

AQUATIC RESOURCES DELINEATION



Lost Isle Resort Project

San Joaquin County, CA | October 2025

Prepared For:

Lost Isle Resort, LLC
P.O. Box 929
Walnut Grove, CA 95690



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LIST OF ATTACHMENTS

Attachment A: USACE Minimum Standards Checklist
Attachment B: Property Access Form
Attachment C: Data Sheets
Attachment D: List of Plants Observed
Attachment E: Site Photographs

Executive Summary

Acorn Environmental conducted a delineation of potential waters of the United States and waters of the State on the 10.3-acre Lost Isle Resort property located on Acker Island along the San Joaquin River in San Joaquin County, California (Study Area). The delineation was conducted on July 1, 2025 and delineation methods were conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual as amended by the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Aquatic features were identified and mapped within the Study Area using GPS technology and were subjected to the three parameter test, the Kennedy and Scalia tests, and State of California agency criteria. Two of the resources within the Study Area appear to meet the definition of a water of the U.S. and therefore are likely subject to USACE jurisdiction. One resource does not meet the definition and therefore are not likely subject to USACE jurisdiction. These are discussed in further detail below.

The following aquatic resources within the Study Area were determined to be potentially subject to USACE jurisdiction:

Riverine: The San Joaquin River surrounds the Study Area and is considered a water of the U.S.

Freshwater Emergent Wetland(s): The Freshwater Emergent Wetland/Freshwater Forested/Shrub Wetland are located within the northern and southern positions of the Study Area, these connect to the San Joaquin River and are therefore considered a water of the U.S.

The following aquatic resources within the Study Area were determined to be potentially subject to State jurisdiction:

Riverine: The San Joaquin River surrounds the Study Area and is a navigable water within the State. It meets the criteria as a “Waters of the State” and would be subject to State jurisdiction.

Freshwater Emergent Wetlands: Freshwater Emergent Wetlands are located within the northern and southern positions of the Study Area and meet the criteria as a “Waters of the State”. These would be subject to State jurisdiction.

Seasonal Wetlands: The seasonal wetlands located in the central portion of the Study Area are likely considered waters of the State. They would therefore be potentially subject to State jurisdiction.

It is noted that riparian vegetation is found intermixed within the wetlands adjacent to the riverine and wetland habitats. The remaining portions of the Study Area contain upland features. This delineation is subject to verification by the USACE and State agencies. The information contained herein is preliminary until the appropriate agency provides a written determination of the boundaries of its jurisdiction and verifies the delineation map.

Section 1 | Introduction

1.1 PURPOSE AND SCOPE OF REPORT

Acorn Environmental conducted a delineation of aquatic resources within an approximately 10.3-acre property (Study Area) on Acker Island within the San Joaquin River in San Joaquin County, California. This report presents the results of the survey conducted in accordance with the USACE Wetlands Delineation Manual to determine which portions of the Study Area may qualify as potentially jurisdictional aquatic resources. The U.S. Army Corps of Engineers (USACE) is ultimately responsible for determining the limits of their jurisdiction. This report also identifies those portions of the Study Area that may qualify as potentially jurisdictional waters of the State of California. The Regional Water Quality Control Board is ultimately responsible for determining the limits of their jurisdiction. The completed USACE Minimum Standards Checklist is included as **Attachment A**.

1.2 PROPOSED LOCATION AND DESCRIPTION

The Study Area consists of approximately 10.3 acres located on Acker Island, which is a small 43-acre island situated on the San Joaquin River/Stockton Deep Water Channel within unincorporated San Joaquin County, California. Approximately one acre of the Study Area would be developed, of which approximately 0.25 acres of in-water work would occur (2,600 square feet [sf] of which would be new in-water facilities). The Study Area is located within Section 29, Township 2 North, Range 5 East of the Mount Diablo Baseline and Meridian, within the “Holt” United States Geological Survey (USGS) 7.5-minute quadrangle. The Study Area is comprised of Assessor’s Parcel Number 13102001. Access to the Study Area is provided by boat, and the nearest marina is located at Windmill Cove, approximately 2.5 miles from Acker Island. A portion of the Study Area was previously developed with a marina and restaurant. However, the restaurant closed in 2009 and was subsequently destroyed by a fire in 2022. The marina remains. The proposed project includes modifications to the existing marina to improve safety and boat access and installation of new resort facilities. **Figure 1** and **Figure 2** show the location of the Study Area. **Figure 3** presents an aerial photograph of the Study Area and the immediate vicinity.

1.3 DIRECTIONS TO THE STUDY AREA

From the City of Stockton, take California State Highway 4 west towards San Francisco. Take the South Inland Drive exit located approximately 5.5 miles from the U.S. Highway 5. Travel north on South Inland Drive for approximately 2.2 miles until it continues onto West McDonald Road. Drive along west McDonald Road for 4.5 miles and turn left at the Zuckerman Bridge then right to continue north on Zuckerman Road for approximately 2.0 miles. A signed property access form is included as **Attachment B**.

1.4 CONTACT INFORMATION

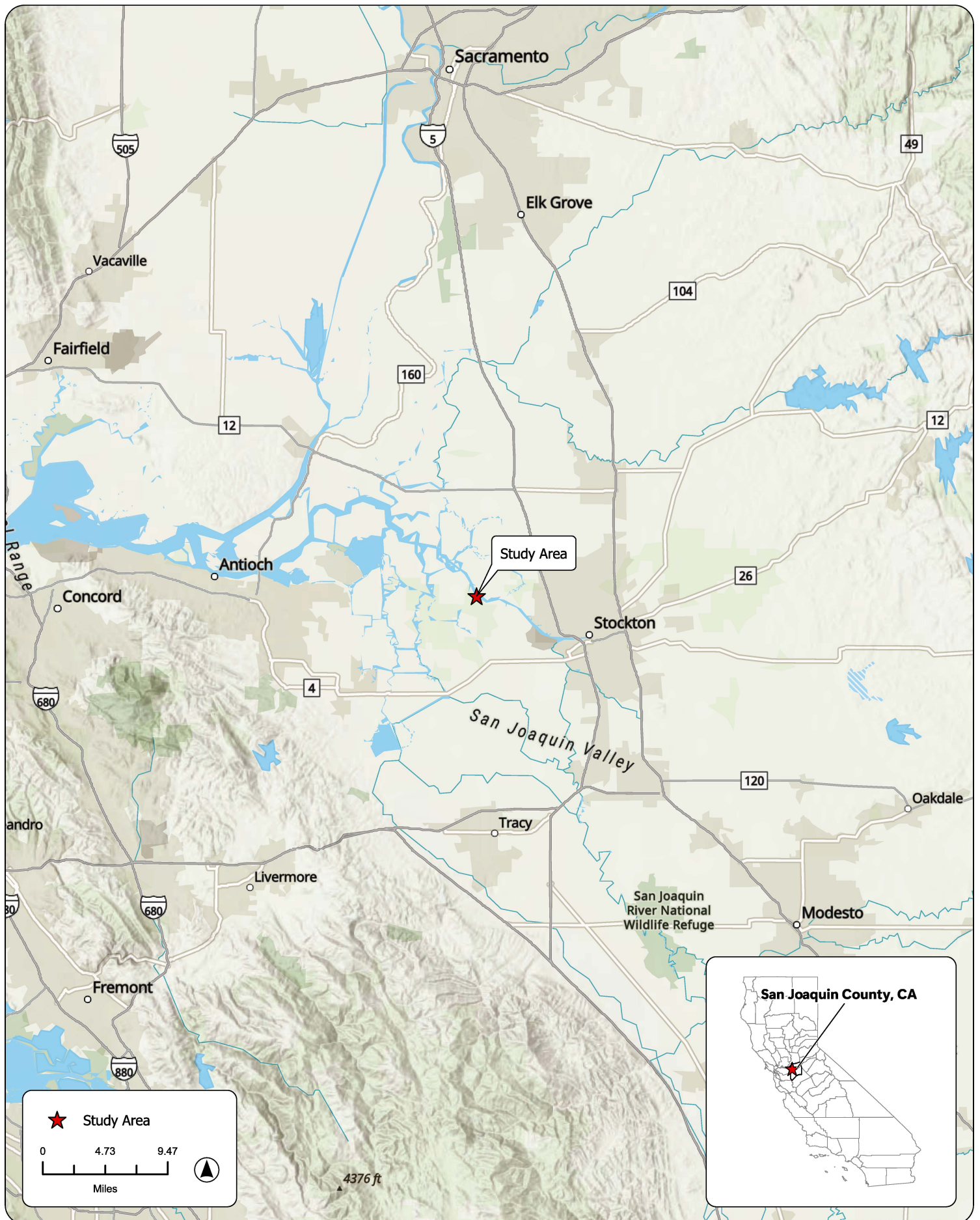
1.4.1 Applicant

David Wheeler, Lost Isle Resort, LLC

Phone: 408.836.4427

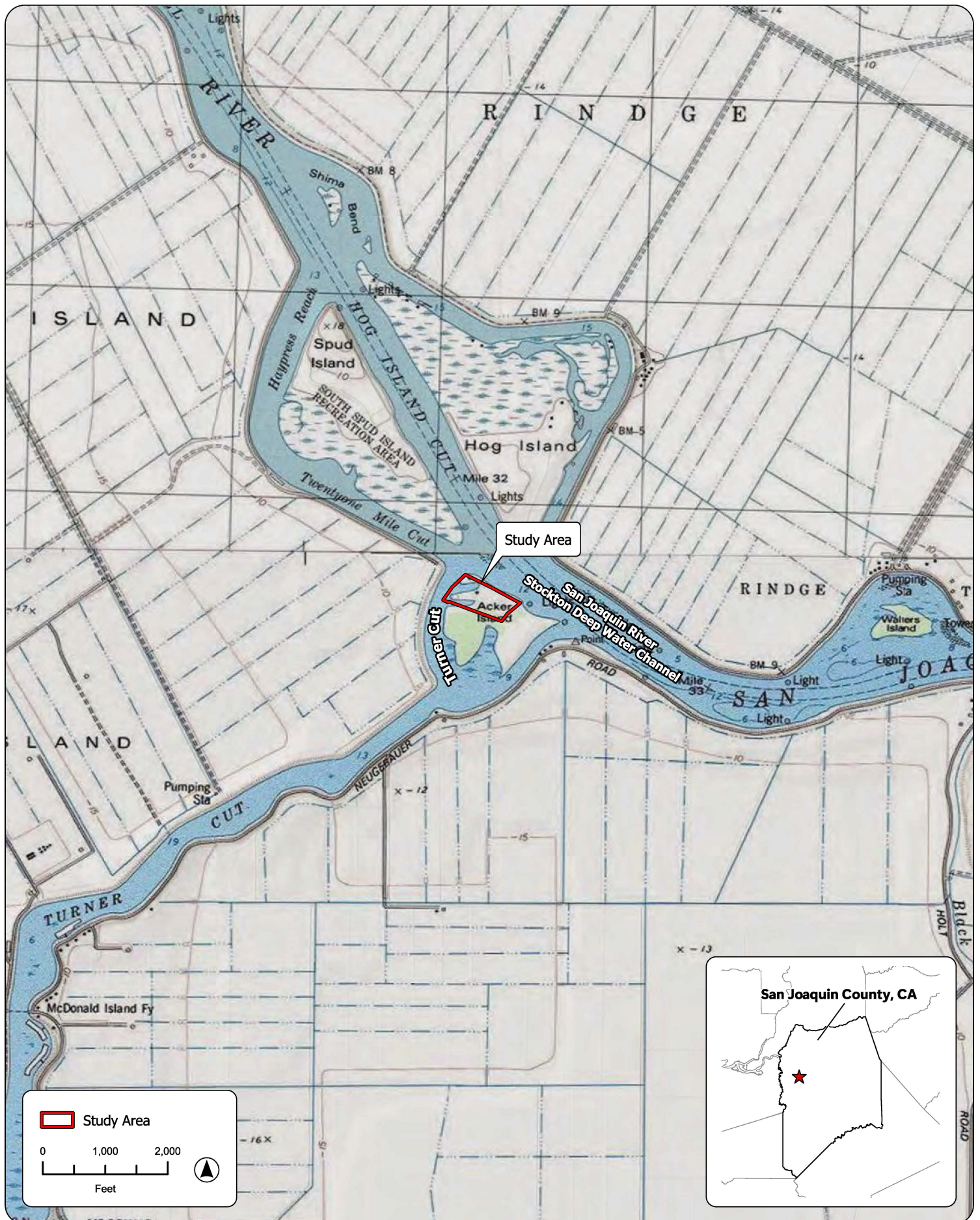
Email: Dave@MuddyRiverCapital.com

| 877 Island Avenue, Unit 1102 | San Diego, CA 92101



SOURCE: ESRI, 2025; Acorn Environmental, 7/22/2025

Figure 1
Regional Location



SOURCE: "Holt, CA" USGS 7.5 Minute Topographic Quadrangle, T02N R05E, Section 29, Mt. Diablo Baseline & Meridian; ESRI, 2025; Acorn Environmental, 7/22/2025

Figure 2
USGS Topographic Map



SOURCE: ESRI, 2025; Google Earth Aerial Photograph, 3/8/2025; Acorn Environmental, 7/22/2025

Figure 3
Aerial Overview

1.4.1 Environmental Consultant

Acorn Environmental

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5170 Golden Foothill Parkway, El Dorado Hills, CA 95762

1.5 REGULATORY SETTING

1.5.1 Federal Regulations

At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. In Section 404 of the CWA, waters of the U.S. are defined as: all waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters (33 CFR Part 328). With non-tidal waters, in the absence of adjacent wetlands, the extent of federal jurisdiction is defined by the ordinary high water mark - 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. Wetlands are defined as: *"...those areas that are inundated or saturated by surface or ground water 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,"* (Federal Register 1980, 1982).

Any person, firm, or agency planning to alter or work in navigable waterbodies, including the discharge of dredged or fill material, must first obtain authorization from the United States Army Corps of Engineers (USACE). Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) prohibits the obstruction or alteration of navigable waters of the US without a permit from USACE. Section 301 of the Federal Water Pollution Control Act, as amended ("Clean Water Act") prohibits the discharge of pollutants, including dredged or fill material, into waters of the U.S. without a Section 404 permit from USACE (33 USC 1344). Pertinent sections include:

- Section 401: Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain certification that the proposed activity will comply with State water quality standards. The applicable Regional Water Quality Control Board must certify that a USACE Section 404 Permit action meets State water quality objectives by issuing a Water Quality Certification. California Department of Fish and Wildlife provides comments on USACE permit actions under the Fish and Wildlife Coordination Act.
- Section 402: Under CWA Section 402, any construction project that disturbs at least one acre of land requires enrollment in the State's construction general permitting program under the National Pollutant Discharge Elimination System and implementation of a storm water pollution prevention plan.

The United States Environmental Protection Agency (USEPA) and USACE (2008) issued joint guidance regarding Clean Water Act jurisdiction following the decision in the consolidated cases of *Rapanos v. United States* and *Carabell v. United States*. USACE and USEPA will assert jurisdiction over traditional navigable waters, and non-navigable tributaries that have relatively permanent flow, and adjacent wetlands. The agencies will decide jurisdiction on a case-by-case basis for non-navigable tributaries that do not have relatively permanent flow, and adjacent wetlands, based upon significant nexus criteria (Kennedy Test, Scalia Test). The agencies generally will not assert jurisdiction over ditches, swales or other erosional features, or isolated wetlands.

Effective September 8, 2023, the USEPA and the USACE have issued a new final rule in the Code of Federal Regulations to conform the definition of ‘waters of the United States’ to the 2023 Supreme Court’s May 25, 2023, decision in *Sackett vs. EPA*. Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the Clean Water Act. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. California is not one of these states and currently operates under the definition as promulgated under the new final rule.

1.5.2 State Regulations

Waters of the State are regulated primarily under the California Water Code and the California Code of Regulations Title 23: Water and Title 27: Environmental Protection. All water features in California, on public and private lands, in both natural and artificial channels, including isolated wetland features and impermanent drainages that are not claimed as waters of the US, are considered waters of the State. Waters of the State are protected under the Porter-Cologne Water Quality Control Act and are regulated by the State Water Resources Control Board (SWRCB) and its 9 Regional Water Quality Control Boards. Additional statewide regulations that protect wetlands and riparian areas are the Wetlands Conservation Policy (Executive Order W-59-93), also known as the State’s “No Net Loss” Policy for Wetlands, and the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (State Water Board Resolution No. 2004-0030). All parties proposing to discharge materials that could affect waters of the State must file a report of waste discharge with the appropriate regional board. The regional board will then respond to the report by issuing waste discharge requirements (WDRs) in a public hearing, or by waiving WDRs (with or without conditions) for that proposed discharge. Both of the terms “discharge of waste” and “waters of the State” are broadly defined in the Porter-Cologne Act, such that discharges of waste include fill, any material resulting from human activity (including construction), or any other “discharge” that may directly or indirectly impact waters of the State.

California Fish and Game Code (§1600-1607, 5650F) protects fishery resources by regulating “...*any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.*” The California Department of Fish and Wildlife (CDFW) requires notification prior to project commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of waters of the State. The limit of CDFW jurisdiction is currently interpreted to be the “stream zone”, defined as “that portion of the stream channel that restricts lateral movement of water” and delineated at “*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*”. CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Streambed Alteration Agreement.

Section 2 | Methods

The delineation was conducted in accordance with the manuals relevant to the region, including the following:

- 1987 Corps of Engineers Wetland Delineation Manual
- 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)
- 2008 A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States

2.1 PRELIMINARY DATA GATHERING AND RESEARCH

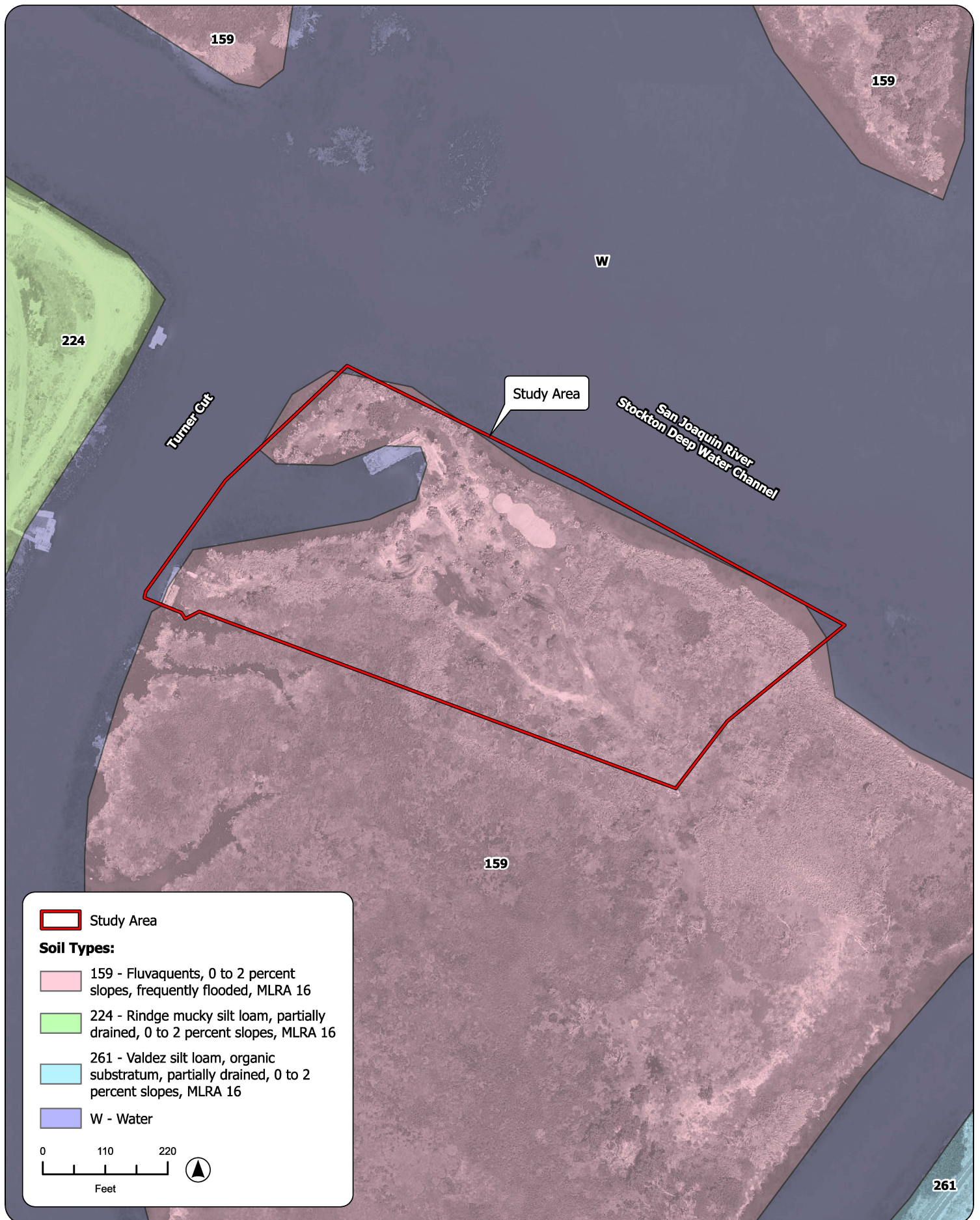
Prior to conducting the survey, the following information sources were reviewed:

- USGS 7.5-degree minute topographic quadrangle maps and aerial photography;
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey maps (**Figure 4**; NRCS, 2025);
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate (Flood Hazard Boundary) Maps (FEMA, 2025);
- USFWS National Wetland Inventory (NWI) Maps (**Figure 5**); and
- Previously prepared environmental reports for the Study Area

2.2 DELINEATION PROCEDURES

The purpose of the field determination was to: 1) identify water features that are subject to federal jurisdiction within the Study Area; and 2) if present, determine the boundary of each water feature. The entire Study Area was assessed in such a manner as to view all areas to the degree necessary to determine the vegetation community types and the presence or absence of jurisdictional water features. Wetland field determination procedures followed the USACE Wetlands Delineation Manual technical guidelines for a Level 2 Routine Field Determination (Environmental Laboratory, 1987). Additionally, the appropriate USACE regional supplement was also consulted.

The diagnostic environmental characteristics of hydrophytic vegetation, hydric soils, and wetland hydrology (i.e., three parameter approach) were used as the standard for determining if specific areas qualified as wetlands (Environmental Laboratory, 1987). A subject area was determined to be a wetland if all 3 requisite characteristics were present; as a general rule, evidence of a minimum of one positive indicator for each parameter must be found in order to make a positive wetland determination. These parameters are discussed below.



SOURCE: NRCS Soils, 2025; ESRI, 2025; Google Earth Aerial Photograph, 3/8/2025;
Acorn Environmental, 7/22/2025

Figure 4
Soil Types



SOURCE: USFS, 5/7/2025; ESRI, 2025; Google Earth Aerial Photograph, 6/6/2024; Acorn Environmental, 7/22/2025

Figure 5
National Wetlands Inventory

2.2.1 Hydrophytic 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 sufficient in duration to exert a controlling influence on the plant species present,” (Environmental Laboratory, 1987).

Hydrophytic vegetation indicators included: prevalence of vegetation; majority of dominant plant species are obligate or facultative wetland plants (hydrophytes); morphological or physiological adaptations to saturated soil conditions; and species listed on the National List of Plant Species that Occur in Wetlands (USACE, 2022). This National List divides plant species into categories based upon their frequency of occurrence in wetlands. These categories are: OBL = obligate wetland plants that occur almost always in wetlands under natural conditions (estimated probability greater than 99%); FACW = facultative wetland plants that usually occur in wetlands, but occasionally occur in non-wetlands (estimated probability 67 – 99%); FAC = facultative wetland plants that are equally likely to occur in wetlands or non-wetlands (estimated probability 34 – 66 %); FACU – facultative upland plants that usually occur in non-wetlands, but occasionally are found in wetlands (estimated probability 1 – 33 %); UPL = obligate upland plants that almost always occur in non-wetlands (estimated probability greater than 99%); NI and UNK = insufficient information to determine status; NL = not listed; NA = no agreement by Regional Panel on status; NO = species does not occur in specified region; * (asterisk) indicates tentative assignment; + (positive) or – (negative) sign indicates higher or lower frequency in its category, respectively. During field investigations, the percentage of hydrophytic plant coverage was determined based on the ratio of wetland indicator species coverage present to the total plant coverage present. Generally, more than 50 percent of the dominant plant species cover must be FAC, FACW, or OBL to meet the hydrophytic vegetation criterion.

2.2.2 Hydric Soils

Hydric soils are defined as soils that are “...formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.” (Environmental Laboratory, 1987).

A minimum of one week of inundation or 14 consecutive days of saturation during the growing season is a typical requirement. The criteria for establishing the presence of hydric soils vary among different soil types and drainage classes. Hydric soil indicators include evidence of reducing or redoximorphic conditions (including sulfidic odor, organic streaking), gleyed, mottled, or low-chroma soils, iron and manganese concretions, and low dissolved oxygen concentration (aquic moisture regime); organic soils (histosols); or mineral soils saturated and rich in organics (histic epipedon) (NRCS, 2006). Richardson and Vepraskas (2001) present a thorough discussion of wetland soil science (SWRCB, 2019). In the absence of visible field indicators, hydric soil conditions may be determined according to two criteria: 1) all dominant plant species have an indicator status of OBL and/or FACW (at least one dominant plant species must be OBL); and 2) areas below the level of ordinary high water are frequently flooded for long duration or very long duration during the growing season and possess an aquic (reducing) moisture regime. Soils are also classified as hydric or non-hydric by NRCS (2006).

2.2.3 Hydrology

Wetland hydrology “...encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season” (Environmental Laboratory, 1987).

Many factors influence site-specific hydrology, including the precipitation, stratigraphy, topography, soil permeability, and plant cover of the site. In general, inundation or saturation must occur for at least 5 percent of the growing season to qualify as wetland hydrology. The degree of inundation or saturation at the subject site can vary widely from year to year depending on rainfall patterns within the watershed. Primary wetland hydrology indicators include visual observations of inundation or soil saturation, water marks and water-stained leaves, sediment deposits, drift lines, and drainage patterns in wetlands.

2.2.4 Data Collection Procedures

Sampling locations were established within potential wetland areas and within adjacent uplands, where present, to determine the boundary of wetlands. At each sampling point, the location was georeferenced using a GPS receiver. Information on vegetation, soils, and hydrology was recorded on a USACE Routine Wetland Determination Data Form, specifically for the Arid West Region.

Dominant and subdominant plant species in each vegetative stratum (e.g., tree, shrub, forb) that occurred within approximately 5 to 10 feet of the sampling point were identified and recorded, and their wetland indicator status determined. All visible flora observed were recorded in a field notebook and identified to the lowest possible taxon. When a specimen could not be identified *in situ*, a photograph or voucher specimen (depending upon scientific permit requirements) was taken and identified later in the laboratory using a dissecting scope where necessary. Taxonomic determinations and nomenclature followed Baldwin et al. (2012) and University of California at Berkeley (2025).

Where necessary, a soil pit was dug with a spade to expose at least 16 inches of soil profile, and the sample evaluated for hydric soil indicators. Munsell Soil Color Charts (Gretagmacbeth, Inc. 2000 edition) were used to determine soil matrix and mottle color (hue, value, and chroma), and soil type and particle size was also noted. The NRCS Soil Taxonomy handbook was referenced for soil classification where necessary (NRCS, 2002). Based on the results of the three parameter test, the extent of each potential wetland was mapped in the field using a GPS receiver capable of submeter accuracy and/or demarcated on aerial photographs for later “heads-up” digitization. Wetlands and other aquatic habitats were classified using the USFWS “Classification System for Wetland and Deepwater Habitats”, or “Cowardin class” (USFWS, 2013; Cowardin et al., 1979). A determination was made whether normal environmental conditions exist; atypical conditions followed a modified procedure described in the USACE Manual (Environmental Laboratory, 1987). Geographic analyses, including acreage calculations, were performed using geographical information system software (ArcGIS 10, ESRI, Inc.).

For identification of water features other than wetlands that are subject to federal or State jurisdiction, 2 principal field characteristics were evaluated: 1) the presence of a channel; and 2) the presence of an ordinary high water mark. The ordinary high water mark is defined in 33 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 were noted, where possible: description of hydrologic feature type, length, gradient, range between low and high water mark, width of riparian vegetation, etc. For determination of whether these water bodies constituted Waters of the U.S., USACE regulations (33 CFR 328) were consulted.

Section 3 | Results

3.1 FIELD SURVEY

Acorn Biologist Kimberlina Gomez and Project Manager/Senior Biologist Kt Alonzo conducted the field assessment on July 01, 2025. A variable-intensity pedestrian survey was performed of the Study Area, modified to account for differences in terrain, vegetation density, and visibility. Sampling points were established at key locations and analyzed for the presence or absence of wetland (or for channels, ordinary high water mark) indicators; these points are documented in the data sheets in **Attachment C**. The results of the analyses of Study Area vegetation, soils, and hydrology are presented in the following sections, followed by the recommended jurisdictional determination.

3.2 TOPOGRAPHY AND CLIMATE

The Study Area is located within the California Floristic Province (Baldwin et al., 2012) within a region that experiences a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and foggy, rainy winters (State of California, 2025). Average monthly temperatures peak in August at 93 degrees Fahrenheit and reach a low in the month of December with an average temperature of 37 degrees Fahrenheit (U.S. Climate Data, 2025). Precipitation falls exclusively as rain, with January seeing the most precipitation at an average of 3.41 inches across the month.

Topography on the Study Area is relatively flat with elevations ranging from 5 to 35 feet above mean sea level. Land use on the Study Area has been partially managed through maintenance activities such as mowing and weed whacking but has generally been left to return to its native state in recent years. Land surrounding the Study Area includes waterways, across the waterway land uses includes agriculture. The San Joaquin River borders the entirety of the Study Area. Soil in the Study Area includes Fluvaquents, 0 to 2 percent slopes, frequently flooded, MLRA 16 (**Figure 4**).

3.3 TERRESTRIAL VEGETATION COMMUNITIES

Terrestrial habitats observed within the Study Area include intermixed ruderal/developed and annual grassland. The Study Area was previously utilized for commercial and recreational uses, with remnants of structures and development remaining. Within these areas, grassland habitats were present that previously supported commercial development. At the time of the survey, grassland areas were mowed to allow for site access. Areas that are disturbed/developed either contain remnants of previous development or areas of landscaped vegetation that are managed. Previous areas of development include docks and launch pads, wastewater tanks, and abandoned structures. Throughout these areas, ruderal vegetation largely consists of various ornamental trees including Mexican fan palm (*Washingtonia robusta*) and Golden bamboo (*Phyllostachys aurea*). The dominant plant species are nonnative grasses and weedy forbs. The non-native annual grasses consist of wild oat (*Avena spp.*), pampas grass (*Cortaderia selloana*), Bermuda grass (*Cynodon dactylon*). Grassland was intermixed with the ruderal/developed habitat throughout the Study Area. This habitat is dominated by non-native annuals that include wild oat, Flaxleaf fleabane (*Erigeron bonariensis*), common knotgrass (*Polygonum aviculare*), and bull thistle (*Cirsium vulgare*). This habitat is present where human activity likely occurred, allowing for manageable areas. Mowing typically keeps this plant community from undergoing successional changes back to native communities.

A total of 5.57 acres within the Study Area is ruderal/developed and intermixed annual grassland. Classification and description of terrestrial plant communities follows the methodology accepted by CDFW The Vegetation Classification and Mapping Program, which is based on Sawyer and Keeler-Wolf's (1995) Manual of California Vegetation (CDFW, 2019). Habitats are shown on **Figure 6. Attachment D** contains a list of plant species observed within the Study Area, and site photographs are provided in **Attachment E**.

3.4 SOIL TYPES

NRCS soil units occurring within the Study Area are listed in **Table 1** and shown in **Figure 4**. Soil units within the Study Area are designated as hydric by the NRCS. The NRCS provides the disclaimer that "lists of hydric soils along with soil survey maps are good off-site ancillary tools to assist in wetland determinations, but they are not a substitute for observations made during on-site investigations."

Table 1: Soils within the Study Area

Soil Type	Soil Characteristics	Hydric Soil?
Fluvaquents, 0 to 2 percent slopes, frequently flooded, MLRA 16	▪ Not prime farmland ▪ Very poorly drained ▪ High runoff class ▪ 80+ inches to restrictive feature	Yes

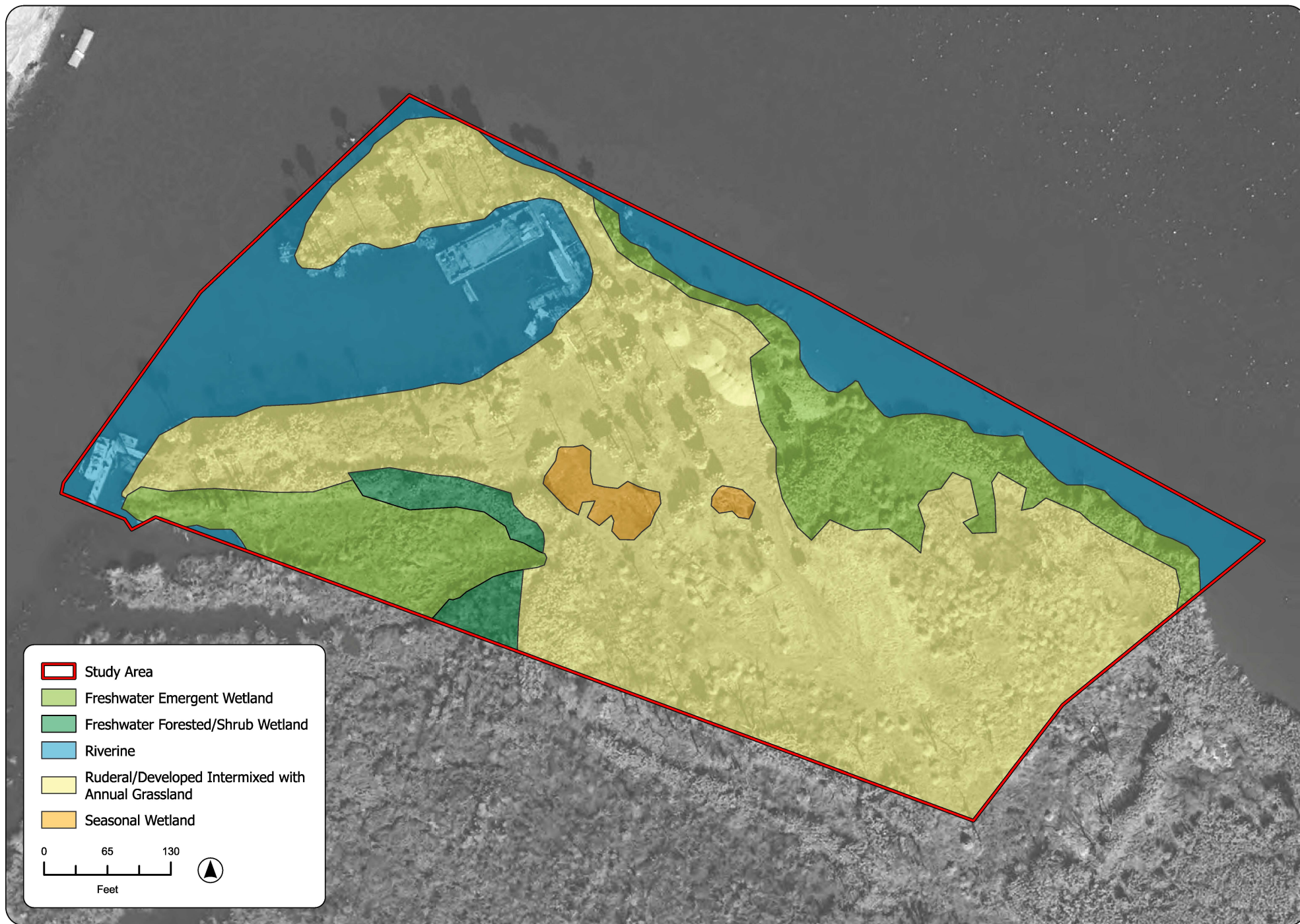
Source: NRCS, 2025

3.5 HYDROLOGY

The Study Area is within the Fivemile Creek-San Joaquin River (180400030504) watershed (USEPA, 2025). According to the FEMA Flood Hazard Boundary Map of the region, the Study Area is within the 100-year floodplain (Flood Zone AE; FEMA, 2025). The Study Area is located on an isolated island within the San Joaquin River. Freshwater emergent wetlands are fed by the river that surrounds Acker Island. Seasonal wetlands within the Study Area are seasonally filled by water that overflows from nearby freshwater emergent wetlands and settles in lower elevations.

3.6 NATIONAL WETLANDS INVENTORY/PREVIOUS DELINEATIONS

The USFWS NWI digital map of the Study Area is included as **Figure 5** and was reviewed prior to the delineation field efforts and visited in the field to verify presence and accuracy of mapping. NWI features within the Study Area are described as riverine, freshwater emergent wetland, and freshwater forested/shrub wetland. NWI reports the location of these features as being interpreted using 1:24,000 scale, color infrared imagery from 2018. This database was not used to conclude that a wetland was present or absent in the Study Area but was used as an information source. Wetlands located in the northern and southern portion of the Study Area were mapped by NWI as PEM1S, Freshwater Emergent Wetland, and PFO1S, Freshwater Forested/Shrub Wetland. These were verified in the field to the extent possible. Based on the presence of hydrophytic vegetation and visible water table, the determination of NWI was confirmed in field.



SOURCE: USFS, 5/7/2025; ESRI, 2025; Google Earth Aerial Photograph, 8/12/2024; Acorn Environmental, 10/15/2025

Figure 6
Habitat Types

Section 4 | Delineation Results and Recommendations

4.1 DELINEATED WATER RESOURCES

Hydrologic features were identified and mapped within the Study Area. These features are summarized and mapped in **Figure 7**. This map has not been verified by USACE or SWRCB and thus represents an unofficial demarcation of the potential limits of jurisdiction. Various survey points were established for the delineation and data sheets were completed and can be found in **Attachment C**. Shapefiles are included in **Attachment E**. These features are discussed below.

4.1.1 Riverine

The San Joaquin River is a riverine habitat with deepwater contained in a channel. The subclass varies by location but is lower perennial with an unconsolidated bottom within the Study Area. The San Joaquin River is a naturally occurring tributary with relative permanent surface water flow that contributes to traditional navigable water.

4.1.2 Freshwater Emergent Wetland/Freshwater Forested/Shrub Wetland

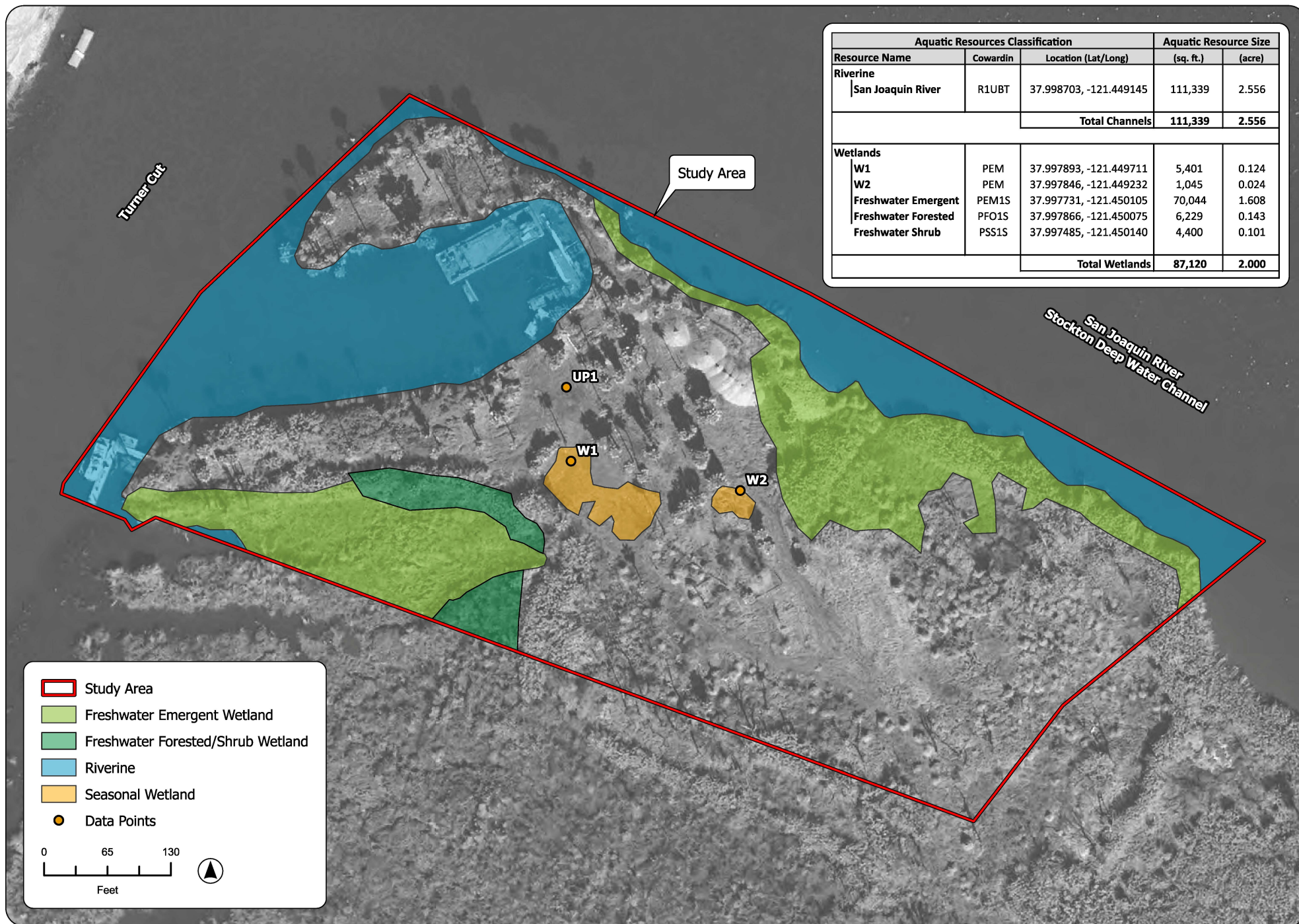
Freshwater Emergent Wetlands and Freshwater Forested/Shrub Wetlands are located in the northern and southern portions of the Study Area. These wetlands are nontidal and are dominated by trees, shrubs, and persistent emergents. They contain erect, rooted, and herbaceous hydrophytes. Water is continually present and soils are hydric. Channelization is not present within the Freshwater Emergent Wetlands or the Freshwater Forested/Shrub Wetlands in the Study Area.

4.1.3 Seasonal Wetland

Two seasonal wetlands were observed in the central portion of the Study Area. These are isolated and likely receive overflow water from nearby freshwater emergent wetlands/freshwater forested/shrub wetlands. The wetlands consist of inundated features that contain hydrophytic plants and hydric soils. Additionally, during the survey, surface water was present and all three parameters were met. Channelization is not present within the Seasonal Wetlands in the Study Area.

4.2 AQUATIC RESOURCES POTENTIALLY SUBJECT TO USACE JURISDICTION

Identified hydrologic features were subjected to the three parameter test and assessed in accordance with guidance of recent court decisions. Based on these criteria, the following aquatic features within the Study Area were determined to be potentially subject to USACE jurisdiction (**Figure 7**).



SOURCE: ESRI, 2025; Google Earth Aerial Photograph, 8/12/2024; Acorn Environmental, 10/15/2025

Figure 7
Aquatic Resources Delineation

4.2.1 Riverine

The San Joaquin River is considered a “Waters of the U.S.” as it meets the definition under 40 CFR §120.2(a)(1). This river is a naturally occurring tributary with relative permanent surface water flow that contributes to traditional navigable water. The San Joaquin River surrounds Acker Island/Lost Isle and is located within the area of the Study Area. The San Joaquin River is a tributary to the Sacramento-San Joaquin Delta, which connects to the San Francisco Bay, and eventually the Pacific Ocean. Therefore, the riverine habitat within the Study Area would be meet the qualifications of a water of the U.S.

4.2.2 Freshwater Emergent Wetland/Freshwater Forested/Shrub Wetland

The definition of wetlands is provided in 40 CFR §120.2(a)(4), which states that wetlands adjacent to “relatively permanent, standing or continuously flowing bodies of water identified [as “Waters of the U.S.”] and with a continuous surface connection to those waters” would constitute a “Waters of the U.S.” The Study Area contains wetlands in the northern and southern portion of the island, adjacent to the San Joaquin River. These wetlands were mapped on the NWI as PEM1S, Freshwater Emergent Wetland, PFO1S, and Freshwater Forested/Shrub Wetland. These were verified in field to the extent possible and were found to consist of inundated features that contain hydrophytic plants and surface water. Based on the presence of vegetation and visible water table, the data mapped on NWI was confirmed in field.

4.2.3 Upland Features Not Expected to be Subject to Federal Regulation

Upland features such as ruderal/developed and grassland habitats are not expected to be subject to federal regulation (**Figure 6**). Additionally, riparian areas were noted as occurring intermixed within the wetlands adjacent to the riverine and wetland habitats. Riparian vegetation included a mixture of shrub and tree-dominated areas. The common flora species observed included black poplar (*Populus nigra*), giant reed (*Arundo donax*), Himalayan blackberry (*Rubus armeniacus*), and curly dock (*Rumex crispus*). However, as channelization is not present within the Freshwater Emergent or Freshwater Forested/Shrub Wetlands in the Study Area, this would not be regulated by CDFW.

4.3 WATER RESOURCES POTENTIALLY SUBJECT TO STATE JURISDICTION

Identified hydrologic features were compared against the definition of waters of the State as currently enforced by SWRCB. The following presents a discussion on the jurisdictional status of identified aquatic resources and the need for permitting prior to impacts. Any project that proposes to discharge dredged or fill material into wetlands or other waters of the State must obtain regulatory authorization. Under the SWRCB State Wetlands Procedures, projects involving a non-federally regulated wetland must adhere to WDRs.

4.3.1 Riverine

Under California Water Code §13050(e), a water of the State is any surface water within the boundaries of the State. As the San Joaquin River is a major navigable river and perennial surface water body, it is subject to State jurisdiction.

4.3.2 Freshwater Emergent Wetland/Freshwater Forested/Shrub Wetland

Similar to the San Joaquin River, the freshwater emergent wetland/freshwater forested/shrub wetland within the Study Area meets the definition of a water of the State under California Water Code §13050(e). Therefore, the freshwater emergent wetlands would be subject to State jurisdiction.

4.3.3 Seasonal Wetlands

Similar to the freshwater emergent wetlands/freshwater forested/shrub wetlands, the isolated wetland features within the Study Area would qualify as waters of the State. Regardless of their connectivity to navigable waters, under the definition of California Water Code §13050(e), any surface water would be subject to State jurisdiction.

4.3.4 Upland Features Not Expected to be Subject to State Regulation

Upland features such as ruderal/developed and grassland habitats are not expected to be subject to State regulation (**Figure 6**).

Section 5 | References

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Section 6 | Qualifications of Surveyors/Authors

Kimberlina Gomez, M.S., B.S.

Kimberlina Gomez holds a M.S. in Environmental Science with a focus on Wildlife and Biodiversity and a B.S. in Environmental Science. She has approximately 3 years of experience collecting field data and preparing environmental assessments. Ms. Gomez has also published a scientific article related to wildlife behavior ecology. She also has experience in preparing documents for Section 7 consultation the USFWS.

Kt Alonzo, B.S.

Ms. Alonzo is a project manager and senior biologist with a B.S. in Biological Sciences with a focus on Evolution, Ecology, and Biodiversity. Ms. Alonzo meets the definition of an Environmental Professional per Department of Interior regulations and is experienced in Clean Water Act permitting and ESA Section 7 consultation. Ms. Alonzo is also experienced in preparing biological resources documents and conducting wetland delineations.

Attachment A

USACE Minimum Standards
Checklist



MINIMUM STANDARDS FOR ACCEPTANCE OF AQUATIC RESOURCES DELINEATION REPORTS

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

January 2016

The U.S Army Corps of Engineers, through its Regulatory Program, regulates certain activities in waters of the United States. Waters of the U.S. are defined under 33 CFR Part 328. In order for the Corps to determine the amount and extent of waters of the United States at a site, aquatic resources must first be delineated in accordance with established regulatory standards, guidance and protocol, such as the 1987 Corps of Engineers Wetlands Delineation Manual and appropriate regional supplements. Before making any permit decision, the Corps is responsible for conducting or verifying the delineation and determining which of the aquatic resources have the potential to fall under federal jurisdiction.

Due to limited staffing and resources, the Corps' Sacramento District recommends permit applicants employ the services of individuals experienced in delineating aquatic resources. Permit applicants are further encouraged early in the project planning stages to submit the delineation, along with a request for a preliminary or approved jurisdictional determination, and engage in a pre-application consultation with their local District office. Early consultation may help identify potential concerns and result in a quicker permit decision.

The District has established minimum standards for delineation reports to insure consistency and accuracy in the delineation of aquatic resources, which will minimize potential delays. The standards are based on years of experience conducting and verifying delineations, as well as the best practices of environmental consultants. Delineations submitted for verification must follow the standards, unless determined to not be practical on a case-by-case basis. Situations where adherence to the standards may not be practical include activities with small permanent or temporary impacts to aquatic resources (under 0.10 acre), applicants with limited financial resources, and emergencies. The District will notify the requestor for delineation submittals that do not contain sufficient information to accurately identify the limits of waters of the U.S.

Aquatic resources delineation reports submitted to the District must include the following:

- ☒ A cover letter requesting a jurisdictional determination. The letter must specify whether a preliminary or approved jurisdiction determination is requested.
- ☒ A signed statement from the property owner(s) allowing Corps personnel to enter the property and to collect samples during normal business hours. If the property is land-locked, the owner or proponent must obtain permission from the adjacent property owner(s) to provide access for Corps personnel.
- ☒ A statement that the delineation has been conducted in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and appropriate regional supplement(s). The regional supplement(s) used must be identified. For ordinary high water mark (OHWM) delineations, a statement indentifying the use of the OHWM field guide must be included.

- ☒ Directions to the survey area.
- ☒ Contact information for the applicant(s), property owner(s), and agent(s).
- ☒ A narrative describing all aquatic resources at the site and an explanation for the mapped boundaries, especially for resources containing complex transition zones. If the site contains resources that meet one or two wetland criteria or do not exhibit a clear OHWM, describe the rationale for not delineating these features. Examples include erosional features, upland swales, and other upland areas that appear “wet” on satellite or aerial imagery.
- ☒ The total acreage of the survey area.
- ☒ Date(s) field work was completed.
- ☒ A table listing all aquatic resources. The table will include the name of each aquatic resource, its Cowardin type, acreage, and location (latitude/longitude). For linear features, the table must show both acreage and linear feet.
- ☒ A description of existing field conditions. The field condition description may include current land use, flood/drought conditions, irrigation practices, modifications to the site, and any characteristics considered atypical.
- ☒ A discussion of the hydrology at the site, including all known surface or subsurface sources, drainage gradients, surface water connections to the nearest traditional navigable waterway or interstate water, and any potential influence for manmade water sources, such as irrigation. The discussion should also identify the nearest “blue-line” waterway or other feature found on the most recent USGS map.
- ☐ If remote sensing was used in the delineation, provide an explanation of how it was used and include the name, date and source of the tools used and copies of applicable maps/photographs.
- ☒ A discussion of plant communities and habitat types present at the site and a list of the scientific name, common name, and wetland indicator status of all plants.
- ☒ Soil descriptions, soil map(s), and a discussion of hydric soils or soils with hydric inclusions at the site.
- ☐ Any observed or documented interstate or foreign commerce associated with aquatic resources found on the site, specifically recreation or other use by interstate or foreign travelers, sale of fish or shellfish in interstate or foreign commerce, and use by industries operating in interstate or foreign commerce.

☒ A site location map on a 7.5-minute USGS quadrangle. The map must provide the name of the USGS quadrangle, Section, Township, Range, the UTM or latitude and longitude.

☐ A completed copy of the *Aquatic Resources Excel* spreadsheet must be submitted. The current version of the spreadsheet can be found at the following website:

www.spk.usace.army.mil/Missions/Regulatory/Jurisdiction/WetlandDelineations.aspx

☒ A map of all delineated aquatic resources ("Aquatic Resources Delineation Map") in accordance with the *Final Map and Drawing Standards for the South Pacific Division Regulatory Program* (Mapping Standards) and showing the following:

☐ All aquatic resources delineated must be clearly shown on the map. Because only the Corps determines the regulatory status of each aquatic resource, the map must not include any labeling about jurisdiction. If the requestor believes one or more aquatic resources are not jurisdictional, the rationale should be included in the delineation report and the resource(s) should be identified on the map.

☒ At least one set of paired data points, documented in data forms, for each aquatic resource or complex. The paired data points must be located close to the delineated boundary. Additional data points may be necessary, and should be shown on the map, depending on various factors including the size and shape of the aquatic resource, changes in vegetation communities, and slope.

☐ A reference block that identifies the site or project name, individual(s) who conducted the delineation, date of the map, and date(s) of any revisions.

☒ Completed data forms including all essential information to make a decision.

☒ A description of the methods used to survey the aquatic resource boundaries. For most delineations, the Sacramento District requires GPS equipment for the collection of data. At a minimum the GPS equipment must have the capability of sub-meter (≤ 1 meter) level accuracy. If other methods are used, the report must contain a rationale for this deviation.

☒ Digital data for the site, aquatic resource boundaries, and data point locations must be provided in a geographic information system (GIS) format, with ESRI Shape-files being the preferred format. Each GIS data file must be accompanied by a metadata file containing the appropriate geographic coordinate system, projection, and datum. If GIS data is unavailable or otherwise cannot be produced and the Corps determines a site visit is necessary, the aquatic resource boundaries must be physically marked with numbered flags or stakes before the Sacramento District can complete a delineation verification.

Often, additional information can expedite the verification of a delineation. Particularly helpful data includes site specific topographic maps, National Wetland Inventory (NWI), Light Detection and Ranging (LIDAR), satellite, aerial and ground photographs, floodplain maps, and related reports.

The Corps' Sacramento District developed a suggested format for aquatic resources delineation reports, which is attached to this document. This format is not required but rather is intended to assist requestors with the preparation of a delineation report in accordance with these minimum standards.

More information regarding aquatic resource delineations, including reference materials, the *Aquatic Resources Excel* spreadsheet, and the suggested format for the aquatic resources delineation report can be found on our website at:

www.spk.usace.army.mil/Missions/Regulatory/Jurisdiction/WetlandDelineations.aspx.

Attachment B

Property Access Form

U.S. ARMY CORPS OF ENGINEERS
REQUEST FOR CORPS JURISDICTIONAL DETERMINATION

***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.

CORPS USE ONLY:
DATE RECEIVED:

PROJECT NO.:

1. PROPERTY LOCATION:

Street Address: Acker Island

City/Township/Parish: _____

County: San Joaquin State: CA

Acreage of Parcel/Review Area for JD: 10.3

Section: 29 Township: 2N Range: 5E

Latitude: 37.99752427 Longitude: -121.44887258

(For linear projects, please include the center point of the proposed alignment.)

2. REQUESTOR CONTACT INFORMATION:

Typed or Printed Name: Kt Alonzo

Company Name: Acorn Environmental

Street Address: 5170 Golden Foothill Parkway

City: El Dorado State: CA ZIP: 95762

Phone Number: _____ (530) 863-6191

E-mail: kalonzo@acorn-env.com

3. MAP: Please attach a survey/plat map and vicinity map identifying location and review area for the JD.

4. REASON FOR REQUEST (check as many as applicable):

- ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all aquatic resources.
- ☐ I intend to construct/develop a project or perform activities on this parcel which would be designed to avoid all jurisdictional aquatic resources under Corps authority.
- ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps, and the JD would be used to avoid and minimize impacts to jurisdictional aquatic resources and as an initial step in a future permitting process.
- ☐ I intend to construct/develop a project or perform activities on this parcel which may require authorization from the Corps; this request is accompanied by my permit application and the JD is to be used in the permitting process.
- ☒ I intend to construct/develop a project or perform activities in a navigable water of the U.S. which is included on the district Section 10 list and/or is subject to the ebb and flow of the tide.
- ☐ A Corps JD is required in order to obtain my local/state authorization.
- ☐ I intend to contest jurisdiction over a particular aquatic resource and request the Corps confirm that jurisdiction does/does not exist over the aquatic resource on the parcel.
- ☐ I believe that the site may be comprised entirely of dry land.
- ☐ Other: _____

5. TYPE OF DETERMINATION BEING REQUESTED:

- ☒ I am requesting an approved JD.
- ☐ I am requesting a preliminary JD.
- ☐ I am requesting a "no permit required" letter as I believe my proposed activity is not regulated.
- ☐ I am unclear as to which JD I would like to request and require additional information to inform my decision.

6. OWNERSHIP DETAILS:

- ☐ I currently own this property.
- ☐ I plan to purchase this property.
- ☒ I am an agent/consultant acting on behalf of the requestor.
- ☐ Other (please explain:)

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 site if needed to perform the JD. Your signature shall be an affirmation that you possess the requisite property rights to request a JD on the subject property.

Signature: Kaitlan Alonzo

 Digitally signed by Kaitlan Alonzo
Date: 2025.07.25 17:50:05 -07'00'

Date: _____

Attachment C
Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lost Isle Resort Project City/County: San Joaquin County Sampling Date: 07/01/2025
 Applicant/Owner: Lost Isle, LLC State: CA Sampling Point: UP 1
 Investigator(s): Kimberlina Gomez, Kt Alonzo Section, Township, Range: Section 29, Township 2N, Range 5E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 37°59'53.46"N Long: 121°26'59.04"W Datum: _____
 Soil Map Unit Name: Fluvaquents, 0 to 2 percent slopes, frequently flooded, MLRA 16 (159) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>15</u> x 1 = <u>15</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>70</u> x 3 = <u>210</u> FACU species _____ x 4 = _____ UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>105</u> (A) <u>295</u> (B) Prevalence Index = B/A = <u>2.8</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5'</u>)				Hydrophytic Vegetation Indicators: ☐ Dominance Test is >50% ☒ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>lotus corniculatus</u>	<u>70</u>	<u>x</u>	<u>FAC</u>	
2. <u>Symphytotrichum subulatum</u>	<u>15</u>		<u>OBL</u>	
3. <u>cyperus eragrostis</u>	<u>10</u>		<u>FACW</u>	
4. <u>Amsinckia menziesii</u>	<u>10</u>		<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

SOIL

Sampling Point: UP 1

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		
0-12	5YR 2.5/1	100					sandy loam	

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.)

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 1 cm Muck (A9) (LRR D) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Vernal Pools (F9) |
| ☐ Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) **(LRR C)**
☐ 2 cm Muck (A10) **(LRR B)**
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):

Type: hard pan

Depth (inches): 12

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) (Nonriverine) | ☐ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

- ☐ 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)

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:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lost Isle Resort Project City/County: San Joaquin County Sampling Date: 07/01/2025
 Applicant/Owner: Lost Isle, LLC State: CA Sampling Point: UP 1
 Investigator(s): Kimberlina Gomez, Kt Alonzo Section, Township, Range: Section 29, Township 2N, Range 5E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 37°59'53.46"N Long: 121°26'59.04"W Datum: _____
 Soil Map Unit Name: Fluvaquents, 0 to 2 percent slopes, frequently flooded, MLRA 16 (159) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A/B)	
4. _____	_____	_____	_____		
				= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)					
1. _____	_____	_____	_____	Prevalence Index worksheet:	
2. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
3. _____	_____	_____	_____	OBL species <u>15</u> x 1 = <u>15</u>	
4. _____	_____	_____	_____	FACW species <u>10</u> x 2 = <u>20</u>	
5. _____	_____	_____	_____	FAC species <u>70</u> x 3 = <u>210</u>	
				FACU species _____ x 4 = _____	
				UPL species <u>10</u> x 5 = <u>50</u>	
				Column Totals: <u>105</u> (A) <u>295</u> (B)	
				Prevalence Index = B/A = <u>2.8</u>	
Herb Stratum (Plot size: <u>5'</u>)					
1. <u>lotus corniculatus</u>	<u>70</u>	<u>x</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
2. <u>Symphyotrichum subulatum</u>	<u>15</u>		<u>OBL</u>	☐ Dominance Test is >50%	
3. <u>cyperus eragrostis</u>	<u>10</u>		<u>FACW</u>	☒ Prevalence Index is ≤3.0 ¹	
4. <u>Amsinckia menziesii</u>	<u>10</u>		<u>UPL</u>	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				Hydrophytic Vegetation Present? Yes ☒ No ☐	
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
				= Total Cover	
% Bare Ground in Herb Stratum <u>15</u>		% Cover of Biotic Crust <u>0</u>			
Remarks:					

SOIL

Sampling Point: UP 1**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		
0-12	5YR 2.5/1	100					sandy loam	

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.)**

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 1 cm Muck (A9) (LRR D) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Vernal Pools (F9) |
| ☐ Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):Type: hard panDepth (inches): 12Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) (Nonriverine) | ☐ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

- ☐ 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)

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:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Lost Isle Resort Project City/County: San Joaquin County Sampling Date: 07/01/2025
 Applicant/Owner: Lost Isle, LLC State: CA Sampling Point: UP 1
 Investigator(s): Kimberlina Gomez, Kt Alonzo Section, Township, Range: Section 29, Township 2N, Range 5E
 Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): C Lat: 37°59'53.46"N Long: 121°26'59.04"W Datum: _____
 Soil Map Unit Name: Fluvaquents, 0 to 2 percent slopes, frequently flooded, MLRA 16 (159) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ 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 ☒	No ☐	Is the Sampled Area within a Wetland?	Yes ☐	No ☒
Hydric Soil Present?	Yes ☐	No ☒			
Wetland Hydrology Present?	Yes ☐	No ☒			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>15</u> x 1 = <u>15</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>70</u> x 3 = <u>210</u> FACU species _____ x 4 = _____ UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>105</u> (A) <u>295</u> (B) Prevalence Index = B/A = <u>2.8</u>
<u>Sapling/Shrub Stratum</u> (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5'</u>)	_____	_____	_____	Hydrophytic Vegetation Indicators: ☐ Dominance Test is >50% ☒ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>lotus corniculatus</u>	<u>70</u>	<u>x</u>	<u>FAC</u>	
2. <u>Symphotrichum subulatum</u>	<u>15</u>		<u>OBL</u>	
3. <u>cyperus eragrostis</u>	<u>10</u>		<u>FACW</u>	
4. <u>Amsinckia menziesii</u>	<u>10</u>		<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>15</u> % Cover of Biotic Crust <u>0</u>				
Remarks:				

SOIL

Sampling Point: UP 1**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		
0-12	5YR 2.5/1	100					sandy loam	

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.)**

- | | |
|--|---|
| ☐ Histosol (A1) | ☐ Sandy Redox (S5) |
| ☐ Histic Epipedon (A2) | ☐ Stripped Matrix (S6) |
| ☐ Black Histic (A3) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Hydrogen Sulfide (A4) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Stratified Layers (A5) (LRR C) | ☐ Depleted Matrix (F3) |
| ☐ 1 cm Muck (A9) (LRR D) | ☐ Redox Dark Surface (F6) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Dark Surface (F7) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Depressions (F8) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Vernal Pools (F9) |
| ☐ Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- ☐ 1 cm Muck (A9) (**LRR C**)
☐ 2 cm Muck (A10) (**LRR B**)
☐ Reduced Vertic (F18)
☐ Red Parent Material (TF2)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if present):Type: hard panDepth (inches): 12Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Salt Crust (B11) |
| ☐ High Water Table (A2) | ☐ Biotic Crust (B12) |
| ☐ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) (Nonriverine) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) (Nonriverine) | ☐ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) (Nonriverine) | ☐ Presence of Reduced Iron (C4) |
| ☐ Surface Soil Cracks (B6) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Inundation Visible on Aerial Imagery (B7) | ☐ Thin Muck Surface (C7) |
| ☐ Water-Stained Leaves (B9) | ☐ Other (Explain in Remarks) |

Secondary Indicators (2 or more required)

- ☐ 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)

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:

Attachment D

List of Plants Observed

Plants Observed During the July 2025 Survey

Scientific Name	Common Name
<i>Cortaderia selloana</i>	Pampas grass
<i>Arundo donax</i>	Giant reed
<i>Rubus armeniacus</i>	Himalayan blackberry
<i>Cyperus eragrostis</i>	Tall flat sedge
<i>Avena</i> spp.	Wild oat
<i>Rumex crispus</i>	Curly dock
<i>Lotus pedunculatus</i>	Greater birds-foot trefoil
<i>Sesbania punicea</i>	Brazilian glory pea
<i>Populus nigra</i>	Black poplar
<i>Oenothera elata</i>	Hooker's evening primrose
<i>Phyllostachys aurea</i>	Golden bamboo
<i>Melilotus albus</i>	White sweet clover
<i>Verbena bonariensis</i>	Purple top vervain
<i>Sesbania punicea</i>	Rattlebox
<i>Erigeron bonariensis</i>	Flaxleaf fleabane
<i>Symphyotrichum subulatum</i>	Annual saltmarsh aster
<i>Typha latifolia</i>	Broadleaf cattail
<i>Iris pseudacorus</i>	Yellow flag iris
<i>Epilobium coloratum</i>	Purple-leaved willow herb
<i>Washingtonia robusta</i>	Mexican fan palm
<i>Helichrysum luteoalbum</i>	Jersey cudweed
<i>Polygonum aviculare</i>	Common knotgrass
<i>Lythrum hyssopifolia</i>	Grass-poly
<i>Oenothera villosa</i>	Hairy evening-primrose
<i>Cynodon dactylon</i>	Bermuda grass
<i>Paspalum dilatatum</i>	Dallis grass
<i>Capillipedium spicigerum</i>	Scented-top grass
<i>Cyperus eragrostis</i>	Umbrella sedge
<i>Amsinckia menziesii</i>	Common fiddleneck
<i>Polypogon monspeliensis</i>	Annual beard-grass
<i>Atriplex prostrata</i>	Fat-hen
<i>Epilobium parviflorum</i>	Small flower hairy willowherb
<i>Pondtederia crassipes</i>	Water hyacinth
<i>Ludwigia peploides</i>	Floating primrose willow
<i>Oenothera biennis</i>	Common evening-primrose
<i>Cirsium vulgare</i>	Bull thistle

Attachment E
Site Photographs



View of the bank of the Study Area from the San Joaquin River facing south.



View showing access point of the Study Area via boat along the San Joaquin River facing east.



View showing the intermixed grassland and ruderal habitats facing west.



View showing the easternmost isolated Seasonal Wetland facing west.



View showing the remnants of previous commercial use and development, along with the westernmost isolated Seasonal wetland feature facing west.