	–
<i>Brodiaea elegans</i>	Harvest brodiaea	FACU
<i>Dichelostemma multiflorum</i>	Wild hyacinth	N/L
<i>Triteleia hyacinthina</i>	Hyacinth brodiaea	FAC
<i>Triteleia laxa</i>	Ithuriel's spear	N/L

An asterisk (*) indicates a non-native species.

APPENDIX E

Representative Site Photographs



Photo 1. Sample Point 1, view south, October 30, 2024.



Photo 2. Sample Point 2, view southwest, October 30, 2024.



Photo 3. Sample Point 3, view south, October 30, 2024.



Photo 4. Sample Point 5, view east, October 30, 2024.





Photo 5. Seasonal Wetland (SW-3), view north, April 18, 2025.



Photo 6. Representative photo of upland vegetation, view west, April 18, 2025.



Photo 7. Seasonal Wetland (SW-1), view west, April 18, 2025.



Photo 8. Representative photo of disturbance at Vernal Pool (VP-3), view west, April 18, 2025.

APPENDIX F**USACE ORM Aquatic Resources Table**

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
SW-1	CALIFORNIA	PUB		Area	0.02576509	ACRE	DELIN.CONC	38.69044650	-121.45998706	
SW-2	CALIFORNIA	PUB		Area	0.00726971	ACRE	DELIN.CONC	38.69034131	-121.45988337	
SW-3	CALIFORNIA	PUB		Area	0.08241679	ACRE	DELIN.CONC	38.68999066	-121.45981879	
SW-4	CALIFORNIA	PUB		Area	0.00215606	ACRE	DELIN.CONC	38.69022455	-121.45935189	
VP-1	CALIFORNIA	PUB		Area	0.00747925	ACRE	DELIN.CONC	38.69028422	-121.45942106	
VP-2	CALIFORNIA	PUB		Area	0.01000786	ACRE	DELIN.CONC	38.69007816	-121.45863215	

APPENDIX G

Wetland Delineation Shape File (to be included with USACE submittal only)