INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
For the
Giant Garter Snake Mitigation Bank

October 15, 2024

Ironhouse Sanitary District (ISD)
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BACKGROUND INFORMATION AND PROJECT DESCRIPTION

1. **Project Case Number(s):**
   804 0017

2. **Project Title:**
   Giant Garter Snake Mitigation Bank

3. **Public Comment Period**:
   October 15, 2024, through November 14, 2024

4. **Lead Agency:**
   Ironhouse Sanitary District (ISD)
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5. **Document Posted At:**
   https://www.ironhousesanitarydistrict.com/268/CEQA-Notice

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7. **Project Sponsor:**

Applicant/Developer
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Oakley, CA 94561

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8. **Project Location:**
   The proposed 189-acre Jersey Island Mitigation Bank (project) is located on the northeast corner of Jersey Island in Contra Costa County, California (Figures 1 and 2). The entire island is owned by Ironhouse Sanitary District (ISD). The entirety of Jersey Island also is located within the Sacramento-San Joaquin Delta "Primary Zone," as defined by the Delta Protection Action of 1992. The project site is surrounded by Franks Tract Recreation Area to the east, False River to the northeast, and the San Joaquin River to the southwest. The existing land uses within the proposed bank consist of grazed land subject to irrigation and cattle grazing, small irrigation ditches, and a small (approximately 5-acre) marsh supporting riparian vegetation, as shown in Figures 3 and 4.

9. **General Plan Designation:**
   The General Plan land use designation for Jersey Island is "Public and Semi-Public," which allows for properties owned and operated by public government agencies, such as libraries, fire stations, schools, etc.

10. **Existing Zoning:**
    Jersey Island is zoned as a heavy agricultural district (A-3) and a solar energy generation combining district (-SG). Together, the A-3,-SG zoning designation is intended to allow for general farming uses as described in Section 84-38.402 of the Contra Costa County Ordinance Code and to allow for solar energy generation and facilities in compliance with regulations set forth in the Contra Costa County Solar Energy Facilities Ordinance (Ordinance Number 2020-08, § II, 2-25-20), codified at Chapter 88-30 of the Contra Costa County Code.

Figure 1. Regional Location

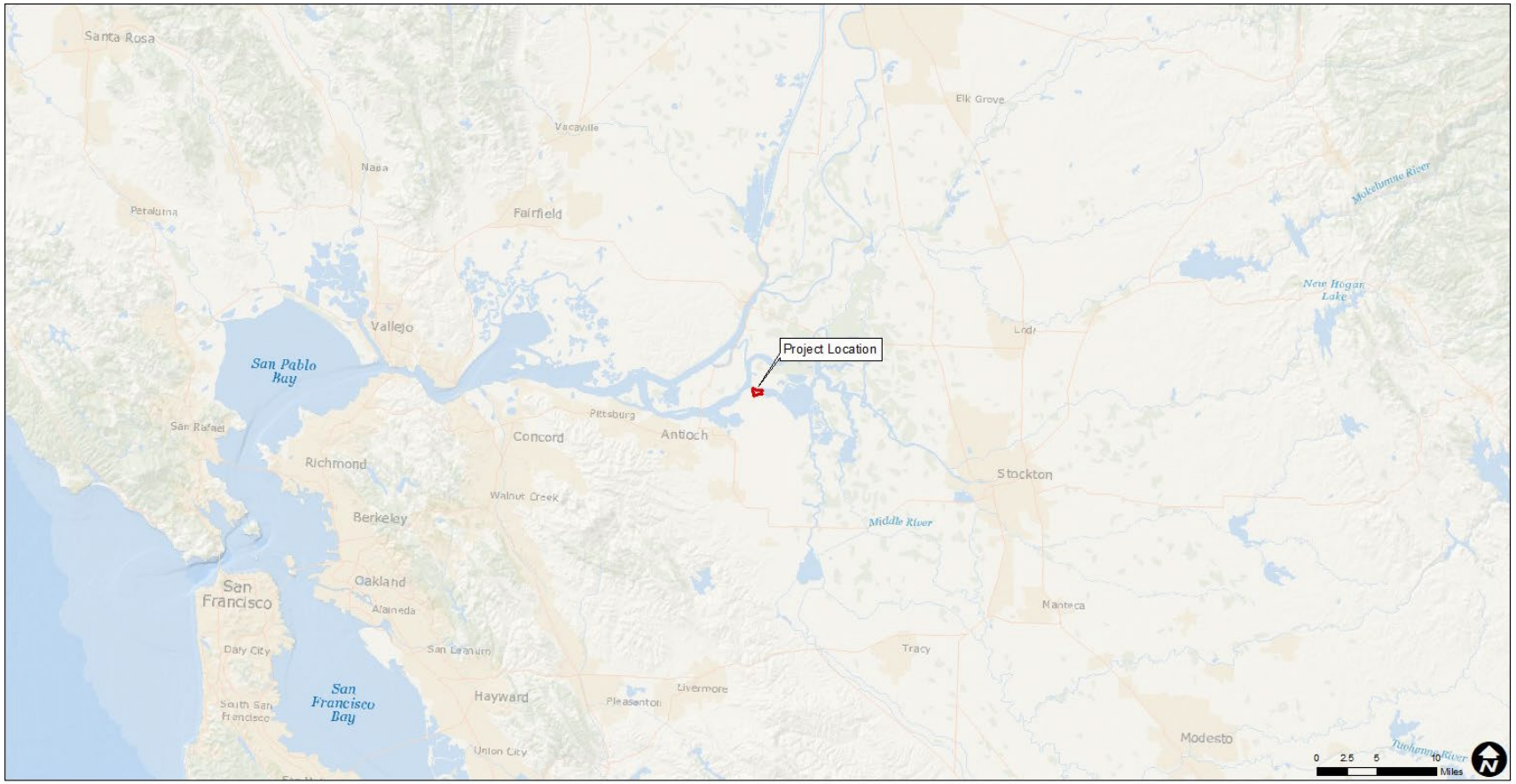


FIGURE 1
Regional Location



Project Area

Initial Study/Mitigated Nagative Declaration
Giant Garter Snake Mitigation Bank

Data Source: WSP 2024; ESRI 2024

Figure 2. Project Location



FIGURE 2
Project Location

Initial Study/Mitigated Nagative Declaration
Giant Garter Snake Mitigation Bank

Figure 3. General View Site Photo



Figure 4. Potential Ephemeral Wetlands Site Photo



11. Surrounding Land Uses and Setting:

The project site is located on the northeast corner of Jersey Island along False River in Contra Costa County, California (Figures 1 and 2). The project site is surrounded by Franks Tract Recreation Area to the east, False River to the northeast, and the San Joaquin River to the southwest. Levees surround the entire island and runs adjacent to the project site on the north and east sides. The Bradford Island Ferry-West Landing also resides along the east side of the project site providing a vehicle ferry from Jersey Island to Bradford Island and Webb Tract by the Delta Ferry Authority (ISD 2023)[1]. The island is owned and operated by ISD.

Historically, the Island has been used only for farming, and for placement of biosolids and treated wastewater by ISD, though the intensity of farming and the distribution of ditches and infrastructure has varied over time (aerial photos from 1939 show the site being farmed for hay, though they also show a much smaller levee system). Surrounding land uses coincide with the project site in that the island is primarily used for irrigation and cattle grazing by ISD.

12. Description of Project:

The project would establish a 189-acre habitat for the giant garter snake (*Thamnophis gigas,* GGS) on the project site to be operated as a mitigation bank. The project footprint includes the 189-acre bank area and approximately 17 acres that would be temporarily disturbed for staging during construction, totaling approximately 206 acres. The project site's environmental setting and the project itself are described in more detail below.

Environmental Setting

The project site is leased as irrigated cattle pasture that would be converted to a mitigation bank. The existing land uses within the project site consist of four large internal pastures for cattle, surrounded by an outer levee, which protects the site from tides and floodwaters. A system of internal irrigation ditches and fences divides the pastures and provides water for irrigation across the project site. The integrity of these smaller internal ditches is variable, with the eastern half of the project site retaining many ditches, while they have degraded at various rates across the rest of the project site. The dredging of these canals has resulted in a raised berm on one or more of the sides of the canals.

The project site is bisected by a larger canal, which directs water to the west, where it is pumped off the property to prevent flooding. The main levee runs along the northern and eastern edge of the project site and the tops are maintained to provide vehicle access around the northern perimeter of the site. Access along the southern and western borders of the project site is more limited due to a lack of developed roadway. The outboard sides of the levees, where they meet the water, are either unvegetated or support a narrow band of riparian woodland/shrub and/or scrub. The riprap that composes much of the outboard side provides additional habitat for a range of species. These species include four special-status plant species, and 18 special-status wildlife species composed of 15 birds, one mammal, and two reptiles. As explained below in section IV., *Biological Resources*, although construction could temporarily impact the species listed in Section IV, the project is designed to increase the quality and quantity of suitable habitat for the species with restoration of freshwater wetlands of varying types across the site, and any impacts to listed species would be reduced to a less than significant level with mitigation.

The existing resources within the proposed mitigation bank area include open water for GGS foraging, marsh for GGS foraging and basking, and berm areas for GGS basking and sheltering. GGS have been observed within the project site along the northwest and southeast corners of the proposed mitigation bank (Figures 3 and 4).

Background and Objectives

The GGS is a species of snake that is only found in the California Sacramento-San Joaquin Delta and Central Valley. This species was listed as threatened under the California Endangered Species Act in 1971, and the Federal Endangered Species Act in 1993. GGS populations have declined due to habitat

[1] Jersey Island Map, Ironhouse Sanitary District, 2023. https://www.ironhousesanitarydistrict.com/199/Jersey-Island

loss, with an estimated 95% of their historic habitat being developed. Additional factors leading to their current duress are the introduction of invasive species such as predatory fish and bullfrogs, and prolonged droughts reducing available perennial wetlands. They are one of the largest species of garter snake, measuring up to 63.7 inches in length. They are semi-aquatic snakes, and feed on aquatic prey such as fish and tadpoles, although upland basking habitat is essential for thermoregulation. While the project site historically would have been GGS habitat, it has been mostly developed into farm and ranch land and is no longer suitable habitat, although there is some existing marsh habitat along the northern border of the site that could provide very marginal habitat. The project's primary objective is to enhance and restore the project site through the construction of diverse, high-quality habitat providing distinct foraging, basking, and sheltering areas for GGS. This will protect the existing population and greatly enhance its size and resilience, enabling the operation of the project site as a mitigation bank.

The goal would be to obtain GGS habitat credits for a majority of the entire project site. Creating new habitat specifically designed to benefit GGS will inherently enhance the existing habitat with some GGS occurrences and will also restore habitat that was once ideal for GGS. Because GGS require a mosaic of upland and wetland habitat, and to better service the mitigation market, another goal would be to receive perennial emergent marsh credits for re-established wetland habitats, and riparian credits for riparian scrub habitats established as part of the habitat restoration for GGS.

Construction Activities

The proposed method for creating the project consists of the restoration of GGS habitat through construction of a habitat matrix of open water, perennial or semi-permanent marsh, edge habitat, constructed upland berms, and restored riparian scrub (Figure 2). To construct these features, the project will integrate into the existing ditches in several locations to provide water and subsequent drainage for the restored habitats (Figure 5).

The proposed habitat creation method provides rehabilitation of the existing wetlands on the site, which have long been degraded by diking and farming, as well as creating new GGS habitat where it historically occurred, together which provide habitat for GGS. The presence of emergent wetland habitat will provide numerous ecosystem benefits other than those provided to GGS, including foraging and nesting habitat and habitat connectivity for other wildlife species, groundwater absorption area, and capturing sediment. These are all values which the current farmed wetland does not provide, and the functional lift from the rehabilitation of the wetlands to something more closely resembling their historical nature is of significant value.

Construction of the project will require integration of existing ditches in several locations. In order to accomplish this integration, a concrete flashboard riser will be installed in the bank of the existing ditches at each diversion or drainage point, which will allow for the controlled input and output of water as needed. Each flashboard riser will be approximately 3' wide and 6' tall and have a series of removable boards to control water levels within the restored habitats, which will vary seasonally to mimic the fluctuations found in the species' natural aquatic habitat. The flashboard risers will not inhibit the current use of the ditch network to supply and drain water to agricultural fields outside of the proposed mitigation bank. Irrigation within the project area for the purposes of agriculture will no longer occur when the project is complete. Within various sections of the proposed habitat matrix, soils will be excavated to create deep (>36") open-water habitat. These areas will provide primary foraging habitat for GGS, and habitat for their primary prey (amphibians and fishes). Shallower excavations will create water less than 24" deep, to be vegetated by native bulrushes and cattails. GGS may bask on these plants and forage in the shallow waters, and the marsh will provide additional rearing habitat for GGS prey. The conceptual design consists of a network of many relatively narrow, sinuous channels. GGS preferentially forages along the boundary between marsh and open water, and this design maximizes that habitat.

Figure 5. Proposed Project Conceptual Habitat Design



The excavated soils will be used to construct elevated berms and mounds next to the open water and marsh. The mounds will feature south-facing slopes directly above the aquatic habitat, providing GGS basking habitat with escape from predators. Predators of adult GGS include North American river otters and raptors, while younger GGS may be prey to animals such as the American mink and introduced centrarchid fish. The mounds will also be constructed to have elevated regions several feet above the surrounding landscape to provide overwintering habitat.

Operational Activities

GGS has been documented repeatedly basking on levees along the border of the proposed mitigation bank. The distance from the documented occurrences to the proposed newly created habitat is approximately 100 meters. GGS routinely move hundreds of meters per day during regular activity; it is therefore expected that GGS would immediately colonize newly created habitat within the levees. By creating a large matrix of high-quality habitat where currently none exists, it is expected that GGS will colonize the bank site after it is constructed. Various monitoring techniques will be used to document this use during annual site visits.

Maintenance and monitoring of the restored habitats will take place to ensure that the habitats are successfully establishing and on a sustainable ecological trajectory and are not subject to trespass or other anthropogenic disturbances. The mitigation bank developer will be responsible for these and other activities outlined above.

The primary water source for the aquatic habitats is intended to be a combination of surface water and natural groundwater. To provide a perpetual water supply, ISD and Mitigation Investment Holdings (MIH) are working in good faith to establish necessary documentation such that MIH will have the legal right to use the existing network of siphons and ditches to supply and drain water to and from the proposed mitigation bank, as well as the bank's associated ditches. A water management regime involving manually adjusting water levels in the project site will be used to ensure that habitat is available at appropriate depths for GGS foraging for the entirety of the species' active period (April through October).

Management of invasive species, particularly aquatic plants, is a primary concern in maintaining habitat quality for GGS and other native species in the Delta. Plants such as water hyacinth (*Eichhornia crassipes*), water primrose (*Ludwigia* spp.), parrotfeather (*Myriophyllum aquaticum*), and Brazilian waterweed (*Egeria* spp.) entrap sediment, warm waters, and occlude open water in the Delta. The conceptual design incorporates elements to allow for physical management of these and other invasive species. The design includes weirs to allow for individual habitat segments to be drained on a rotational basis to manage invasive species. The design also ensures all areas remain accessible to equipment and personnel for clean-out and management as required. These are established design elements incorporated into multiple GGS banks in the central valley and will not have negative effects on GGS, its predators/prey or native plant species. GGS both prey on and are predated by non-native wildlife such as American bullfrog (*Rana catesbeiana*) and centrarchid fishes such as bass. Occasional removal of these species, and stocking with other prey species may be required and will be done by MIH or its designee.

Additionally, a conservation easement will be recorded on the property's title to permanently protect it and prevent future development on the mitigation bank site. Activities outlined above that are needed to maintain the integrity and functionality of the restored habitat will be allowed as described in the long-term management plan. The conservation easement will be held by a third-party entity that is approved to hold such instruments. They will work with the long-term steward (typically the landowner or their designee) to make sure the requirements of the conservation easement are being met. A non-wasting endowment will also be established and funded during the active life of the mitigation bank, which is anticipated to be between 8 and 12 years. When the active phase of the bank is complete, the bank will be closed, and the long-term phase of the bank will begin. Typically, the bank is closed when all of the mitigation credits have been sold and used to offset permitted impacts. When the project is closed, the endowment will be transferred to an approved third-party entity (typically the same entity that holds the conservation easement) and the property will be maintained by the long-term steward. The interest on the endowment principal will be used to pay for perpetual maintenance and monitoring of the

mitigation bank, which will be agreed upon between the long-term steward, conservation easement holder, and endowment holder.

Discretionary Approvals, Permits, and Studies

ISD is the CEQA lead agency for the project for which the following discretionary approvals are required:

- Adoption of this Mitigated Negative Declaration
- Adoption of the Mitigation, Monitoring and Reporting Program
- Resolution by the ISD Board to allow the option to purchase the property to be assigned to Montezuma Water LLC, who holds development rights. MIH is an approved designee by Montezuma Water.

13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ISD initiated consultation with California Native American tribes traditionally and culturally affiliated with the geographic area affiliated with the project, pursuant to Assembly Bill 52 (AB 52). Initial project notification was provided to the following tribes on February 16, 2024, and subsequently again on June 25, 2024 due to minor changes in the project footprint: Amah Mutsun Tribal Band, Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Confederated Villages of Lisjan Nation, Guidiville Rancheria of California, Indian Canyon Mutsun Band of Costanoan, Muwekma Ohlone Indian Tribe of the SF Bay Area, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, Northern Valley Yokut / Ohone Tribe, Ohone Indian Tribe, Tule River Indian Tribe, and Wilton Rancheria. ISD staff were contacted by, and engaged in consultation with, the Confederated Villages of Lisjan Nation. As shown in Appendix A.2, ISD did not receive any requests for consultation from any of the other the above-listed tribes.

14. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- U.S. Army Corps of Engineers – Clean Water Act Section 404 Permit and Mitigation Bank approval
- U.S. Fish and Wildlife Service – Federal Endangered Species Act Section 7 Consultation and Mitigation Bank approval
- Regional Water Quality Control Board – Section 401 Water Quality Certification and Mitigation Bank approval
- California Department of Fish and Wildlife – California Fish and Game Code Section 1602 Streambed Alteration Agreement, California Endangered Species Act Section 2081 Take Permit, and Mitigation Bank approval
- Contra Costa County - Approvals and permits necessary to execute the project, including, but not limited to, demolition permit, grading permit, building permit, etc.

15. Other Technical Studies Referenced in this Initial Study (Provided as Appendices):

- Air Quality and Greenhouse Gas Technical Memorandum
- Biological Resources Evaluation Report
- Cultural Resources Report

16. Acronyms:

AB –	Assembly Bill
APE –	Area of Potential Effect
BMPs –	Best management practices
CAL FIRE –	California Department of Forestry and Fire Protection
CAP –	Climate Action Plan
CDFW –	California Department of Fish and Wildlife
CEQA –	California Environmental Quality Act
CHRIS –	California Historical Resources Information System
CNDDB –	California Natural Diversity Database
CNPS –	California Native Plant Society
CRPR –	California Rare Plant Bank
CWA –	Clean Water Act
dB –	Decibel
dBA –	A-weighted sound pressure level
DPA -	Delta Protection Act
DPC -	Delta Protection Commission
DTSC –	Department of Toxic Substance Control
EIC –	Eastern Information Center
ESA –	Endangered Species Act
FMMP –	Farmland Mapping and Monitoring Program
GHG –	Greenhouse Gas
GP –	General Plan
IS –	Initial Study
MBTA –	Migratory Bird Treaty Act
MLD –	Most Likely Descendent
MM –	Mitigation measure
MRZ –	Mineral Resource Zone
MS4 –	Municipal Separate Storm Sewer System
$MTCO_{2e}$ –	Metric tons of carbon dioxide equivalent
NAHC –	Native American Heritage Commission
NEPSSA –	Narrow Endemic Plant Species Survey Area
NHD –	National Hydrology Dataset
NPDES –	National Pollutant Discharge Elimination System
NC –	Natural Resources Conservation
NWI –	National Wetlands Inventory
PCR –	Public Resources Code

REC –	Recognized Environmental Conditions
RWQCB –	Regional Water Quality Control Board
SFAB –	San Francisco Air Basin
BAAQMD –	Bay Area Air Quality Management District
SLF –	Sacred Lands File
SSC –	Species of Special Concern
SWPPP –	Stormwater Pollution Prevention Plan
SWRCB –	State Water Resources Control Board
TCR –	Tribal Cultural Resource
USFWS –	United States Fish and Wildlife
USGS –	United States Geologic Survey

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact", "Potentially Significant Impact Unless Mitigation Incorporated", or "Less than Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Agriculture & Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology & Soils	☒ Greenhouse Gas Emissions	☒ Hazards & Hazardous Materials
☒ Hydrology & Water Quality	☒ Land Use & Planning	☐ Mineral Resources
☒ Noise	☐ Population & Housing	☐ Public Services
☐ Recreation	☒ Transportation	☒ Tribal Cultural Resources
☒ Utilities & Service Systems	☒ Wildfire	☒ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

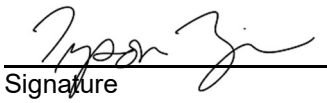
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

10/15/2024
Date

Tyson Zimmerman
Printed Name

Ironhouse Sanitary District
For

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or another CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analyses Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

    b) the mitigation measure identified, if any, to reduce the impact to less than significance.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code §21099 – Modernization of Transportation Analysis for Transit-Oriented Infill Projects – **Would the project:**				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
Response: Less than Significant Impact The project is located on Jersey Island, which is a relatively flat island within the Sacramento-San Joaquin Delta, surrounded by rivers and marinas. The Open Space Element of the County's General Plan identifies scenic resources in the county and defines scenic resources as (1) scenic ridges, hillsides, and rock outcroppings; and (2) the San Francisco Bay/Delta estuary system. As identified in the Open Space Element, Jersey Island in total resides within the Miller Knox Regional Shoreline Open Space Area. The project location itself sits adjacent to the San Joaquin River, which is identified as a scenic waterway within the General Plan. However, the project improvements would largely be confined to many relatively narrow, sinuous channels within an unpopulated area that would not obstruct scenic vistas. Therefore, the project would have a ***less than significant*** impact.				
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
Response: No impact There are no designated state scenic highways adjacent to the project location. In addition, there are no rock outcroppings or historic buildings in the immediate vicinity of the project, therefore there would be no impact to such resources. The project improvements would be largely confined to many relatively narrow, sinuous channels that would not obstruct viewsheds. ***No impact*** would result from implementation of the project.				
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is	☐	☐	☒	☐

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				

Response: Less than Significant Impact

Because the project would be confined to largely confined to relatively narrow, sinuous channels, the project would not significantly alter the visual character within the project site. Construction would include the excavation of trenches and creation of earth stockpiles during each phase. However, impacts would be temporary and disturbed areas would be re-stored to their prior condition after construction. The project would affect minimal portions within a non-urbanized area. Therefore, the project would have a ***less than significant*** impact.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Response: No impact

Construction would occur only during daytime hours, and no nighttime construction lighting would be required. The implementation of the project does not include and new site lighting, nor would it induce travel to or from the project site by vehicles using headlights. Finally, no new buildings or vehicles with surfaces that could create glare (e.g., glass or metal) are proposed. Therefore, the project would not create a new source of light or glare in the area. ***No impact*** would occur.

Mitigation Measures

None.

Sources:

1. Contra Costa County General Plan, adopted January 18, 2005.
    - Chapter 9 – Open Space

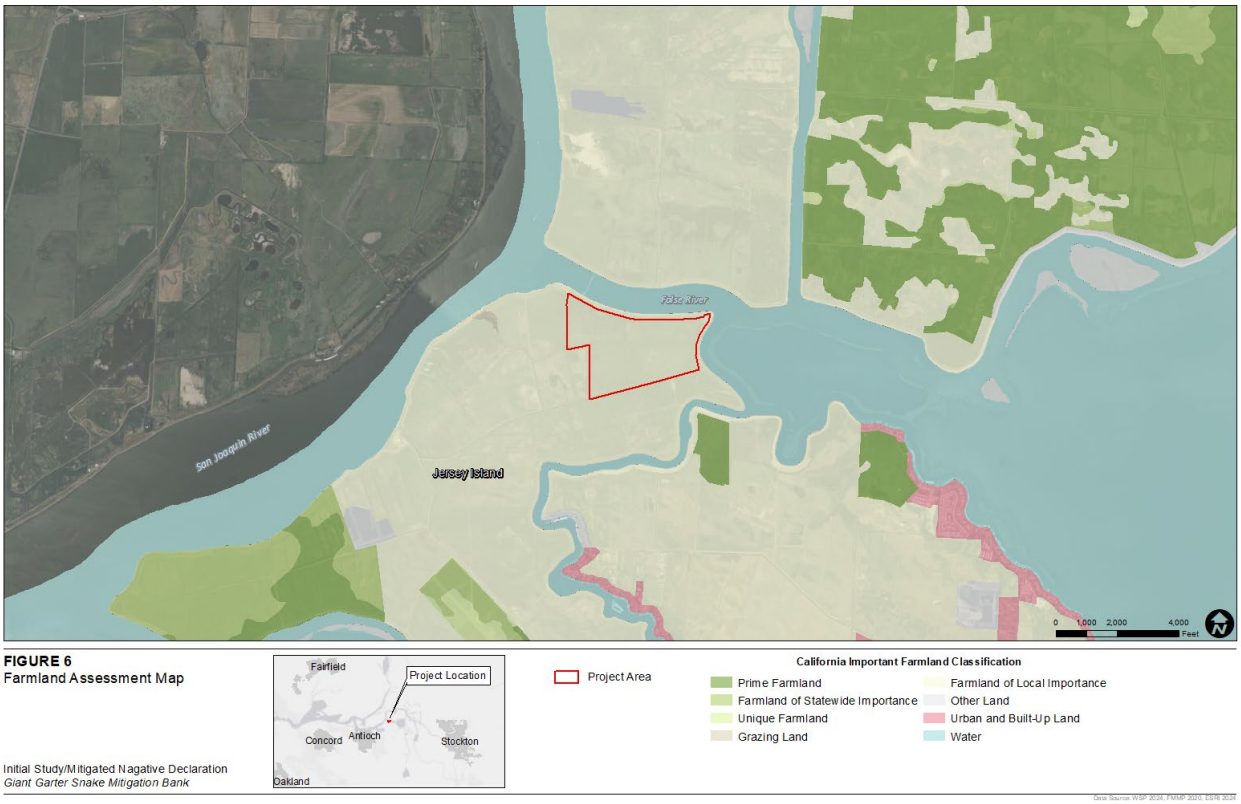
ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. **Would the project:**				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

Response: Less than Significant Impact

According to the California Department of Conservation Important Farmland map, the project site is within and surrounded by areas designated as Farmland of Local Importance, as shown in Figure 6. Approximately 206 acres is mapped within the area of direct impact for the project, inclusive of the 189-acre bank area and associated ground disturbance, representing approximately 5.9 percent of Jersey Island's designated farmland. Conversion of Farmland of Local Importance is not a significant impact for purposes of CEQA. The project would not impact the viability of the rest of Jersey Island's grazing potential in the future. The site is currently used primarily for irrigation and cattle grazing by ISD. However, as further described in Section IV. *Biological Resources*, the integrity of the irrigation ditches within the project area is variable, as many irrigation ditches have degraded at various rates across the project site. The presence of emergent wetland habitat would provide numerous ecosystem benefits other than those provided to GGS, including foraging and nesting habitat and habitat connectivity for other wildlife species, groundwater absorption area, and capturing sediment. These are all values which the current farmed wetland does not provide, and the functional lift from the rehabilitation of the wetlands to something more closely resembling their historical nature is of significant value. Therefore, due to the increased ecosystem benefits provided by the project and because the majority of Jersey Island's designated farmland would remain unaffected, the project would have a ***less than significant*** impact.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Figure 6. Important Farmland



b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

Response: No impact

Jersey Island is zoned as a heavy agricultural district (A-3) by the County of Contra Costa. The project is not within an area subject to Williamson Act contract according to the CA Department of Conservation's California Williamson Act Enrollment Finder. Therefore, the project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The proposed project would result in minor alterations of land for the enhancement of habitat for species already present within the area. No permanent conversion of agriculturally zoned land would occur. ***No impact*** would occur.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
Response: No impact The project area does not support timberland, forest land, or the production of timber. The project would not cause the rezoning of lands zoned for forest land or timberland, nor would it conflict with timber production. . Therefore, ***no impact*** would occur.				
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
Response: No impact No existing forest land or timberlands are present on the project site. Therefore, the project would not result in the loss of forest land or convert forest land to non-forest uses. ***No impact*** would occur.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Response: Less than significant impact

The project is located in a heavy agricultural zoning district. As mentioned above, approximately 5.9 percent of Jersey Island's designated farmlands is mapped within the area of direct impact for the project. The project area is currently used primarily for irrigation and cattle grazing by ISD. However, as further described in Section IV. *Biological Resources*, the integrity of the irrigation ditches within the project area is variable, as many irrigation ditches have degraded at various rates across the project site. The project would provide habitat creation through rehabilitation of the former wetlands on site, providing numerous ecosystem benefits to the surrounding area. Therefore, because the majority of Jersey Island's designated farmland would remain unaffected, the project would have a ***less than significant*** impact.

Mitigation Measures

None.

Sources:

1. Contra Costa County General Plan, adopted January 18, 2005.
   a. Chapter 8 – Conservation
2. California Williamson Act Enrollment Finder, CA Department of Conservation, 2022. https://maps.conservation.ca.gov/dlrp/ciff/.
3. California Farmland Monitoring and Mapping Program, CA Department of Conservation, 2023. https://www.conservation.ca.gov/dlrp/fmmp.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. **Would the project:**				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

Response: Less than Significant

The Bay Area Air Quality Management District (BAAQMD) prepares plans to attain ambient air quality standards in the San Francisco Bay Area Air Basin. The BAAQMD prepares ozone attainment plans for the national ozone standard and clean air plans for the California standard both in coordination with the Metropolitan Transportation commission (MTC) and the Association of Bay Area Governments (ABAG).

In April 2017, the BAAQMD adopted the 2017 Clean Air Plan, which provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the BAAQMD will continue progress toward attainment of all state and federal air quality standards and elimination of health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050 and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets (BAAQMD, 2017).

The 2017 Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as PM, ozone, and toxic air contaminants; to reduce emissions of methane and other “super-GHGs” that are potent climate pollutants in the near-term; and to decrease emissions of CO_2 by reducing fossil fuel combustion.

The BAAQMD 2017 Clean Air Plan, Spare the Air-Cool the Climate (2017 Plan) is the most recently adopted regional air quality plan that pertains to the project. The 2017 Plan focuses on two closely related goals: protecting public health and protecting the climate. The 2017 Plan is a multi-pollutant air quality plan addressing four categories of air pollutants:

- Ground-level ozone and the key ozone precursor pollutants (reactive organic gases and oxides of nitrogen), as required by State law;
- Particulate matter (PM), primarily PM2.5, as well as the precursors to secondary PM2.5;
- Toxic air contaminants; and
- Greenhouse gases.

The 2017 Plan includes 85 control measures in nine economic sectors: 1) stationary sources; 2) transportation (mobile) sources; 3) energy; 4) buildings; 5) agriculture; 6) natural and working lands; 7) waste management; 8) water; and 9) super-GHG pollutants (BAAQMD, 2017).

The project would not prevent the BAAQMD from implementing these actions, and none directly apply to the project. Furthermore, the project does propose any new land use resulting in additional vehicle miles traveled (VMT) or operational emissions, and therefore, would not result in additional emissions beyond those accounted for in the Air Quality Plan. The project would not preclude implementation of the 2017 Clean Air Plan. Therefore, the project would have a ***less than significant*** impact.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation

As mentioned above, the project site is located within Contra Costa County under the jurisdiction of the BAAQMD. The BAAQMD is principally responsible for air pollution control in the Bay Area, and works directly with county transportation commissions, local governments, and state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Table 1 summarizes the BAAQMD Air Quality Significance Thresholds to determine significance for the purposes of CEQA.

Table 1. BAAQMD Air Quality Thresholds of Significance (Project Level)

Criteria Air Pollutants and Precursors (Regional)			
Pollutant	**Construction Related[1]**	**Operation**	
	(Average Daily Emissions in lb/day)	**(Average Daily Emissions in lb/day)**	**Maximum Annual Emissions (tons per year)**
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best Management Practices[2]	None	
Local CO	None	9.0-ppm (8-hour average), 20.0 ppm (1-hour average)	

Source: BAACQMD April 2022

[1] The Air District recommends for construction projects that require less than 1 year to complete; lead agencies should annualize impacts over the scope of actual days that peak impacts would occur rather than over the full year. Additionally, for phased projects that results in concurrent construction and operational emissions. Construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.

[2] $PM_{10}/PM_{2.5}$ (fugitive dust) is also recognized to impact local communities. The Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses. These measures are detailed in Chapter 5, Section 5.2.2 Construction-Related Criteria Air Pollutant Emissions.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Construction Emissions

Construction emissions would be short-term, temporary emissions. During construction, short-term degradation of air quality may occur due to fugitive dust generated by construction activities involving clearing vegetation, site grading, and trenching. If construction activities are not properly controlled, they could temporarily generate small amounts of fugitive dust, which is attributed to impacting air quality.

Potential emissions from construction of the project were estimated using CalEEMod (2022.1.1.21) (Appendix B.1). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project specific model inputs included the project footprint of 206 acres (inclusive of the 189-acre bank area and associated ground disturbance), construction start date of June 1, 2027, estimated 45 working day construction duration, working schedule of 12 hours per day and 5 days per week, project specific equipment list and working days, and daily vehicle trip estimates. Work will be done in a single phase and all excavated material will be balanced on-site (no off-haul). The project does not include demolition, building construction, paving, or architectural coatings.

Per BAAQMD's *2022 CEQA Guidelines*, Appendix D, two Basic Best Management Practices (BMPs) for Construction-Related Fugitive Dust Emissions were applied within CalEEMod and included in the emissions results:

- B-1 states that all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered twice per day.
- B-4 states that all vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

Table 2 presents the average daily pollutant emissions, calculated based on the actual construction duration as recommended by BAAQMD for construction projects that require less than one year to complete (rather than averaged over the full year per the CalEEMod output). As shown in Table 2, average daily unmitigated pollutant emissions are below the BAAQMD significance thresholds.

Table 2. Unmitigated Construction Emissions Summary (Pounds per Day)

Source/Phase	ROG	NO_x	PM_{10}	$PM_{2.5}$	PM_{10} (Fugitive Dust)	$PM_{2.5}$ (Fugitive Dust)
Average Daily Emissions[1]	4.0	33.3	1.3	0.9	3.1	0.4
BAAQMD Threshold[2]	54	54	82	54	BMPs	BMPs
Significant	NO	NO	NO	NO	NO	NO

[1] CalEEMod 2022.1.1.21
[2] BAAQMD 2022

For a project to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all of BAAQMD's Basic BMPs, as required by **MM AQ-1** listed below and in Table 3 of Appendix B.1 of this MND. Because the estimated criteria pollutant emissions from the construction of the project are below BAAQMD significance thresholds, no additional mitigation is required.

Operational Emissions

No new permanent source of criteria air pollutants would result from project implementation; therefore, there are no predicted operational emissions from the project.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Construction and Operational Impacts The estimated maximum daily emissions of all air pollutants during project construction and operation are below the BAAQMD air quality significance thresholds and localized significance thresholds; therefore, with adherence to BAAQMD's basic BMPs during the construction period per **MM AQ-1**, impacts would be ***less than significant.***				
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
Response: Less Than Significant Impact Sensitive receptors can include residences, schools, playgrounds, childcare centers, health care facilities, and retirement homes. Research shows that the zone of greatest concern is within 500 feet (or 150 meters) of the emissions source. Construction-related effects on sensitive receptors from most projects would be greatest during the site preparation phase and would likely cause the largest impacts as most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM_{10}, $PM_{2.5}$, and small amounts of CO, SO_2, NO_X, and VOCs to be of concern. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. However, due to the rural nature of the project area, there are no sensitive receptors in, or within close proximity (500 feet), to the project site. Additionally, as described in response to question b) above and shown in Table 2, the project's maximum localized construction and operational emissions would not exceed BAAQMD's thresholds for significance. Therefore, no sensitive receptors would be subject to a significant air quality impact during project construction or operations. Impacts would be ***less than significant,*** and no mitigation is required.				
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐
Response: Less Than Significant Impact The project does not propose activities that are typically associated with emitting objectionable odors. Potential odor sources associated with the project may result from construction equipment exhaust and the application of asphalt during construction activities. Any construction–related odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity; therefore, odor impacts would be less than significant. Additionally, there are no sensitive receptors in, or within close proximity to, the project site that would be affected by objectionable odors. Therefore, odors associated with the project-related construction would be ***less than significant,*** and no mitigation is required.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation Measures:

MM AQ-1: BAAQMD Basic Best Management Practices. The project must implement the following BMPs to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions. All BMPs should be clearly stated on the project grading plans.

a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
b) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
c) All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
d) All vehicle speeds on unpaved roads shall be limited to 15 mph.
e) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
f) All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
g) All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
h) Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
i) Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

Sources:

1. Bay Area Air Quality Management District (BAAQMD). May 2017. *California Environmental Quality Act Air Quality Guidelines*.
2. Jersey Island Mitigation Bank Air Quality and GHG Emissions Technical Memorandum (WSP, 2024)
3. Contra Costa County General Plan, adopted January 18, 2005.
   a. Chapter 8 – Conservation

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Response: Less than Significant with Mitigation

A *Biological Resource Evaluation was* prepared for the project (VNLC, 2024), which evaluates and addresses potential impacts to biological resources (Appendix B.2). The findings of this analysis are summarized in the section below.

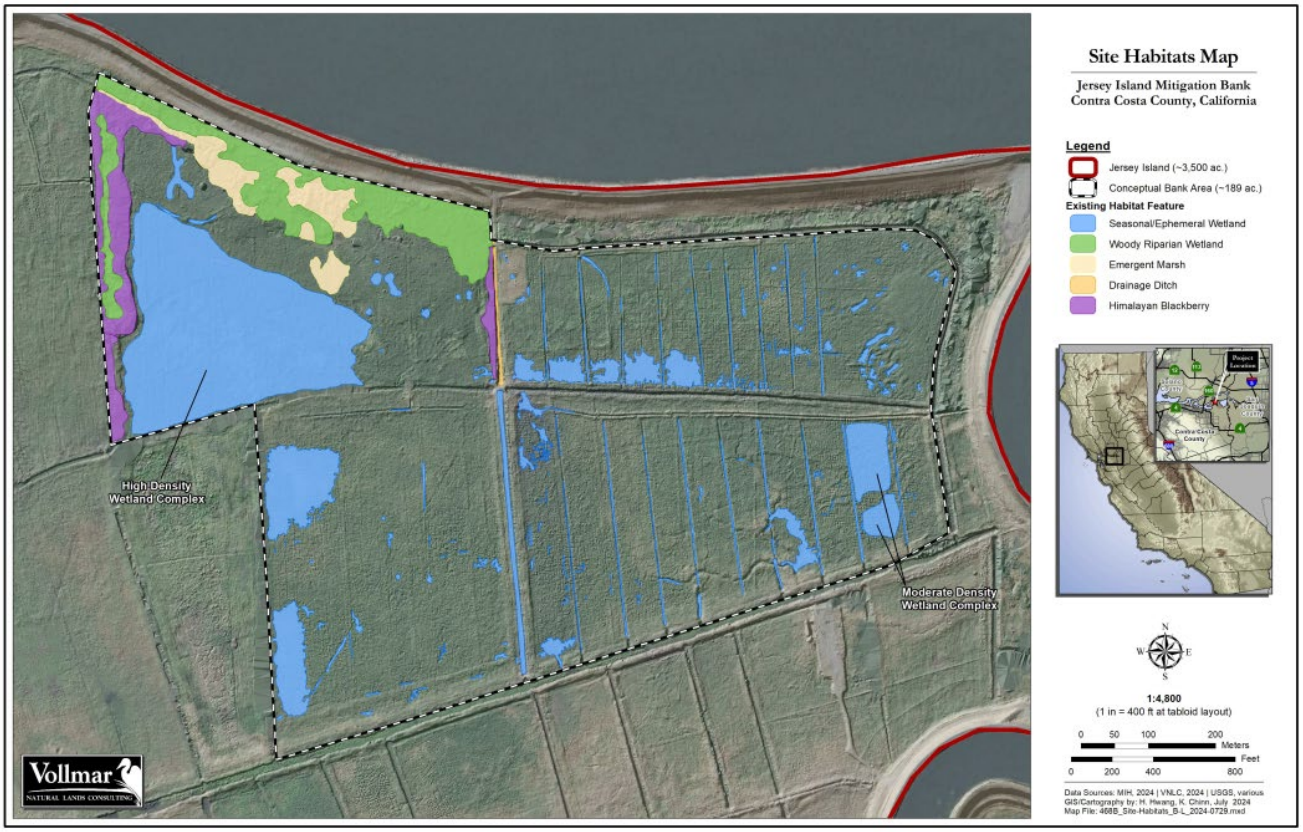
Setting

Since the 1800s, the region has been subject to human modification through levee construction and draining of wetlands for agricultural production and livestock grazing. Consistent with regional modifications, Jersey Island has been diked, drained, and is currently rangeland for cattle. The site is leased as irrigated cattle pasture, while other portions of the Island are farmed and partially used to cycle both biosolids and treated wastewater. Existing conditions within the project site include three large internal pastures for cattle, surrounded by an outer levee, which protects the site from tides and floodwaters. A system of internal irrigation ditches and fences divides the pastures and provides water for irrigation across the site. The integrity of these smaller internal ditches is variable, with the eastern portion of the project site retaining many ditches, while they have degraded at various rates across the rest of the Site. The southern border of the site is bounded by a larger canal, which directs water to the west, where it is pumped off the property to prevent flooding.

The survey of the project site was conducted to document the existing biological resources; to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether project-related impacts would occur to sensitive biological resources. Natural communities within the project site can be broken into seven different categories; these include Seasonal/Ephemeral Wetlands, Woody Riparian Wetland, Emergent Marsh, Drainage Ditches, Himalayan Blackberry, and Non-native Annual Grassland. Vegetation within each natural community is discussed in detail below and depicted on Figure 7.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Figure 7. Wetland Habitat Assessment Map



Source: Vollmar Natural Lands Consulting, 2024.

Seasonal Ephemeral Wetlands

Seasonal and/or ephemeral wetlands likely represent one of the most prevalent wetland habitats on the site. They are found throughout most of the open fields across the site. These features are rain-fed, and most do not appear to hold water past late spring. These wetland features form in relatively shallow basins and support a mix of facultative and obligate wetland plant species including, rough cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), and rabbitsfoot grass (*Polypogon monspeliensis*). Other plant species were likely present in these features but could not be identified at the time of the surveys. Some of these seasonal and ephemeral wetlands had clear topographical and vegetation boundaries to the uplands but many had more indistinct boundaries.

These wetland habitat features often formed in natural depressions but were also present in old drainage ditches and furrows in the fields resulting in long linear features. Very large ephemeral wetlands were observed during the field surveys which formed in the southeastern corner of the site and along portions of the southern boundary of the site. These features corresponded to the lowest elevation areas of the site and where likely past farming practices have created a series of ruts and furrows in the fields. Based on historical aerial imagery, these features primarily pond after recent rain events and likely do not remain ponded for a substantial amount of time (Figures 3, 4).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Woody Riparian Wetland

Woody riparian wetland features were classified by a woody overstory dominated by willow species. This habitat type was primarily found along the northern riparian belt that is oriented east to west in the northern portion of the site. The hydrology in these habitats appears to be mainly influenced by the low elevation resulting in a high-water table near the surface. Additional sources of water for these features may include the maintained drainage ditches that run parallel to these features. Willow species documented in these features include Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*). Other plant species in the understory include forbs such as Mexican rush (*Juncus mexicanus*) and stinging nettle (*Urtica dioica*) and tall emergent vegetation including California bulrush (*Schoenoplectus californicus*) and broadleaf cattail (*Typha latifolia*). Based on the prevalence of many obligate wetland plant species, topography, and clear hydrologic indicators, the location and extent of this wetland habitat type are likely jurisdictional wetlands. Songbird and raptor species were abundant in this habitat type.

Emergent Marsh

Emergent marsh includes wetland habitats that are dominated by tall emergent vegetation such as cattails, tules, and rushes. These wetland habitats are mainly distributed along the east-west oriented channel in the northern portion of the site in shallow depressions where the water table was found to be near or at the surface. These features are dominated by emergent vegetation species including California bulrush, broadleaf cattail, and in more limited areas narrow leaf cattail (*Typha angustifolia*), common reed (*Phragmites australis*), and giant reed (*Arundo donax*). A patch of emergent marsh dominated by alkali bulrush (*Bolboschoenus maritimus*) is also present in the western portion of the site in an open field. This habitat is primarily found alongside woody riparian habitats and is often encroached on by non-native Himalayan blackberry (*Rubus armeniacus*). Limited amounts of open water are present in this habitat type with emergent vegetation and litter comprising the vast majority of the surface cover.

Drainage Ditch

A series of drainage ditches are located throughout the site that generally transport water from east to west or connect to other sets of drainage ditches on nearby portions of Jersey Island. These drainage ditches represent the deepest wetland features on-site and are actively maintained by sediment removal when they become too filled in. Water is pumped into the drainage ditches from the nearby slough and is carried down to the western end of the site where it is pumped back into the San Joaquin River. The drainage ditches measure an average of three feet deep from the bottom of the channel to the top of the bank but may be deeper or shallower in some areas. Banks of these ditches are generally abrupt and steep due to dredging for ditch maintenance. The pumps are often turned off during periods of rain or when water is abundant on the site for other reasons resulting in fluctuating water levels in the ditches. The drainage ditches support a range of emergent and floating vegetation including broadleaf cattail, narrow leaf cattail, floating water primrose (*Ludwigia peploides*), parrots feather (*Myriophyllum aquaticum*), mosquito fern (*Azolla filiculoides*), and duckweed (*Lemna minor*).

Himalayan Blackberry

Himalayan blackberry was included as a separate habitat type as it was closely associated with other wetland habitat types including woody riparian wetlands, emergent marsh, and the drainage ditches on-site. In many cases where dense stands of Himalayan blackberry were observed, it appeared to be growing on slightly elevated and non-saturated surfaces near other wetland habitats and therefore large portions of these stands may not represent wetlands. This species is ranked by the California Invasive Plant Council (CalIPC) as a 'High', which is assigned to species that have "severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically" (CalIPC 2024). It is known as a strong competitor that rapidly displaces native plant species and thickets to produce dense canopies that limit the growth of understory plants (*Ibid*).

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Non-Native Annual Grassland

The remaining portion of the project site is dominated by non-native annual grasses and weedy forb species, likely related to the history of agriculture and grazing on the Site. Dominant plant species in the upland grasslands included reed fescue (*Festuca arundinacea*), Bermuda grass (*Cynodon dactylon*), Mediterranean barley (*Hordeum murinum*), and poison hemlock (*Conium maculatum*). These four plants species are ranked by CalIPC as 'Moderate', which is assigned to species that have 'substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, although establishment is generally dependent upon ecological disturbance' (CalIPC 2024). Other non-dominant plant species in this habitat include California burclover (*Medicago polymorpha*) and rough cocklebur (*Xanthium strumarium*).

This grassland community and the seasonal/ephemeral wetland communities were closely correlated with the degree of subsidence, as deeper basins formed ideal habitat for the wetlands while the upland habitat around the basins was primarily grassland. The soils beneath the nonnative grasslands were a mix of black histic soil in the southern areas and sandy redox fill soil north of the riparian belt.

Special-Status Plant Species

Special-status plants include species that are designated by the USFWS and/or CDFW as rare, threatened, or endangered as well as candidate species for listing. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified by the CNPS as CRPR 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California. Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included as CRPR Lists 3 and 4 in the CNPS Inventory.

Four special status plant species have a high potential to occur on the project site, those being:

- Mason's lilaeopsis (*Lilaeopsis masonii*; State Rare and CRPR 1B.1),
- Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*; CRPR 1B.2),
- Suisun marsh aster (*Symphyotrichum lentum*; CRPR 1B.2),
- Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*; CRPR 1B.2).

Details concerning these species, along with the remaining special-status plant species known from the region, but not expected to occur are included in Appendix B.2. Protocol-level plant surveys have not been conducted in the project site, and the reconnaissance-level surveys done in 2024, were not conducted during the blooming period for most of these species.

Special-Status Plant Species: Impacts

Mason's lilaeopsis, Delta tule pea, Suisun Marsh aster, and Woolly rose-mallow all have the potential to occur within the project site and therefore, could potentially be permanently impacted by project implementation.

In order to reduce impacts to habitats and sensitive plant species on the project site, the Applicant shall implement measures listed under **MM BIO-1a** below, requiring protocol-level botanical surveys in areas expected to be impacted by constructed activities, plus a 100-foot buffer. The surveys will target all special-status plant taxa with a designated California Rare Plant Rank (CRPR). If any of the species are present, measures listed under **MM BIO-1b** below will be required. If none of the targeted species are present in the survey area, no further action will be required, and construction may proceed. Implementation of **MM BIO-1a and MM BIO-1b** would ensure that potential impacts to habitats present in the project site would remain at a less-than-significant level.

With implementation of **MM BIO-1a** and **MM BIO-1b**, the proposed project impacts to sensitive plant species would be reduced to a **less than significant** level.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Special-Status Wildlife Species

There are 18 special-status wildlife species with potential to occur within the project site. These species include 15 birds, one mammal, and two reptiles:

- Tricolored Blackbird (*Agelaius tricolor*; ST, SSC, BCC);
- Golden Eagle (*Aquila chrysaetos*; WL, FP);
- Western Burrowing Owl (*Athene cunicularia hypugaea*; SSC, BCC);
- Swainson's Hawk (*Buteo swainsoni*; ST);
- Mountain Plover (*Charadrius montanus*; SSC, BCC);
- Northern Harrier (*Circus hudsonius*; SSC, BCC);
- White-tailed Kite (*Elanus leucurus*; FP);
- Lesser Sandhill Crane (*Grus canadensis canadensis*; SSC)
- Greater Sandhill Crane (*Grus canadensis tabita*; ST, FP);
- Bald Eagle (*Haliaeetus leucocephalus*; SE, FP)
- Loggerhead Shrike (*Lanius ludovicianus*; SSC);
- California Black Rail (*Laterallus jamaicensis coturniculus*; ST, FP);
- Double-crested Cormorant (*Nannopterum auritum*; WL)
- Modesto Song Sparrow (*Melospiza melodia* pop. 1; SSC);
- California Ridgeway's Rail (*Rallus obsoletus obsoletus*; FE, SE, FP)
- Western Red Bat (*Lasiurus frantzii*; SSC)
- Western Pond Turtle (*Emys marmorata*; SSC, Proposed FT); and
- Giant Garter Snake (*Thamnophis gigas*; FT, ST).

Additionally, Jersey Island and all of its surrounding waterways are within Delta Smelt (*Hypomesus transpacificus*) and Green Sturgeon (*Acipenser medirostris*) Designated Critical Habitat. However, the wetland habitats found on Jersey Island within the project site are not tidally connected, and therefore these species do not have potential to occur on the site and are not further addressed in this analysis. Additional species known from the larger region, but not determined to have potential to occur are included in Appendix B.2. See Figure 8 below for a map of CNDDB wildlife occurrences.

Special-Status Wildlife Species: Impacts

Tricolored Blackbirds

Tricolored Blackbirds are known from approximately two miles from the project site, including multiple males calling from emergent marsh habitat within the surrounding sloughs. Nesting habitat for this species is currently very marginal on the project site. Tricolored Blackbirds nest in large wetland and marsh features, especially with large protective plants. Overall, restoration of emergent marsh habitat (dominated by cattail and tule) within the project site could be beneficial for Tricolored Blackbirds in the area. Construction, maintenance, and/or management of the project could include temporary noise disturbances to Tricolored Blackbirds within the vicinity of the project site.

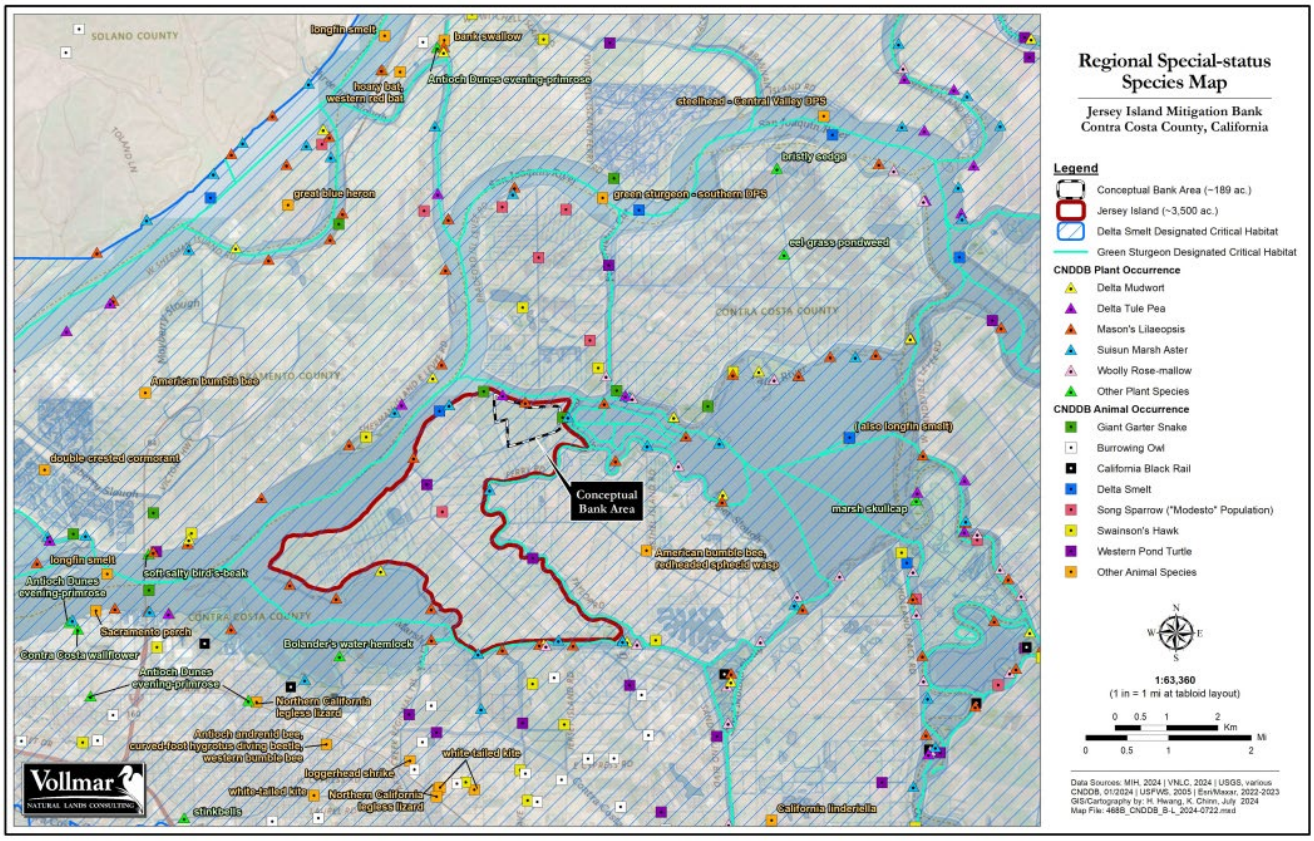
Therefore, all of **MM BIO-2** avoidance measures should be implemented to ensure that this project has a less-than-significant impact on this species during construction, maintenance, and/or management actions.

Raptor Birds

Similarly, construction, maintenance, and/or management of the project could result in temporary noise disturbances to nests of Golden Eagle, Western Burrowing Owl, and Bald Eagle species within the vicinity of the project site. Therefore, avoidance measures **MM BIO-3** though **MM BIO-4** should be implemented to ensure that this project has a less-than-significant impacts on this species during construction, maintenance, and/or management actions.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Figure 8. Regional Special-Status Species Map



Swainson Hawks

Likewise, potential Swainson Hawk species nesting habitat is present in the project site due to large trees in the riparian areas along the Site's northern area. Grassland in the project site provides suitable foraging habitat. This project may have short-term impacts to nesting habitat from disturbances during the construction period. However, for Swainson Hawk species in particular, the project could ultimately increase the number of large trees within the project site due to the increase in riparian habitat. In addition, it is possible that the improved quality of the restored uplands associated with the project (invasive species control, mounded areas, better water management) could improve the availability of prey. Due to the potential improvement of nesting potential and improved management of foraging habitat for Swainson Hawk species, the impact of this project to the species is less-than-significant with the incorporation of all of **MM BIO-5** avoidance and minimization measures.

Mountain Plovers/Western Red Bats

For the Mountain Plover, the project site sits along the very western margin of their range, and the project site is outside of this species' nesting range. This means that there are likely very few individuals that utilize the site, and only as wintering or foraging habitat. As such, this project would have a less-than-significant impact on this species, and no avoidance or mitigation measures are required. Likewise, the project has no plans to remove any trees that could provide roosting habitat for the Western Red Bat. Therefore, the impact on this species is less-than-significant as well, and no avoidance or mitigation measures are required.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Nesting Birds

For species of Northern Harrier, White-tailed Kite, Lesser Sandhill Crane, Loggerhead Shrike, Double Crested Cormorant, and Modesto Song Sparrow, construction activities could have temporary impacts on nesting or foraging habits due to construction disturbances. However, the overall project is expected to improve habitat quality for these species on site. Therefore, with the incorporation of all of avoidance and minimization measure **MM BIO-6,** this project would have a less-than-significant impact.

California Black Rails and California Ridgeway's Rails

The California Black Rail and the California Ridgeway's Rail are indigenous to the project site's region. Project activities will be confined to work within the levees, away from potential habitat areas of these species. However, since the species are known from the region, all of **MM BIO-7** should be incorporated to ensure that the project has a less-than-significant impact on the species.

Reptiles

The habitat within the project site provides suitable habitat for both special species reptiles with potential to occur within the project site, those being the Western Pond Turtle and the GGS. Although construction activities could harm both species, the project is designed to increase the quality and quantity of suitable habitat with the restoration of freshwater wetlands of varying types across the site. Therefore, avoidance and mitigation measures **BIO MM-8** through **BIO MM-9** are required to ensure that construction-related impacts would remain at a less-than-significant level.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

The four natural communities identified by the BRE as potential jurisdictional wetland communities, and their approximate acreage are as follows. These communities are explained above in depth in Appendix B.2.

- Seasonal/Ephemeral Wetlands1 – approx. 32.3 acres
- Woody Riparian Wetland – approx. 8.7 acres
- Emergent Marsh – approx. 3.5 acres
- Drainage Ditches – approx. 0.2 acre

Is it expected that these acreages and the State and Federal jurisdictional status of each feature would be refined during the verification of an aquatic resource delineation. Figure 7 above shows the mapped wetlands on the project site.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Restoration activities could impact State and/or Federal jurisdictional wetland features, including any features under jurisdiction of the U.S. Army Corps of Engineers (Section 404 of the Federal Clean Water Act), the Regional Water Quality Control Board (Clean Water Act Section 401), or the California Department of Fish and Wildlife (Sections 1602-1603 of the California Fish and Game Code). Up to 12.72 acres of temporary impacts would occur to existing wetland features within the project site to enhance and improve habitat quality of those existing features. Up to 1.27 acres of existing wetland features are proposed to be permanently converted to a new feature. However, the project is designed to improve the quality and extent of wetland habitat on-site. Additionally, **MM BIO-10** would ensure that any indirect or direct impacts to jurisdictional waters would require completion of proper permit processes, including ACOE Section 404 and/or 408, RWQCB Section 401, and CDFW Section 1602. **MM BIO-11** would further require mitigation at a ratio of at least 1:1.25 of on-site creation for permanent impacts, while temporary project impacts would be self-mitigating. Therefore, with the incorporation of **MM BIO-10** and **MM BIO-11**, these impacts would be **less-than-significant**. [1]Preliminary wetland mapping includes extents of individual seasonal/ephemeral wetland features as well as estimated wetland cover within areas of high and moderate density wetlands.				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
Response: Less than Significant with Mitigation Incorporated Four natural communities were identified as potential jurisdictional wetland communities (Figure 7). Restoration activities could impact State and/or Federal jurisdictional wetland features, including any features under jurisdiction of the U.S. Army Corps of Engineers (Section 404 of the Federal Clean Water Act), the Regional Water Quality Control Board (Clean Water Act Section 401), or the California Department of Fish and Wildlife (Sections 1602-1603 of the California Fish and Game Code). Up to 1.27 acres of existing wetland features are proposed to be permanently converted to a new feature/wetland or habitat type. However, as mentioned above, the project is designed to improve the quality and extent of wetland habitat on-site. Further, **MM BIO-10** and **MM BIO-11** would be included to ensure incorporation of proper permitting measures and mitigation of permanent impacts. Therefore, with the incorporation of the proper permitting measures, these impacts would be **less-than-significant**. Additionally, up to 12.72 acres of temporary impacts are expected to occur to existing wetland features within the project site to enhance and improve habitat quality of those existing features. The temporary impacts will be restored to their original wetland type (seasonal wetland to seasonal wetland, etc.).				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

The project site provides habitat for many common and special-status wildlife species, mostly due to the location within the Delta (and within the Pacific Flyway) and the diversity of onsite and surrounding habitats. The majority of the common wildlife species observed during the field surveys were birds, and they were mostly concentrated around the aquatic habitats, including the wetlands and adjacent grasslands, ponds, slough edges, and riparian woodlands. These habitats provide important foraging and nesting areas for many species of migratory and resident birds.

As a result of the large-scale habitat conversion in the region over the past century, most of the local flora and fauna have experienced a loss of important habitat. This has resulted in some species becoming federal or state listed as rare, threatened, or endangered. As mentioned above, there are 18 special-status wildlife species with potential to occur within the project site. These species include 15 birds, one mammal, and two reptiles.

Foraging and nesting areas for the many special-status bird species is present within the project site. Irrigation ditches and emergent marsh within the project site also provide suitable habitat for a number of other species present within the project area. Although restoration of emergent marsh habitat within the project could be beneficial for a number of these species, potential impacts from construction, maintenance or management of the project could cause noise disturbances, or possible removal of potential habitat. However, with the implementation of **MM BIO-2** through **MM BIO-10**, the project would have a ***less than significant*** impact on the movement of any native or migratory wildlife species or wildlife corridors.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

The County of Contra Costa's General Plan Conservation Element contains policies to protect the County's natural resources. These policies include measures to preserve natural water courses and riparian zones, as

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
listed below. As explained above, four natural communities were identified as potential jurisdictional wetland communities. Additionally, there is potential for sensitive species to occur within or near the project area. Although, restoration impacts could impact identified natural communities, the proposed project is designed to improve the quality of the habitat on-site. With **MM BIO-1** through **MM BIO-11**, impacts would be reduced to less than significant status for the special status species and would therefore comply with Contra Costa County's goals for preserving habitats for dependent species. Therefore, this project would not conflict with any local policies or ordinances protecting biological resources and would have a ***less than significant*** impact.				
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or another approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
Response: No Impact. Jersey Island is located just outside the area covered by the East Contra Costa Habitat Conservation Plan. However, effort has been made to recommend similar avoidance and minimization measures for species with potential to occur that are addressed by the ECCHCP, where appropriate. Nevertheless, because the project is not located within an adopted habitat conservation plan or natural conservation community plan, there would be **no impacts** with respect to required provisions.				
Mitigation Measures **MM BIO-1a: Rare Plant Surveys**. Prior to issuance of a grading permit by the County, protocol-level botanical surveys will be conducted in any areas that are expected to be impacted by construction activities, and a 100-foot buffer. The surveys will conform to CNPS 'Intuitive Controlled' survey protocol and will also satisfy the 2018 CDFW-recommended protocols and will be conducted by a qualified botanist. Protocol-level surveys will involve three rounds of surveys which correspond to the early spring, peak spring, and summer blooming periods. Actual timing will be influenced by seasonal weather conditions and phenology of targeted plant taxa. The surveys will target all special-status plant taxa with a designated California Rare Plant Rank (CRPR) (List 1-4), which includes all Federal and State listed species. In the event that any special-status plant taxa are identified during field surveys, the botanist will immediately inform the project proponent of the occurrence. The data collection for CRPR plants will involve the documentation of population statistics, including but not limited to percent in vegetative/bud, flower, and fruiting stage, as well as population census, population quality, site slope and aspect, soil conditions, hydrology, general habitat abundance and quality, and threats to the population(s). If none of the targeted species are present in the survey area, no further action will be required, and construction may proceed. **MM BIO-1b: Rare Plant Identification within Surveys.** If any of the species identified above are present during surveys conducted per MM-BIO-1a, the following measures shall be required: • <u>Annual Plant Taxa:</u>				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- Flag or otherwise demarcate and ensure workers avoid any disturbance of the protected species where said species are present.
- If possible, schedule potential disturbance activities for timeframes when the special-status taxa occurring in the work area is senescent and/or after seed as set.
- If an individual or population must be removed, one of two options can be employed, and monitoring conducted to ensure that no net loss of the species occurs.
  - Seeds of the annuals shall be collected from existing onsite populations or from the same watershed (to maintain local genetic stock) and distributed in appropriate habitat outside the work area (within the same watershed) or in the work area following completion of work.
  - A nursery with experience growing special-status plants can be employed to grow seedlings of the species (from seeds collected locally) that shall be planted in appropriate habitat outside the work area or in the work area following completion of work. It should be noted that seeds derived from plants in the same watershed as the impact area may be available from local nurseries, and local nurseries may also be able to propagate seeds from adults grown from collected seeds. In this case, seeds do not need to be collected from a specific impact area site.

- <u>Perennial Plant Taxa</u>:
  - Mark populations in the field with distinct flagging.
  - If an individual or population must be removed, one of two options can be employed, and monitoring conducted to ensure that no net loss of the species occurs.
    - (1) The individual or population can be dug up and relocated to appropriate habitat outside the work area.
    - (2) A nursery with experience growing special-status plants can be employed to grow seedlings of the species that shall be planted in appropriate habitat outside the work area or in the work area following completion of work. The selected relocation site shall be within the same watershed as the impact area and shall be approved of by CDFW botanical staff.

A monitoring plan shall be developed that details the following components. Conduct annual monitoring of seeded or replanted locations within the project site for a minimum of 3 years and up to 5 years, dependent upon the CDFW botanical staff recommendation and monitoring results. The new population should match typical populations for the species as available from rare plant inventories (e.g., from the CNDDB, USFWS data, or regional mitigation banks). Due to the variations in population from year to year as a result of weather fluctuations, average population data for annual taxa can be calculated from several years (at least three) of data collected from known populations in the region.

MM BIO-2a: Preconstruction Surveys – Tricolored Blackbird. Pre-construction surveys will be required to determine if active nests are present if: suitable habitat occurs within the project footprint or within 500 feet of the project footprint; and construction activities will occur during the breeding season (March 1 through September 15). A qualified biologist will conduct pre-construction surveys within 30 days and again within 3 days of ground-disturbing activities, and within the project footprint and 500 feet of the project footprint to determine the presence of nesting tricolored blackbird. The surveys should be separated by at least three weeks. Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities. If a nest is present, then the following measures will be implemented.

If active nests are found within 500 feet of the project footprint, a 500-foot temporary buffer will be established around the nest until the young have fledged and an approved biologist experienced with tricolored blackbird behavior monitor the nest throughout the nesting season and determine when the young have fledged.

MM BIO-2b: Construction Monitoring - Tricolored Blackbird. If an active nest is found within 500 feet of the project footprint, a qualified biologist will be on-site daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. If the approved biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment

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to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with CDFW will be held to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).

MM BIO-3a: Preconstruction Surveys – Golden and Bald Eagle. Golden and bald eagle nests can be built and active at almost any time of the year, although mating and egg incubation occurs from late January through August. If construction occurs between January 1 and August 31, a qualified biologist will conduct a preconstruction survey within 0.5 miles of the footprint, within 14 days of construction start to establish whether nests of bald and/or golden eagles are present on the site and occupied. If nests are occupied, a temporary buffer will be established within 0.5 mile of active nests. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the project proponent will coordinate with CDFW/USFWS to determine the appropriate buffer size.

MM BIO-3b: Construction Monitoring – Golden and Bald Eagle. If an active golden or bald eagle nest is identified within 0.5 mile of construction, a qualified biologist will be onsite daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a golden or bald eagle flies into an active construction zone (i.e., outside the buffer zone).

MM BIO-4a: Preconstruction Surveys – Western Burrowing Owl. A qualified biologist will identify potential western burrowing owl breeding habitat. If the project does not fully avoid impacts to suitable breeding habitat, preconstruction surveys will be required. The surveys will establish the presence or absence of western burrowing owls and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1993). On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFG guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1 – August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the non-breeding season (September 1 – January 31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or nonbreeding) during which the survey is conducted.

If burrowing owls are found during the breeding season (February 1 – August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include the establishment of a non-disturbance buffer zone (described below).

MM BIO-4b: Construction Monitoring – Western Burrowing Owl. Construction may occur during the breeding season if a qualified biologist monitors any western burrowing owl nests and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1 – January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below). If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

MM BIO-5a. Preconstruction Surveys – Swainson's Hawk. If construction occurs during the nesting season for the Swainson's hawk (March 15–September 15), a preconstruction survey will be required. A qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. A qualified biologist will inspect all large trees with binoculars. The survey will be conducted according to the Swainson's Hawk Technical Advisor Committee's methodology (May 31, 2000) or updated methodologies as issued by USFWS or CDFW. If occupied nests are identified, the project proponent will avoid and minimize impacts to these nests in compliance with the Migratory Bird Treaty Act and the Fish and Game Code.

If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see BIO 5b, below).

MM BIO-5b. Construction Monitoring – Swainson's Hawk. During the nesting season for the Swainson's hawk (March 15 – September 15), activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the project proponent will coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, construction can proceed normally. While the nest is occupied, activities outside the buffer can take place. All active nest trees will be preserved on-site.

MM BIO-6a. Nesting Birds – Work Window. Construction activities will be scheduled between September 1 and January 31, outside the February 1 through August 31 nesting bird period. If this cannot be implemented, the project will implement the following measures:

MM BIO-6b. Nesting Birds – Preconstruction Surveys. If activities that may disturb nesting bird species, such as heavy machinery use or vegetation trimming/removal, are required during the nesting period, a biologist will conduct a preconstruction nesting bird survey covering the project footprint and a 300-foot-wide surrounding buffer. The survey will be conducted within 2 weeks of the start of construction related activity. If active nests are documented within the 300-foot-wide buffer, the following measure will be implemented:

MM BIO-6c. Nesting Birds – Buffer. If active nest(s) of any species are identified within the 300-foot-wide buffer survey area, a no-activity buffer will be established around the nest for the duration of the nesting season, or until a biologist determines the young have fledged and left the nest, or that the nest has been abandoned. No entry into the no-activity buffer will be permitted. The no-activity buffer will be delineated in the field by or under the supervision of the biologist, using temporary construction fencing or another suitable low-impact medium. The width of the buffer will be determined by the biologist, based on the species involved, the amount of vegetative and other screening between the nest and areas where construction activity will take place, and, if appropriate, other site-specific factors. If special-status species are involved, the biologist will consult with the appropriate resource agency(ies) (DFW and/or USFWS) in determining the width of the buffer.

MM BIO-7a. Rail Work Window. Construction activities, including vegetation management activities requiring heavy equipment, adjacent to tidal marsh areas with potential to support these species (within 500 feet), shall be avoided during the breeding season from February 1 through August 31.

MM BIO-7b. Rail Preconstruction Survey. If areas adjacent to potential rail habitat cannot be avoided during the breeding season (February 1 – August 31), USFWS and CDFW will be consulted to develop a plan for working adjacent to potential rail habitat. Alternatively, protocol-level surveys can be implemented to determine rail nesting locations. The surveys will focus on potential habitat that could be disturbed by

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

construction activities during the breeding season to ensure that rails are not breeding in these locations. Survey methods for rails will follow the Site-Specific Protocol for Monitoring Marsh Birds, which was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys and increasing the ability to share data.

MM BIO-7c. Rail Construction Monitoring. If agency consultation and/or protocol surveys determine that breeding Ridgway's rails or black rails are present in the project area, the following measures would apply to project activities conducted during their breeding season (February 1 – August 31):

1) A USFWS-and CDFW-approved biologist with experience recognizing Ridgway's rail and black rail vocalizations will be on site during construction activities occurring within 500 feet (150 meters) of suitable rail breeding habitat.
2) All biologists accessing the tidal marsh will be trained in Ridgway's rail and black rail biology and vocalizations and will be familiar with both species of rail and their nests.
3) If a Ridgway's rail or black rail vocalizes or flushes within 10 meters, it is possible that a nest or young are nearby. If an alarmed bird or nest is detected, work will be stopped, and workers will leave the immediate area carefully and quickly. An alternate route will be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.

MM BIO-8a. Habitat Protection – Western Pond Turtle. A qualified biologist will conduct a field investigation to delineate western pond turtle aquatic habitat within the project footprint and within 300 feet of the project footprint. If construction activities have the potential to cause erosion or runoff into potential WPT habitat, then runoff control measures such as straw wattles, filter rolls, filter fences, or silt fences will be installed to contain disturbed soil materials. Runoff control will be in place prior to groundbreaking. If straw wattles are used, they will consist of certified sterile, weed-free rice straw or similar, suitable for use in sensitive habitat. If filter fences or mesh are used, they will consist of materials, and employ a design, approved by CDFW and USFWS as safe for amphibians and reptiles.

MM BIO-8b. Preconstruction Surveys – Western Pond Turtle. No more than twenty-four (24) hours prior to the date of initial ground disturbance, a preconstruction survey for the western pond turtle will be conducted by a qualified biologist at the project Site. The survey will consist of walking the project limits to ascertain suitable habitat and possible presence of the species. The qualified biologist will investigate all potential areas that could be used by the western pond turtle. If any pond turtles are found, the qualified biologist will relocate the turtle to suitable habitat outside of the construction area at a sufficiently safe distance.

MM BIO-8c: Construction Monitoring – Western Pond Turtle. If construction activities occur during the WPT active season (September 1 – April 30), a construction monitor will be on-site daily and will inspect for WPT prior to daily construction start. The qualified biologist will also train construction or maintenance personnel on the required avoidance procedures if a western pond turtle enters the site.

MM BIO-9a. Preconstruction Surveys – GGS. Prior to any ground disturbance, a qualified biologist will conduct a preconstruction survey in areas identified as having suitable GGS habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of GGS.

MM BIO-9b. Avoidance Measures – GGS. These measures are based on USFWS's Standard Avoidance and Minimization Measures during Construction Activities in GGS Habitat (U.S. Fish and Wildlife Service 1999).

- Limit construction activity that disturbs habitat to the period between May 1 and September 30. This is the active period for GGS, and direct mortality is minimized because snakes are more likely to independently move away from disturbed areas. If activities are necessary in GGS habitat between October 1 and April 30, the USFWS Sacramento Field Office will be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- In areas where construction is to take place, dewater all irrigation ditches, canals, or other aquatic habitat between April 15 and September 30 to remove habitat of garter snakes. Dewatered areas must remain dry, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.

MM BIO-9c: Construction Monitoring – GGS. If suitable habitat for GGS cannot be avoided between October 1 and April 30, the following actions will be performed.

- A designated biologist will conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on-site during construction activities in potential aquatic and upland habitat to ensure that individuals of GGS encountered during construction will be avoided. The biologist will provide USFWS with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. The monitor will be available thereafter.
- If a snake is encountered during construction activities, the monitor will have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. GGS encountered during construction activities should be allowed to move away from the construction area on their own.
- Only personnel with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate GGS that are encountered in the construction area. The project area will be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred. To ensure that construction equipment and personnel do not affect nearby aquatic habitat for outside construction areas, silt fencing will be erected to clearly define the aquatic habitat to be avoided; restrict working areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction runoff into wetland areas through the use of fiber bales, filter fences, vegetation buffer strips, or other appropriate methods.
- Fill or construction debris may be used by GGS as over-wintering sites. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.
- Construction personnel will be trained to avoid harming GGS. A qualified biologist approved by USFWS will inform all construction personnel about the life history of GGS; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to GGS; and the associated avoidance and minimization measures.

MM BIO-10: Jurisdictional Wetlands and Waters. Any indirect or direct impacts to jurisdictional features will require completion of proper permit processes, including ACOE Section 404 and/or 408, RWQCB Section 401, and CDFW Section 1602.

MM BIO-11: Jurisdictional Waters Impact Mitigation. The project will be required to mitigate at a ratio of at least 1:1.25 of on-site creation for permanent impacts.

Sources:

1. Jersey Island GGS Mitigation Bank Biological Resource Evaluation (Vollmar Natural Lands Consulting, 2024)
2. Wetland Mapping Memorandum (Vollmar Natural Lands Consulting, 2024)

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐

Response: Less Than Significant Impact

According to the *CEQA Guidelines*, a historical resource is defined as something that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR); (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by the project's Lead Agency.

A Cultural and Architectural History Resources Inventory and Evaluation Report was prepared for the project (ECorp Consulting, Inc.) and included a records search, literature review, and field survey of the project area (Appendix B.4). The records search consisted of a review of previous research and literature, records on file with the Northwest Information Center (NWIC) for previously recorded resources, and aerial photographs and maps of the vicinity.

Fifteen previous cultural resource investigations have been conducted within 0.5 mile of the project area, covering approximately 95 percent of the total area surrounding the project area within the records search radius. Of the 15 studies, three were conducted within the project area These studies revealed the presence of sites associated with water-management and flood-control activities. The previous studies were conducted between 1995 and 2014.

The results of the records search indicate that the entire project area has been previously surveyed for cultural resources; however, these studies were conducted in smaller segments, at different times, by different consultants, and more than 10 years ago under obsolete standards. Therefore, a pedestrian survey of the project area under current protocols was conducted.

The records search also determined that four previously recorded historic-era cultural resources are located within 0.5 mile of the project area (Table 3). All four resources are historic-era sites associated with early 20th-century water management and flood control. One of the resources (P-7-4988) is located immediately north and east of the project area. No previously recorded cultural resources are located within the project area.

Table 3. Previous Cultural Studies 0.5 miles of the Project Area

Primary Number P-7	Recorder And Year	Age/Period	Site Description	Inside the Project Area?
3098	William Kostura 2001	Historic	Bethel Island Levee	No
4526	Nikki Polson 2013	Historic	Franks Tract Levee	No
4988	Richard 2014; Robbin Hoffman 2019	Historic	Jersey Island Levee	No
4989	Richard 2014; Robbin Hoffman 2019	Historic	Bradford Island Levee	No

Source: ECORP Consulting, March 2024

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

As shown in Table 3, the records search results indicated that three previous cultural resources studies were previously conducted within the project area. As a result of those studies, a segment of P-7-4988 (a segment of the Jersey Island levee) was previously recorded just outside of the project area, along the northern and eastern boundaries. Prior survey concluded that resource P-7-4988 was not eligible for the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR).

During the field survey conducted for the project, one historic-age resource was identified inside the project area: JL-01 (a network of earthen ditches). The resource, JL-01, was recorded and an architectural history evaluation of the resource was completed using CRHR and NRHP eligibility criteria. As explained in Appendix-B.4, *Evaluation of JL-01*, JL-01 possesses integrity of location, setting, design, workmanship, and materials, but lacks integrity of feeling and association as JL-01 remains a network of earthen ditches on Jersey Island; however, the surrounding land is no longer used for farming. Further, due to lack of historical significance, JL-01 does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register. Therefore, it was determined that JL-01 is ineligible for both the CRHR and NRHP.

Based on these findings, JL-01 (a network of earthen ditches) is not considered a Historical Resource for the purposes of CEQA, nor is it considered a Historic Property under NRHP criteria. Therefore, no known Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA would be affected by the project. Implementation of the project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines, as there are no eligible historical resources on the project site. Impacts would be **less than significant**.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation Incorporated

As part of the records search described above, the California Native American Heritage Commission (NAHC) was contacted on December 20, 2023, to request a search of the Sacred Lands File for the project area. This search was conducted to determine whether or not the California Native American tribes within the project area have recorded Sacred Lands.

Results of the search revealed the presence of Native American cultural resources in the project area. As such, individuals and tribes identified by the NAHC have been contacted for consultation by the lead agency. A record of all correspondence is provided in Appendix A.2.

There is a moderate potential for buried archaeological deposits within the project site because the project area's soil composition contains alluvium from the San Joaquin River and False River. However, the likelihood for buried archaeological sites within the project area reduces to a low potential because the project area is not conducive to long-term habitation due to the poor soil drainage of the area. The lack of archaeological resources documented within 0.5 mile of the project area also implies a lower overall potential for buried cultural resources. However, there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during project construction. Therefore, the lead agency shall adopt and implement mitigation measures **MM CR-1** and **MM CR-2** to reduce potential adverse impacts to less than

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
significant. Compliance with these measures would ensure that potential impacts to previously undiscovered archaeological resources would be ***less than significant***.				
c) Disturb any human remains, including those interred outside of formally dedicated cemeteries?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation Incorporated.

The project site has been previously disturbed, as described above, and has not been previously used as a cemetery. It is not anticipated that implementation of the project would result in the disturbance of human remains. In addition, compliance with California Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98, included as **MM CR-2**, mandate the process to be followed in the event of an accidental discovery of any human remains. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and made recommendations concerning the treatment and disposition of the human remains to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the human remains are not subject to his or her authority and if the coroner has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Therefore, compliance with MM CR-2 would ensure that potential impacts to human remains would be ***less than significant.***

Mitigation Measures

MM CR-1: Contractor Awareness Training Plan. Prior to issuance of a grading permit by the County, the Applicant shall demonstrate that a Contractor Awareness Training Program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program.

The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground-disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The Construction Manager shall provide a copy of the signed training roster to the lead agency as proof of compliance.

MM CR- 2: Archaeological Monitoring.

If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

- In the event of a find, the Lisjan Nation shall be notified.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.
- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Contra Costa County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

Sources:

1. Cultural and Architectural History Resources Inventory and Evaluation Report (ECORP Consulting, 2024)
2. Costa County General Plan, adopted January 18, 2005.
   - Chapter 9 – Open Space

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐

Response: Less Than Significant Impact

There are generally two types of energy consumption periods – construction and operations. Construction energy uses are primarily from construction equipment, hauling materials, and construction workers driving to and from the project site. Operational energy is the energy required to operate and maintain the facility. Below is an analysis of construction and operational energy use.

Construction Energy Use

During construction, the anticipated energy usage from equipment would include: 4 agricultural tractors operating for 45 days, 1 agricultural tractor operating for 10 days, 1 Caterpillar 335 excavator operating for 10 days, 1 Caterpillar D6T XW operating for 45 days, 1 water truck operating for 45 days, and 1 skip loader operating for 15 days. Construction equipment for hauling, delivery, and earthwork would primarily use diesel and unleaded gasoline. Energy consumption would also include gasoline used by construction workers driving to and from the project site. As stated above, in Section III, Air Quality, the BAAQMD Basic BMPs, listed in Table 3 of Appendix B.4 require provisions the contractor must implement. These measures, although designed to reduce fugitive dust, (i.e., minimizing idling time to 5 minutes or less during construction, requiring construction equipment to be maintained per specifications established by the manufacturer, and using electric equipment and/or equipment using alternative fuels as feasible and appropriate) would also reduce wasteful, inefficient, or unnecessary use of energy resources. Energy consumption during construction would be intermittent and temporary and would not exceed typical levels for a restoration project.

Operational Energy Use

Regarding long-term energy consumption, no new permanent source of energy demand would result from project implementation. The proposed improvements are intended to provide foraging, basking, and sheltering habitat for GGS. The improved habitat matrix would not result in a change in direct energy use. No on-going maintenance energy requirements are expected. Accordingly, the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be ***less than significant,*** and no mitigation is required.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Response: No Impact

As described in the Greenhouse Gas (GHG) Emissions section of this document, the County of Contra Costa adopted its Climate Action Plan (CAP) in December 2015. The CAP is designed to reinforce the County's commitment to reducing GHG emissions by establishing a framework to reduce the County's GHG emissions. Many of the regulatory and incentive programs identified in the CAP promote energy efficiency and are generally related to future development. The installation of the proposed habitat improvements would not result in a change in energy use. Therefore, the project would not conflict with any state or local plans for renewable energy or energy efficiency and ***no impact*** would occur.

Mitigation Measures

None.

Sources:

1. Air Quality and GHG Emissions Technical Memorandum (WSP, 2024)
2. County of Contra Costa General Plan 2040, adopted January 18, 2005
   a. Chapter 8 – Conservation Element
3. County of Contra Costa Climate Action Plan, adopted December 2015

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to https://www.conservation.ca.gov/cgs/Documents/SP_042.pdf	☐	☐	☒	☐
Response: Less Than Significant Impact No active faults are identified within the project area. The nearest active fault zone is the Tassajara Fault zone, which is located approximately 16 miles southwest of the project area. Therefore, the likelihood of surface fault rupture is low, and impacts would be ***less than significant***.				
ii) Strong seismic ground shaking?	☐	☐	☒	☐
Response: Less Than Significant Impact The project is located within an area potentially exposed to strong earthquake ground motions. However, as described in the response above, the nearest active fault is approximately 16 miles southwest of the project site. No active faults are identified within the project area. In addition, the project does not propose placing any new habitable structures on the site; thereby placing people or structures at risk. The project would also not necessitate any substantial earthwork that could thereby exacerbate any existing geologic condition. Therefore, the likelihood of project impacts due to strong seismic ground shaking is low, and impacts would be ***less than significant.***				
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
Response: Less Than Significant For liquefaction to occur, three conditions must simultaneously exist: loose to medium-dense granular soils, saturation of the soils by groundwater (typically upper 50 feet), and strong earthquake ground motion. According to the California Department of Conservation's California Earthquake Hazards Zone Application, the project site is within a liquefaction zone, therefore, there is a possibility of liquefaction to occur at the project site. However, the project would not develop any habitable structures and would not expose people or structures to strong				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
seismic-related ground failure, including liquefaction that could be triggered as a result of the project. Additionally, the project would not necessitate any substantial earthwork that could thereby exacerbate any existing geologic condition. Impacts would be ***less than significant***.				
iv) Landslides?	☐	☐	☒	☐
Response: Less Than Significant Impact The project site is relatively flat and located in an eastern portion of Contra Costa County. The surrounding areas are primarily used for agricultural purposes and generally characterized by gently sloping topography that is not expected to be susceptible to landslides. According to the United States Geological Survey's (USGS) U.S. Landslide Inventory, there are no known landslides near the project, nor is the project site in the path of any known or potential landslides. Therefore, the likelihood of landslides at the project site is considered very low. In addition, the project does not propose placing any new habitable structures on the site; thereby placing people or structures at risk, nor would the project necessitate any substantial earthwork that could thereby exacerbate any existing geologic condition. The project would not cause or increase the potential for landslides, nor place any structures or people at risk of landslides; therefore, impacts would be ***less than significant***.				
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
Response: Less Than Significant Impact The project would involve excavation, grading, and construction activities that would disturb soil and leave exposed soil on the ground surface. As such, the project would be required to comply with the County's grading standards and erosion control measures, included in Title 7, Division 716 (Grading) of the County's Municipal Code. Additionally, the Construction General Permit issued by the State Water Resources Control Board (SWRCB), regulates construction activities to minimize water pollution, including sediment. The project would be subject to the National Pollution Discharge Elimination System (NPDES) permitting regulations, including implementation of a Stormwater Pollution Prevention Plan (SWPPP) and associated BMPs during grading and construction, which would be required during construction permitting of the project. Adherence to the BMPs in the SWPPP would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. The SWPPP would include a BMP to return and restore all disturbed construction areas back to their pre-project condition. Thus, the potential for soil erosion or the loss of topsoil would be low. Construction of the project would have a ***less than significant impact*** related to soil erosion.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Response: Less Than Significant Impact

As described in preceding sections, the project site is within a liquefaction zone, therefore, there is a possibility of liquefaction to occur at the project site. However, the project would not develop any habitable structures and would not expose people or structures to strong seismic-related ground failure, including liquefaction that could be triggered as a result of the project. Impacts would be ***less than significant.***

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Response: Less Than Significant Impact

Expansive soils contain certain types of clay minerals that shrink or swell as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experiences, such as southern California, have a higher potential of expansive soils than areas with higher rainfall and more constant soil moisture.

According to the Contra Costa County Hazard Mitigation Plan, Section 4.4, *Physical Setting*, the project is located in an area subject to expansive soils. Soils near the project include clay rich soils such as bay mud, of which have been identified as expansive and corrosive. Because the project would not place any new habitable structures on the site or necessitate any substantial earthwork that could exacerbate existing conditions, the project would have a ***less than significant*** direct or indirect risk to life or property due to expansive soils.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Response: No Impact

The project does not propose the use of a septic tank or alternative wastewater disposal system; therefore, ***no impact*** would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Response: Less Than Significant Impact

Northern areas of Contra Costa County are underlain by alluvium and terrace of Pliocene to Miocene age deposits. The affected area would be up to 5 feet for the anticipated depth of excavation. Due to the limited depth of ground disturbance, the likelihood of modifying or encountering paleontological resources is low. However, the potential still exists with any project requiring ground disturbance. In the unlikely event that a discovery of paleontological resource is identified, then procedures outlined in Public Resource Code Section 5097.5 would be followed. All construction would halt until a professional paleontologist evaluates the finding as well as its recovery. Any fossils collected would be deposited at an accredited and permanent scientific institution where they will be properly preserved. Due to the low potential for paleontological resources and measures identified in the unlikely event that a paleontological resource is found, the impacts would be ***less than significant***.

Mitigation Measures

None.

Sources:

1. Earthquake Zones of Required Investigation Map, California Geological Study, 2021. https://maps.conservation.ca.gov/cgs/EQZApp/app/.
2. U.S. Landslide Inventory, United States Geological Survey, 2023. https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d.
3. Contra Costa County Hazard Mitigation Plan, 2018. 33997_Attachment 2- Contra Costa County Draft LHMP Final_Vol1.pdf.
4. California Department of Conservation Interactive Map of California Earthquake Hazard Zones, 2023. https://maps-cadoc.opendata.arcgis.com/datasets/29d2f0e222924896833b69ff1b6d2ca3_0/explore?location=37.905796%2C-121.611364%2C10.79.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Response: Less Than Significant Impact

Neither the County of Contra Costa, nor the ISD, has adopted numerical significance thresholds for managing greenhouse gases (GHGs). In accordance with CEQA guidance, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to assess the significance of a project 's GHG emissions. The project site is located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD).

In April 2022, BAAQMD adopted *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. This document presents thresholds of significance for use in determining whether a proposed land use project or plan will have a significant impact on climate change and provides the substantial evidence that lead agencies will need to support their use of these thresholds. BAAQMD subsequently updated its CEQA Guidelines to include these thresholds.

The *2022 BAAQMD CEQA Air Quality Guidelines* do not include a quantitative threshold of significance for construction-related GHG emissions. However, the guidelines recommend that GHG emissions that would occur during construction be quantified and disclosed, and that projects consider incorporating best management practices to minimize GHG emissions.

Potential GHG emissions from construction of the project were estimated using CalEEMod (2022.1.1.21) and the same project-specific model inputs that were provided for the Air Quality Evaluation. According to the Air Quality and Greenhouse Gas (GHG) Technical Memorandum prepared for the project (Appendix B.4), the total estimated GHG emissions from project construction would be 124 metric tons of carbon dioxide equivalent ($MTCO_{2e}$) per year, as shown in Table 4 below.

Table 4. Total Project Greenhouse Gas Emissions (Metric Tons Per Year)

Emission Source	Emissions			
	CO_2	CH_4	N_2O	Total CO_2e
Project Construction	245	0.01	<0.005	246

[1] CalEEMod 2022.1.1.21

Though the project would temporarily generate GHG emissions during construction, emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity. Therefore, construction-related GHG emissions would be less than significant. No new permanent source of GHG emissions would result from project implementation; therefore, there are no predicted operational GHG emissions from the project. The project's generation of GHG emissions would have a ***less than significant*** impact on the environment.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☒	☐

Response: Less Than Significant Impact

In June 2015, the County adopted the Contra Costa County Climate Action Plan (CAP). The CAP is a policy document which identifies the way the County can reduce energy consumption and GHG emissions by establishing a framework of federal, state, and local strategies. As discussed above, the project is would not generate substantial amount of construction emissions or result in operational emissions. The proposed project is consistent will all policies or strategies identified in the CAP including the 2007 Clean Air Act, California Air Resources Board Standards and Programs, Executive Orders S-3-05 and B-30-15, as well as the BAAQMD CEQA Air Quality Guidelines. Therefore, a ***less than significant impact*** would occur.

Mitigation Measures

None.

Sources:

1. Air Quality and GHG Emissions Technical Memorandum (WSP, 2023)
2. Contra Costa County Climate Action Plan, adopted December 15, 2015

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

Response: Less Than Significant Impact

Development of the project includes restoration of habitat would therefore not require the routine use or disposal of hazardous materials. However, construction activities would involve equipment that are fueled and maintained by items, such as oils and fuels. All material required during construction would be transported and kept in compliance with federal, state, and local laws. Applicable laws and regulations include: the Code of Federal Regulations (CFR), Title 49, Chapter 1 and the Hazardous Materials Transportation Act requirements as imposed by the United States Department of Transportation (USDOT), California Division of Occupational Safety and Health (CalOSHA), California Environmental Protection Agency (CalEPA) and the California Department of Toxic Substances Control (DTSC).

Additionally, construction activities would be required to comply with the project SWPPP, mandated by the NPDES General Construction Permit and enforced by the Central Valley RWQCB. The SWPPP will include strict on-site handling rules and BMPs to minimize potential adverse effects to workers, the public, and the environment during construction, including, but not limited to:

- Establishing a dedicated area for fuel storage and refueling activities that includes secondary containment protection measures and spill control supplies.
- Following manufacturers' recommendations on the use, storage, and disposal of chemical products used in construction.
- Avoiding overtopping construction equipment fuel tanks.
- Properly containing and removing grease and oils during routine maintenance of equipment; and
- Properly disposing of discarded containers of fuels and other chemicals.

More information on proposed BMPs can be found in Section X., Hydrology and Water Quality.

Mandatory compliance with applicable laws and regulations related to the routine transport, use, and disposal of hazardous materials during construction activities at the project site would limit potentially significant hazards to construction workers, the public, and the environment. Impacts from the transport, use, or disposal of construction-related hazardous materials would be ***less than significant***.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Response: Less Than Significant Impact

Project operations would not include new development or ground-disturbing activities in an area known to have hazardous materials or conditions, thereby minimizing any risk of releasing hazardous materials.

Construction of the project, however, could impact soils contaminated with elevated levels of hydrocarbons, herbicides, and pesticides from surrounding agricultural use. However, the project is not located in proximity to any hazardous sites listed in the California Geotracker or California Department of Toxic Substance Control Envirostor databases. Therefore, compliance with federal, state, and local laws, and BMPs, would ensure that the potential for accident or upset are ***less than significant***.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Response: Less Than Significant Impact

The project is in a nonresidential area. The project site is located approximately 4 miles northeast of the Delta Vista Middle School and the Iron House Elementary School. Furthermore, as noted in Sections IX(a) and IX(b) above, the project is not anticipated to release hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes in significant quantities. Therefore, the project would not emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school and impacts would be ***less than significant***.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
Response: No Impact The project is not located on any sites listed on the Cortese List. Therefore, the project is not located on a site that would create a significant hazard to the public or the environment, and ***no impact*** would occur.				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
Response: No Impact The project is not located in an airport land use plan for Contra Costa County, nor is it within 2 miles of a public airport or public use airport. Therefore, there would be ***no impact***.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Response: Less Than Significant Impact

The County adopted its Emergency Operations Plan (EOP) in May 2011. The EOP is designed to provide for the effective management of emergency operations within the Contra Costa Operational Area. Many of the goals within the EOP promote the effective management of response forces and resources in preparing for and responding to situations associated with natural disasters, technological incidents, intentional acts, and national security emergencies.

During construction, evacuation routes along a portion of Jersey Island Road may be impacted. For the majority of construction, roadways would remain open, though they may be subject to partial closures or temporary access limitations controlled by construction personnel. In the unlikely event of temporary conditions during construction warranting a roadway closure, appropriate detour routes will be signed and noted. There are no established residential communities or other population centers on the island. Accordingly, temporary construction impacts would not impede evacuation. Moreover, once operational, the project will not require full time employees or other visitors and thus would not generate meaningful amounts of traffic that could potentially interfere with evacuation routes. Therefore, the project would not otherwise interfere with state or local emergency response or evacuation plans; therefore, impacts would be ***less than significant***.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Response: No Impact

According to the Fire Hazard Severity Viewer (FHSZ), the project site is not located in a Fire Hazard Severity Zone. The project is a habitat improvement project in an existing area that is not located in a fire severity area. Therefore, the proposed project is not anticipated to expose people or structures to a significant risk of loss, injury, or death involving wildland fires. ***No impact*** would occur.

Mitigation Measures

None.

Sources:

1. County of Contra Costa General Plan, adopted January 18, 2005
   a. Chapter 10 – Safety
2. Department of Toxic Substance Control Envirostor Site List, 2023. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Jersey+Island+California.
3. California Waterboards Geotracker Site List, 2023. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Jersey+Island+California.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

4. Department of Toxic Substance Control Hazardous Waste and Substances Site List – Site Cleanup (Cortese List), 2023. https://dtsc.ca.gov/dtscs-cortese-list/#:~:text=The%20Hazardous%20Waste%20and%20Substances,of%20hazardous%20materials%20release%20sites.
5. Contra Costa County Operational Area Emergency Operations Plan, May 2011. https://www.contracosta.ca.gov/DocumentCenter/View/7352/Emergency-Operations-Plan-2010-11?bidId=
6. CAL FIRE Fire Hazard Severity Zone Maps, September 2023. https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-map-2022/fire-hazard-severity-zones-maps-2022-files/fhsz_statewide_sra_11x17_2022_3.pdf?rev=78556847dfe24aab8ab7684ef85d73a9&hash=BA554CAAA7D1809B3558DBE500487223.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐

Response: Less Than Significant Impact

Construction

Ground disturbing activities, such as grading and excavation between 2 to 5 feet in depth for approximately 95 acres of land would potentially cause temporary impact to water quality during construction. Sediment laden flow has the potential to enter storm drainage facilities after moving over disturbed soil areas after rainfall events or from water usage on the construction site. Fueling or maintenance of construction vehicles could occur within the project site during construction, so there would be a risk of accidental spills or releases of fuels, oils, or other potentially toxic materials. An accidental release of these materials could pose a threat to water quality if contaminants enter the local receiving waters and storm drains. The magnitude of the impact from an accidental release depends on the amount and type of material spilled.

The project would be subject to the NPDES permitting regulations, including implementation of a SWPPP and associated BMPs during grading and construction, which would be required during construction permitting of the project. Adherence to the BMPs in the SWPPP would reduce, prevent, or minimize short-term impacts to water quality conflicts with waste discharge requirements. Temporary BMPs would be consistent with the practices required under the Caltrans MS4 and Phase II Small MS4 permits. Compliance with the requirements of these permits and adherence to their conditions would reduce or avoid potential construction-related impacts. Therefore, with implementation of the SWPPP and standard BMPs, impacts would be *less than significant*.

Operation

The proposed habitat creation method provides rehabilitation of the former wetlands on the site, which have long been degraded by diking and farming. The presence of emergent wetland habitat will provide numerous ecosystem benefits other than those provided to GGS, including foraging and nesting habitat and habitat connectivity for other wildlife species, groundwater absorption area, and capturing sediment. These are all values which the current farmed wetland does not provide, and the functional lift from the rehabilitation of the wetlands to something more closely resembling their historical nature is of significant value. Therefore, implementation of the project would not violate any water quality standards or waste discharge requirements, and impacts would be ***less than significant.***

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

Response: No Impact

Impervious surfaces have the potential to reduce the amount of runoff infiltrating through native soil, resulting in a potential loss of regional groundwater volumes. The project, however, would not include the addition of any new impervious surfaces, nor would it require the use of any groundwater resources. Therefore, the project would not decrease groundwater supplies or interfere with groundwater recharge. ***No impact*** would occur.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

Response: Less Than Significant Impact

The project would involve excavation, grading, and construction activities that would disturb soil and leave exposed soil on the ground surface. As such, the project would be required to comply with the County's grading standards and erosion control measures, included in Title 7, Division 716 (Grading) of the County's Municipal Code.

As mentioned above, adherence to the BMPs in the SWPPP would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. The SWPPP would include a BMP to return and restore all disturbed construction areas back to their pre-project condition. Thus, the potential for soil erosion or the loss of topsoil would be low. Construction of the project would have a ***less than significant impact*** related to soil erosion.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☒

Response: No Impact

The purpose of the project is to increase drainage for habitat creation to provide rehabilitation of the former wetlands on the site, which have long been degraded by diking and farming. The project would not include the addition of any new impervious surfaces. Therefore, the project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding. ***No impact*** would occur.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒

Response: No Impact

Though ground disturbing activities, such as cut-and-fill, grading, and excavation would potentially temporarily impact water quality during construction, the contractor would implement construction site BMPs to minimize short-term impacts to water quality. Additionally, the project site is within a non-residential area and operation of the project would decrease existing sources of pollution runoff due to existing diking and farming in the area. Therefore, implementation of the project would provide a net benefit to the stormwater drainage systems, and ***no impact*** would occur.

iv) Impede or redirect flood flows?	☐	☐	☒	☐

Response: Less than Significant Impact

The project would not increase the rate or amount of surface runoff in a way that would result in flooding because the project would not include the addition of any new impervious surfaces. The project has also been designed to maintain the watershed's drainage patterns and would convey flows to the existing drainage systems. The project would not provide any substantial additional sources of polluted runoff during operations, and as described above, would implement BMPs to reduce potential temporary construction impacts. The project would not substantially impede or redirect flows. Therefore, impacts would be ***less than significant***.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐

Response: Less Than Significant.

According to the Contra Costa County General Plan Safety Element, and the FEMA National Flood Hazard Map, the project site is within a special flood hazard area. However, there are no established communities within the project site, therefore the project would not induce any population growth or increase risk to any residential area. The nature of the project entails the enhancement of habitat within an existing marsh and open water. The project would not risk release of pollution due to project inundation. Therefore, impacts would be ***less than significant.***

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Response: Less than Significant

The project site is located within the area subject to the Sacramento River Basin and the San Joaquin River Basin Water Quality Control Board's Basin Plan (Basin Plan). The Basin Plan lists action plans and policies to achieve water quality objectives, protect present and future beneficial water uses, protect public health, and prevent nuisance. As described under Impact 'a', the project would comply with applicable stormwater standards and permits that are specifically designed to reduce potential water quality impacts to a less-than-significant level. The project would not conflict with or obstruct implementation of the regional Basin Plan.

The project site is located within the East Contra Costa Subbasin, of which is categorized by the Department of Water Resources as a medium priority groundwater basin and subject to the Sustainable Groundwater Management Act requirements. The Groundwater Stability Plan was adopted in October 2021 and approved by the Department of Water Resources. As described in Impact 'b' above, the project would not utilize or decrease groundwater supplies at the project site, nor substantially interfere with groundwater recharge. There are no site-specific standards for groundwater management within the subbasin with which the project would conflict. Therefore, impacts related to obstruction of a water quality control plan would be ***less than significant***.

Mitigation Measures

None.

Sources:

1. County of Contra Costa General Plan, adopted January 18, 2005
   a. Chapter 10 – Safety
2. Federal Emergency Management Agency National Flood Hazard Layer (NFHL) Viewer, 2017. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd.
3. Sacramento River Basin and the San Joaquin River Basin Water Quality Control Board's Basin Plan, 2019. https://www.waterboards.ca.gov/rwqcb5/water_issues/basin_plans/sacsjr_201902.pdf.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
4. East Contra Costa Subbasin Groundwater Sustainability Plan, 2021. https://www.eccid.org/files/a66a264b0/Draft+of+Final+Groundwater+Sustainability+Plan.pdf. 5. Sustainable Groundwater Management Act (SGMA) Status Map, 2022. https://gispublic.waterboards.ca.gov/portal/apps/storymaps/stories/35d50036fbfe44e5ac3b1a6e8c1e8d21.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒

Response: No Impact

The project would result in no impact because there are no established residential communities within the project area. The proposed project would be compatible with the current land use because the purpose of the project is to improve the existing habitat function. Therefore, the project would not result in the physical division of an established community. ***No impact*** would occur, and no mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Response: Less than Significant Impact

Contra Costa County General Plan

The project entails the enhancement of habitat within an existing marsh and open water. The improvements would be consistent with the County's goals for identification, preservation and management of natural resources as set forth in the General Plan Conservation Element. The project would also assist in meeting water quality and groundwater protection goals by controlling water flows, maximizing bioretention, and preserving the natural drainage courses to the extent feasible. Moreover, the mitigation bank is a permitted use for the Project site under the County's General Plan and zoning land use designations. Therefore. no change to the project area's adopted general plan or zoning designation is proposed or necessary for project implementation.

Delta Protection Commission's Land Use and Resource Management Plan

The Delta Protection Act of 1992 ("DPA")(Pub. Resources Code §§ 29700-29780) created the Delta Protection Commission ("DPC"). The DPC is a State entity that plans for and guides the conservation and enhancement of the natural resources of the Delta, while sustaining agriculture and meeting increased recreational demand pursuant to the DPA. The DPA mandated the designation of Primary and Secondary Zones within the Sacramento-San Joaquin Delta and called on the DPC to prepare and implement a Land Use and Resource Management Plan for the Primary Zone. The project site, and the entirety of Jersey Island, is located within the "Primary Zone" of the DPC's Land Use and Resource Management Plan, adopted February 25, 2010.

The DPC ensures consistency between local government general plans and the Land Use and Resource Management Plan. Within 180 days from the adoption of the resources management plan (or any updates/amendments), the DPA requires local governments to submit to the DPC proposed amendments to its general plan that are intended to make the general plan consistent with the resources management plan with respect to land located within the primary zone. (Id. at § 29763.) The DPC acts on the proposed amendments within 60 days, and then the local government adopts them within 120 days of their approval by the DPC. (Id. at §§ 29763.5, 29763.8.) Because the Project would be consistent with the County's General Plan, which the DPC

has ensured is consistent with the Land Use and Resource Management Plan, the Project is also consistent with the Land Use and Resource Management Plan.

The following are exemplar policies of the DPA with which the Project is consistent:

Land Use

P-3.

New non-agriculturally oriented residential, recreational, commercial, habitat, restoration, or industrial development shall ensure that appropriate buffer areas are provided by those proposing new development to prevent conflicts between any proposed use and existing adjacent agricultural parcels. Buffers shall adequately protect integrity of land for existing and future agricultural uses and shall not include uses that conflict with agricultural operations on adjacent agricultural lands. Appropriate buffer setbacks shall be determined in consultation with local Agricultural Commissioners and shall be based on applicable general plan policies and criteria included in Right-to-Farm Ordinances adopted by local jurisdictions.

Consistency:

While the project would result in new habitat restoration activities, no buffers would be required from adjacent grazing lands. Unlike crop cultivation, no incompatible agricultural practices, such as pesticide application, are associated with grazing. Moreover, there would be no new occupants of the project site following project development that could potentially be disturbed by nearby agricultural activity. Therefore, no land use conflicts would occur between the proposed mitigation bank and existing surrounding grazing uses, and no buffers would be required. No inconsistency with this policy would occur.

P-6.

Subsidence control shall be a key factor in evaluating land use proposals. Encourage agricultural, land management, recreational, and wildlife management practices that minimize subsidence of peat soils. Local governments should utilize studies of agricultural and land management methods that minimize subsidence and should assist in educating landowners and managers as to the value of utilizing these methods.

Consistency:

The project is creating permanent wetland habitat that would essentially build-up peat soils and/or prevent the further oxidation of the existing peat soils. Therefore, the new permanently flooded habitat would prevent subsidence of peat soils. No conflict with this policy would occur.

P-14.

The conversion of an agricultural parcel, parcels, and/or an agricultural island for water impoundment, including reservoirs, water conveyance or wetland development may not result in the seepage of water onto or under the adjacent parcel, parcels, and/or island. These conversions shall mitigate the risks and adverse effects associated with seepage, levee stability, subsidence, and levee erosion, and shall be consistent with the goals of this Plan.

Consistency:

The project would covert grazing land to restored habitat. To accomplish this, soils will be excavated to create open-water and emergent marsh habitat. The excavated soils will be used to construct elevated berms and mounds next to the open water and marsh. It is understood that excavation too close to levees could undermine levees. Therefore, the project retains adequate setbacks from perimeter levees to ensure that the project does not undermine existing levees. The setbacks in the design were reviewed and confirmed by ISD consulting engineers to ensure that the project design would not result in adverse effects associated with seepage, levee stability, subsidence, or levee erosion. Therefore, no conflict with this policy would occur.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Agriculture

P-2.

Conversion of land to non-agriculturally-oriented uses should occur first where productivity and agricultural values are lowest.

Consistency:

As discussed under Agriculture (Issue II b, above), the conversion of Farmland of Local Importance is not a significant impact under CEQA. The project site has historically been used as grazing land because of its low suitability for cultivation, due to seasonal flooding. Therefore, the conversion of the project site to promote habitat restoration is consistent with Policy P-2.

Natural Resources

P-1.

Preserve and protect the natural resources of the Delta. Promote protection of remnants of riparian and aquatic habitat. Encourage compatibility between agricultural practices, recreational uses and wildlife habitat.

Consistency:

As previously described, the project would protect and create riparian and aquatic habitats. Furthermore, the project would not result in compatibility conflicts with agricultural activities (i.e., grazing) on surrounding properties. Finally, existing recreational uses (fishing and hiking accessible by ferry) are present on Jersey Island only in designated areas. Although no future recreational uses would be permitted under the conservation easement, which would reduce portions of the Island currently available for recreational fishing, the Island would remain available as a recreational resource while enhancing its value for wildlife habitat. Therefore, no inconsistencies with this policy would occur.

P-3.

Lands managed primarily for wildlife habitat should be managed to maximize ecological values. Appropriate programs, such as "Coordinated Resource Management and Planning" (Pub. Resources Code § 9408(c)) should ensure full participation by local government and property owner representatives.

Consistency:

A long-term management plan would be developed for the bank and approved by the Wildlife Agencies. Activities that are needed to maintain the integrity and functionality of the restored habitat will be allowed as described in the plan. Additionally, a conservation easement will be recorded on the property's title to permanently protect it and prevent future development on the mitigation bank site. Therefore, the project would be consistent with this policy.

P-4.

Support the non-native invasive species control measures being implemented by the California Department of Fish and [Wildlife], the California Department of Boating and Waterways, the California Emergency Management Agency, the California Department of Food and Agriculture, the State Water Resources Control Board, the Central Valley and San Francisco Bay Regional Water Quality Control Boards, and the Agricultural Commissioners for the five Delta Counties (Yolo, Solano, Sacramento, San Joaquin, and Contra Costa), which include controlling the arrival of new species into the Delta.

Consistency:

As stated above, the project would be required to develop and implement a long-term resources management plan that would include the treatment of invasive species. Management of invasive species, particularly aquatic

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

plants, is a primary concern in maintaining habitat quality for GGS and other native species in the Delta. The conceptual design incorporates elements to allow for physical management of these and other invasive species. The design includes weirs to allow for individual habitat segments to be drained on a rotational basis to manage invasive species. The design also ensures all areas remain accessible to equipment and personnel for clean-out and management as required. These are established design elements incorporated into multiple GGS banks in the central valley and will not have negative effects on GGS, its predators/prey or native plant species. GGS both prey on and are predated by non-native wildlife such as American bullfrog and centrarchid fishes, such as bass. Occasional removal of these species, and stocking with other prey species may be required and will be done by MIH or it's designee. Therefore, no inconsistency with this policy would occur.

P-5.

Preserve and protect the viability of agricultural areas by including an adequate financial mechanism in any planned conversion of agricultural lands to wildlife habitat for conservation purposes. The financial mechanism shall specifically offset the loss of local government and special district revenues necessary to support public services and infrastructure.

Consistency:

The site is currently grazed under lease with ISD, which generates a revenue stream of $334.86 per acre per year. With implementation of the project and purchase of the property by MIH, ISD will be paid $760,000, subject to increases of 5% per annum through the date of the purchase closing. As a landowner on Jersey Island, and as part of the long-term operation of the project, MIH will pay an assessment of $100/acre/year ($19,000) to RD 830 to assist in the maintenance of the flood control and water delivery infrastructure on Jersey Island. These funds offset any lost revenue associated with the conversion of low value grazing lands to a mitigation bank. Therefore, the project is consistent with the policy.

P-6.

Support the implementation of appropriate buffers, management plans and/or good neighbor policies (e.g. safe harbor agreements) that among other things, limit liability for incidental take associated with adjacent agricultural and recreational activities within lands converted to wildlife habitat to ensure the ongoing agricultural and recreational operations adjacent to the converted lands are not negatively affected.

Consistency:

Refer to the consistency analysis under Land Use P.3 and Natural Resources P.3.

P-7.

Incorporate, to the maximum extent feasible, suitable and appropriate wildlife protection, restoration and enhancement on publicly-owned land as part of a Delta-wide plan for habitat management.

Consistency:

The project entails habitat restoration and wildlife protections on land owned by ISD. Therefore, the project is consistent with this policy.

P-10.

Ensure that design, construction, and management of any flooding program to provide seasonal wildlife and aquatic habitat on agricultural lands, duck club lands and additional seasonal and tidal wetlands, shall incorporate "best management practices" to minimize vectors including mosquito breeding opportunities, and shall be coordinated with the local vector control districts, (each of the four vector control districts in the Delta provides specific wetland/mosquito management criteria to landowners within their district.)

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Consistency:

The management plan that will be required for the project will include provisions for minimizing standing water. The management entity for the bank will also work with ISD to stock fish that feed on mosquitoes thus also serving to reduce vector populations within the project area. Therefore, the project will not be in conflict with this policy.

Water

P-2.

Ensure that Delta water rights and water contracts are respected and protected, including area of origin water rights and riparian water rights.

Consistency:

The primary water source for the aquatic habitats is intended to be a combination of surface water and natural groundwater. ISD shall retain all underlying water rights. To provide a perpetual water supply, ISD and MIH are working in good faith to establish necessary documentation such that MIH will have the legal right to use water and the existing network of siphons and ditches to supply and drain water to and from the proposed mitigation bank, as well as the bank's associated ditches. The project's water demand is projected to be similar to or less than existing agricultural activity on the project site, which does not interfere with other water rights in the Delta. Therefore, the project will be consistent with this policy.

Conclusion:

Therefore, the project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, impacts would be less than significant, and no mitigation measures are required.

Mitigation Measures

None.

Sources:

1. County of Contra Costa General Plan, adopted January 18, 2005
   a. Chapter 3 – Land Use
2. Delta Protection Commission. Land and Resource Management Plan for the Primary Zone of the Delta, adopted February 25, 2010.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

Response: No Impact

As discussed in the County's General Plan Conservation Element, Figure 8-4, the project site is located outside of any identified mineral resource areas. The project would involve limited site grading and excavation, and no permanent conversion of the site to an urban land use would occur. Therefore, implementation of the project would not result in any impacts to mineral resources that would be of value to the region and/or residents of the State. ***No impact*** would occur, and no mitigation is required.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Response: No Impact

As discussed in the response above, there are no delineated mineral resource recovery sites, or designated land for mineral resource production. Therefore, implementation of the project would not result in the loss of a designated mineral recovery site, and ***no impact*** would occur.

Mitigation Measures

None.

Sources:

1. County of Contra Costa General Plan, adopted January 18, 2005
   a. Chapter 8 – Conservation

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐

Response: Less Than Significant Impact with Mitigation Incorporated

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Project construction would result in noise from construction activities, such as excavation and grading. However, work would be done in a single phase estimated with a 45 working day construction duration, working schedule of 12 hours per day, and 5 days per week. All excavated material will be balanced on-site (no off-haul).

Activities such as clearing and grading would result in the highest noise levels. Noise from construction equipment such as a dozers, excavators and saw cutting would also occur. Other construction equipment that is anticipated to be used includes: ag tractors, a Caterpillar 335 excavator, a Caterpillar D6T XW, a water truck, and a skip loader. Table 5 shows Typical Construction Equipment Noise Levels.

Table 5. Typical Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)[1]
Scraper	89
Dozer (Bulldozer)	85
Truck (Heavy Truck)	88[2]
Pickup Truck	55
Backhoe	80
Pneumatic Tools	85

Notes:

1. Noise levels are from Table 9.1 of FHWA's 2006 Construction Noise Handbook (FHWA, 2006), unless otherwise noted.
2. This noise level is from Table 9.9 of FHWA's 2006 Construction Noise Handbook (FHWA, 2006), which is taken from Chapter 12 of the FTA Transit Noise and Vibration Guidance Handbook.

As mentioned previously, no habitable structures or noise sensitive land uses exist within or surrounding the project site, therefore construction noise would not impact any sensitive receptors. However, potential impacts

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
from construction, maintenance, or management of the project could include temporary noise disturbances for nesting bird species listed in Section IV, Biological Resources. As such, **MM BIO-2** through **MM BIO-4** would ensure that noise impacts from project activities would be less than significant. Once project construction is completed, no operational noise impacts would result. Any potential future maintenance of the site would be temporary and would be restricted to the hours set in forth in federal, state, and local laws, and construction BMPs mentioned above. Therefore, with incorporation of MM BIO-2 through MM BIO-4, impacts would be ***less than significant.***				
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
Response: Less Than Significant Impact The project would not include demolition, building construction, or any vibration generating activities during construction. Because of the limited nature, the project would not require the use of equipment that would generate excessive ground-borne vibration or ground-borne noise levels. No new permanent source of noise or vibration would result from project implementation; therefore, there are no predicted operational vibration or noise impacts from the project. As such, impacts would be ***less than significant***.				
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐
Response: Less Than Significant Impact There are no known private airfields or airstrips in the vicinity of the project; therefore, no impacts associated with private airstrips would occur. As noted previously in Section IX, the project is not located in an airport land use plan for Contra Costa County, nor is it within 2 miles of a public airport or public use airport. The project involves construction of a habitat matrix consisting of open water and existing marsh and would not introduce new sensitive receptors (residents or permanent employees) to the project site. Construction workers would be on the site temporarily. Due to the temporal nature of construction and low noise impact level, the project would not result in excessive noise exposure for workers within the project area, and impacts would be ***less than significant***.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Mitigation Measures **MM BIO-2** through **MM BIO-4** (See Section IV, above).				
Sources: Not Applicable				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☒
Response: No Impact The project entails the enhancement of habitat within an existing marsh and open water. The presence of construction and maintenance workers for operations at the project site would be minimal. Workers would likely come from the existing local or regional construction labor force and would not likely relocate their households as a consequence of working on the project. Therefore, the short-term increased employment of construction workers on the project site would not result in a notable increase in the residential population of the area surrounding the project site. Given the scope of the existing population and available housing in the area, no increase in population would occur. Consequently, the project would not create a significant number of jobs or directly induce: (1) substantial population growth or (2) the development of any new housing, businesses, or infrastructure during construction or operation. Therefore, ***no impact*** would occur.				
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
Response: No Impact The project entails the enhancement of habitat within an existing marsh and open water. No people or housing would be displaced, and there would be no need for replacement housing. Therefore, ***no impact*** would occur.				
Mitigation Measures: None.				
Sources: Not Applicable				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☐	☒
Response: No Impact The project entails the enhancement of habitat within an existing marsh and open water while aiding in controlling water flows, maximizing bioretention, and preserving the natural drainage courses to the extent feasible. Given that the project does not directly or indirectly induce population growth, there would be no impact to schools, parks, or other public facilities. Additionally, implementation of the project would not result in an increased demand for police or fire protection service. ***No impact*** associated with public services would occur.				
ii) Police protection?	☐	☐	☐	☒
Response: No Impact Please see response to item XV.i above. ***No impact*** would occur.				
iii) Schools?	☐	☐	☐	☒
Response: **No Impact** Please see response to item XV.i above. ***No impact*** would occur.				
iv) Parks?	☐	☐	☐	☒
Response: No Impact Please see response to item XV.i above. ***No impact*** would occur.				
v) Other public facilities?	☐	☐	☐	☒
Response: No Impact Please see response to item XV.i above. ***No impact*** would occur.				
Mitigation Measures None.				
Sources: Not Applicable				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION – Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
Response: No Impact The project entails the enhancement of habitat within an existing marsh and open water. Construction of the project would not generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities. Furthermore, the project would not result in an increased demand or substantial physical deterioration of existing recreational facilities. Therefore, ***no impact*** would occur.				
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☒
Response: No Impact Please see the response to item XVI.a. above. The project would not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, ***no impact*** would occur.				
Mitigation Measures None.				
Sources: Not Applicable				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
Response: No Impact The mitigation bank would be constructed in an area where there are no established communities and no roads. No public transit stops, bicycle lanes, nor sidewalks exist within the project site or environs. Therefore, no circulation system would be impacted during operation. Construction is anticipated to occur over an approximate 45-day period. During construction, there are no planned obstructions or closures to existing roads. Post-construction, there would be no perceivable difference to the surrounding environment. All traffic and transportation circulation patterns would remain as they currently exist. Therefore, the project would not conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system. ***No impact*** would occur.				
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
Response: No Impact The project entails the enhancement of existing habitat. Although there would be construction-related traffic during the approximate 45-day construction period, there would be no operational traffic associated with the project, except for occasional maintenance and monitoring. This constitutes a de minimis contribution to VMT. Therefore, the project would not conflict with CEQA Guidelines Section 15064.3, subdivision (b), and ***no impact*** would occur.				
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
Response: No Impact The project would assist in meeting water quality and groundwater protection goals by controlling water flows, maximizing bioretention, and preserving the natural drainage courses to the extent feasible. There would be no				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
changes to the existing transportation circulation system, including geometric design features and uses; therefore, ***no impact*** would occur.				
d) Result in inadequate emergency access?	☐	☐	☒	☐
Response: Less than Significant The mitigation bank would be constructed in an area where there are no established communities, and no roads, public transit stops, bicycle lanes, or sidewalks exist within the project site. Although construction of the proposed project may impact evacuation routes along a portion of Jersey Island Road, the project would not otherwise interfere with emergency access once project construction is complete. Additionally, there are no established residential communities in or surrounding the project area. Therefore, impacts would be ***less than significant***.				
Mitigation Measures None.				
Sources: Not Applicable				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐

Response: Less than Significant with Mitigation Incorporated

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) establishes a formal consultation process for California tribes as part of the CEQA process and equates significant impacts on "tribal cultural resources" with significant environmental impacts (Public Resources Code [PRC] § 21084.2). AB 52 requires that lead agencies undertaking CEQA review evaluate, just as they do for other historical and archeological resources, a project's potential impact to a tribal cultural resource.

Tribal cultural resource (TCR) identification efforts were conducted to determine whether a TCR, as defined by PRC § 21074, would be impacted by the project. These efforts included background research, a search of archaeological site records and cultural survey reports on file at the Eastern Information Center (EIC), literature and map review, a review of the Sacred Lands File (SLF) by the NAHC, efforts to coordinate with Native American Tribal Governments, and a field survey.

The NAHC was contacted on February 16, 2024, to determine whether the California Native American tribes within the project area have recorded Sacred Lands. The NAHC confirmed that the SLF search for the project was completed with negative results; however, the absence of specific site information in the SLF does not necessarily indicate the absence of tribal cultural resources in the Area of Potential Effect (APE).

ISD initiated AB 52 consultation with 12 Native American tribes as required under CEQA, initially on February 16, 2024, and subsequently again on June 25, 2024, due to minor changes in the project footprint. AB 52 consultation letters were sent to the following Native American tribal representatives:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Chicken Ranch Rancheria of Me-Wuk Indians
- Confederated Villages of Lisjan Nation
- Guidiville Rancheria of California
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the SF Bay Area
- Nashville Enterprise Miwok-Maidu-Nishinam Tribe
- Northern Valley Yokut / Ohone Tribe
- Ohone Indian Tribe

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
• Tule River Indian Tribe • Wilton Rancheria The letters provided a summary of the project and requested comments or concerns the Native American community might have about the project and whether any traditional cultural properties, TCRs, or other resources of significance would be affected by implementation of the project. The letters also stated that if the tribes would like to consult under AB 52, they would have to respond within 30 days, pursuant to PRC 21080.3.1(d). Below is a summary of tribal communications. In response to the February 16, 2024, notification letter, the ISD received one response from the Lisjan Nation requesting for further consultation. Consultation between ISD and the Lisjan Nation took place on April 24, 2024, as shown in Appendix A.2. As part of the consultation, a detailed explanation of the project was provided to the Lisjan Nation including details regarding existing land uses and the project's timeline. The Lisjan Nation requested a copy of the cultural resources report (Appendix A.2), which explained that no pre-contact cultural resources were identified in the project area. The cultural resources report was provided to the Lisjan Nation on April 24, 2024. A copy of the CHRIS report was provided to the Lisjan Nation, after which, the tribe concluded that there was no further information necessary prior to project construction as shown in Appendix A.2. The tribe wishes to be contacted should any there be any findings within the project area. No responses were received by the above listed Native American tribes in regard to the second AB 52 notification. Through the SLF search and tribal consultation process, no listed or eligible for listing TCRs were identified within the project site. However, due to the number of locally affiliated tribes confirming that the project lies within a traditional use area, there exists the possibility that unknown TCRs could be encountered during construction. **MM CR-1,** identified above, would be implemented requiring the lead agency to enact a contractor awareness training program for equipment operators. Likewise, **MM CR-2**, would also be implemented mandating compliance with California Health and Safety Code Section 7050.5, CEQA Guidelines Section 15064.5, and Public Resources Code Section 5097.98 in the event of an accidental discovery of human remains. Within application of **MM CR-1** and **MM CR-2**, the project would not cause a substantial adverse change to a TCR, and impacts would be reduced to a ***less than significant*** level.				
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1,	☐	☒	☐	☐

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
the lead agency shall consider the significance of the resource to a California Native American tribe.				

Response: Less than Significant with Mitigation Incorporated

As identified in the response to item XVIII(a)(i) above, the project is within twelve tribal traditional use areas. No listed or eligible for listing TCRs were identified within the project site. Through tribal consultation, and implementation of **MM CR-2**, the project would have a ***less than significant impact***.

Mitigation Measures

MM CR- 2 (See Section V, above).

Sources: Not Applicable

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
Response: No Impact The project would not require relocation or construction of new or expanded water, wastewater treatment, electrical power, natural gas, or telecommunications facilities. Therefore, ***no impact*** would occur.				
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
Response*:* Less Than Significant Impact ISD has riparian water rights associated with the San Joaquin River and is working in good faith with MIH to provide MIH with the legal right to use water and the existing network of siphons and ditches to supply and drain water to and from the proposed mitigation bank. The project would only use untreated water from the River and no potable or municipal water. Water demand for the project is estimated at 283 acre/feet per year, which is equal to or less than current water use associated with agricultural activities on the project site. The project will temporarily divert and impound water in the habitat areas, and the water will be periodically refreshed. The existing water will then be released from the site back into the ditch network on Jersey Island and ultimately pumped back into the San Joaquin River via the main pumps on Jersey Island. The project may use water from the same source during construction for dust management. This demand would be temporary in nature and cease upon construction completion. The project will have no consumptive use of any potable or municipal water and any non-potable water use on the site after implementation will be temporary in nature, Therefore, the project would have a ***less than significant impact*** on water supply.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

Response: No Impact

The project would not generate any wastewater. Therefore, ***no impact*** due to the construction or relocation of wastewater infrastructure or facilities would occur.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

Response: Less than Significant Impact

During construction of the project, it is possible that the project would generate solid waste and debris. However, it is anticipated the project would not generate substantial amounts of non-recyclable waste during construction. Waste generated during construction would be required to be disposed in accordance with standard County operating procedures pursuant to federal, State, and local regulations. Debris generated during construction would not be in excess of the capacity of local landfills. Local landfills include the Contra Costa SLF Landfill (unknown remaining capacity and 150 tons per day max permitted throughput) and the Contra Costa TS and Recovery facility (1,900 tons per day of remaining capacity and 1,900 tons per day max permitted throughput). Common construction waste may include metals, plastic, rocks, dirt, cardboard, or green waste related to land development. Any hazardous waste generated during construction would be disposed of at an approved facility. In addition, few residual materials are expected post construction. Therefore, impacts would be ***less than significant***.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Response: Less Than Significant Impact

As discussed in the response above, waste generated during construction would be required to be disposed of in accordance with standard County operating procedures pursuant to federal, State, and local regulations. Debris generated during construction would not be in excess of the capacity of local landfills. Therefore, the project would comply with local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be ***less than significant***.

Mitigation Measures

None.

Sources:

1. Contra Costa County General Plan, adopted January 18, 2005.
   a. Chapter 8 – Conservation
2. CalRecycle – SWIS Facility Badlands Sanitary Landfill Site Activity Details

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:**				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
Response: Less Than Significant Impact According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zones online interactive map, the project is not in a "very high/high/moderate" fire hazard severity zone. During construction of the project, evacuation routes along a portion of Jersey Island Road may be impacted. If temporary conditions during construction warrant full roadway closure, appropriate detour routes will be signed and noted for safe evacuation. The project would not otherwise interfere with emergency access and once project construction is complete. Additionally, there are no established residential communities in or surrounding the project area. Impacts would be ***less than significant.***				
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
Response: No Impact As discussed, the project includes habitat rehabilitation to the existing marsh and open water system and is not in a "very high/high/moderate" fire hazard severity zone. The project area is relatively flat and is generally characterized by gently sloping topography. In addition, there are no established residential communities in or surrounding the project area. Therefore, the project would not expose project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire. ***No impact*** would occur, and no mitigation is required.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒

Response: No Impact

As discussed, the project includes habitat rehabilitation to the existing marsh and open water system and is not in a "very high/high/moderate" fire hazard severity zone. The project would consist of open water, perennial or semi-permanent marsh, edge habitat, constructed upland berms, and restored riparian scrub. This infrastructure would not exacerbate the risk of a wildfire through its construction or maintenance. No other infrastructure such as roads, fuel breaks, or other utilities would be constructed. ***No impact*** would occur, and no mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Response: No Impact

As discussed, the project includes habitat rehabilitation to the existing marsh and open water system and is not in a "very high/high/moderate" fire hazard severity zone. The project area topography is relatively flat, and the soils found onsite are not susceptible to landslides. The project would improve the drainage pattern by controlling water flows, which will minimize the risk for flooding and decrease the amount of runoff. Therefore, the project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. ***No impact*** would occur, and no mitigation is necessary.

Mitigation Measures

None.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Sources: • Contra Costa County General Plan, adopted January 18, 2005. ○ Chapter 10 – Safety • CAL FIRE. Fire Hazard Safety Zone Map, 2023. https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008.				

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Response: Less Than Significant with Mitigation

As discussed in Section IV, *Biological Resources*, the project has the potential to impact sensitives species, natural communities, and jurisdictional waters. As a result, **MM BIO-1** through **MM BIO-11** would be implemented as part of the project. Inclusion of these measures would ensure that the project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, substantially reduce the number, or restrict the range of a rare or endangered plant or animal. Additionally, as described in Section V, *Cultural Resources* and XVII, *Tribal Cultural Resources*, there exists a possibility that unknown tribal cultural resources could be encountered during construction. However, with the implementation of **MM CR-1** and **MM CR-2**, the potential for impacts on undiscovered resources would be less than significant. The project would not eliminate important examples of major periods of California history or prehistory. With implementation of the abovementioned mitigation measures, impacts would be reduced to a ***less than significant*** level.

ISSUES & SUPPORTING INFORMATION SOURCES:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)?	☐	☐	☒	☐
Response: Less than Significant Impact As detailed in the analysis provided within this document, all construction and operational impacts would either have a less than significant or mitigated to a less than significant level and there would be no long-term significant impacts. Therefore, the project would not result in individual impacts that could contribute to a cumulative effect. A ***less than significant*** impact would occur.				
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐
Response: Less than Significant Impact Development of the project includes restoration of habitat, providing a beneficial impact to the surrounding ecosystem upon project completion. Generally, impacts to humans are associated with air quality, hazards and hazardous materials, noise impacts, and wildfire. As detailed in the respective topic sections of this document however, the project is in a nonresidential area and would not include the development of habitable resources. Therefore, the project would not cause significant adverse impacts to humans and impacts would be ***less than significant.***				

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REFERENCES

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Appendix A – Consultation and Coordination

Appendix A.1 Notice of Intent

NOTICE OF INTENT TO ADOPT NEGATIVE DECLARATION OR MITIGATED NEGATIVE DECLARATION

NOTICE IS HEREBY GIVEN that the Ironhouse Sanitary District invites public review and comment on the environmental document listed below. The public review period begins on October 15, 2024, and ends on November 14, 2024. Written comments concerning the adequacy of the document will be accepted until 5:00 P.M. on November 14, 2024. The document is posted in the County Clerk's office and is also available at on ISD's website at: https://www.ironhousesanitarydistrict.com/268/CEQA-Notice.

If you would like to request an electronic copy of a document then please contact Tyson Zimmerman, with the Ironhouse Sanitary District, at (925)809-3011, or by email at zimmerman@isd.us.com.

INITIAL STUDIES PROPOSED AS MITIGATED NEGATIVE DECLARATIONS:

Mitigated Negative Declaration (Giant Garter Snake Mitigation Bank) – the applicant is proposing to provide high-quality foraging, basking, and sheltering habitat for giant garter snake (*Thamnophis gigas,* GGS) to protect the existing population and greatly enhance its size and resilience. The goal would be to obtain GGS habitat credits for nearly the entire mitigation bank area. Because GGS require a mosaic of upland and wetland habitat, and to better service the mitigation market, another goal would be to receive perennial emergent marsh credits for re-established wetland habitats, and riparian credits for riparian scrub habitats established as part of the habitat enhancement for GGS. The proposed method for creating GGS habitat is to construct a habitat matrix consisting of approximately 200 acres of open water, perennial or semi-permanent marsh, edge habitat, constructed upland berms, and restored riparian scrub by integrating into the existing ditches in several locations in order to provide water and subsequent drainage for the restored habitats.

The Ironhouse Sanitary District will hold a public hearing in-person and by teleconference to consider the environmental document for the proposed project that is listed above. The public hearing will be tentatively held on December 17, 2024, at 6:30PM PT. Instructions on how to participate will be posted with the ISD Board of Directors meeting agenda at least ten (10) days prior to the date of the meeting. Pursuant to *California Government Code* Section 65009, subdivision (b), if you challenge the Mitigated Negative Declaration (Giant Garter Snake Mitigation Bank) in court, you may be limited to raising only those issues you or someone else raised at the special public hearing described in this notice, or in written correspondence delivered to the Ironhouse Sanitary District at, or prior to, the public hearing. Interested parties are invited to appear by teleconference and present evidence or make statements of fact regarding the proposed project. For more information regarding the proposed project please contact Tyson Zimmerman, with the Ironhouse Sanitary District, at (925)809-3011, or by email at zimmerman@isd.us.com.

IRONHOUSE SANITARY DISTRICT



Tyson Zimmerman

Assistant General Manager

PUBLISH: October 15, 2024

Appendix A.2 First AB 52 Tribal Consultation Record

Jersey Island Mitigation Bank

CONTRA COSTA COUNTY, CALIFORNIA

AB52 Tribal Consultation Letters and Responses

First Consultation

DocuSign Envelope ID: BE06B7D7-9CF7-4E73-B29D-64A01C2BD2EB

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Legal Counsel

February 16, 2024

Vice Chairperson Ed Ketchum
Amah Mutsun Tribal Band
Email sent: aerieways@aol.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vice Chairperson Ed Ketchum,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(d) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at zimmerman@isd.us.com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

DocuSign Envelope ID: BE06B7D7-9CF7-4E73-B29D-64A01C2BD2EB

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J. Leah Castella
Legal Counsel

February 16, 2024

Chairperson Valentin Lopez
Amah Mutsun Tribal Band
P.O. Box 5272
Galt, CA, 95632
Email sent: vjltestingcenter@aol.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Valentin Lopez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

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0771057173C54F3...

Tyson Zimmerman
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Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Chairperson Irene Zwierlein
Amah MutsunTribal Band of Mission San Juan Bautista
3030 Soda Bay Road
Lakeport, CA, 95453
Email sent: amahmutsuntribal@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Irene Zwierlein,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
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Trustee, Reclamation District No. 830

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Legal Counsel

February 16, 2024

Chairperson Lloyd Mathiesen
Chicken Ranch Rancheria of Me-Wuk Indians
P.O. Box 1159
Jamestown, CA, 95327
Email sent: lmathiesen@crtribal.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Lloyd Mathiesen,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

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Tyson Zimmerman
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Tyson Zimmerman
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Trustee, Reclamation District No. 830

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February 16, 2024

Cheyenne Gould, Tribal Cultural Resource Manager
Confederated Villages of Lisjan Nation
10926 Edes Ave
Oakland, CA, 94603
Email sent: cvltribe@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Cheyenne Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

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February 16, 2024

Chairperson Corrina Gould
Confederated Villages of Lisjan Nation
10926 Edes Avenue
Oakland, CA, 94603
Email sent: cvltribe@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Corrina Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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Tyson Zimmerman
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Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Deja Gould, Language Program Manager
Confederated Villages of Lisjan Nation
10926 Edes Ave
Oakland, CA, 94603
Email sent: cvltribe@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Deja Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Michael Derry, Historian
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481
Email sent: historian@guidiville.net

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Michael Derry,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Bunny Tarin, Tribal Administrator
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481
Email sent: admin@guidiville.net

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Bunny Tarin,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
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Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Chairperson Ann Marie Sayers
Indian Canyon Mutsun Band of Costanoan
P.O. Box 28
Hollister, CA, 95024
Email sent: ams@indiancanyon.org

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Ann Marie Sayers,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Trustee, Reclamation District No. 830

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Legal Counsel

February 16, 2024

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122
Email sent: kanyon@kanyonkonsulting.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Kanyon Sayers-Roods,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Trustee, Reclamation District No. 830

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February 16, 2024

Vice Chairwoman Monica Arellano
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546
Email sent: monicavarellano@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vice Chairwoman Monica Arellano,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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In accordance with Section 21080.3.1(d) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at zimmerman@isd.us.com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

DocuSign Envelope ID: BE06B7D7-9CF7-4E73-B29D-64A01C2BD2EB

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Legal Counsel

February 16, 2024

Chairperson Cosme Valdez
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
P.O. Box 580986
Elk Grove, CA, 95758-0017
Email sent: valdezcome@comcast.net

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Cosme Valdez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830

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Legal Counsel

February 16, 2024

Leland Valdez
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
P.O. Box 580986
Elk Grove, CA, 95758-0017

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Leland Valdez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

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Respectfully,

DocuSigned by:
Tyson Zimmerman
07719571730C54E3...

Tyson Zimmerman
Assistance General Manager
Ironhouse Trustee, Reclamation District No. 830

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February 16, 2024

Timothy Perez, Tribal Compliance Officer
Northern Valley Yokut / Ohlone Tribe
P.O. Box 717
Linden, CA, 95236
Email sent: huskanam@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Timothy Perez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Vincent Medina, Cultural Leader
The Ohlone Indian Tribe
17365 Via Del Rey
San Lorenzo, CA, 94580
Email sent: vincent.d.medina@gmail.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vincent Medina,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Legal Counsel

February 16, 2024

Chairperson Andrew Galvan
The Ohlone Indian Tribe
P.O. Box 3388
Fremont, CA, 94539
Email sent: chochenyo@AOL.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Andrew Galvan,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Legal Counsel

February 16, 2024

Desiree Vigil, Tribal Historic Preservation Officer
The Ohlone Indian Tribe
259 Winwood Avenue
Pacifica, CA, 94044
Email sent: dirwin0368@yahoo.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Tribal Historic Preservation Officer Desiree Vigil,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Joey Garfield, Tribal Archaeologist
Tule River Indian Tribe
P. O. Box 589
Porterville, CA, 93258
Email sent: joey.garfield@tulerivertribe-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Joey Garfield,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Kerri Vera, Environmental Department
Tule River Indian Tribe
P. O. Box 589
Porterville, CA, 93258
Email sent: kerri.vera@tulerivertribe-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Kerri Vera,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Chairperson Neil Peyron
Tule River Indian Tribe
P.O. Box 589
Porterville, CA, 93258
Email sent: neil.peyron@tulerivertribe-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Neil Peyron,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
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Tyson Zimmerman
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Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Cultural Preservation Department
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624
Email sent: cpd@wiltonrancheria-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Cultural Preservation Department,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Dahlton Brown, Executive Director of Administration
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624
Email sent: dbrown@wiltonrancheria-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Dahlton Brown,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

February 16, 2024

Herbert Griffin, Executive Director of Cultural Preservation
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624
Email sent: hgriffin@wiltonrancheria-nsn.gov

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Herbert Griffin,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(d) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at zimmerman@isd.us.com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
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1. Article Addressed to:

Jonny Tarin, Tribal Administrator
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481

9590 9402 4929 9063 0683 25

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0584

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1. Article Addressed to:

Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0677 00

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1734

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1. Article Addressed to:

Chairperson Neil Peyron
Tule River Indian Tribe
P.O. Box 589
Porterville, CA, 93258

9590 9402 4929 9063 0676 87

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1727

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1. Article Addressed to:

Robert Griffin, Executive Director of Cultural Preservation
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0680 73

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1758

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1. Article Addressed to:

Timothy Perez, Tribal Compliance Officer
Northern Valley Yokut / Ohlone Tribe
P.O. Box 717
Linden, CA, 95236

9590 9402 4929 9063 0676 25

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1666

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Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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1. Article Addressed to:

Chairperson Irene Zwierlein
Amah Mutsun Tribal Band of Mission San Juan Bautista
3030 Soda Bay Road
Lakeport, CA, 95453

9590 9402 4929 9063 0681 03

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0522

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1. Article Addressed to:

Dahlton Brown, Executive Director of Administration
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0676 94

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1741

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1. Article Addressed to:

Michael Derry, Historian
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481

9590 9402 4929 9063 0681 58

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0577

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Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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1. Article Addressed to:

Chairperson Lloyd Mathiesen
Chicken Ranch Rancheria of Me-Wuk Indians
P.O. Box 1159
Jamestown, CA, 95327

9590 9402 4929 9063 0681 10

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0539

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1. Article Addressed to:

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

9590 9402 4929 9063 0683 70

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 0607

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X ☐ Agent ☐ Addressee

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1. Article Addressed to:

Vice Chairperson Ed Ketchum
Amah Mutsun Tribal Band
P.O. Box 5272
Galt, CA, 95632

9590 9402 4929 9063 0680 80

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 2526

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1. Article Addressed to:

Chair [illegible] Valentin Lopez
Amah M[illegible] Band
P.O. Box 527[illegible]
Galt, CA, 95632

9590 9402 4929 9063 0680 97

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 0515

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A. Signature
X ☐ Agent ☐ Addressee

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1. Article Addressed to:

Vice Chairwoman Monica Arellano
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

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A. Signature
X ☑ Agent ☐ Addressee

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Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

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Board Member

Peter Zirkle
Board Member

Chad Davisson
General Manager

J. Leah Castella
Legal Counsel

March 13, 2024

Via Electronic Mail
Hardcopy to Follow via
U.S. Postal Service Certified Mail and Return Receipt

Chairperson Corrina Gould
Confederated Villages of Lisjan
Nation 10926 Edes Avenue
Oakland, CA, 94603
Email sent: cvltribe@gmail.com

RE: Initiation of AB 52 Consultation for the Jersey Island Mitigation Bank Project in Contra Costa County, California

Dear Chairperson Gould:

On February 16, 2024, the Ironhouse Sanitary District formally notified you of an opportunity to consult under AB 52 for the proposed Jersey Island Mitigation Bank Project in Contra Costa County. On February 22, 2024, we received a response from you indicating a desire to consult with us regarding potential impacts to Tribal Cultural Resources associated with the proposed project. We look forward to consulting with you on this project.

In accordance with AB 52 and Section 21080.3.1(e) of the California Public Resources Code, we are hereby initiating consultation with you by inviting you to a meeting with us. We have availability on April 24, 2024 at 3:00 pm PST and can accommodate either a virtual or in-person meeting. If you cannot attend, please offer another date and time that you are available.

If you have any questions, you may contact me by email at zimmerman@isd.us.com, or by phone at 925-809-3011. Thank you and we look forward to consulting with you.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Acting General Manager, Ironhouse Sanitary District
Trustee, Reclamation District No. 830

Jersey Island AB 52 Consultation Log

2/16/24- Initial consultation letters sent to all tribes listed in the SLF file.

2/22/24-Francis Ranstead of Lisjan Nation responded requesting consultation for the project. Ms. Ranstead requested Mr. Zimmerman schedule an appointment via the tribes calendar.

3/13/2024- Mr. Tyson Zimmerman responded by sending a letter via email and certified mail. The appointment with the tribe was scheduled for April 26, 2024 at 3 pm.

3/14/2024- Mr. Zimmerman confirmed the appointment to consult with the tribe via email. Francis Ranstead responded and confirmed the meeting was on the Tribe's calendar.

4/22/2024-Mr. Zimmerman contacted the Lisjan via email to confirm that the meeting was on their calendar and to obtain a list of attendees. Francis Ranstead responded and confirmed that the meeting was on their calendar and that a few people would be attending, including Chairperson Gould.

4/26/2024- Tyson Zimmerman, Ironhouse Sanitary District; Corina Gould, Chairperson; Deja Gould, THPO; Cheyenne Zepeda, Cultural Resources Manager; Francis Ranstead, Admin; Stacey Ellis, Admin; Christa Westphal, ECORP; Brian Marks, ECORP; and Stephanie Whitmore, WSP were in attendance via zoom. Mr. Zimmerman began the meeting by providing a thorough description of the project. Ms. Westphal provided an overview of the results of the study. Ms. Gould inquired if pre-contact cultural resources were identified in the project area. Ms. Westphal responded that no archaeological pre-contact archaeological resources were identified. Ms. Gould requested a copy of the cultural study to determine if TCRs are present within the project area. Action items at the conclusion of the meeting are: 1) provide the tribe a copy of the cultural resources report, 2) the tribe to review the report and provide their recommendations via email.

4/29/2024- Mr. Zimmerman provided a copy of the cultural resources report and a summary of the record of conversation of the meeting to the tribe via email.

4/30/2023- Francis Ranstead responded to Mr. Zimmerman and concluded that the Tribe had no additional information to supply and that the Tribe wishes to be contacted if anything is found during Project construction.

Native American Contacts Log
SR-162 Encroachment for
Comcast Boring - Willows (ECORP Project No. 2023-191)

Affiliation per NAHC	Contact Date	Contact Type	Contact from	Response
	12/20/2023	Letter (email)	Erica Ramirez-Schroeder (ECORP)	Cody Campagne, Cultural Resources Analyst with the NAHC responded on Decemeber 28, 2023 that the Sacred Land File (SLF) search returned a postive result. The NAHC included a list of Native American contacts who may have knowledge of cultural resources in the Project Area.
Amah Mutsun Tribal Band	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt was signed, but there was not date on when it was received.
Amah Mutsun Tribal Band	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024.
Amah MutsunTribal Band of Mission	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Chicken Ranch Rancheria of Me-Wuk Indians	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/20/2024.
Confederated Villages of Lisjan Nation	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. ECORP did not receive a certified mail receipt.
	2/22/2024	Email	Francis Ranstead	On 2/22/2024, Francis Ranstead, tribal adiminstrative assistant, emailed Tyson Zimmerman. She stated that the Tribe would like to consult on this Project.
Confederated Villages of Lisjan Nation	2/16/2024	Letter (email)		AB 52 letter was sent via certified mail on 2/16/2024. ECORP did not receive a certified mail receipt.
	2/22/2024	Email	Francis Ranstead	On 2/22/2024, Francis Ranstead, tribal adiminstrative assistant, emailed Tyson Zimmerman. She stated that the Tribe would like to consult on this Project.
Confederated Villages of Lisjan Nation	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024, ECORP did not receive a certified mail receipt.
	2/22/2024	Email	Francis Ranstead	On 2/22/2024, Francis Ranstead, tribal adiminstrative assistant, emailed Tyson Zimmerman. She stated that the Tribe would like to consult on this Project.
Guidiville Rancheria of California	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Guidiville Rancheria of California	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Indian Canyon Mutsun Band of Costanoan	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. ECORP received the certified mail reciept, but no signature.
Indian Canyon Mutsun Band of Costanoan	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024 The letter mailed to the address listed by the NAHC is not delieverable.
Muwekma Ohlone Indian Tribe of the SF	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/21/2024.
Nashville Enterprise Miwok-Maidu-Nishinam	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024.
Nashville Enterprise Miwok-Maidu-Nishinam	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024.
Northern Valley Yokut / Ohlone Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
The Ohlone Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. The letter mailed to the address listed by the NAHC is not delieverable.
The Ohlone Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/28/2024.
The Ohlone Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. The letter mailed to the address listed by the NAHC is not delieverable.
Tule River Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Tule River Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/23/2024.
Tule River Indian Tribe	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/20/2024.
Wilton Rancheria	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Wilton Rancheria	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.
Wilton Rancheria	2/16/2024	Letter (mail)		AB 52 letter was sent via certified mail on 2/16/2024. Certified mail receipt received on 2/22/2024.

DocuSign Envelope ID: BE06B7D7-9CF7-4E73-B29D-64A01C2BD2EB

Board of Directors

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General Manager

J. Leah Castella
Legal Counsel

February 16, 2024

Vice Chairperson Ed Ketchum
Amah Mutsun Tribal Band
Email sent: aerieways@aol.com

RE: Notice of Opportunity to Consult Under Assembly Bill 52 for the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vice Chairperson Ed Ketchum,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. It comprises approximately 170 acres within Jersey Island. The Project consists of the development of Giant Garter Snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. A project location map is enclosed for your information.

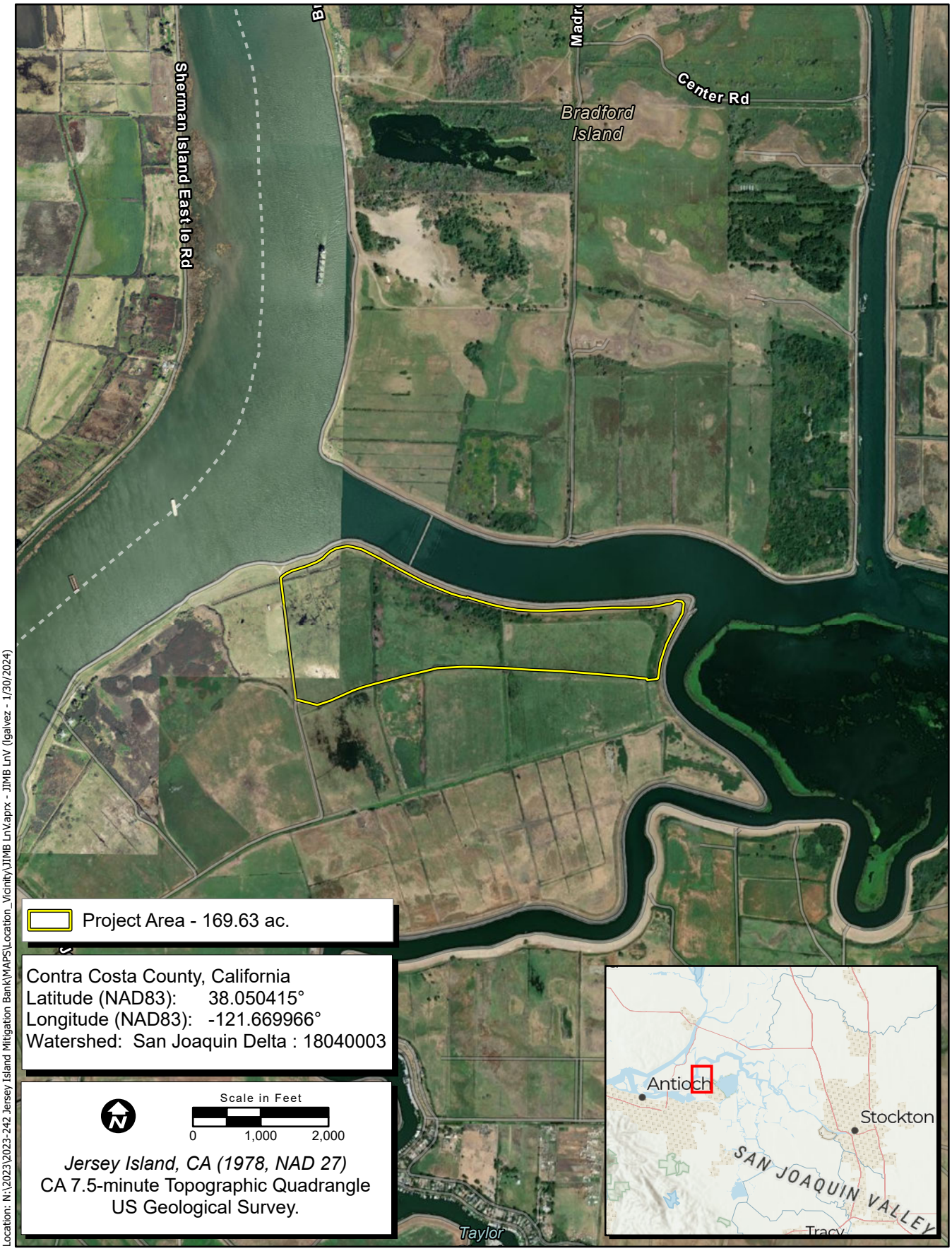
In accordance with Assembly Bill 52 (AB 52) and Section 21080.3.1(d) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this project to impact Tribal Cultural Resources, as defined in Section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not Tribal Cultural Resources are present within the project area, and if so, whether or not those resources will be significantly impacted by the project. If Tribal Cultural Resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(d) of the PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at zimmerman@isd.us.com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Location_Vicinity\JIMB LnV.aprx - JIMB LnV (lgalvez - 1/30/2024)

Map Date: 1/30/2024
Sources: ESRI, USGS, Vollmar

Figure 2. Location and Vicinity (Aerial)

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jonny Tarin, Tribal Administrator
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481

9590 9402 4929 9063 0683 25

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0584

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B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery (over $500)
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0677 00

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1734

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

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A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chairperson Neil Peyron
Tule River Indian Tribe
P.O. Box 589
Porterville, CA, 93258

9590 9402 4929 9063 0676 87

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1727

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COMPLETE THIS SECTION ON DELIVERY

A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery
2-17-24

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

Tribal Council
FEB 2 0 2024
ADMINISTRATION

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Robert Griffin, Executive Director of Cultural Preservation
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0680 73

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1758

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Timothy Perez, Tribal Compliance Officer
Northern Valley Yokut / Ohlone Tribe
P.O. Box 717
Linden, CA, 95236

9590 9402 4929 9063 0676 25

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1666

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A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chairperson Irene Zwierlein
Amah Mutsun Tribal Band of Mission San Juan Bautista
3030 Soda Bay Road
Lakeport, CA, 95453

9590 9402 4929 9063 0681 03

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0522

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A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

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1. Article Addressed to:

Dahlton Brown, Executive Director of Administration
Wilton Rancheria
9728 Kent Street
Elk Grove, CA, 95624

9590 9402 4929 9063 0676 94

2. Article Number (Transfer from service label)
7021 1970 0000 5766 1741

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A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Michael Derry, Historian
Guidiville Rancheria of California
PO Box 339
Talmage, CA, 95481

9590 9402 4929 9063 0681 58

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0577

PS Form 3811, July 2015 PSN 7530-02-000-9053 — Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chairperson Lloyd Mathiesen
Chicken Ranch Rancheria of Me-Wuk Indians
P.O. Box 1159
Jamestown, CA, 95327

9590 9402 4929 9063 0681 10

2. Article Number (Transfer from service label)
7021 1970 0000 5766 0539

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A. Signature — Agent / Addressee

B. Received by (Printed Name) — C. Date of Delivery

D. Is delivery address different from item 1? Yes / No
If YES, enter delivery address below:

3. Service Type
Adult Signature / Adult Signature Restricted Delivery / Certified Mail® / Certified Mail Restricted Delivery / Collect on Delivery / Collect on Delivery Restricted Delivery / Mail / Mail Restricted Delivery
Priority Mail Express® / Registered Mail™ / Registered Mail Restricted Delivery / Return Receipt for Merchandise / Signature Confirmation™ / Signature Confirmation Restricted Delivery

USPS TRACKING#

9590 9402 4929 9063 0683 25

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
FEB 22 2024
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0677 00

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
FEB 22 2024

ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0676 87

First-Class Mail
Postage & Fees P
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002

USPS TRACKING#

9590 9402 4929 9063 0680 73

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
FEB 22 2024
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0676 25

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
FEB 22 2024
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0681 03

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0676 94

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
FEB 23 2024
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

2023-242/002 CW

USPS TRACKING#

9590 9402 4929 9063 0681 58

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

RECEIVED
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

USPS TRACKING#

9590 9402 4929 9063 0681 10

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

United States
Postal Service

• Sender: Please print your name, address, and ZIP+4® in this box•

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

SENDER: COMPLETE THIS SECTION

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

9590 9402 4929 9063 0683 70

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 0607

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

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- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Vice Chairperson Ed Ketchum
Amah Mutsun Tribal Band
P.O. Box 5272
Galt, CA, 95632

9590 9402 4929 9063 0680 80

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 2526

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Chair [illegible] Valentin Lopez
Amah M[illegible] Band
P.O. Box 527[illegible]
Galt, CA, 95632

9590 9402 4929 9063 0680 97

2. Article Number *(Transfer from service label)*
7021 1970 0000 5766 0515

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Adult Signature
☐ Adult Signature Restricted Delivery
☑ Certified Mail®
☐ Certified Mail Restricted Delivery
☐ Collect on Delivery
☐ Collect on Delivery Restricted Delivery
☐ Priority Mail Express®
☐ Registered Mail™
☐ Registered Mail Restricted Delivery
☐ Return Receipt for Merchandise
☐ Signature Confirmation™
☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2015 PSN 7530-02-000-9053 Domestic Return Receipt

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SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Vice Chairwoman Monica Arellano
Muwekma Ohlone Indian Tribe of the SF Bay Area
20885 Redwood Road, Suite 232
Castro Valley, CA, 94546

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X ☑ Agent ☐ Addressee

B. Received by *(Printed Name)* WPS3043 C. Date of Delivery 2/17

D. Is delivery address different from item 1? ☐ Yes
[illegible] address below: ☐ No

3. Service Type
☐ Priority Mail Express®

CERTIFIED MAIL®

ECORP Consult
2525 Warren Drive
Rocklin, CA 95677

SACRAMENTO CA 957
15 FEB 2024 PM 7 L

7021 1970 0000 5766 0607

FIRST-CLASS

US POSTAGE™ PITNEY BOWES
ZIP 95677
02 7H
0006144243
$ 008.69⁰
FEB 15 2024

Fwd/ Attic

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 95122

NIXIE 958 NFE 1 24C0002/23/24
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ROCKLIN, CALIFORNIA 95677

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FEB 21 2024
ECORP Consulting, Inc.

ECORP Consulting, Inc.
2525 WARREN DRIVE
ROCKLIN, CALIFORNIA 95677

From: Lisjan Nation <cvltribe@gmail.com>
Sent: Thursday, February 22, 2024 1:24 PM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: AB 52 Jersey Island Mitigation Bank Contra Costa

Thank you for your letter. The Tribe would like to consult on this project. Please click our Calendly link below to schedule a consultation at your earliest convenience. Please make sure to include the project name in the notes section when scheduling the consultation to help us prepare for our meeting.

Access our Calendly here:
https://calendly.com/cvltribe/consultation

'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation
Image removed by sender.

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J. Leah Castella
Legal Counsel

March 13, 2024

Via Electronic Mail
Hardcopy to Follow via
U.S. Postal Service Certified Mail and Return Receipt

Chairperson Corrina Gould
Confederated Villages of Lisjan
Nation 10926 Edes Avenue
Oakland, CA, 94603
Email sent: cvltribe@gmail.com

RE: Initiation of AB 52 Consultation for the Jersey Island Mitigation Bank Project in Contra Costa County, California

Dear Chairperson Gould:

On February 16, 2024, the Ironhouse Sanitary District formally notified you of an opportunity to consult under AB 52 for the proposed Jersey Island Mitigation Bank Project in Contra Costa County. On February 22, 2024, we received a response from you indicating a desire to consult with us regarding potential impacts to Tribal Cultural Resources associated with the proposed project. We look forward to consulting with you on this project.

In accordance with AB 52 and Section 21080.3.1(e) of the California Public Resources Code, we are hereby initiating consultation with you by inviting you to a meeting with us. We have availability on April 24, 2024 at 3:00 pm PST and can accommodate either a virtual or in-person meeting. If you cannot attend, please offer another date and time that you are available.

If you have any questions, you may contact me by email at zimmerman@isd.us.com, or by phone at 925-809-3011. Thank you and we look forward to consulting with you.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Acting General Manager, Ironhouse Sanitary District
Trustee, Reclamation District No. 830

From:	Tyson Zimmerman
To:	Whitmore, Stephanie; Warren, Bailey; Christa Westphal
Cc:	Carl Jensen (carl@mitigationholdings.com); Leah Castella; Phillips, Eric S.; Jeremy Adams; Brian Marks
Subject:	FW: AB 52 Jersey Island Mitigation Bank Contra Costa
Date:	Friday, March 15, 2024 10:36:27 AM
Attachments:	image005.png image006.png image005.png image006.png

---

FYI, please see below.

Tyson Zimmerman, MBA, CSDM
Acting General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Lisjan Nation <cvltribe@gmail.com>
Sent: Thursday, March 14, 2024 2:30 PM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: AB 52 Jersey Island Mitigation Bank Contra Costa

Thank you Tyson. The meeting is on our calendar.

'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation

On Wed, Mar 13, 2024 at 9:15 AM Tyson Zimmerman <zimmerman@isd.us.com> wrote:

> Good morning,

The District has scheduled an initial consultation meeting using the Tribe's Calendly application. Please find the attached letter with the proposed time and date. I look forward to our meeting.

Thank you,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

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https://calendly.com/cvltribe/consultation

'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation

Bailey Warren

Consultant, Environmental Planner

T+ 1 619-849-5414

From: Tyson Zimmerman <zimmerman@isd.us.com>
Sent: Friday, March 15, 2024 10:36 AM
To: Whitmore, Stephanie <Stephanie.Whitmore@wsp.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Christa Westphal <cwestphal@ecorpconsulting.com>
Cc: Carl Jensen (carl@mitigationholdings.com) <carl@mitigationholdings.com>; Leah Castella <LCastella@bwslaw.com>; Phillips, Eric S. <EPhillips@bwslaw.com>; Jeremy Adams <jadams@ecorpconsulting.com>; bmarks <bmarks@ecorpconsulting.com>
Subject: FW: AB 52 Jersey Island Mitigation Bank Contra Costa

FYI, please see below.

Tyson Zimmerman, MBA, CSDM
Acting General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
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Confederated Villages of Lisjan Nation

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> Tyson

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Assistant General Manager, Ironhouse
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zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

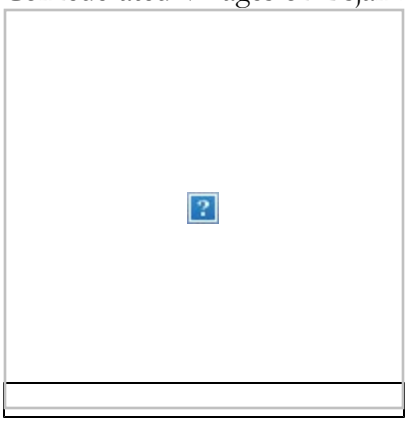
From: Lisjan Nation <cvltribe@gmail.com>
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'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation



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General Manager

J. Leah Castella
Legal Counsel

AGENDA

Ironhouse Sanitary District and the Confederated Villages of Lisjan Nation AB 52 Consultation Meeting for the Jersey Island Mitigation Bank Project

Date: 4/24/2024

Time: 3 pm

Location: https://us06web.zoom.us/j/82563087391

Meeting Objective: for the Ironhouse Sanitary District to share project information with the tribe and receive information from the tribe about potential impacts to Tribal Cultural Resources, so that the Ironhouse Sanitary District can make an informed decision.

Overall Goal: to make a decision about the project in a manner that is mindful of, and takes into consideration, impacts to Tribal Cultural Resources.

Introductions

Project Orientation and Overview
- Purpose and need for the proposed project
- Project description
- Anticipated environmental review under CEQA
- Anticipated project schedule
- Alternatives considered

Discussion of Tribal Cultural Resources
- Any known Tribal Cultural Resources in the proposed project area?
  - Description, location, form
  - How would the project impact Tribal Cultural Resources, if present?
  - What can the agency do to lessen or avoid the impacts?
  - What is the preferred mitigation, if a significant impact will occur?

Action Items

AB 52 Tribal Consultation Record of Conversation

Project: Jersey Island Mitigation Bank Project

Project Number: 2023-232

Date: 4/24/2024

Participants (Name/Affiliation): Tyson Zimmerman, Ironhouse Sanitary District; Corina Gould, Chairperson; Deja Gould, THPO; Cheyenne Zepeda, Cultural Resources Manager; Francis Ranstead, Admin; Stacey Ellis, Admin; Christa Westphal, ECORP; Brian Marks, ECORP; Stephanie Whitmore, WSP

Meeting Venue: Zoom

Summary of discussion: Mr. Zimmerman began the meeting by providing a through description of the project. Ms. Gould inquired if grazing continued on the land. Mr. Zimmerman responded that the area is actively grazed, but grazing would be discontinued in the proposed area as a result of the project. Ms. Gould inquired about the timeline for the project. Mr. Zimmerman stated that the CEQA process would continue into mid-summer 2024 and construction is planned to begin in the third quarter of 2027. Ms. Gould stated that a copy of the cultural resources report was requested. Ms. Westphal responded that a copy of the report would be provided and provided an overview of the results of the study. Ms. Gould inquired if pre-contact cultural resources were identified in the project area. Ms. Westphal responded that no archaeological pre-contact resources were identified. Ms. Gould repeated the request for a copy of the cutlural study to determine if TCRs are present within the project area.

☐Check here if the tribe requested a discussion on **alternatives**, pursuant to PRC 21080.3.2(a).

Summarize alternatives discussion, if it was requested: Click here to enter text.

☐Check here if the tribe recommended **mitigation measures**

Summarize the mitigation measures discussed: Click here to enter text.

Action Items:

City: Ironhouse Sanitary District will provide a copy of the cultural study to the Tribe.

Target Deadline: 4/25/2024

Tribe: Confederate Lisjan Will review the cultural report and provide a written response

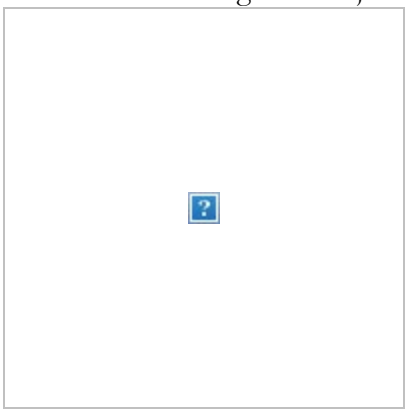
Target Deadline: 5/3/2024

From: Lisjan Nation
To: Tyson Zimmerman
Subject: Re: AB 52 Jersey Island Mitigation Bank Contra Costa
Date: Tuesday, April 30, 2024 11:55:10 AM
Attachments: image005.png
image006.png
image002.png
image004.png

Thank you for reaching out to the Tribe about the proposed project. At this time the Tribe has no further information to supply about the proposed site for this plan. As always we encourage developers in our traditional territories to remain cognizant of the facts that our tribal people lived all over the Bay Area and because of colonization and genocidal practices that reached into the late 19th century and early 20thCentury,it is not always possible to know for certain if you may find cultural resources or burials at sites where you anticipate ground disturbance. The Tribe wishes to be contacted if there are any findings.

'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation



On Mon, Apr 29, 2024 at 4:01 PM Tyson Zimmerman <zimmerman@isd.us.com> wrote:

> Good afternoon,
>
> It was a pleasure meeting you.
>
> Attached is a record of the consultation meeting between Ironhouse and the Lisjan Nation on April 24, 2024 and a copy of the Cultural and Architectural History Resources Inventory and Evaluation Report.

Please let me know if you have any questions.

Respectfully,

Tyson

Tyson Zimmerman, MBA, CSDM
Acting General Manager, Ironhouse

Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Lisjan Nation <cvltribe@gmail.com>
Sent: Tuesday, April 23, 2024 1:37 PM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: AB 52 Jersey Island Mitigation Bank Contra Costa

Hello Tyson,

The meeting will be on Zoom.

There will be a few staff attending the meeting including Chairperson Gould.

'Uni (Respectfully),

From: Tyson Zimmerman
To: Lisjan Nation
Cc: Phillips, Eric S.; Leah Castella
Subject: RE: AB 52 Jersey Island Mitigation Bank Contra Costa
Attachments: image005.png
image006.png
image002.png
image004.png
Jersey Island Inventory Report 03.05.2024.pdf
AB 52 Jersey Island Record of Conversation 4.24.2024.docx

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It was a pleasure meeting you.

Attached is a record of the consultation meeting between Ironhouse and the Lisjan Nation on April 24, 2024 and a copy of the Cultural and Architectural History Resources Inventory and Evaluation Report.

Please let me know if you have any questions.

Respectfully,
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To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: AB 52 Jersey Island Mitigation Bank Contra Costa

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The meeting will be on Zoom.

There will be a few staff attending the meeting including Chairperson Gould.

'Uni (Respectfully),

Francis Ranstead, Tribal Administrative Assistant
Confederated Villages of Lisjan Nation

On Mon, Apr 22, 2024 at 8:24 AM Tyson Zimmerman <zimmerman@isd.us.com> wrote:

> Good morning,
>
> Regarding our upcoming meeting this week, I wanted to confirm that we are meeting virtually via Zoom. If you prefer to meet with me in person, please let me know.
>
> Would you please tell me who will be attending the meeting from the Lisjan Nation?
>
> I look forward to our meeting.
>
> Respectfully,
> Tyson
>
> Sent from my iPhone. Forgive the brevity, the typos and the lack of nuance.
>
> ---
>
> **From:** Lisjan Nation <cvltribe@gmail.com>
> **Sent:** Thursday, March 14, 2024 2:30:20 PM
> **To:** Tyson Zimmerman <zimmerman@isd.us.com>
> **Subject:** Re: AB 52 Jersey Island Mitigation Bank Contra Costa
>
> Thank you Tyson. The meeting is on our calendar.
>
> **'Uni (Respectfully),**
>
> ***Francis Ranstead, Tribal Administrative Assistant***
> Confederated Villages of Lisjan Nation

AB 52 Tribal Consultation Record of Conversation

Project: Jersey Island Mitigation Bank Project

Project Number: 2023-232

Date: 4/24/2024

Participants (Name/Affiliation): Tyson Zimmerman, Ironhouse Sanitary District; Corina Gould, Chairperson; Deja Gould, THPO; Cheyenne Zepeda, Cultural Resources Manager; Francis Ranstead, Admin; Stacey Ellis, Admin; Christa Westphal, ECORP; Brian Marks, ECORP; Stephanie Whitmore, WSP

Meeting Venue: Zoom

Summary of discussion: Mr. Zimmerman began the meeting by providing a through description of the project. Ms. Gould inquired if grazing continued on the land. Mr. Zimmerman responded that the area is actively grazed, but grazing would be discontinued in the proposed area as a result of the project. Ms. Gould inquired about the timeline for the project. Mr. Zimmerman stated that the CEQA process would continue into mid-summer 2024 and construction is planned to begin in the third quarter of 2027. Ms. Gould stated that a copy of the cultural resources report was requested. Ms. Westphal responded that a copy of the report would be provided and provided an overview of the results of the study. Ms. Gould inquired if pre-contact cultural resources were identified in the project area. Ms. Westphal responded that no archaeological pre-contact resources were identified. Ms. Gould repeated the request for a copy of the cutlural study to determine if TCRs are present within the project area.

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Action Items:

City: Ironhouse Sanitary District will provide a copy of the cultural study to the Tribe.

Target Deadline: 4/25/2024

Tribe: Confederate Lisjan Will review the cultural report and provide a written response

Target Deadline: 5/3/2024

Appendix A.3 Second AB 52 Tribal Consultation Record

Second Consultation

Jersey Island Giant Garter Snake Mitigation Bank

AB 52 Admin Log

Prepared For:

Mitigation Investment Holdings, LLC
248 Southwoods Centre
Columbia, Illinois

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
2525 Warren Drive
Rocklin, California 95677

July 2024

Jersey Island, Contra Costa County, CA

Jersey Island AB 52 Consultation Log for Updated Project Area

6/25/24- The initial consultation letters for AB 52 was sent to all tribes listed in the SLF file.

7/28/24- The AB 52 consultation letter for Kanyan Sayers-Roods of the Indian Canyon Mutsun Band of Costanoan was returned to Ironhouse as undeliverable.

7/22/24- Mr. Zimmerman of Ironhouse forwarded the letter to the email on file for Ms. Sayers-Roods and it was returned as undeliverable.

7/23/24- Mr. Zimmerman emailed Chairperson Sayers of Indian Canyon Mutsun Band of Costanoan and the email was returned as undeliverable.

7.25.25- The 30-day window for AB 52 consultation closed.

7.26.24- Mr. Zimmerman called Kanyan Sayers-Roods. The phone call was not answered and the voicemail box was full, therefore no message could be left.

7.26.24- Mr. Zimmerman called Chairperson Sayers to verify the correct email address. Ms. Sayers stated that she had not received the letter and asked if any cultural resources were recorded in the Project Area. Mr. Zimmerman provided a brief explanation of the project and its location and that pre-contact resources were recorded in the Project Area. Ms. Sayers stated that she was not familiar with the area. Chairperson Sayers provided an updated email address. The email was returned as undeliverable.

7.31.23- Mr. Zimmerman called the number provided by the NAHC again to inform Chairperson Sayers that the email was undeliverable. The individual who answered the phone hung up upon Mr. Zimmerman's introduction.

AB 52 consultation is concluded.

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Board Member

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Board Member

Lisa K. Malek-Zadeh
Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Ed Ketchum, Vice Chairperson
Amah Mutsun Tribal Band
Email Sent: aerieways@aol.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vice Chairperson Ketchum,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

In accordance with Assembly Bill 52 (AB 52) And Section 21080.3.1(D) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this Project to impact tribal cultural resources, as defined in section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not tribal cultural resources are present within the Project Area, and if so, whether or not those resources will be significantly impacted by the Project. If tribal cultural resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(D) Of The PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this Project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at Zimmerman@Isd.Us.Com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

DocuSign Envelope ID: 623FB9F8-4172-4F70-B6F4-08B8C1457199

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Valentin Lopez, Chairperson
Amah Mutsun Tribal Band
Email Sent: vjltestingcenter@aol.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Lopez,

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Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

DocuSign Envelope ID: 623FB9F8-4172-4F70-B6F4-08B8C1457199

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Irene Zwierlein, Chairperson
Amah Mutsun Tribal Band of Mission San Juan Bautista
Email Sent: amahmutsuntribal@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Zwierlein,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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In accordance with Section 21080.3.1(D) Of The PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this Project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at Zimmerman@Isd.Us.Com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

DocuSign Envelope ID: 623FB9F8-4172-4F70-B6F4-08B8C1457199

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Lloyd Mathiesen,Chairperson
Chicken Ranch Rancheria of Me-Wuk Indians
Email Sent: lmathiesen@crtribal.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Mathiesen,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Cheyenne Gould
Tribal Cultural Resource Manager
Confederated Villages of Lisjan Nation
Email Sent: cvltribe@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Corrina Gould, Chairperson
Confederated Villages of Lisjan Nation
Email Sent: cvltribe@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Deja Gould
Language Program Manager
Confederated Villages of Lisjan Nation
Email Sent: cvltribe@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Gould,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Michael Derry, Historian
Guidiville Rancheria of California
Email Sent: historian@guidiville.net

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Derry,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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J. Leah Castella
Legal Counsel

June 25, 2024

Bunny Tarin
Tribal Administrator
Guidiville Rancheria of California
Email Sent: admin@guidiville.net

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Tarin,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Respectfully,

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Ann Marie Sayers, Chairperson
Indian Canyon Mutsun Band of Costanoan
Email Sent: ams@indiancanyon.org

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Sayers,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Kanyon Sayers-Roods
MLD Contact
Indian Canyon Mutsun Band of Costanoan
Email Sent: kanyon@kanyonkonsulting.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Sayers-Roods,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Monica Arellano, Vice Chairwoman
Muwekma Ohlone Indian Tribe of the SF Bay Area
Email Sent: monicavarellano@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Vice Chairwoman Arellano,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Cosme Valdez, Chairperson
Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Email Sent: valdezcome@comcast.net

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Valdez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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J. Leah Castella
Legal Counsel

June 25, 2024

Leland Valdez
Nashville Enterprise Miwok-Maidu-Nishinam Tribe

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Valdez,

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Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

DocuSign Envelope ID: 623FB9F8-4172-4F70-B6F4-08B8C1457199

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Timothy Perez
Tribal Compliance Officer
Northern Valley Yokut / Ohlone Tribe
Email Sent: huskanam@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Perez,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
077105Z1Z3C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Vincent Medina
Cultural Leader
The Ohlone Indian Tribe
Email Sent: vincent.d.medina@gmail.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Medina,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Andrew Galvan, Chairperson
The Ohlone Indian Tribe
Email Sent: chochenyo@AOL.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Galvan,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Desiree Vigil
Tribal Historic Preservation Officer
The Ohlone Indian Tribe
Email Sent: dirwin0368@yahoo.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear THPO Vigil,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Joey Garfield
Tribal Archaeologist
Tule River Indian Tribe
Email Sent: joey.garfield@tulerivertribe-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Garfield,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Kerri Vera
Environmental Department
Tule River Indian Tribe
Email Sent: kerri.vera@tulerivertribe-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Vera,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Neil Peyron, Chairperson
Tule River Indian Tribe
Email Sent: neil.peyron@tulerivertribe-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Chairperson Peyron,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Cultural Preservation Department
Wilton Rancheria
Email Sent: cpd@wiltonrancheria-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Cultural Preservation Department of Wilton Rancheria,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Lisa K. Malek-Zadeh
Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Dahlton Brown
Executive Director of Administration
Wilton Rancheria
Email Sent: dbrown@wiltonrancheria-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Brown,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

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Tyson Zimmerman
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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

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Lisa K. Malek-Zadeh
Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Herbert Griffin
Executive Director of Cultural Preservation
Wilton Rancheria
Email Sent: hgriffin@wiltonrancheria-nsn.gov

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Mr. Griffin,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

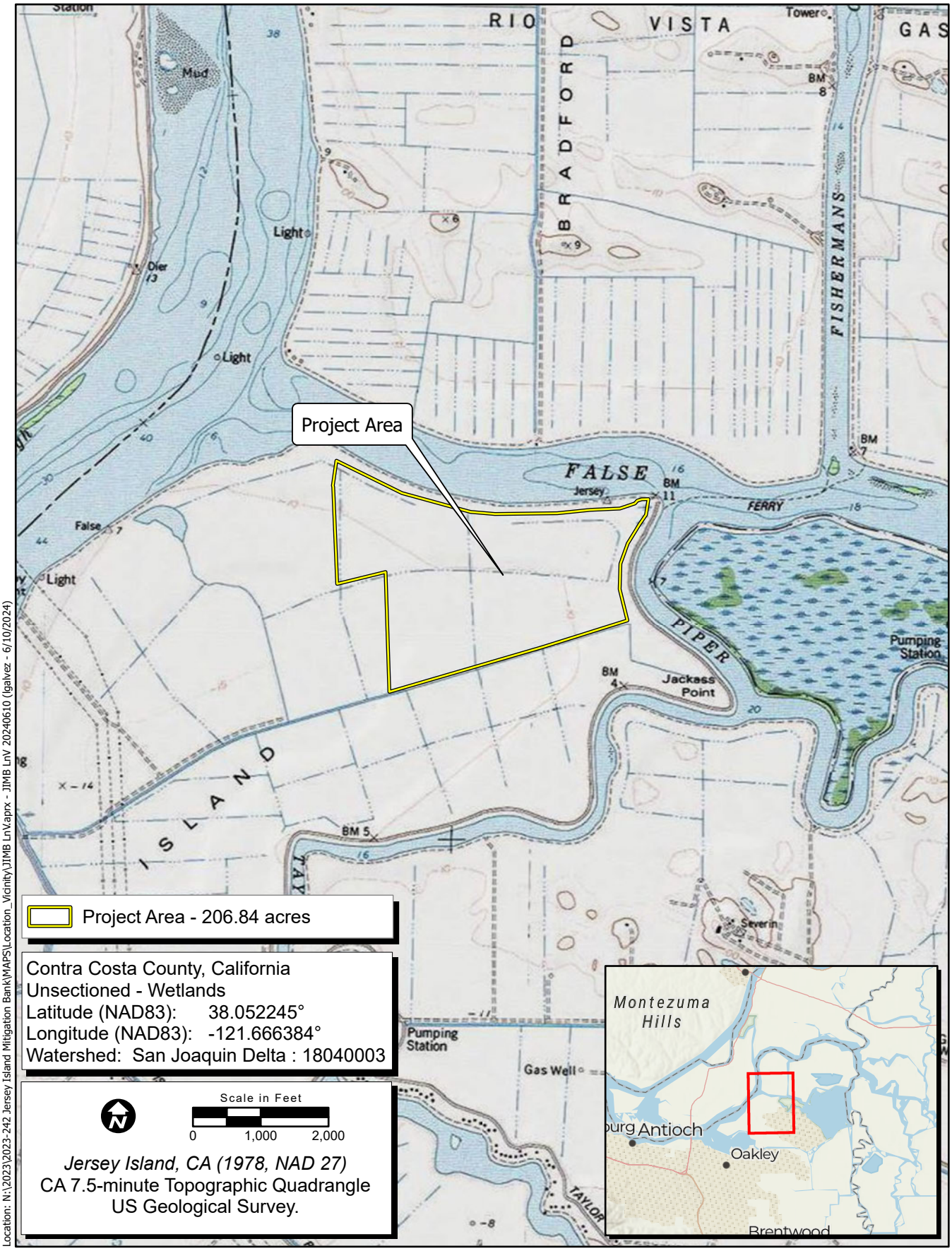
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Tyson Zimmerman
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Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Location_Vicinity\JIMB LnV.aprx - JIMB LnV 20240610 (lgalvez - 6/10/2024)

Map Date: 6/10/2024
Sources: ESRI, USGS

Figure 1. Project Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank

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Interim General Manager

J. Leah Castella
Legal Counsel

June 25, 2024

Kanyon Sayers-Roods
MLD Contact
Indian Canyon Mutsun Band of Costanoan
Email Sent: kanyon@kanyonkonsulting.com

RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Dear Ms. Sayers-Roods,

The Ironhouse Sanitary District is notifying you of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying you of an opportunity to consult was sent on February 16, 2024, since this time the Project Area has expanded and totals approximately 200 acres. The Project consists of the development of giant garter snake (GGS) habitat for a mitigation bank. To create the habitat, the soils will be variably excavated (less than 24 inches to greater than 36 inches) to create deep open-water habitat as well as shallower, more vegetated areas. The excavated soils will be used to construct berms and mounds next to the open water and marsh. GGS prefers to forage along the boundary between marsh and open water and this design maximizes that habitat. The attached figure depicts the Project Area.

In accordance with Assembly Bill 52 (AB 52) And Section 21080.3.1(D) of the California Public Resources Code (PRC), we are hereby notifying you of an opportunity to consult with us regarding the potential for this Project to impact tribal cultural resources, as defined in section 21074 of the PRC. The purposes of tribal consultation under AB 52 are to determine, as part of the CEQA review process, whether or not tribal cultural resources are present within the Project Area, and if so, whether or not those resources will be significantly impacted by the Project. If tribal cultural resources may be significantly impacted, then consultation will also help to determine the most appropriate way to avoid or mitigate those impacts.

In accordance with Section 21080.3.1(D) Of The PRC, you have 30 days from the receipt of this letter to either request or decline consultation in writing for this Project. If you have any questions, please contact me at 925-809-3011. Please send your written response to Tyson Zimmerman at Zimmerman@Isd.Us.Com. If we do not receive a response within 30 days, we will proceed. Thank you and we look forward to your response.

Respectfully,

DocuSigned by:
Tyson Zimmerman
0771057173C54F3...

Tyson Zimmerman
Assistant General Manager
Ironhouse Trustee, Reclamation District No. 830

rman, Assistant General Mana
ıstee, Reclamation District No.
nitary District
leadows Drive,
561

CERTIFIED MAIL®

9589 0710 5270 0914 4131 46

FIRST-CLASS

US POSTAGE IMI PITNEY BOWES

ZIP 95677
02 7H
0006144243

$ 008.69⁰

JUN 28 2024

sed

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA, 951

RETURN TO SENDER
NOT DELIVERABLE AS ADDRESSED
UNABLE TO FORWARD

9456131395 0 *2772-00612-18-30

020205400125

INT

9512283236 C012

PLACE STICKER AT TOP OF ENVELOPE TO THE RIGHT
OF THE RETURN ADDRESS, FOLD AT DOTTED LINE

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Kanyon Sayers-Roods, MLD Contact
Indian Canyon Mutsun Band of Costanoa
1615 Pearson Court
San Jose, CA, 95122



9590 9402 8764 3310 1780 44

2. Article Number *(Transfer from service label)*

9589 0710 5270 0914 4131 46

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☑ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Mail
- ☐ Mail Restricted Delivery (over $500)
- ☐ Priority Mail Express®
- ☐ Registered Mail™
- ☐ Registered Mail Restricted Delivery
- ☐ Signature Confirmation™
- ☐ Signature Confirmation Restricted Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053 Domestic Return Receipt

From:	Tyson Zimmerman
To:	Christa Westphal; Warren, Bailey; Carl Jensen
Cc:	Whitmore, Stephanie; Jeremy Adams
Subject:	RE: Jersey Island Update
Date:	Monday, July 22, 2024 4:29:52 PM
Attachments:	image005.png image006.png image007.png image008.png image009.png image010.png image001.png image003.png Undeliverable Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank Contra Costa County California.msg Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank Contra Costa County California.msg

---

Hi Christa,

I sent the email I received an undeliverable notice on the email as well. Please see attached.

Best,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Tyson Zimmerman
Sent: Monday, July 22, 2024 1:58 PM
To: Christa Westphal <cwestphal@ecorpconsulting.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie <Stephanie.Whitmore@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Hi Christa,

The back of the letter is blank. Attached is a scan of the letter and the front/back of the envelope. Let me know if you need anything else.

Thanks,

Tyson



Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Monday, July 22, 2024 1:32 PM
To: Tyson Zimmerman <zimmerman@isd.us.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie <Stephanie.Whitmore@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Thanks! Could you scan the front and back of the letter and forward it to me? I'll include it in the admin record. Thanks!

Christa Westphal, RPA

Kanyon Sayers-Rood, MLD Contact
Indian Canyon Mutsun Band of Costanoan
1615 Pearson Court
San Jose, CA 95122

Best,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Friday, June 28, 2024 7:00 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie <Stephanie.Whitmore@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Thanks Tyson!

These will go out today. This puts the 30-day window (with 2 additional days for mailing) for tribes to respond closing on July 30.

Let me know if you receive any responses. FYI, I'll be on vacation from July 12-19, so I'll catch up on any responses when I return. I'll also keep Brian up to date, so if anything needs to be addressed he can help.

Thanks!

Christa Westphal, RPA

California Small Business for Public Works (SB-PW)

I'll be on vacation from July 12-19.

cwestphal@ecorpconsulting.com

Thank you,
Tyson



Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Friday, June 21, 2024 12:08 PM
To: Warren, Bailey <Bailey.Warren@wsp.com>; Tyson Zimmerman <zimmerman@isd.us.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie <Stephanie.Whitmore@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Hi everyone,

Our staff completed the cultural survey of the expanded area yesterday. The area was covered with six to eight-foot tall grasses with little ground visibility and very dense vegetation. The crew took photos of the ditch system, roads, and levee (which is outside the project area), and general overviews. Except for the presence of the ditch system, no additional cultural resources were identified.

We will get the updated report to you before I leave for vacation on July 12th. This will include an updated site record for the ditch system as well.

Attached are the AB 52 letters with the updated letterhead and the location map. I'll get them in the mail as soon as I have signed copies.

Happy Friday everyone!

Christa Westphal, RPA

cwestphal@ecorpconsulting.com

From: Tyson Zimmerman <zimmerman@isd.us.com>
Sent: Tuesday, June 18, 2024 9:44:22 AM
To: Christa Westphal <cwestphal@ecorpconsulting.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie A. <Stephanie.Whitmore@wsp.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Hi Christa,

I apologize, it looks like I sent you our letterhead with a mistake. I will send you the corrected version soon.

Thanks,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Tuesday, June 18, 2024 8:07 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>; Carl Jensen <carl@mitigationholdings.com>
Cc: Whitmore, Stephanie A. <Stephanie.Whitmore@wsp.com>; Warren, Bailey <Bailey.Warren@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: RE: Jersey Island Update

Morning Tyson,

I have updated the letters and attached them to this email. Review and sign and I'll mail them via certified mail asap.

I have not heard anything from the Lisjan about possibly attending the field survey. If they don't attend, would you still like to meet?

Thanks!

Christa Westphal, RPA

<Bailey.Warren@wsp.com>; Jeremy Adams <jadams@ecorpconsulting.com>
Subject: Jersey Island Update

Hi Everyone,

I received the updated boundary for the Jersey Island Project and will begin incorporating the changes into the report. I've also scheduled the cultural resources survey for the expanded portion (the area south of the original) for next Thursday (6/20).

Tribes (Lisjan or others) may assign significance or importance to areas within the expanded portion of the Project Area, and this requires the AB 52 process to begin again. Once the letters are sent, the tribes have 30 days to respond and request consultation. It is possible that the Lisjan may request consultation again, but I don't necessarily anticipate that. I have the updated letters drafted and ready for review and signature and have attached them (and the updated location map) for convenience. As soon as I have the signed letters from Tyson, I'll send them to try to have the 30-day window close as soon as possible.

Given the results of the previous consultation with the Lisjan and their interest in the project, I'd like to recommend that an invitation be sent to them to visit the project area during the cultural survey. I can send them an email to inform them of the survey date if so. Tyson- are you available to meet at the project area on 6/20 if the Lisjan are invited and would like to attend?

Let me know if you have any questions. Thanks!

Christa Westphal, RPA

From:	Tyson Zimmerman
To:	Christa Westphal
Subject:	RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California
Date:	Wednesday, July 24, 2024 4:43:12 PM
Attachments:	image008.png image009.png image010.png image002.png image004.png Undeliverable Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank Contra Costa County California.msg

Hi Christa,

I received an undeliverable email for Chairperson Sayers.

See attached.

Best,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Wednesday, July 24, 2024 8:20 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Received. Thanks Tyson!

Christa Westphal, RPA

From: Tyson Zimmerman <zimmerman@isd.us.com>
Sent: Tuesday, July 23, 2024 3:21 PM
To: Christa Westphal <cwestphal@ecorpconsulting.com>
Subject: FW: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

FYI

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Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Tyson Zimmerman
Sent: Tuesday, July 23, 2024 3:20 PM
To: ams@indiancanyon.org
Subject: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Good afternoon Chairperson Sayers,

The Ironhouse Sanitary District is notifying Ms. Kanyon Sayers-Roods of the Indian Canyon Mutsun Band of Costanoan of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying Ms. Kanyon Sayers-Roods of an opportunity to consult was sent on February 16, 2024. However, the letter was returned to us as undeliverable. We also sent an email to kanyon@kanyonkonsulting.com and this was returned as undeliverable.

It appears that you may represent the Indian Canyon Mutsun Band of Costanoan as well. A letter was also sent to you on Feburary 16, 2024 with the same notice.

Respectfully,
Tyson

Tyson Zimmerman, MBA, CSDM



Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Tyson Zimmerman
To: Christa Westphal
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California
Date: Friday, July 26, 2024 2:56:08 PM
Attachments: image005.png
image006.png
image007.png
image008.png
image002.png
image004.png

Hi Christa,

I called the number listed below for Kanyon Sayers-Rood. There was no answer and her mailbox was full. I checked her website and the email address matches what we have on the letter.

Please advise on next steps.

Best,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Friday, July 26, 2024 10:33 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Hi Tyson.

I just realized I didn't respond to this; my apologies. I'll add this to the admin log. At this point, I'm wondering if something is going on with the tribe. My next recommendation would be to try calling the tribe. I've included the contact information below.

Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238
Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626

Let me know when you call and if you get a response and a brief summary of what was discussed if you do. I understand that this seems like a lot of effort, but it'll show a very "good faith" effort on the part of Ironhouse.

Thanks and Happy Friday!

Christa Westphal, RPA

I received an undeliverable email for Chairperson Sayers.

See attached.

Best,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Wednesday, July 24, 2024 8:20 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Received. Thanks Tyson!

Christa Westphal, RPA

same notice.

Respectfully,
Tyson

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Tyson Zimmerman
To: Christa Westphal
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California
Date: Friday, July 26, 2024 2:46:26 PM
Attachments: image007.png
image009.png
image011.png
image012.png
image003.png
image006.png
Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank Contra Costa County California.msg
Undeliverable Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank Contra Costa County California.msg

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Hi Christa,

I spoke with Chairperson Sayers by phone today. She asked me if there were any recorded findings at the site and I told her that I was not aware of any. I told her that the purpose of the letter was to inform her of the project and provide an opportunity to set up a consultation with us. I informed her that the project was on Jersey Island in east Contra Costa County. She informed me that she was not familiar with that area.

She did not recall receiving our letter and asked that I email her the letter. I asked her to confirm her email and she told me that it was ams@indiancanyons.org. The email we had on the letter was missing the "s" on Indian Canyon.

I sent the attached email to the revised email address and it was returned to me as undeliverable.

I will attempt to contact Kanyon Sayers-Roods so I can email her the letter.

Best,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Friday, July 26, 2024 10:33 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Hi Tyson.

I just realized I didn't respond to this; my apologies. I'll add this to the admin log. At this point, I'm wondering if something is going on with the tribe. My next recommendation would be to try calling the tribe. I've included the contact information below.

Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238
Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626

Let me know when you call and if you get a response and a brief summary of what was discussed if you do. I understand that this seems like a lot of effort, but it'll show a very "good faith" effort on the part of Ironhouse.

Thanks and Happy Friday!

Christa Westphal, RPA

From: Tyson Zimmerman <zimmerman@isd.us.com>
Sent: Wednesday, July 24, 2024 4:39:10 PM
To: Christa Westphal <cwestphal@ecorpconsulting.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Hi Christa,

I received an undeliverable email for Chairperson Sayers.

See attached.

Best,
Tyson



Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Wednesday, July 24, 2024 8:20 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Received. Thanks Tyson!

Christa Westphal, RPA

Good afternoon Chairperson Sayers,

The Ironhouse Sanitary District is notifying Ms. Kanyon Sayers-Roods of the Indian Canyon Mutsun Band of Costanoan of an opportunity to consult on the Jersey Island Mitigation Bank under the California Environmental Quality Act (CEQA). The Project Area is located within northern Jersey Island, north of the City of Oakley, California. An initial letter notifying Ms. Kanyon Sayers-Roods of an opportunity to consult was sent on February 16, 2024. However, the letter was returned to us as undeliverable. We also sent an email to kanyon@kanyonkonsulting.com and this was returned as undeliverable.

It appears that you may represent the Indian Canyon Mutsun Band of Costanoan as well. A letter was also sent to you on Feburary 16, 2024 with the same notice.

Respectfully,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Tyson Zimmerman
To: Christa Westphal
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California
Date: Wednesday, July 31, 2024 4:34:52 PM
Attachments: image006.png
image008.png
image009.png
image010.png
image011.png
image001.png
image002.png

Hi Christa,

I called Chairperson Sayers today. The call was answered and I asked for Chairperson Sayers. At this point, the person on the other end hung up. This was the same number that I used to speak with Chairperson Sayers previously.

Please advise.

Best,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman
Assistant General Manager
zimmerman@isd.us.com
Direct: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Monday, July 29, 2024 5:11 PM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Hi Tyson ,

As far as trying to contact Kanyon more, you've shown a good faith effort.

For Ann Marie I recommend give her one last call to inform her that the email address didn't work. She also hasn't sent the certified mail receipt back yet. But I need to investigate where it is.

I've received most of the AB 52 receipts so far, but unfortunately this round has a few stragglers. I'll figure out where the letters are so I can provide you with next steps.

Thanks!
Christa

Get Outlook for iOS

From: Tyson Zimmerman <zimmerman@isd.us.com>
Sent: Friday, July 26, 2024 2:46 PM
To: Christa Westphal <cwestphal@ecorpconsulting.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Hi Christa,

I spoke with Chairperson Sayers by phone today. She asked me if there were any recorded findings at the site and I told her that I was not aware of any. I told her that the purpose of the letter was to inform her of the project and provide an opportunity to set up a consultation with us. I informed her that the project was on Jersey Island in east Contra Costa County. She informed me that she was not familiar with that area.

She did not recall receiving our letter and asked that I email her the letter. I asked her to confirm her email and she told me that it was ams@indiancanyons.org. The email we had on the letter was missing the “s” on Indian Canyon.

I sent the attached email to the revised email address and it was returned to me as undeliverable.

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Best,
Tyson

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Friday, July 26, 2024 10:33 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: Re: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

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Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238
Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626

Let me know when you call and if you get a response and a brief summary of what was discussed if you do. I understand that this seems like a lot of effort, but it'll show a very "good faith" effort on the part of Ironhouse.

Thanks and Happy Friday!

Christa Westphal, RPA

zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

From: Christa Westphal <cwestphal@ecorpconsulting.com>
Sent: Wednesday, July 24, 2024 8:20 AM
To: Tyson Zimmerman <zimmerman@isd.us.com>
Subject: RE: Notice Of Opportunity to Consult Under Assembly Bill 52 For the Jersey Island Mitigation Bank, Contra Costa County, California

Received. Thanks Tyson!

Christa Westphal, RPA

IRONHOUSE
ONE WATER • SHARED FUTURE

Tyson Zimmerman, MBA, CSDM
Assistant General Manager, Ironhouse
Trustee, Reclamation District No. 830
zimmerman@isd.us.com
Tel: 925-809-3011 | Cell: 951-306-6622

Appendix B – Technical Studies

Appendix B.1 Air Quality and GHG Emissions Technical Memo

JERSEY ISLAND MITIGATION BANK: AIR QUALITY AND GHG EMISSIONS TECHNICAL MEMO

PROJECT DESCRIPTION

The proposed 206-acre Jersey Island Mitigation Bank is located on the northeast corner of Jersey Island in Contra Costa County, California. The primary objective of the planned enhancements of the bank is to provide high-quality foraging, basking, and sheltering habitat for giant garter snake (Thamnophis gigas, GGS) to protect the existing population and greatly enhance its size and resilience. The goal would be to obtain GGS habitat credits for nearly the entire mitigation bank area. Because GGS require a mosaic of upland and wetland habitat, and to better service the mitigation market, another goal would be to receive perennial emergent marsh credits for re-established wetland habitats, and riparian credits for riparian scrub habitats established as part of the habitat enhancement for GGS.

The proposed method for creating GGS habitat is to construct a habitat matrix consisting of open water, perennial or semi-permanent marsh, edge habitat, constructed upland berms, and restored riparian scrub. Soils will be excavated to create deep (>36") open-water habitat. These areas will provide primary foraging habitat for GGS, and habitat for their primary prey (amphibians and fishes). Shallower excavations will create water less than 24" deep, to be vegetated by bulrushes and cattails. GGS may bask on these plants and forage in the shallow waters, and the marsh will provide additional rearing habitat for GGS prey. The conceptual design consists of a network of many relatively narrow, sinuous channels. GGS preferentially forages along the boundary between marsh and open water, and this design maximizes that habitat.

The excavated soils will be used to construct elevated berms and mounds next to the open water and marsh. The mounds will feature south-facing slopes directly above aquatic habitat, providing GGS basking habitat with escape from predators. The mounds will also be constructed to have elevated regions several feet above the surrounding landscape to provide overwintering habitat.

Construction equipment and activities will produce emissions of air pollutants and greenhouse gases (GHG). There are no predicted emissions from operation of the project. The analyses presented in this technical memo were used to evaluate the potential impacts to air quality and GHG emissions from project construction and project operations and demonstrate the emissions are all below applicable significance thresholds. The findings in this analysis will inform the CEQA checklist.

SIGNICANCE THRESHOLDS

The project site is located within Contra Costa County under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD is principally responsible for air pollution control in the Bay Area, and works directly with county transportation commissions, local governments, and state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Table 1 summarizes the BAAQMD Air Quality Significance Thresholds to determine significance for the purposes of CEQA.

Table 1. BAAQMD Air Quality Thresholds of Significance (Project Level)

Criteria Air Pollutants and Precursors (Regional)			
Pollutant	**Construction Related [1]**	**Operational**	
	Average Daily Emissions (lb/day)	**Average Daily Emissions (lb/day)**	**Maximum Annual Emissions (tpy)**
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best management practices [2]	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	

Source: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines

[1] The Air District recommends for construction projects that require less than 1 year to complete, lead agencies should annualize impacts over the scope of actual days that peak impacts would occur rather than over the full year. Additionally, for phased projects that results in concurrent construction and operational emissions. Construction-related exhaust emissions should be combined with operational emissions for all phases where construction and operations overlap.

[2] $PM_{10}/PM_{2.5}$ (fugitive dust) is also recognized to impact local communities. The Air District strongly recommends implementing all feasible fugitive dust management practices especially when construction projects are located near sensitive communities, including schools, residential areas, or other sensitive land uses. These measures are detailed in Chapter 5, Section 5.2.2 Construction-Related Criteria Air Pollutant Emissions.

In April 2022, the BAAQMD adopted *CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans*. This document presents thresholds of significance for use in determining whether a proposed land use project or plan will have a significant impact on climate change and provides the substantial evidence that lead agencies will need to support their use of these thresholds. BAAQMD subsequently updated the CEQA Guidelines to include these thresholds.

Per the BAAQMD *2022 CEQA Guidelines*, the land use project thresholds of significance should be applied to all operational GHG emissions of a project that do not require a BAAQMD air permit. The land use project thresholds specify that certain design elements related to buildings and transportation must be incorporated into the project, or the project must be consistent with a local GHG reduction strategy that meets the criteria under CEQA Guidelines Section 15183.5(b). For a project to have a less-than-significant impact related to stationary source GHG emissions that do require a BAAQMD air permit, it must fall below the bright-line threshold of producing 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.

The BAAQMD *2022 CEQA Guidelines* do not include a quantitative threshold of significance for construction-related GHG emissions. However, the guidelines recommend that GHG emissions that would occur during construction be quantified and disclosed, and that projects consider incorporating best management practices to minimize GHG emissions.

CONSTRUCTION EMISSIONS

Construction emissions are considered short-term, temporary emissions. Potential emissions from construction of the project were estimated using CalEEMod (2022.1.1.26). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects.

CalEEMod provides default assumptions for construction activity based on basic project information. These defaults can be modified by the user if more detail is available. Project specific model inputs included the project footprint of 206 acres, construction start date of 6/1/2027, estimated 45 working day construction duration, working schedule of 12 hours per day and 5 days per week, project specific equipment list and working days, and daily vehicle trip estimates. Work will be done in a single phase and all excavated material will be balanced on-site (no off-haul). The project does not include demolition, building construction, paving, or architectural coatings. Details of model inputs and assumptions are included as Attachment A.

Per BAAQMD's *2022 CEQA Guidelines*, Appendix D, two Basic Best Management Practices (BMPs) for Construction-Related Fugitive Dust Emissions were applied within CalEEMod and included in the unmitigated emissions results:

- B-1 states that all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered twice per day.
- B-4 states that all vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

Table 2 presents the average daily unmitigated pollutant emissions, which were averaged over the actual construction duration of 45 days as recommended by BAAQMD for construction projects that require less than one year to complete (rather than averaged over the full year per the CalEEMod output). As shown in Table 2, average daily unmitigated pollutant emissions are below the BAAQMD significance thresholds.

Table 2. Unmitigated Construction Emissions Summary (Pounds per Day)

Source/Phase	ROG	NO_x	PM_{10} (exhaust)	$PM_{2.5}$ (exhaust)	PM_{10} (fugitive dust)	$PM_{2.5}$ (fugitive dust)
Average Daily Emissions [1]	4.0	33.3	1.3	0.9	3.1	0.4
BAAQMD Threshold [2]	54	54	82	54	BMPs	BMPs
Significant	NO	NO	NO	NO	NO	NO

[1] CalEEMod 2022.1.1.26
[2] BAAQMD 2022

For a project to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, it must implement all of BAAQMD's Basic BMPs, listed in Table 3. The fugitive dust BMPs listed in Table 3 will be implemented for the project.

Table 3. BAAQMD Basic Best Management Practices for Construction-Related Fugitive Dust Emissions

BMP ID	Basic Best Management Practice
B-1	All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
B-2	All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
B-3	All visible mud or dirt trackout onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
B-4	All vehicle speeds on unpaved roads shall be limited to 15 mph.
B-5	All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
B-6	All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
B-7	All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
B-8	Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
B-9	Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

MITIGATED CONSTRUCTION EMISSIONS

The estimated criteria pollutant emissions from construction of the project are below BAAQMD significance thresholds; therefore, no mitigation is required.

OPERATIONS

No new permanent source of criteria air pollutants would result from project implementation; therefore, there are no predicted operational emissions from the project.

GREENHOUSE GAS EVALUATION

GHG emissions from project construction were quantified as recommended in the BAAQMD *2022 CEQA Guidance*. No new permanent source of GHG emissions would result from project implementation; therefore, there are no predicted operational GHG emissions from the project.

Potential GHG emissions from construction of the project were estimated using CalEEMod (2022.1.1.26) and the same project-specific model inputs that were provided for the Air Quality Evaluation. Total GHG emissions estimated for project construction are presented in Table 4.

Table 4. Total Project Greenhouse Gas Emissions (Metric Tons Per Year)

Emission Source	Emissions			
	CO_2	CH_4	N_2O	Total CO_2e
Project Construction	245	0.01	< 0.005	246

*CalEEMod 2022.1.1.26

MITIGATION

Though the project would temporarily generate GHG emissions during construction, no new permanent source of GHG emissions would result from project implementation; therefore, no mitigation is required.

Appendix B.2 Biological Resources Technical Report

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Jersey Island Giant Garter Snake Mitigation Bank

Biological Resource Evaluation



Jersey Island, Contra Costa County, CA

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July 2024

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1 INTRODUCTION

This Biological Resource Evaluation report has been prepared to assess the potential impacts to special-status species and jurisdictional resources from the establishment of the proposed approximately 189-acre Jersey Island Mitigation Bank ('Project Site' or 'Bank'). The proposed Bank will be designed to provide giant garter snake (*Thamnophis gigas*, GGS) species credits and perennial emergent marsh (PEM) and riparian habitat credits established as part of the GGS habitat enhancement. The proposed Bank will be on a portion of the roughly 3,500-acre Jersey Island, owned by the Ironhouse Sanitary District and located in the Sacramento-San Joaquin Delta, northeast of Oakley in unincorporated Contra Costa County, California (**Figure 1**). The Bank is proposed to be situated at the northeast end of the island.

Potential impacts to the following 18 special-status wildlife species are detailed below in **Section 4.1**. The remaining special-status wildlife species known from the region are not expected to occur due to lack of suitable habitat or limited distribution (see **Table A-1, Appendix A**).

- Tricolored Blackbird (*Agelaius tricolor*);
- Golden Eagle (*Aquila chrysaetos*);
- Western Burrowing Owl (*Athene cunicularia hypugaea*);
- Swainson's Hawk (*Buteo swainsoni*);
- Mountain Plover (*Charadrius montanus*);
- Northern Harrier (*Circus hudsonius*);
- White-tailed Kite (*Elanus leucurus*);
- Lesser Sandhill Crane (*Grus canadensis canadensis*);
- Greater Sandhill Crane (*Grus canadensis tabita*);
- Bald Eagle (*Haliaeetus leucocephalus*);
- Loggerhead Shrike (*Lanius ludovicianus*);
- California Black Rail (*Laterallus jamaicensis coturniculus*);
- Double-crested Cormorant (*Nannopterum auritum*);
- Modesto Song Sparrow (*Melospiza melodia* pop. 1);
- California Ridgeway's Rail (*Rallus obsoletus obsoletus*);
- Western red bat (*Lasiurus frantzii*);
- Western pond turtle (*Emys marmorata*); and
- Giant garter snake (*Thamnophis gigas*).

Potential impacts to the following four special-status plant species are also detailed below in **Section 4.2**. The remaining special-status plant species known from the region have less potential to occur due to lack of suitable habitat or limited distribution (see **Table A-2, Appendix A**).

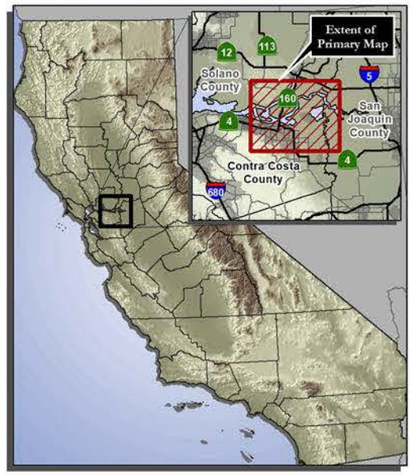
- Mason's lilaeopsis (*Lilaeopsis masonii*);
- Delta tule pea (*Lathyrus jepsonii* var. *jepsonii*);
- Suisun marsh aster (*Symphyotrichum lentum*); and
- Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis*).

FIGURE 1
Regional Vicinity Map

Jersey Island Mitigation Bank
Contra Costa County, California

Legend

- Conceptual Bank Area (~189 ac.)
- Jersey Island (~3,500 ac.)



1:95,040
(1 in = 1.5 mi at tabloid layout)

0 0.75 1.5 3 Km

0 0.75 1.5 3 Mi

Data Sources: MIH, 2024 | VNLC, 2024 | USGS, various
GIS/Cartography by: H. Hwang, K. Chinn, July 2024
Map File: 468B_DRG_Vic_B-L_2024-0722.mxd

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2 PROPOSED PROJECT – GGS HABITAT RESTORATION

The giant garter snake is a federal and state threatened species that lives in the California Delta and Central Valley (Nafis 2024). It has been extirpated from most of its historic range, and is explained in greater depth in **Section 4.1.17**. The primary objective of the proposed habitat enhancement is to provide high-quality foraging, basking, and sheltering habitat for GGS in order to protect the existing population and greatly enhance its size and resilience. Numerous sightings of GGS within the Project Site make this property an exceptional candidate for habitat restoration.

The proposed method for creating GGS habitat is to construct a habitat matrix consisting of open water, perennial or semi-permanent marsh, edge habitat, constructed upland berms, and restored riparian scrub (**Figure 2**). Soils will be excavated to create deep (>36”) open-water habitat. These areas will provide primary foraging habitat for GGS, and habitat for their primary prey, amphibians and fishes (Ersan et al. 2020). Shallower excavations will create water less than 24” deep, to be vegetated by bulrushes and cattails. GGS may bask on these plants and forage in the shallow waters, and the marsh provides additional rearing habitat for GGS’ prey. The conceptual design consists of a network of many relatively narrow, sinuous channels. GGS preferentially forages along the boundary between marsh and open water, and this design maximizes that habitat.

GGS has been documented repeatedly basking on levees along the border of the proposed mitigation bank. The distance from the documented occurrences to the proposed newly-created habitat is approximately 100 meters. GGS routinely move hundreds of meters per day during regular activity; it is therefore expected that GGS would colonize newly-created habitat within the levees.

FIGURE 2
Conceptual Habitat Design

Jersey Island Mitigation Bank
Contra Costa County, California

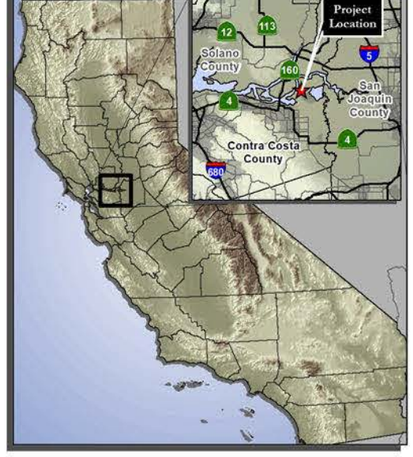


Legend

- Proposed Culvert
- Conceptual Bank Area (~189 ac.)

Proposed Giant Garter Snake (GGS) Bank Feature

- GGS Open Water (14.56 ac.)
- GGS Veg Marsh (14.6 ac.)
- GGS Upland (68.74 ac.)
- GSS Upland Riprap (1.03 ac.)
- Wetland to GGS Upland For Access (0.12 ac.)
- Non GGS Riparian (11.64 ac.)
- Non GGS Riparian (Himalayan Blackberry Improvement (4.71 ac.)
- Non GGS Re-established Wetland (24.21 ac.)
- Non GGS Rehabilitated Wetland (14.83 ac.)
- Southern Project Access (4.05 ac.)



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1:4,800
(1 in = 400 ft at tabloid layout)

0 50 100 200 Meters

0 200 400 800 Feet

Data Sources: MIH, 2024 | VNLC, 2024 | USGS, various
GIS/Cartography by: S. Wrigley,, K. Chinn, July 2024
Map File: 468B_Hab-Design_B-L_2024-0722.mxd

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3 JERSEY ISLAND EXISTING CONDITIONS

The Project Site consists of portions of seven parcels encompassing approximately 189 acres (Assessor's Parcel Numbers 027-010-002, 027-010-005, 027-010-800, 027-020-012, 027-020-013, 027-020-014, and 027-020-015) located in northeastern Contra Costa County at approximately latitude 38° 03' 13" N, longitude 121° 40' 08" W. The Project Site is mapped entirely on the Jersey Island U.S. Geological Survey (USGS) 7½ minute topographic quadrangle. The Project Site can only be accessed by Jersey Island Road, which crosses over Dutch Slough at the southern border of the Island.

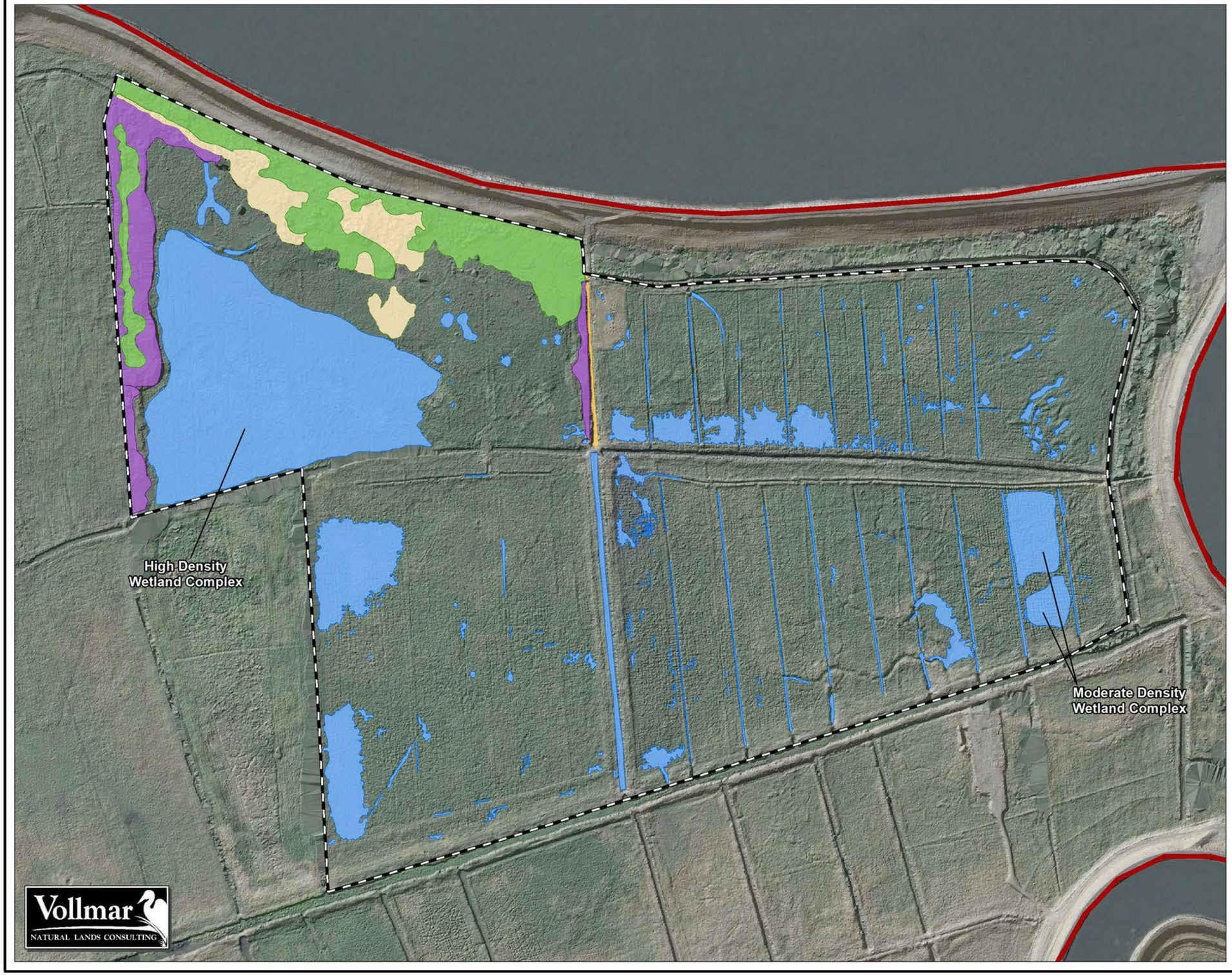
Jersey Island is centrally located in the Sacramento-San Joaquin Delta, near the confluence of the Sacramento and San Joaquin Rivers. Since the 1800s, the region has been subject to human modification through levee construction and draining of wetlands for agricultural production and livestock grazing. Consistent with regional modifications, Jersey Island has been diked, drained, and is currently rangeland for cattle. Rangeland agricultural habitats are generally dominated by non-native annual grassland species and are occasionally seeded and irrigated to increase forage value. However, due to the heavy subsidence of the Project Site on Jersey Island, a large percentage of the rangeland is flooded/inundated and has become seasonal and ephemeral wetlands. Other common natural communities include woody riparian, emergent marsh, degraded emergent marsh, and drainage ditches. Additionally, large, weedy invasive Himalayan blackberry stands (over 20 feet across) have formed a pseudo-habitat type, as they are numerous across the Site (**Figure 3**).

The Project Site is leased as irrigated cattle pasture; other portions of Jersey Island are farmed and partially used to cycle both biosolids and treated wastewater. Existing conditions within the Project Site include four large internal pastures for cattle, surrounded by an outer levee which protects the site from tides and floodwaters. A system of internal irrigation ditches and fences divides the pastures and provides water for irrigation across the Project Site. The integrity of these smaller internal ditches is variable, with the eastern half of the Project Site retaining many ditches, while they have degraded at various rates across the rest of the Project Site. The dredging of these canals has resulted in a raised berm on one or more of the sides of the canals. The Project Site is bisected by a larger canal, which directs water to the west, where it is pumped off the property to prevent flooding.

The main levee runs along the northern and eastern edge of the Project Site and the tops are maintained to provide vehicle access around the northern perimeter of the site. Access along the southern and western borders of the Project Site is more limited due to a lack of developed roadway. The outboard sides of the levees, where they meet the water, are either unvegetated or support a narrow band of riparian woodland/shrub and/or scrub. The riprap that composes much of the outboard side provides additional habitat for a range of species.

FIGURE 3
Site Habitats Map

Jersey Island Mitigation Bank
Contra Costa County, California



Legend

- Jersey Island (~3,500 ac.)
- Conceptual Bank Area (~189 ac.)

Existing Habitat Feature

- Seasonal/Ephemeral Wetland
- Woody Riparian Wetland
- Emergent Marsh
- Drainage Ditch
- Himalayan Blackberry



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1:4,800
(1 in = 400 ft at tabloid layout)

0 50 100 200 Meters

0 200 400 800 Feet

Data Sources: MIH, 2024 | VNLC, 2024 | USGS, various
GIS/Cartography by: H. Hwang, K. Chinn, July 2024
Map File: 468B_Site-Habitats_B-L_2024-0729.mxd

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3.1 Topography

Based on high-resolution digital elevation models (California Natural Resources Agency 2019 0.5-meter LiDAR), elevation within the Project Site ranges from approximately 15 feet below to 3 feet above sea level. Jersey Island is a classic example of land subsidence that has developed in many Delta properties from historic diking, draining, and farming. This subsidence is caused by a combination of excluded silt-bearing tidal water and the decomposition of previously inundated vegetation and peat (Deverel and Leighton 2010). The Project Site slopes sharply downward towards the south from the northern levee, and gently slopes from the east to the west. This causes most of the water on the Project Site to be funneled to the south and west, where it flows into large irrigation ditches. The majority of the Project Site is below sea level, with virtually only the northwest corner of the Project Site above sea level. The lowest point on the Project Site is the southwest corner, which is roughly 15 feet below sea level.

3.2 Hydrology

As the Project Site is so heavily subsided, much of the Project Site contains large seasonal and ephemeral wetlands. The highest abundance of these seasonal wetlands is in the western portion of the Project Site. Where the land is less subsided in the northwestern corner of the Project Site, larger riparian trees such as willow grow in a belt from east to west. Maintained drainage ditches that intersect the Project Site transport water from east to west, where they are utilized by cattle until they leave the Project Site and are pumped off Jersey Island at its western border. These wetlands are filled by a combination of direct precipitation and a very high, tidally influenced water table.

As the Project Site is entirely within historical Baylands, there are no streams that traverse the Project Site or that directly contribute to the hydrologic or sediment budgets. However, the San Joaquin River and the False River both run adjacent to portions of the Site.

3.3 Soils

Soils in the Project Site are mapped as two different units: Rindge muck (52.0% of the Project Site) and Venice muck (48.0% of the Project Site) (**Figure 4**). Both of these units have the topographic modifier of “0 to 2 percent”. Venice and Rindge muck are both formed from decomposed hydrophytic plants such as reeds and tules, as well as alluvium (USDA 2016). These soils are very deep, very poorly drained hydric soils that are remnants of the widespread marshes across the Delta that were diked and drained. Additionally, these soils are both acidic, with Rindge muck having a pH of 6.2, while Venice muck is more acidic, with a pH of 5.5 in Oap, and a pH of 5 in Oe1 and Oe2 (ibid).

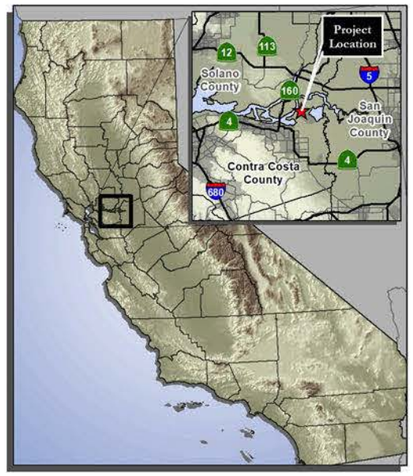
FIGURE 4
Soil and Elevation Map

Jersey Island Mitigation Bank
Contra Costa County, California



Legend

- Soil Unit Boundary
- Conceptual Bank Area (~189 ac.)
- Jersey Island (~3,500 ac.)



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1:4,800
(1 in = 400 ft at tabloid layout)

0 50 100 200 Meters
0 200 400 800 Feet

Data Sources: MIH, 2024 | VNLC, 2024 | USGS, various
USDA, 2012
GIS/Cartography by: H. Hwang, K. Chinn, July 2024
Map File: 468B_Soils-Elev_B-L_2024-0722.mxd

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3.4 Climate

The climate in the region is characterized as "Mediterranean," with cool, wet winters and warm, dry summers as well as high inter-annual and intra-annual variability in precipitation. Mean annual precipitation and temperature at the Project Site are 15.1 inches and 60.7 degrees Fahrenheit, respectively (PRISM 2024). Over 98 percent of annual precipitation occurs during the "wet season," which extends from October to May. December is generally the coldest month of the year, averaging 47.1 degrees Fahrenheit, while the summer temperature maximums occur in July, reaching an average of 73.3 degrees Fahrenheit (ibid). The Project Site receives less precipitation than areas to the west because it is in the rain shadow of Mount Diablo and other high points of the East Bay Hills. The area is notably windy, especially in summer, because it is between the differing climates of the Pacific Coast and the Central Valley, as high temperatures in the Valley create a vacuum and draw air eastward from the Pacific Coast.

3.5 Vegetation

Communities within the Project Site can be broken into seven different categories; these include Seasonal/Ephemeral Wetlands, Woody Riparian Wetland, Emergent Marsh, Degraded Emergent Wetland, Drainage Ditches, Himalayan Blackberry, and Non-native Annual Grassland. Vegetation within each natural community is discussed in detail below.

3.5.1 Seasonal/Ephemeral Wetland

Seasonal/ephemeral wetlands likely represent one of the most prevalent wetland habitats on the site. They are found throughout most of the open fields across the site. These features are rain-fed and most do not appear to hold water past late spring. These wetland features form in relatively shallow basins and support a mix of facultative and obligate wetland plant species including rough cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), and rabbitsfoot grass (*Polypogon monspeliensis*). Other plant species were likely present in these features but could not be identified at the time of the surveys. Some of these seasonal/ephemeral wetlands had clear topographical and vegetation boundaries to the uplands but many had more indistinct boundaries.

These wetland habitat features often formed in natural depressions but were also present in old drainage ditches and furrows in the fields resulting in long linear features. Very large ephemeral wetlands were observed during the field surveys which formed in the southeastern corner of the site and along portions of the southern boundary of the site. These features corresponded to the lowest elevation areas of the site and where likely past farming practices have created a series of ruts and furrows in the fields. Based on historical aerial imagery, these features primarily pond after recent rain events and likely do not remain ponded for a substantial amount of time (**Figure 3**).

Some seasonal/ephemeral wetlands were mapped as individual features while other features occur in high and moderate density complexes (**Figure 3**).

3.5.2 Woody Riparian Wetland

Woody riparian wetland features were classified by a woody overstory dominated by willow species. This habitat type was primarily found along the northern riparian belt that is oriented east to west in the northern portion of the site. The hydrology in these habitats appears to be mainly influenced by the low elevation resulting in a high water table near the surface. Additional sources of water for these features may include the maintained drainage ditches that run parallel to these features. Willow species documented in these features include Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*). Other plant species in the understory include forbs such as Mexican rush (Juncus mexicanus) and stinging nettle (*Urtica dioica*) and tall emergent vegetation including California bulrush (*Schoenoplectus californicus*) and broadleaf cattail (*Typha latifolia*). Based on the prevalence of many obligate wetland plant species, topography, and clear hydrologic indicators, the location and extent of this wetland habitat type are likely jurisdictional wetlands. Songbird and raptor species were abundant in this habitat type.

3.5.3 Emergent Marsh

Emergent marsh includes wetland habitats that are dominated by tall emergent vegetation such as cattails, tules, and rushes. These wetland habitats are mainly distributed along the east-west oriented channel in the northern portion of the site in shallow depressions where the water table was found to be near or at the surface. These features are dominated by emergent vegetation species including California bulrush, broadleaf cattail, and in more limited areas narrow leaf cattail (*Typha angustifolia*), common reed (*Phragmites australis*), and giant reed (*Arundo donax*). A patch of emergent mash dominated by alkali bulrush (*Bolboschoenus maritimus*) is also present in the western portion of the site in an open field. This habitat is primarily found alongside woody riparian habitats and is often encroached on by non-native Himalayan blackberry (*Rubus armeniacus*). Limited amounts of open water are present in this habitat type with emergent vegetation and litter comprising the vast majority of the surface cover.

3.5.4 Drainage Ditch

A series of drainage ditches are located throughout the site that generally transport water from east to west or connect to other sets of drainage ditches on nearby portions of Jersey Island. These drainage ditches represent the deepest wetland features on-site and are actively maintained by sediment removal when they become too filled in. Water is pumped into the drainage ditches from the nearby slough and is carried down to the western end of the site where it is pumped back into the sloughs. The drainage ditches measure an average of three feet deep from the bottom of the channel to the top of the bank but may be deeper or shallower in some areas. Banks of these ditches are generally abrupt and steep due to dredging for ditch maintenance. The pumps are often turned off during periods of rain or when water is abundant on the site for other reasons resulting in fluctuating water levels in the ditches. The drainage ditches support a range of emergent and floating vegetation including broadleaf cattail, narrow leaf cattail, floating water primrose

(*Ludwigia peploides*), parrots feather (*Myriophyllum aquaticum*), mosquito fern (*Azolla filiculoides*), and duckweed (*Lemna minor*).

3.5.5 Himalayan Blackberry

Himalayan blackberry was included as a separate habitat type as it was closely associated with other wetland habitat types including woody riparian wetlands, emergent marsh, and the drainage ditches on-site. In many cases where dense stands of Himalayan blackberry were observed, it appeared to be growing on slightly elevated and non-saturated surfaces near other wetland habitats and therefore large portions of these stands may not represent wetlands. This species is ranked by the California Invasive Plant Council (Cal-IPC) as a 'High', which is assigned to species that have "severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically" (Cal-IPC 2024). It is known as a strong competitor that rapidly displaces native plant species and thickets to produce dense canopies that limit the growth of understory plants (ibid).

3.5.6 Non-native Annual Grassland

The remaining portion of the Project Site is dominated by non-native annual grasses and weedy forb species, likely related to the history of agriculture and grazing on the Site. Dominant plant species in the upland grasslands included reed fescue (*Festuca arundinacea*), Bermuda grass (*Cynodon dactylon*), Mediterranean barley (*Hordeum murinum*), and poison hemlock (*Conium maculatum*). These four plants species are ranked by Cal-IPC as 'Moderate', which is assigned to species that have 'substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, although establishment is generally dependent upon ecological disturbance' (Cal-IPC 2024). Other non-dominant plant species in this habitat include California burclover (*Medicago polymorpha*) and rough cocklebur. This grassland community and the seasonal/ephemeral wetland communities were closely correlated with the degree of subsidence, as deeper basins formed ideal habitat for the wetlands while the upland habitat around the basins was primarily grassland. The soils beneath the non-native grasslands were a mix of black histic soil in the southern areas and sandy redox fill soil north of the riparian belt.

3.6 Wildlife

The Project Site provides habitat for a large number of common and special-status wildlife species, mostly due to the location within the Delta (and within the Pacific Flyway) and the diversity of onsite and surrounding habitats. The majority of the common wildlife species observed during the field surveys were birds, and they were mostly concentrated around the aquatic habitats, including the wetlands and adjacent grasslands, ponds, slough edges, and riparian woodlands. These habitats provide important foraging and nesting areas for many species of migratory and resident birds. In total, 36 bird species were documented during January 2024 reconnaissance field surveys.

Common bird species observed includes Greater White-fronted Goose (*Anser albifrons*), Mallard (*Anas platyrhynchos*), Mourning Dove (*Zenaida macroura*), and Wilson's Snipe (*Gallinago delicata*). Six mammal species were observed in the adjacent sloughs including North American beaver (*Castor canadensis*) and California sea lion (*Zalophus californicanus*), on the levees including American mink (*Neovison vison*), and on the Site coyote (*Canis latrans*), fox squirrel (*Sciurus niger*), and back-tailed jackrabbit (*Lepus californicus*). In addition, two species of reptile, yellow-bellied racer (*Coluber constrictor*) and western fence lizard (*Sceloporous occidentalis*), were incidentally observed. The potential for special-status species to occur on-site is addressed below in **Section 4**.

4 SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR

4.1 Special-Status Wildlife Species

As a result of the large-scale habitat conversion in the region over the past century, most of the local flora and fauna have experienced a loss of important habitat. This has resulted in some species becoming federal or state listed as rare, threatened, or endangered. Special-status animal species targeted and analyzed in this report include those listed by U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) as threatened or endangered, as well as those proposed for listing or that are candidates for listing as threatened or endangered. The listing of "Endangered, Rare, or Threatened" is defined in Section 15380 of the *California Environmental Quality Act* (*CEQA*) *Guidelines*. Section 15380(b) states that a species of animal or plant is "endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is "rare" when either "(A) although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or (B) the species is likely to become endangered within the foreseeable future throughout all or a portion of its range and may be considered 'threatened' as that term is used in the Endangered Species Act (ESA).

Animal species are also designated as "Species of Special Concern" (SSC) or "Fully Protected" (FP) by CDFW. Although these species have no legal status under the California Endangered Species Act (CESA), CDFW recommends their protection as their populations are generally declining and they could be listed as threatened or endangered (under CESA) in the future. "Fully Protected" species generally may not be taken or possessed at any time. The CDFW may only authorize take for necessary scientific research and may authorize live capture and relocation of "fully protected" birds to protect livestock. "Watch List" (WL) species are taxa that were previously SSCs but do not currently meet SSC criteria, and for which there is concern and a need for additional information to clarify status.

Bird species may also be designated as "Birds of Conservation Concern" (BCC) by the USFWS. This designation identifies both migratory and resident bird species that are recommended as focal species for conservation. These species are more likely to be at risk for population drops that could result in their listing under the ESA.

Jersey Island is located just outside the area covered by the East Contra Costa County Habitat Conservation Plan (ECCCHCP). However, this report has made an effort to recommend similar avoidance and minimization measures for species with potential to occur that are addressed by the ECCCHCP, where appropriate.

There are 18 special-status wildlife species with potential to occur within the Project Site. These include 15 birds, one mammal, and two reptiles:

- Tricolored Blackbird (*Agelaius tricolor*; State Threatened [ST], SSC, BCC);
- Golden Eagle (*Aquila chrysaetos*; FP, WL);
- Western Burrowing Owl (*Athene cunicularia hypugaea*; SSC, BCC);
- Swainson's Hawk (*Buteo swainsoni*; ST);
- Mountain Plover (*Charadrius montanus*; SSC, BCC);
- Northern Harrier (*Circus hudsonius*; SSC, BCC);
- White-tailed Kite (*Elanus leucurus*; FP);
- Lesser Sandhill Crane (*Grus canadensis canadensis*; SSC);
- Greater Sandhill Crane (*Grus canadensis tabita*; ST, FP);
- Bald Eagle (*Haliaeetus leucocephalus*; State Endangered [SE], FP);
- Loggerhead Shrike (*Lanius ludovicianus*; SSC);
- California Black Rail (*Laterallus jamaicensis coturniculus*; ST, FP);
- Double-crested Cormorant (*Nannopterum auritum*; WL);
- Modesto Song Sparrow (*Melospiza melodia* pop. 1; SSC);
- California Ridgeway's Rail (*Rallus obsoletus obsoletus*; Federal Endangered [FE], SE, FP);
- Western red bat (*Lasiurus frantzii*; SSC);
- Western pond turtle (*Emys marmorata*; SSC, Federal Proposed Threatened [FPT]); and
- Giant garter snake (*Thamnophis gigas*; Federal Threatened [FT], ST).

Additionally, Jersey Island and all of its surrounding waterways are within Delta smelt (*Hypomesus transpacificus*) and green sturgeon (*Acipenser medirostris*) Designated Critical Habitat (**Figure 5**). Designated critical habitats are areas or regions that are essential for the conservation of a given species. The wetland habitats found on Jersey Island within the Project Site are not tidally connected, and therefore these species do not have potential to occur on the Site and are not further addressed in this report (IPAC 2024, USFWS 2015).

Additional species known from the larger region, but not determined to have potential to occur are included in **Appendix A, Table A-1**. See **Figure 5** below for a map of special-status wildlife occurrences in the vicinity of the Project Site.

FIGURE 5
Regional Special-status Species Map

Jersey Island Mitigation Bank
Contra Costa County, California

SOLANO COUNTY
CONTRA COSTA COUNTY
SACRAMENTO COUNTY

longfin smelt
bank swallow
Antioch Dunes evening-primrose
hoary bat, western red bat
steelhead - Central Valley DPS
bristly sedge
great blue heron
green sturgeon - southern DPS
eel-grass pondweed
American bumble bee
(also longfin smelt)
Conceptual Bank Area
marsh skullcap
double-crested cormorant
American bumble bee, redheaded sphecid wasp
longfin smelt
soft salty bird's-beak
Antioch Dunes evening-primrose
Sacramento perch
Contra Costa wallflower
Bolander's water-hemlock
Antioch Dunes evening-primrose
Northern California legless lizard
Antioch andrenid bee, curved-foot hygrotus diving beetle, western bumble bee
white-tailed kite
loggerhead shrike
white-tailed kite
Northern California legless lizard
stinkbells
California linderiella

Vollmar NATURAL LANDS CONSULTING

Legend

- Conceptual Bank Area (~189 ac.)
- Jersey Island (~3,500 ac.)
- Delta Smelt Designated Critical Habitat
- Green Sturgeon Designated Critical Habitat

CNDDB Plant Occurrence

- Delta Mudwort
- Delta Tule Pea
- Mason's Lilaeopsis
- Suisun Marsh Aster
- Woolly Rose-mallow
- Other Plant Species

CNDDB Animal Occurrence

- Giant Garter Snake
- Burrowing Owl
- California Black Rail
- Delta Smelt
- Song Sparrow ("Modesto" Population)
- Swainson's Hawk
- Western Pond Turtle
- Other Animal Species

N W E S

1:63,360
(1 in = 1 mi at tabloid layout)

0 0.5 1 2 Km
0 0.5 1 2 Mi

Data Sources: MIH, 2024 | VNLC, 2024 | USGS, various CNDDB, 01/2024 | USFWS, 2005 | Esri/Maxar, 2022-2023
GIS/Cartography by: H. Hwang, K. Chinn, July 2024
Map File: 468B_CNDDB_B-L_2024-0722.mxd

4.1.1 Tricolored Blackbird - Agelaius tricolor (State Threatened, CDFW Species of Special Concern, USFWS Bird of Conservation Concern)

Tricolored Blackbirds are most often found in large freshwater marshes, especially those which are saturated with cattails and tule. Historically they nested in large marshes or areas with protective, spiny vegetation and high abundances of insect prey, but now can also be found nesting in agricultural fields. Their nesting behavior is highly social, and they form the largest nesting colonies of any bird in North America. They prefer areas with adequate foraging area (typically grasslands, wetlands, and cultivated fields or feedlots) and areas which provide sufficient insect prey within a short radius of the nest colony (Shuford and Gardali 2008b). Breeding takes place from mid-March through July (Kaufman 2005).

Unlike the Red-winged Blackbird, which is abundant throughout the continent, the Tricolored Blackbird has a very small range in the Pacific states, including the Central Valley and coastal areas from northern California into upper Baja California, Mexico. Tricolored Blackbird populations have seriously declined in recent decades due to habitat destruction. It is speculated that its habit of nesting in dense colonies makes the Tricolored Blackbird more susceptible to population decline (Cook and Toft 2005).

Tricolored Blackbirds are known from approximately two miles from the Project Site, including multiple males calling from emergent marsh habitat within the surrounding sloughs (VNLC 2023). The species is also well documented (unverified) by birders online (www.ebird.org) within the Jersey Island immediate vicinity. Grasslands and wetlands within the Project Site provide suitable foraging habitat, while nesting habitat is marginal in quality and mostly limited to the northern belt of woody riparian wetland.

Potential Project Impacts

Nesting habitat is currently very marginal on the Project Site. Tricolored Blackbirds nest in large wetland and marsh features, especially with large protective plants. Overall, restoration of emergent marsh habitat (dominated by cattail and tule) within the Project Site could be beneficial for Tricolored Blackbirds in the area. The Project proposes to improve existing emergent marsh habitat as well as create additional acreages of marsh habitat, which will result in a net positive for Tricolored Blackbird nesting and foraging habitat.

Potential impacts from construction, maintenance, or management of the Project could include temporary noise disturbances. However, the Project will include pre-construction surveys and all construction will occur outside the buffer zone around any active nests, so no loss of nests from Project activities is expected to occur. These avoidance measures should be implemented to ensure that this Project has a **less-than-significant** impact on this species during construction, maintenance, or management actions.

Recommended Avoidance Measures

BIO 1a: Preconstruction Surveys – Tricolored Blackbird

Pre-construction surveys will be required to determine if active nests are present if suitable habitat occurs within the project footprint or within 500 feet of a project footprint and if construction activities will occur during the breeding season (March 1 through September 15). A qualified biologist will conduct pre-construction surveys within 30 days and again within 3 days of ground-disturbing activities, and within the proposed project footprint and 500 feet of the proposed project footprint to determine the presence of nesting tricolored blackbird. The surveys should be separated by at least three weeks. Surveys conducted in February (to meet pre-construction survey requirements for work starting in March) must be conducted within 14 days and 3 days in advance of ground-disturbing activities. If a nest is present, then the following measures will be implemented.

If active nests are found within 500 feet of the project footprint, a 500-foot temporary buffer will be established around the nest until the young have fledged and an approved biologist experienced with tricolored blackbird behavior monitor the nest throughout the nesting season and determine when the young have fledged.

BIO 1b: Construction Monitoring - Tricolored Blackbird

If an active nest is found within 500 feet of the project footprint, a qualified biologist will be on-site daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. If the approved biologist determines that tricolored blackbirds are exhibiting agitated behavior, construction will cease until the buffer size is increased to a distance necessary to result in no harm or harassment to the nesting tricolored blackbirds. If the biologist determines that the colonies are at risk, a meeting with CDFW will be held to determine the best course of action to avoid nest abandonment or take of individuals. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a tricolored blackbird flies into an active construction zone (i.e., outside the buffer zone).

4.1.2 Golden Eagle - Aquila chrysaetos (CDFW Watch List, Fully Protected)

Golden eagles are very large, dark-brown birds of prey that are found across the northern hemisphere. They can be found in a multitude of open habitats including grasslands, canyonlands, and deserts. Their preferred nesting habitat is cliffs but they also nest in large trees and a variety of man-made structures, such as telephone poles. Golden eagles are monogamous and a mating pair will have one brood per year, with one to three eggs laid per clutch. Eggs are incubated between January and August over 41 and 45 days, with a total nesting period of between 45 and 81 days. Immature eagles and smaller in size and have white dappling across their wings and tail. Golden eagles prey mainly on small-to-medium sized mammals, but are capable of preying on

larger and more varied game, such as cranes, deer, coyotes, and even bighorn sheep. (Audubon California 2015)

The conservation status of Golden Eagles in California is uncertain compared to other species, but populations are thought to be decreasing in number (CDFW 2024). This is likely due to several factors, including loss of breeding and nesting habitat due to development, as well as pesticide and lead poisoning from tainted prey. While no golden eagles were observed during the 2024 field surveys, there are (unverified) observations documented on Jersey Island from November 2023 (www.ebirds.org).

Potential Project Impacts

Potential impacts from construction, maintenance, or management of the Project could include temporary noise disturbances to any nests. However, the Project will include pre-construction surveys and all construction will occur outside a buffer zone around any active nests, so loss of nests from noise disturbance is not expected to occur. Therefore, avoidance measures should be implemented to ensure that this Project has a **less-than-significant** impact on this species during construction, maintenance, or management actions.

Recommended Avoidance Measures

BIO 2a: Preconstruction Surveys - Golden and Bald Eagle

Nests can be built and active at almost any time of the year, although mating and egg incubation occurs from late January through August. If construction occurs between January 1 and August 31, a qualified biologist will conduct a preconstruction survey within 0.5 miles of the footprint, within 14 days of construction start to establish whether nests of golden eagles are present on the site and occupied. If nests are occupied, a temporary buffer will be established within 0.5 mile of active nests. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the Project Proponent will coordinate with CDFW/USFWS to determine the appropriate buffer size.

BIO 2b: Construction Monitoring – Golden and Bald Eagle

If an active nest is identified within 0.5 mile of construction, a qualified biologist will be on-site daily while construction-related activities are taking place near the disturbance buffer. Work within the nest disturbance buffer will not be permitted. The approved biologist will also train construction personnel on the required avoidance procedures, buffer zones, and protocols in the event that a golden eagle flies into an active construction zone (i.e., outside the buffer zone).

4.1.3 Western Burrowing Owl - Athene cunicularia hypugaea (CDFW Species of Special Concern, USFWS Bird of Conservation Concern)

The Western Burrowing Owl occurs throughout non-mountainous western North America; within California, this species can be found from Mexico to the northern Central Valley in the lowlands

and desert regions (ICF 2012). Burrowing Owls prefer open habitat with short vegetation and minimal trees. They inhabit grasslands, shrublands, and agricultural areas and utilize abandoned burrows created by animals such as ground squirrels to nest. Nesting season occurs from early March to mid-July (Wilkerson and Siegel 2010). Western Burrowing Owls hunt insects and small mammals within close proximity to their nest, typically less than one mile away (Shuford and Gardali 2008a).

While the range of Western Burrowing Owl within California has not significantly decreased, breeding birds have disappeared from many parts of their range, and abundance appears to have declined significantly in the latter half of the 1900s (ICF 2012). Surveys from 1991-1993 estimated that breeding pairs statewide were around 6,577 and decreased by 2.7 percent to 6,408 in a 2006-2007 survey (Wilkerson and Siegel 2010). Current threats to Western Burrowing Owl include loss of habitat from urban development, pesticides in their prey, and mortality from vehicle strikes (Shuford and Gardali 2008a).

Although no Western Burrowing Owls were observed during the field survey, the Project Site supports grassland habitat with some suitable small mammal burrows. Furthermore, there are (unverified) Western Burrowing Owl observations documented online (www.ebird.org) from Jersey Island.

Potential Project Impacts

Potential impacts from construction, maintenance, or management of the Project could include temporary noise disturbances to nests. However, the Project will include pre-construction surveys and all construction will occur outside a buffer zone around any active nests, so loss of nests from noise disturbance is not expected to occur. These avoidance measures should be implemented to ensure that this Project has a **less-than-significant** impact on this species during construction, maintenance, or management actions.

Recommended Avoidance Measures

BIO3a: Preconstruction Surveys – Western Burrowing Owl

A qualified biologist will identify potential burrowing owl breeding habitat. If the project does not fully avoid impacts to suitable breeding habitat, preconstruction surveys will be required. The surveys will establish the presence or absence of western burrowing owls and/or habitat features and evaluate use by owls in accordance with CDFW survey guidelines (California Department of Fish and Game 1993). On the parcel where the activity is proposed, the biologist will survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land ownership will not be surveyed. Surveys should take place near sunrise or sunset in accordance with CDFG guidelines. All burrows or burrowing owls will be identified and mapped. Surveys will take place no more than 30 days prior to construction. During the breeding season (February 1– August 31), surveys will document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the non-breeding season (September 1–January

31), surveys will document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results will be valid only for the season (breeding or non-breeding) during which the survey is conducted.

If burrowing owls are found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance will include the establishment of a non-disturbance buffer zone (described below).

BIO 3b: Construction Monitoring – Western Burrowing Owl
Construction may occur during the breeding season if a qualified biologist monitors any nests and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1–January 31), the project proponent should avoid the owls and the burrows they are using, if possible. Avoidance will include the establishment of a buffer zone (described below). If occupied burrows for burrowing owls are not avoided, passive relocation will be implemented. Owls should be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors should be in place for 48 hours prior to excavation. The project area should be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

4.1.4 Swainson's Hawk - Buteo swainsoni (State Threatened)

Swainson's Hawks are listed as State Threatened, as well as being listed as USFWS Birds of Conservation Concern and considered Sensitive by the Bureau of Land Management (BLM). Swainson's Hawks are migratory birds and can be found breeding throughout western North America before migrating south as far as Argentina. Swainson's Hawks' population numbers have dropped within California significantly within the last 100 years, so much so that California listed the species as Threatened in 1983 (CDFW 2011). Within the San Francisco Bay Area, only a couple of nesting pairs have been confirmed in recent years (SFBBO 2019). One of the biggest threats that they face is habitat loss due to various factors including conversion of foraging and breeding habitat to agricultural or urban development, climate change, and pesticide poisoning (CLO 2013). Swainson's Hawks are known to inhabit open habitats, such as open grassland, open meadows, prairies, and other habitat that allows foraging for prey from above. However, due to extensive habitat loss, they are primarily found within large, open agricultural fields. They will often nest in stands of trees or other vegetation adjacent to the open grassland habitat they use for foraging.

Swainson's Hawks were historically a species that utilized open grassland and prairies, but now have become reliant on agricultural fields as primary foraging habitat where development of

natural grasslands into agricultural lands has steadily increased (CDFW 2016). Their winter range is expansive and the species has been known to occur in isolated areas of California, across Mexico and Central America, and throughout South America as far south as Argentina. Californian populations primarily over-winter in Mexico, though it has been found that individuals also come from further south than previously suspected (Airola et al. 2019). Swainson's Hawks are generally monogamous and are well known to have site fidelity, where pairs return to the same nesting locations each year. Breeding pairs immediately construct nests on tall trees next to agricultural areas and pastures after migrating to their breeding territories. They nest from late March to late August until their young are fully fledged and can leave the nest. Swainson's Hawk's diets consist of small mammals and typically switch to a diet of predominantly insects at the height of the agricultural season (CDFW 2016).

The breeding population of Swainson's Hawk in California is spatially isolated from other populations in North America. This population experienced a considerable decline in the 20th century due to conversion of natural foraging areas to agriculture and loss of trees suitable for nesting. Due to the variability of agricultural practices, preferred food sources are variable as well. With this, migration to Central and South American countries present similar challenges in their wintering range (Ariola et al. 2019). Swainson's Hawks make one of the longest-known raptor migrations, with wintering grounds in South America as far south as Argentina and summer breeding grounds as far north as central Canada (CDFW 2016).

The property provides suitable nesting and foraging habitat for Swainson's Hawk. Isolated large trees onsite provide suitable nesting habitat, and the grassland provides foraging habitat. There are multiple California Natural Diversity Database (CNDDB) observations within the Study Area (**Figure 5**). Additionally, there are numerous (unverified) online observations of Swainson's Hawk (www.ebird.org). The Project may to an increase in available prey sources (insects, bats, small mammals, and birds).

Potential Project Impacts

Potential nesting habitat is present in the Project Site due to the presence of large trees in the riparian areas along the northern area of the Site. Grassland in the Project Site provides suitable foraging habitat. This project may have short-term impacts to nesting habitat from disturbances during the construction period, but could ultimately increase the number of large trees within the Project Site due to the increase in riparian habitat. In addition, the conversion of existing pasture to freshwater marsh may result in a decrease in the overall amount of grassland foraging habitat in the Project Site, though it is also possible that the improved quality of the restored uplands associated with the Project (invasive species control, mounded areas, better water management) could improve the availability of prey. Due to the potential improvement of nesting potential and improved management of foraging habitat, the impact of this Project is **less-than-significant** with the incorporation of the following avoidance and minimization measures.

Recommended Avoidance Measures

BIO4a. Preconstruction Surveys – Swainson's Hawk

If construction occurs during the nesting season (March 15–September 15), a preconstruction survey will be required. A qualified biologist will conduct a preconstruction survey no more than 1 month prior to construction to establish whether Swainson's hawk nests within 1,000 feet of the project site are occupied. A qualified biologist will inspect all large trees with binoculars. The survey will be conducted according to the Swainson's Hawk Technical Advisor Committee's methodology (May 31, 2000) or updated methodologies as issued by USFWS or CDFW. If occupied nests are identified, the project proponent will avoid and minimize impacts to these nests in compliance with the Migratory Bird Treaty Act and the Fish and Game Code.

If potentially occupied nests within 1,000 feet are off the project site, then their occupancy will be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see BIO 4b, below).

BIO 4b. Construction Monitoring – Swainson's Hawk

During the nesting season (March 15–September 15), activities within 1,000 feet of occupied nests or nests under construction will be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Project Proponent will coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, construction can proceed normally. While the nest is occupied, activities outside the buffer can take place. All active nest trees will be preserved on-site.

4.1.5 Mountain Plover - Charadrius montanus (CDFW Species of Special Concern, USFWS Bird of Conservation Concern)

Contrary to their name, Mountain Plovers do not live in mountains, but rather flat grasslands. Mountain Plovers are approximately 5-9 inches in height and weigh around 100 grams (3.7 ounces). They are migratory birds that nest and breed from New Mexico to Montana on bare ground/short grassland in the early to mid-spring. Approximately 85 percent of the population winters in California between the San Joaquin Valley and Imperial Valley, near the Salton Sea. They feed on insects and arthropods and are known to nest close to bison, as they keep vegetation down, and prairie dogs, who burrow and provide ideal bare ground nesting habitat (abcbirds 2024).

Mountain plover populations have been decreasing by 3.4% each year from 1968 to 2015. This cumulates in an estimated 80% population decline over the same timeline (Cornell 2024). It is estimated that their current population is currently between 15,000 and 20,000. The Project Site sits on the very western margin of their range, and foraging mountain plovers were observed by Vollmar Natural Lands Consulting (VNLC) ecologists during January 2024 field surveys.

Potential Project Impacts

The Project Site is outside of the species nesting range, and likely provides only wintering or foraging habitat. As such, it is expected that this project will have a **less-than-significant** impact on this species, and no avoidance or minimization measures are recommended.

4.1.6 Northern Harrier - Circus hudsonius (CDFW Species of Special Concern, USFWS Birds of Conservation Concern)

Northern Harriers are commonly seen foraging above mostly open, treeless habitats including meadows, saltwater and brackish marshes, annual and perennial grasslands, sagebrush flats, and occasionally croplands (MacWhirter and Bildstein 1996). They forage for small mammals, birds, reptiles and insects in low passes over the landscape. The Northern Harrier has a widespread range throughout North America and in California is found year-round in the northeastern plateau and coastal regions and less commonly in the Central Valley and other arid regions of its range.

Breeding occurs from April to September, with clutch sizes averaging five eggs (Craighead and Craighead 1956). While the range of Northern Harrier is still wide and they can be found in high numbers in localized areas, the California population has been decreasing in recent decades (Remsen 1978). Destruction and fragmentation of large swathes of wetland habitat, grasslands, and other native habitats are major reasons for decline (ibid).

Northern Harriers were observed foraging over the grassland habitat by VNLC ecologists during field surveys in January of 2024 (see **Figure 5**). Restoration of perennial marsh habitat would benefit Northern Harrier as it would increase the quality and amount of foraging and nesting habitat within the Island.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

BIO 5a. Nesting Birds – Work Window

Construction activities will be scheduled between September 1 and January 31, outside the February 1 – August 31 nesting bird period. If this cannot be implemented, the Project will implement the following measures:

BIO 5b. Nesting Birds – Preconstruction Surveys

If activities that may disturb nesting bird species, such as heavy machinery use or vegetation trimming/removal, are required during the nesting period, a biologist will conduct a pre-construction nesting bird survey covering the Project footprint and a 300-foot-wide surrounding buffer. The survey will be conducted within 2 weeks of the start of construction-

related activity. If active nests are documented within the 300-foot-wide buffer, the following measure will be implemented:

BIO 5c. Nesting Birds – Buffer
If active nest(s) of any species are identified within the 300-foot-wide buffer survey area, a no-activity buffer will be established around the nest for the duration of the nesting season, or until a biologist determines the young have fledged and left the nest, or that the nest has been abandoned. No entry into the no-activity buffer will be permitted. The no-activity buffer will be delineated in the field by or under the supervision of the biologist, using temporary construction fencing or another suitable low-impact medium. The width of the buffer will be determined by the biologist, based on the species involved, the amount of vegetative and other screening between the nest and areas where construction activity will take place, and, if appropriate, other site-specific factors. If special-status species are involved, the biologist will consult with the appropriate resource agency(ies) (DFW and/or USFWS) in determining the width of the buffer.

4.1.7 White-tailed Kite - Elanus leucurus (CDFW Fully Protected)

The White-tailed Kite is a falcon-shaped bird that has a small range in the U.S. but can be found in several countries throughout South and Central America (BirdLife International 2016). Within the U.S. White-tailed Kites can be found in coastal states from southern Washington to Baja California, Mexico. White-tailed Kites forage in grasslands, meadows, wetlands, farmlands, and other open areas with high prey abundance. White-tailed Kites primarily prey on small mammals, which make up 95% of their diets. However, they do occasionally prey on birds, insects, reptiles, and amphibians (Polite 1988). In California, kites largely rely on populations of California voles (*Microtus californicus*), with habitat quality depending on the abundance and availability of California voles (Niemela 2007). Alfalfa, hay, and irrigated pasture agricultural areas are preferred foraging grounds, with lightly grazed or ungrazed fields generally supporting larger prey populations. Wetlands or marshes, where California voles tend to be more abundant, are also important habitats.

They are known to nest in dense stands of oaks, willows or other tree species. White-tailed Kite nests also tend to be surrounded by more agriculture, grassland, riparian, and woodland habitat, and significantly less chaparral habitat (ibid). White-tailed Kites nest from January through August, building platforms of sticks in trees or tall bushes (County of Riverside 2003; Dunk 1995). White-tailed Kite populations were threatened with extinction in North America in the early 20th century due to shooting and egg collecting, but have recovered as available habitat areas have increased due to year-round irrigation of agricultural land. Land development can threaten the species by depriving them of nest trees, and modern farming techniques can eliminate vegetation for its main prey (Dunk 1995).

White-tailed Kites were observed flying above Piper Slough, which forms the northeastern border of the Project Site while VNLC ecologists were surveying a neighboring property (Hoover Ranch)

in 2023. Restoration of wetland habitats may increase the amount and quality of foraging habitat and available prey for White-tailed Kites onsite.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

BIO 5a, 5b, and 5c (see above)

4.1.8 Lesser Sandhill Crane - Grus canadensis canadensis (CDFW Species of Special Concern) and Greater Sandhill Crane - Grus canadensis tabita (State Threatened, CDFW Fully Protected)

Sandhill Cranes are migratory birds that spend their summers and nesting periods in freshwater emergent wetlands, wet meadows, and shallow lacustrine habitats, and winter primarily in moist grasslands, rice fields or moist croplands, and open, emergent wetlands (Beedy 1988). Sandhill Cranes have a large range and can be found across much of Alaska, Canada, and the U.S. into northern Mexico. Within California, their range is mostly limited to the northern Sierra Nevada and Cascade Ranges, and Central Valley and Delta regions. Two subspecies of Sandhill Cranes can be found in California, the Lesser Sandhill Crane, which breeds in northern Canada, Siberia, and Alaska, and the Greater Sandhill Crane, which breeds in the northern Sierra Nevada and Cascade Ranges (ibid). Both subspecies spend winter in the Central Valley, gathering in large flocks to forage primarily in corn, rice, and wheat fields.

The Lesser Sandhill crane is a Species of Special Concern due to winter foraging habitat conversion in the Central Valley, while the Greater Sandhill Crane is listed as State threatened due to loss of suitable breeding habitat, human disturbance, and conversion of winter foraging habitat.

Numerous flocks of Sandhill Cranes were documented flying over the Project Site during the January 2024 field survey, with one flock landing in the Project Site to forage, though the subspecies were not identifiable at the time. Both subspecies can be found in the vicinity of the Site. The Site currently provides low to moderate-quality winter foraging habitat in the form of limited open emergent wetlands and grassland. Restoration of open wetland and moist grassland habitat would increase the amount and quality of winter foraging habitat for both subspecies of Sandhill Crane and beneficially impact the species.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the

incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

BIO 5a, 5b, and 5c (see above)

4.1.9 Bald Eagle - Haliaeetus leucocephalus (State Endangered, CDFW Fully Protected)

The Bald Eagle is the national bird of the United States and has been since 1782. It is a large bird of prey with a signature brown body, white head, and long, hooked yellow beak. Historically, bald eagles were abundant across the lower 48 states, yet the widespread use of pesticides (especially DDT) and hunting threatened the species with extirpation (CDFW 2024). Their population was reduced from the hundreds of thousands to less than 500 nesting pairs in the lower 48 states (ibid). They build the largest nests of any birds, and have 1-3 eggs per clutch, with 1 brood per year. Their incubation time is shorter than golden eagles, taking roughly 34-36 days. However, their nestling period is somewhat longer than golden eagles, estimated to be 56-98 days in length. They are opportunistic predators, but prefer fish as their main prey item. Additionally, they consume carrion when it is found (Cornell 2017).

Although Bald Eagles were not detected during the January 2024 field surveys, the most recent (unverified) sighting from Jersey Island is from November 2022. Additional (unverified) sightings in 2020 from Jersey Island include images that show a juvenile preying on a ground squirrel (www.ebird.org).

Potential Impacts

Potential impacts from construction, maintenance, or management of the Project could include temporary noise disturbances to nests. However, the Project will include pre-construction surveys and all construction will occur outside a buffer zone around any active nests, so loss of nests from noise disturbance is not expected to occur. Therefore, avoidance measures should be implemented to ensure that this Project has a **less-than-significant** impacts on this species during construction, maintenance, or management actions.

Recommended Avoidance Measures

BIO 2a and 2b (see Section 4.1.2)

4.1.10 Loggerhead Shrike - Lanius ludovicianus (CDFW Species of Special Concern)

The Loggerhead Shrike is a resident and winter visitor throughout the foothills and lowlands of California (Granholm 1988). They inhabit open habitats with fences, posts, trees, scattered shrubs, utility lines, or other such perches (ibid). The Loggerhead Shrike is most common in valley foothill hardwood-conifer, open-canopied valley foothill hardwood, pinyon-juniper, valley foothill riparian, desert riparian, and Joshua tree habitats. They rarely occur in heavily urbanized areas, but are often observed in open cropland (ibid). They eat insects, spiders, amphibians, reptiles, and small mammals or birds. Their diet is dominated by insects during the breeding season, but they

rely more on vertebrate prey in the winter months. Loggerhead Shrikes are commonly known to impale larger prey on sharp objects such as thorns and barbed wire, to cache food for winter when prey is scarce. The Loggerhead Shrike can be found across much of the U.S. and most of Mexico.

Loggerhead Shrikes are well documented in the Study Area, and one was observed in the Project Site during January 2024 field surveys. The Site provides moderate-quality foraging and nesting habitat for Loggerhead Shrike in the form of open grassland and wetland habitat, with trees, shrubs, fencing, and telephone lines for perching. Trees and shrubs within the site provide suitable nesting habitat. Restoration of wetland habitats within the site may increase the amount of available prey, which would benefit the Loggerhead Shrike.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

BIO 5a, 5b, and 5c (see above)

4.1.11 California Black Rail - Laterallus jamaicensis coturniculus (State Threatened, CDFW Fully Protected)

The California Black Rail is a small and elusive resident bird of saline, brackish, and fresh emergent wetlands in the San Francisco Bay, Sacramento-San Joaquin Delta, Morro Bay, and few other locations (Harvey 1988). They prefer densely vegetated marsh habitats in the high wetland zone, where tidal fluctuations are minimal. Away from the tidal zone, they can be found in wet meadows, marsh edges along riparian zones, and occasionally around farm ponds or hayfields with standing water. Their diet is dominated by insects, isopods, and arthropods which they glean from the surface of mud or vegetation (ibid).

Within the Project Site, suitable habitat for California Black Rail is very marginal and mostly limited to areas of emergent marsh vegetation along the outboard sides of the levees. However, there are several CNDDB documentations of California Black Rail in the Study Area, which means there could be populations in the vicinity of the Project Site (**Figure 5**). These documentations are mostly within emergent marsh habitats located on slough islands and edges in the area. Restoration of emergent perennial wetland habitat including some stable, shallow (less than 2 inches) water levels would significantly increase the quantity and quality of suitable habitat for California Black Rail on the Site.

Potential Project Impacts

The Project activities are limited to work within the levees, and not within or immediately adjacent to potential habitat to this species. However, since the species are known from the region, the

following avoidance and minimization measures should be incorporated to ensure that this project has a **less-than-significant** impact on this species

Recommended Avoidance Measures

BIO 6a. Rail Work Window

Construction activities, including vegetation management activities requiring heavy equipment, adjacent to tidal marsh areas with potential to support these species (within 500 feet), shall be avoided during the breeding season from February 1 through August 31.

BIO 6b. Rail Pre-construction Survey

If areas adjacent to potential rail habitat cannot be avoided during the breeding season (February 1 through August 31), USFWS and CDFW will be consulted to develop a plan for working adjacent to potential rail habitat. Alternatively, protocol-level surveys can be implemented to determine rail nesting locations. The surveys will focus on potential habitat that could be disturbed by construction activities during the breeding season to ensure that rails are not breeding in these locations. Survey methods for rails will follow the Site-Specific Protocol for Monitoring Marsh Birds, which was developed for use by USFWS and partners to improve bay-wide monitoring accuracy by standardizing surveys and increasing the ability to share data.

BIO 6c. Rail Construction Monitoring

If agency consultation and/or protocol surveys determine that breeding Ridgway's rails or black rails are present in the project area, the following measures would apply to project activities conducted during their breeding season (February 1- August 31): 1) A USFWS- and CDFW-approved biologist with experience recognizing Ridgway's rail and black rail vocalizations will be on site during construction activities occurring within 500 feet (150 meters) of suitable rail breeding habitat. 2) All biologists accessing the tidal marsh will be trained in Ridgway's rail and black rail biology and vocalizations, and will be familiar with both species of rail and their nests. 3) If a Ridgway's rail or black rail vocalizes or flushes within 10 meters, it is possible that a nest or young are nearby. If an alarmed bird or nest is detected, work will be stopped, and workers will leave the immediate area carefully and quickly. An alternate route will be selected that avoids this area, and the location of the sighting will be recorded to inform future activities in the area.

4.1.12 Double-crested Cormorant - Nannopterum auritum (CDFW Watch List)

The Double-crested Cormorant is a medium-sized cormorant that is found across the United States. They are black in color, with some orange/yellow on their face. During the breeding season, the plumage around their head becomes intermingled with white, thus giving it the name double-crested. They have clutches of 1-7 eggs in 1-2 broods per year (Cornell 2017). The nests are made by both the male and female, usually formed of seaweed and grass. Double-crested Cormorants are colonial birds, and they form large breeding colonies with other individuals and seabirds of different species (ibid). They hunt primarily fish, and require basking sites to rest when not

foraging. Populations have been increasing since the 1960s, mostly due to the banning of DDT and decreased hunting by fishermen, who viewed them as competition. Their populations have increased to the point that government agencies allow culling of individuals, but there is no open hunting season for the public (Maness 2016). The Project Site provides ample area for resting, as they hunt in the False River and surrounding sloughs. An individual was observed on the Project Site during the 2024 field surveys.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

Bio 5a, 5b, and 5c (see above)

4.1.13 Modesto Song Sparrow - Melospiza melodia (CDFW Species of Special Concern)

Modesto Song Sparrow is a subspecies of Song Sparrow which has a highly restricted range with uncertain boundaries. Their range is thought to be limited to the Sacramento Valley, Sacramento-San Joaquin River Delta, and northern San Joaquin Valley (Shuford and Gardali 2008c). The exact status of the subspecies is not clearly understood or identifiable at the time of this report, though the subspecies remains protected and listed as a CDFW Species of Special Concern.

The Modesto Song Sparrow is thought to have an affinity for emergent freshwater marsh habitats and riparian willow thickets. They nest in riparian forests with valley oak in the overstory and blackberry in the understory, and also along vegetated irrigation canals and levees (Shuford and Gardali 2008c).

Many Song Sparrows were observed on an adjacent property (Hoover Project Site) by VNLC ecologists during 2023 field surveys, and the Project Site is within the range of the Modesto subspecies. The riparian habitats within the site provide suitable foraging and nesting habitat for this subspecies. Restoration of emergent wetland and riparian habitat would further increase the amount and quality of habitat for this subspecies onsite.

Potential Project Impacts

Construction activities could have temporary impacts on nesting or foraging of this species, though the overall Project is expected to improve habitat quality for this species on site. With the incorporation of the following avoidance and minimization measures, this Project is expected to have a **less-than-significant** impact.

Recommended Avoidance Measures

Bio 5a, 5b, and 5c (see above)

4.1.14 California Ridgway's Rail - Rallus obsoletus obsoletus (Federally Endangered, State Endangered, CDFW Fully Protected)

The California Ridgway's Rail (or California clapper rail) is a large species of rail endemic to the tidal marshes of the San Fransisco Bay and San Pablo Bay. They are aquatic hunters, eating a range of crustaceans and fish (USFWS 2024). Males build nests, which are large platforms constructed inside marsh vegetation thickets. Clutches range from 3-14 eggs, and eggs take 23-29 days to hatch. They live almost exclusively within thick emergent vegetation, and are very difficult to observe. Additionally, they are mostly terrestrial, and are rarely seen flying (Cornell 2024).

Habitat loss, polluted waterways, and introduced species have severely reduced the population of California Ridgway's Rail. It is estimated that 15,000 individuals exist today (USFWS 2024). The reduction of much of their population has resulted in inbreeding depression in some isolated populations (Cornell 2024). Current suitable habitat is very limited to some vegetation pockets in the surrounding waterways.

Potential Project Impacts

The Project activities are limited to work within the levees, and not within or immediately adjacent to potential habitat to this species. However, since the species are known from the region, the following avoidance and minimization measures should be incorporated to ensure that this project has a **less-than-significant** impact on this species.

Recommended Avoidance Measures

Bio 6a, 6b, and 6c (see above)

4.1.15 Western Red Bat - Lasiurus frantzii (CDFW Species of Special Concern)

The western red bat is a somewhat recent split from the southern red bat (*Lasiurus blossevillii*). It is found in the western United States, and extends into much of Central and South America. They roost in large trees, especially sycamore and cottonwood, where their rusty coloration helps them blend with the arboreal vegetation (BatCon 2024). Unlike most species of bat, western red bats can have multiple young per litter; as many as four in some cases. They primarily feed on flying insects such as moths and flies, but will also eat ants. According to Bat Conservation International, they are negatively affected by habitat loss, and are killed by wind turbines and pesticides (ibid). As such, they are a CDFW Species of Special Concern. There are limited large sycamore or cottonwood trees in the Project Site, although there are large willow trees that will not be altered.

Potential Project Impacts

There are no plans to remove any trees that may provide roosting habitat, therefore the expected impact on this species is **less-than-significant** and no avoidance or minimization measures are recommended.

4.1.16 Western Pond Turtle - Emys marmorata (CDFW Species of Special Concern, Federal Proposed Threatened)

This turtle primarily inhabits aquatic habitats, including ponds, slow-moving streams, lakes, marshes, canals, rivers, wetlands, reservoirs, and brackish estuarine waters (Holland 1994; Jennings and Hayes 1994). Western pond turtles often bask on logs or other objects outside of the water, but quickly re-enter if they are threatened. They prefer habitats with areas for cover (vegetation, logs) and basking sites (rocks and other substrates) (Holland 1994). Summer droughts and cold winters are survived by aestivating or burying in loose soil or mud. Females leave drying creeks from May to July to lay eggs in sunny upland habitats, including grazed pastures (Zeiner and Laudenslayer 1990). Western pond turtles are omnivores, with the potential to be opportunistic predators and scavengers (Holland 1985a, 1985b; Bury 1986). Females leave drying creeks from May to July to lay eggs in sunny upland habitats, including grazed pastures (Zeiner and Laudenslayer 1990). The western pond turtle has lost habitat throughout a large portion of its range. It is almost extinct in the San Joaquin Valley and has seen extensive habitat loss, in part due to predation as well as competition from introduced animals, including bullfrogs and exotic pet turtles that have been released into the wild (ibid).

Western pond turtle consists of two recognized species in the genus *Actinemys* (family Emydidae); some authors alternatively use the genus *Emys* (family Emydidae). The two recognized species are named the northwestern pond turtle (*Actinemys marmorata*) and the southwestern pond turtle (*Actinemys pallida*). The southwestern pond turtle ranges from the Monterey Bay along the Coast Range into northern Baja California while the northwestern pond turtle's range covers the Central Valley, including the Sacramento Delta where the Project Site is located, the Sierra Nevada foothills, and north of the Monterey Bay to Washington State (Shaffer and Scott 2022). The northwestern pond turtle is declining in most of its range. It is almost extinct in the San Joaquin Valley and has seen extensive habitat loss, in part due to predation as well as competition from introduced animals, including exotic pet turtles that have been released into the wild (Zeiner and Laudenslayer 1990).

For the purpose of this report the turtles within the study area will be referred to as the western pond turtle (*Emys marmorata*, WPT) following the taxonomy used in the California Department of Fish and Wildlife "Special Animals List" (CNDDB 2024). It is anticipated that the northwestern and southwestern pond turtle will both be listed as federally threatened in the following year based on a proposed ruling by the USFWS (USFWS 2023c). This proposed listing will grant additional protections under the ESA for any WPT found at the Project Site in addition to their status as a SSC under CDFW.

Multiple WPT were documented on an adjacent property (Hoover Ranch Project Site) during 2023 VNLC field surveys. They were located along large drainage canals and along a riprap berm within one mile of the Project Site. Based on the numbers of turtles observed of both sexes, it is likely a healthy breeding-sized population occurs on the property. These features along with new ones

could provide additional habitat for the species if improved through restoration activities. Restored marsh habitat suitable for GGS would likely provide high-quality foraging and breeding habitat for WPT.

Potential Project Impacts

The sloughs surrounding the Project Site provide suitable habitat for WPT. If northwestern pond turtles are present within the work area when construction commences, individual turtles could be impacted or harmed. However, the Project will likely benefit WPT overall due to the restoration of suitable wetland and basking habitat. The following avoidance and mitigation measures are recommended to ensure that construction-related impacts remain at a **less-than-significant** level.

Recommended Avoidance Measures

BIO7a. Habitat Protection – Western Pond Turtle

A qualified biologist will conduct a field investigation to delineate western pond turtle aquatic habitat within the project footprint and within 300 feet of the project footprint. If construction activities have the potential to cause erosion or runoff into potential WPT habitat, then runoff control measures such as straw wattles, filter rolls, filter fences, or silt fences will be installed to contain disturbed soil materials. Runoff control will be in place prior to groundbreaking. If straw wattles are used, they will consist of certified sterile, weed-free rice straw or similar, suitable for use in sensitive habitat. If filter fences or mesh are used, they will consist of materials, and employ a design, approved by CDFW and USFWS as safe for amphibians and reptiles.

BIO7b. Preconstruction Surveys – Western Pond Turtle

No more than twenty-four (24) hours prior to the date of initial ground disturbance, a pre-construction survey for the western pond turtle will be conducted by a qualified biologist at the Project Site. The survey will consist of walking the project limits to ascertain suitable habitat and possible presence of the species. The qualified biologist will investigate all potential areas that could be used by the western pond turtle. If any pond turtles are found, the qualified biologist will relocate the turtle to suitable habitat outside of the construction area at a sufficiently safe distance.

BIO 7c: Construction Monitoring – Western Pond Turtle

If construction activities occur during the WPT active season (September 1 through April 30), a construction monitor will be on-site daily and will inspect for WPT prior to daily construction start. The qualified biologist will also train construction or maintenance personnel on the required avoidance procedures if a western pond turtle enters the site.

4.1.17 Giant Garter Snake - Thamnophis gigas (Federal and State Threatened)

The giant garter snake is the largest species of garter snake and is highly aquatic. This species is listed as Federal and State Threatened due to loss of habitat in the San Joaquin Valley and introduction of predatory fish. Adults are approximately 36-65 inches in length, although average

size has decreased (Stebbins and McGinnis 2012). They range from brown or olive to black in color, with a yellow dorsal stripe and one stripe down each side of its body (ibid). The historical range for this species is from Kern County to Butte County throughout the bottom land drainages of the Central Valley; however, this range has diminished significantly in the San Joaquin Valley due to habitat conversion. Currently, GGS can be found in large wetlands and agricultural canals near rice farming areas in the northern Sacramento Valley and Delta and in a very limited number of wetland preserves in the southern San Joaquin Valley (USFWS 2017). GGS are primarily found in marshes, irrigation ditches, rice fields and slow-moving creeks with abundant emergent vegetation. This highly aquatic species prefers warm weather (daylight, warm nights) for activity during the spring to late fall when it is active. Its preferred diet consists of native fish and amphibian species but it subsists on non-native fish and amphibian species throughout most of its range (Ersan et al. 2020; Nafis 2020).

Giant garter snakes are documented in the Project Site. The riprap along the northern levee along with limited patches of dense vegetation provide important habitats for sheltering and thermoregulation. Across the rest of the Site, ideal habitat is mostly limited to the riparian/bullrush and cattail belt along the northern margins of the Site, as well as the deeper canals across the site. The current plan to form a system of interconnected perennial wetland habitats would greatly increase the quality of habitat for GGS. This includes basking sites on south-facing berms and deeper, permanent water for cover and to support a larger prey base for GGS, such as Sierran chorus frogs (*Pseudacris sierra*) which were heard calling across the Site in January 2024 field surveys.

Potential Project Impacts

Irrigation ditches and emergent marsh within the Project Site provide suitable habitat for giant garter snake, and the species has been documented in the Project Site. The project is designed to increase the quality and quantity of suitable habitat for GGS with the restoration of freshwater wetlands of varying types across the Site. However, construction activities could cause harm to individual snakes. The following avoidance and mitigation measures are recommended to avoid impacts during construction, management, or maintenance of the Site to maintain a **less-than-significant** impact to GGS.

Recommended Avoidance and Minimization Measures

BIO8a. Preconstruction Surveys - GGS

Prior to any ground disturbance, a qualified biologist will conduct a preconstruction survey in areas identified as having suitable garter snake habitat and 200 feet of adjacent uplands, measured from the outer edge of each bank. The surveys will delineate suitable habitat and document any sightings of giant garter snake.

BIO8b. Avoidance Measures - GGS

These measures are based on USFWS's Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat (U.S. Fish and Wildlife Service 1999).

- Limit construction activity that disturbs habitat to the period between May 1 and September 30. This is the active period for GGS, and direct mortality is minimized because snakes are more likely to independently move away from disturbed areas. If activities are necessary in GGS habitat between October 1 and April 30, the USFWS Sacramento Field Office will be contacted to determine if additional measures beyond those described below are necessary to minimize and avoid take.
- In areas where construction is to take place, dewater all irrigation ditches, canals, or other aquatic habitat between April 15 and September 30 to remove habitat of garter snakes. Dewatered areas must remain dry, with no puddled water remaining, for at least 15 consecutive days prior to the excavation or filling of that habitat. If a site cannot be completely dewatered, netting and salvage of prey items may be necessary.

BIO8c: Construction Monitoring - GGS

If suitable habitat for giant garter snake cannot be avoided between October 1 and April 30 the USFWS Sacramento Field Office will be contacted to determine if additional measures beyond those described below are necessary, and the following actions will be performed.

- A designated biologist will conduct a construction survey no more than 24 hours before construction in suitable habitat and will be on-site during construction activities in potential aquatic and upland habitat to ensure that individuals of giant garter snake encountered during construction will be avoided. The biologist will provide USFWS with a field report form documenting the monitoring efforts within 24 hours of commencement of construction activities. The monitor will be available thereafter.
- If a snake is encountered during construction activities, the monitor will have the authority to stop construction activities until appropriate corrective measures have been completed or it is determined that the snake will not be harmed. Giant Garter Snakes encountered during construction activities should be allowed to move away from the construction area on their own.
- Only personnel with a USFWS recovery permit pursuant to Section 10(a)(1)(A) of the ESA will have the authority to capture and/or relocate GGS that are encountered in the construction area. The project area will be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred. To ensure that construction equipment and personnel do not affect nearby aquatic habitat for outside construction areas, silt fencing will be erected to clearly define the aquatic habitat to be avoided; restrict working areas, spoils, and equipment storage and other project activities to areas outside of aquatic or wetland habitat; and maintain water quality and limit construction

runoff into wetland areas through the use of fiber bales, filter fences, vegetation buffer strips, or other appropriate methods.

- Fill or construction debris may be used by GGS as over-wintering sites. Therefore, upon completion of construction activities, any temporary fill or construction debris must be removed from the site.
- Construction personnel will be trained to avoid harming GGS. A qualified biologist approved by USFWS will inform all construction personnel about the life history of giant garter snakes; the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas such as rice fields to giant garter snakes; and the associated avoidance and minimization measures.

4.2 Special Status Plant Species

Special-status plants include species that are designated by the USFWS and/or CDFW as rare, threatened, or endangered as well as candidate species for listing. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified by the California Native Plant Society (CNPS) as California Rare Plant Rank (CRPR) Lists 1A, 1B, and 2 in the Inventory of Rare and Endangered Vascular Plants of California. Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included as CRPR Lists 3 and 4 in the CNPS Inventory.

There are four special-status plant species with high potential to occur. These species and the remaining special-status plant species known from the region but not expected to occur are included in **Appendix A, Table A-2**. Protocol-level plant surveys have not been conducted in the Project Site, and the reconnaissance-level surveys done in 2024 were not conducted during the blooming period for most of these species.

The four special-status plant species with high potential to occur include:

- Mason's lilaeopsis (*Lilaeopsis masonii;* State Rare [SR] and CRPR 1B.1),
- Delta tule pea (*Lathyrus jepsonii* var. *jepsonii;* CRPR 1B.2),
- Suisun marsh aster (*Symphyotrichum lentum;* CRPR 1B.2), and
- Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis;* CRPR 1B.2).

4.2.1 Mason's Lilaeopsis (CRPR 1B.1)

Mason's lilaeopsis is listed as State Rare and designated by CNPS as CRPR 1B.1, indicating it is "rare, threatened, or endangered in California and elsewhere" ("1B") and "seriously threatened in California" ("0.1") (CNPS 2024). This species is a small perennial herb in the carrot family (Apiaceae) which is found in marshes, swamps, and riparian scrub habitats. It is threatened by erosion, recreational activities, bank maintenance/flood control and invasive species, especially

common water hyacinth (*Eichhornia crassipes).* The flowers are white, and they bloom from April to November (ibid).

4.2.2 Delta Tule Pea (CRPR 1B.2)

Delta tule pea is designated by CNPS as CRPR 1B.2, indicating it is "rare, threatened, or endangered in California and elsewhere" ("1B") and "moderately threatened in California" ("0.2") (CNPS 2024). This is a perennial herb in the pea family (Fabaceae), and is found in brackish and freshwater marshes and swamps. It is threatened by erosion, and development of the Delta, including water diversions. The flowers are white and pink/purple, and bloom from May to July, sometimes extending into August and September (ibid).

4.2.3 Suisun Marsh Aster (CRPR 1B.2)

Suisun marsh aster is designated by CNPS as CRPR 1B.2 (CNPS 2024). This is a perennial herb found in marshes and along the banks of sloughs, and is a member of the sunflower family (Asteraceae). It is 'seriously' threatened by habitat destruction/degradation and possibly herbicide poisoning. The flowers are white to violet, and bloom from May to November, but sometimes begin blooming earlier in April ibid).

4.2.4 Woolly Rose-mallow (CRPR 1B.2)

Woolly rose-mallow is designated by CNPS as CRPR 1B.2 (CNPS 2024). This perennial herb is found in freshwater marshes and swamps as well as in riprap along levee sides. It is a member of the family Malvaceae. This plant is 'seriously' threatened by habitat development/alteration, as well as herbicides. It has white flowers with a scarlet petal base, and they bloom from June to September (ibid).

Potential Project Impacts

Mason's lilaeopsis, Delta tule pea, Suisun Marsh aster, and woolly rose-mallow have potential to occur within the Project Site. Potential impacts to habitats present in the Project Site should remain at a **less-than-significant** impact with the incorporation of the following avoidance measures:

Recommended Avoidance Measures

BIO 9a: Rare Plant Surveys

Protocol-level botanical surveys will be conducted in any areas that are expected to be impacted by construction activities, and a 100-foot buffer. The surveys will conform to CNPS 'Intuitive Controlled' survey protocol and will also satisfy the 2018 CDFW-recommended protocols, and will be conducted by a qualified botanist. Protocol-level surveys will involve three rounds of surveys which correspond to the early spring, peak spring, and summer blooming periods. Actual timing will be influenced by seasonal weather conditions and phenology of targeted plant taxa.

The surveys will target all special-status plant taxa with a designated California Rare Plant Rank (CRPR) (List 1-4), which includes all Federal and State listed species. In the event that

any special-status plant taxa are identified during field surveys, the botanist will immediately inform the project proponent of the occurrence. The data collection for CRPR plants will involve the documentation of population statistics, including but not limited to percent in vegetative/bud, flower, and fruiting stage, as well as population census, population quality, site slope and aspect, soil conditions, hydrology, general habitat abundance and quality, and threats to the population(s).

If none of the targeted species are present in the survey area, no further action will be required and construction may proceed.

If any of the species are present, the following measures will be required:

i. Annual Plant Taxa:

1) Flag or otherwise demarcate and ensure workers avoid any disturbance of the protected species where said species are present.
2) If possible, schedule potential disturbance activities for timeframes when the special-status taxa occurring in the work area is senescent and/or after seed as set.
3) If an individual or population must be removed, one of two options can be employed and monitoring conducted to ensure that no net loss of the species occurs.
    i. Seeds of the annuals shall be collected from existing onsite populations or from the same watershed (to maintain local genetic stock) and distributed in appropriate habitat outside the work area (within the same watershed) or in the work area following completion of work.
    ii. A nursery with experience growing special-status plants can be employed to grow seedlings of the species (from seeds collected locally) that shall be planted in appropriate habitat outside the work area or in the work area following completion of work. It should be noted that seeds derived from plants in the same watershed as the impact area may be available from local nurseries, and local nurseries may also be able to propagate seeds from adults grown from collected seeds. In this case, seeds do not need to be collected from a specific impact area site.

ii. Perennial Plant Taxa:

1) Mark populations in the field with distinct flagging.
2) If an individual or population must be removed, one of two options can be employed (subject to CDFW approval) and monitoring conducted to ensure that no net loss of the species occurs.
    - (1) The individual or population can be dug up and relocated to appropriate habitat outside the work area. (2) A nursery with experience growing special-status plants can be employed to grow seedlings of the species that shall be planted in

appropriate habitat outside the work area or in the work area following completion of work. The selected relocation site shall be within the same watershed as the impact area, and shall be approved of by CDFW botanical staff.

A monitoring plan shall be developed that details the following components. Conduct annual monitoring of seeded or replanted locations within the Project Site for a minimum of 3 years and up to 5 years, dependent upon the CDFW botanical staff recommendation and monitoring results. The new population should match typical populations for the species as available from rare plant inventories (e.g., from the CNDDB, USFWS data, or regional mitigation banks). Due to the variations in population from year to year as a result of weather fluctuations, average population data for annual taxa can be calculated from several years (at least three) of data collected from known populations in the region.

4.3 Jurisdictional Wetlands and Waters

The four natural communities identified by VNLC ecologists as potential jurisdictional wetland communities and their approximate acreage are as follows. These communities are explained above in depth in **Section 3.5**.

- Seasonal/Ephemeral Wetlands[1] – approx. 32.2 acres
- Woody Riparian Wetland – approx. 8.7 acres
- Emergent Marsh – approx. 3.5 acres
- Drainage Ditches – approx. 0.2 acres

Is it expected that these acreages and the State and Federal jurisdictional status of each feature will be refined during the verification of an aquatic resource delineation. **Figure 3** above shows the mapped wetlands on the Project Site.

Potential Project Impacts

Restoration activities could impact State and/or Federal jurisdictional wetland features, including any features under jurisdiction of the U.S. Army Corps of Engineers (Section 404 of the Federal Clean Water Act), the Regional Water Quality Control Board (Clean Water Act Section 401), or the California Department of Fish and Wildlife (Sections 1602-1603 of the California Fish and Game Code). However, the proposed Project is designed to improve the quality and extent of wetland habitat on-site. Therefore, with the incorporation of the proper permitting measures, these impacts are expected be self-mitigating and **less-than-significant**.

Up to 12.72 acres of temporary impacts are expected to occur to existing wetland features within the Project Site to enhance and improve habitat quality of those existing features. Up to 1.27 acres of existing wetland features are proposed to be permanently converted to a new feature.

[1] Preliminary wetland mapping includes extents of individual seasonal/ephemeral wetland features as well as estimated wetland cover within areas of high and moderate density wetlands.

Table 1. Estimated Temporary Impacts to Existing Wetland Features at Jersey Island Proposed GGS Mitigation Bank

Existing Feature	Enhanced Feature	Acreage[1]
Riparian Wetland	Non-GGS Riparian	0.02
Seasonal/Ephemeral Wetland	Non-GGS Rehabilitated Wetland	12.70
Total		**12.72**

1. Estimated impacts based on preliminary wetland mapping including extents of individual features as well as estimated wetland cover within areas of high and moderate density wetlands.

Table 2. Estimated Permanent Conversion to New Wetland or Upland Features at Jersey Island Proposed GGS Mitigation Bank

Existing Feature	New Feature	Acreage[1]
Drainage Ditch	GGS Vegetated Marsh	0.01
Seasonal/Ephemeral Wetland	GGS Vegetated Marsh	0.54
Subtotal (Permanent Conversion to Marsh)		**0.54**
Drainage Ditch	GGS Open Water	<0.01
Seasonal/Ephemeral Wetland	GGS Open Water	0.59
Subtotal (Permanent Conversion to Open Water)		**0.59**
Drainage Ditch	Non-GGS Riparian	<0.01
Riparian Wetland	Non-GGS Riparian	0.02
Seasonal/Ephemeral Wetland	Non-GGS Riparian	<0.01
Subtotal (Permanent Conversion to Riparian)		**0.02**
Seasonal/Ephemeral Wetland	GGS Upland for Access	0.12
Subtotal (Permanent Conversion to Upland)		**0.12**
Total (Permanent Conversion to New Features)		**1.27**

1. Slight discrepancies may be present in the subtotals and total due to rounding.

Recommended Avoidance and Mitigation Measures

Any indirect or direct impacts to jurisdictional features will require completion of proper permit processes, including U.S. Army Corps of Engineers Section 404 and/or 408, Regional Water Quality Conservation Board Section 401, and CDFW Section 1602.

The proposed Project will mitigate at a ratio of at least 1:1.25 of on-site creation for permanent impacts. The temporary impacts will be self-mitigating.

5 POTENTIAL IMPACTS TO SPECIAL-STATUS SPECIES AND HABITATS

Potential impacts to the following 18 special-status wildlife species are expected to have **less-than-significant** impacts with the incorporation of Project avoidance and minimization measures (described in the previous sections):

- Tricolored Blackbird (*Agelaius tricolor*; ST, SSC, BCC);
- Golden Eagle (*Aquila chrysaetos*; FP, WL);
- Western Burrowing Owl (*Athene cunicularia hypugaea*; SSC, BCC);
- Swainson's Hawk (*Buteo swainsoni*; ST);
- Mountain Plover (*Charadrius montanus*; SSC, BCC);
- Northern Harrier (*Circus hudsonius*; SSC, BCC);
- White-tailed Kite (*Elanus leucurus*; FP);
- Lesser Sandhill Crane (*Grus canadensis canadensis*; SSC);
- Greater Sandhill Crane (*Grus canadensis tabita*; ST, FP);
- Bald Eagle (*Haliaeetus leucocephalus*; SE, FP);
- Loggerhead Shrike (*Lanius ludovicianus*; SSC);
- California Black Rail (*Laterallus jamaicensis coturniculus*; ST, FP);
- Double-crested Cormorant (*Nannopterum auritum*; WL);
- Modesto Song Sparrow (*Melospiza melodia* pop. 1; SSC);
- California Ridgeway's Rail (*Rallus obsoletus obsoletus*; FE, SE, FP);
- Western Red Bat (*Lasiurus frantzii*; SSC);
- Western Pond Turtle (*Emys marmorata*; SSC, FPT); and
- Giant Garter Snake (*Thamnophis gigas*; FT, ST).

Potential impacts to the following four special-status plant species are also expected to have a **less-than-significant** impact with the incorporation of the Project's avoidance and minimization measures:

- Mason's lilaeopsis (*Lilaeopsis masonii*; SR, CRPR 1B.1);
- Delta tule pea (*Lathyrus jepsonii* var. *jepsonii;* CRPR 1B.2);
- Suisun marsh aster (*Symphyotrichum lentum;* CRPR 1B.2); and
- Woolly rose-mallow (*Hibiscus lasiocarpos* var. *occidentalis;* CRPR 1B.2).

The Project Site could also support nesting and migrating birds protected by the Migratory Bird Treaty Act and California Fish and Game Code 3503. With the incorporation of the Project's avoidance and minimization measures, these impacts are expected to be **less-than-significant.**

Finally, the Project Site encompasses potentially jurisdictional aquatic habitats, including wetland and riparian vegetation. Since the Project is designed to improve the habitat quality and increase the extent of wetlands on-site, these impacts are also expected to be **less-than-significant** with the incorporation of the Project's avoidance and minimization measures.

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APPENDIX A

SPECIAL-STATUS SPECIES IN PROJECT REGION

Table A-1. Special-status Wildlife Species Documented in the Project Vicinity

Note: Species highlighted in gray have suitable habitat present within the Project Site.

Common Name *Scientific Name*	Status[1]	Description of Habitat Requirements	Potential to Occur in Project Site
Amphibians			
California tiger salamander *Ambystoma californiense*	FT, ST, WL (Central California DPS)	Grassland, scrub, and oak savanna habitats in Central California. Live in upland mammal burrows during warm, dry summer months and migrate during rainy nights to vernal pools, seasonal ponds, or stock ponds for breeding.	**Not Expected.** Suitable vernal pool and stock pond breeding habitat is not present within the Project Site, and it is separated from known populations by open water channel.
California red-legged frog *Rana draytonii*	FT, SSC	Breeds in perennial and seasonal ponds and slow-moving streams; shelters in adjacent uplands, and shrubby or emergent riparian vegetation.	**Not Expected**. Suitable marsh and stock pond breeding habitat is not present within the Project Site, and it is separated from known populations by open water channel.
Birds			
Tricolored Blackbird *Agelaius tricolor*	ST, SSC, BCC	Forages in a variety of habitats including pastures, agricultural fields, rice fields, and feedlots; nests in freshwater marshes with tule or cattails, or in other dense thickets of willow, thistle, blackberry, or wild rose in close proximity to open water.	**Potential.** The Project Site provides suitable foraging and nesting habitat for this species, and it was documented calling within emergent marsh habitat in Piper and Taylor Slough (within 2 miles) in August 2023. Additional (unverified) sightings from Jersey Island are documented online (www.ebird.org) from April 2023.
Golden Eagle *Aquila chrysaetos*	WL, FP	Forages in open terrain such as grassland, desert, savannah, or young forests and shrub habitat. Constructs large nests on platforms of steep cliffs or in large trees in open areas.	**Potential:** The Project Site provides foraging and to a lesser extent, nesting habitat. There are unverified observations documented online (www.ebird.org) from November 2023.
Western Burrowing Owl *Athene cunicularia hypugaea*	SSC, BCC	Occurs in open, treeless areas with low, sparse vegetation, usually on gently sloping terrain.	**Potential**. The Project Site provides highly suitable habitat for this species and hosts an abundance of suitable burrows. There are observations documented online (www.ebird.org) from February 2020.
Swainson's Hawk *Buteo swainsoni*	ST	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures.	**Potential**. The Project Site provides foraging and nesting habitat for this species. There are observations documented online (www.ebird.org) from the perimeter of the property.
Mountain Plover *Charadrius montanus*	SSC, BCC	Breeds in shortgrass prairie during summer, inhabit many grasslands during summer. Winters in California and breeds in central USA.	**Documented.** The Project Site provides potential winter foraging habitat. This species was observed by VNLC biologists during the January 2024 field surveys.

Common Name *Scientific Name*	Status[1]	Description of Habitat Requirements	Potential to Occur in Project Site
Northern Harrier *Circus hudsonius*	SSC, BCC	Inhabits marsh and riparian vegetation and forages within grasslands.	**Documented**. The Project Site provides potential foraging and nesting habitat for this species. This species was observed by VNLC biologists during the January 2024 field surveys.
White-tailed Kite *Elanus leucurus*	FP	Undisturbed open grasslands, meadows, farmlands, and emergent wetlands for foraging. Nests near top of dense oak, willow, or other tree stands.	**Documented**. The Project Site provides potential foraging and nesting, and it was observed in April 2023 by VNLC biologists while surveying a neighboring property, where it flew over the eastern border of Jersey Island.
Lesser Sandhill Crane *Grus canadensis canadensis*	SSC	Inhabits freshwater marshes and marshy tundra during summer, and grainfields or open grasslands during migration and winter. Winters in the Central Valley and breeds in Siberia and Alaska.	**Potential.** The Project Site provides potential foraging habitat for this species. Sandhill Cranes (subspecies not identifiable) were documented flying overhead during the January 2024 field survey, but were not observed landing on the island
Greater Sandhill Crane *Grus canadensis tabita*	ST, FP	Inhabits freshwater marshes and prairie ponds during summer, and grainfields or open grasslands during migration and winter. Winters in the Central Valley and breeds in high mountain meadows in the northern Sierra Nevada and Cascade Ranges.	**Potential.** The Project Site provides foraging habitat for this species, and Sandhill Cranes (subspecies not identifiable) were documented flying overhead during the January 2024 field survey, but were not observed landing on the island
Bald Eagle *Haliaeetus leucocephalus*	SE, FP	Nests in old growth, lower montane coniferous forest adjacent to large bodies of water. Builds the largest nests of all North American Birds. Can be found near many California water features in winter.	**Potential.** The Project Site provides some perching habitat adjacent to the slough and rivers. There are unverified observations documented online (www.ebird.org) from November 2022.
Loggerhead Shrike *Lanius ludovicianus*	SSC	Common resident and winter visitor in lowlands and foothills of California. Prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.	**Documented**. The Project Site provides potential foraging and nesting habitat for this species. This species was observed in January 2024 by VNLC biologists.
California Black Rail *Laterallus jamaicensis coturniculus*	ST, FP	Marshes and wet meadows with stable, shallow water (around 1 inch deep). Also may be found around farm ponds or fields with standing water, and marsh edges along creeks or rivers.	**Potential.** Potential marsh habitat is present within and adjacent to the Project Site, although it is limited and marginal.
Song Sparrow ("Modesto" Population) *Melospiza melodia* pop. 1	SSC	Found only in the north-central portion of the Central Valley, with the highest densities found in the Butte Sink area of the Sacramento Valley and in the Sacramento-San Joaquin River Delta. Prefer emergent freshwater marshes dominated by tules, cattails, and willow, as well as riparian forests.	**Potential**. Song Sparrow were observed during the January 2024 field survey in the riparian habitat, and the property is within the range of the Modesto subspecies. However, the status of this subspecies needs more research and may not be genetically distinct from other subspecies. Until further research is conducted, this subspecies remains protected.

Common Name ***Scientific Name***	**Status**[1]	**Description of Habitat Requirements**	**Potential to Occur in Project Site**
Double-crested Cormorant *Nannopterum auritum*	WL	Large aquatic bodies big enough to support fish diet. May roost and form breeding colonies on smaller lagoons or ponds, and then fly up to 40 miles to a feeding area. Need perching areas for resting each day.	**Documented.** The Project Site provides potential perching areas needed for rest between foraging in surrounding open water. It was observed in January 2024 by VNLC biologists.
Bank Swallow *Riparia riparia*	ST	In migration, flocks with other swallows over many open habitats including freshwater and estuarine wetlands.	**Low Potential.** Marginal migratory habitat is present in the Project Site. There are unverified observations documented online (www.ebird.org) from July 2021.
California Ridgeway's Rail *Rallus obsoletus obsoletus*	FE, SE, FP	Saltwater and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed and cordgrass, but feeds away from cover on invertebrates from mud-bottomed sloughs.	**Potential**. Suitable marsh habitat is present in surrounding sloughs, although marsh habitat within the Project Site is marginal and limited.
Crustaceans			
vernal pool fairy shrimp *Branchinecta lynchi*	FT	Vernal pools, seasonal wetlands, and stagnant ditches that fill with water during fall and winter rains and dry up in spring and summer.	**Not Expected**. Suitable vernal pool habitat is not present within the Project Site.
vernal pool tadpole shrimp *Lepidurus packardi*	FE	Muddy bottom of ephemeral freshwater habitats including vernal pools, alkaline pools, clay flats, vernal lakes, vernal swales, and other seasonal wetlands. Range includes the Central Valley, Delta, and eastern San Francisco Bay.	**Not Expected**. Suitable vernal pool habitat is not present within the Project Site.
Fish			
green sturgeon – southern DPS *Acipenser medirostris pop. 1*	FT	Migrate between ocean and freshwater environments, with hatching and rearing in freshwater environments, migration to ocean for maturation, then return to natal freshwater streams for spawning. Spawning occurs in deep, fast-moving water preferably with large cobbles. The only confirmed spawning population in California is in the Klamath River.	**Not Expected**. The False River along the northern edge of the Project Site provides suitable habitat for green sturgeon, and the property is within designated critical habitat for green sturgeon. However, an outer levee separates the sloughs from the property, and there is no direct surface connection or suitable habitat within the property.
Sacramento perch *Archoplites interruptus*	SSC	Sloughs, lakes, and slow-moving rivers throughout the Central Valley. May be found in farm ponds and reservoirs. Tolerant of relatively high temperatures, turbidity, and salinity.	**Not Expected**. The False River along the northern edge of the Project Site provides suitable habitat for green sturgeon, and the property is within designated critical habitat for green sturgeon. However, an outer levee separates the sloughs from the property, and there is no direct surface connection or suitable habitat within the property.

Common Name *Scientific Name*	Status[1]	Description of Habitat Requirements	Potential to Occur in Project Site
Delta smelt *Hypomesus transpacificus*	FT, SE	Endemic to streams, rivers, estuaries in the upper reaches of the San Francisco Bay and Sacramento-San Joaquin Delta Estuary. May occur in Suisun Bay, Carquinez Strait & San Pablo Bay during wet years with high Delta outflow.	**Not Expected**. The False River along the northern edge of the Project Site provides suitable habitat for green sturgeon, and the property is within designated critical habitat for green sturgeon. However, an outer levee separates the sloughs from the property, and there is no direct surface connection or suitable habitat within the property.
steelhead – Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	FT	Migrate between ocean and freshwater environments, with hatching and rearing in freshwater environments, migration to ocean for maturation, then return to natal freshwater streams for spawning. Includes all naturally spawned Central Valley steelhead populations in the Sacramento and San Joaquin rivers and their tributaries.	**Not Expected**. The False River along the northern edge of the Project Site provides suitable habitat for green sturgeon, and the property is within designated critical habitat for green sturgeon. However, an outer levee separates the sloughs from the property, and there is no direct surface connection or suitable habitat within the property.
longfin smelt *Spirinchus thaleichthys*	FC, ST	Nearshore waters, estuaries, and lower portions of freshwater streams. Typically found in the middle or deeper parts of the water column. Does not occur within non-tidal riverine habitats.	**Not Expected**. The False River along the northern edge of the Project Site provides suitable habitat for green sturgeon, and the property is within designated critical habitat for green sturgeon. However, an outer levee separates the sloughs from the property, and there is no direct surface connection or suitable habitat within the property.
Insects			
monarch butterfly – California overwintering population *Danaus plexippus plexippus pop. 1*	FC	Roosts in wind-protected tree groves with nectar and water nearby. Overwinters in tall trees in large groups during migration. Forages on showy nectar source flowers. Breeds on milkweed (*Asclepias* sp.) vegetation.	**Not Expected**. The Project Site is too far from the ocean and San Francisco Bay (over 30 miles) to support overwintering populations (which are usually found within 1.5 miles of the ocean/bay).
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT	Found on the red or blue elderberry (*Sambucus* sp.) along riverbeds. Females lay their eggs in the plant and larvae burrow into the bark. Occurs in specific locations from Fresno County to southern Shasta County, mostly along the Merced River, American River, and Putah Creek.	**Not Expected**. No blue elderberry shrubs have been observed within the Project Site.
Mammals			
western red bat *Lasiurus frantzii*	SSC	Strongly associated with riparian habitats, particularly mature stands of cottonwood/sycamore trees in the Central Valley and lower reaches of the large rivers that drain the Sierra Nevada.	**Potential.** Large mature trees (not cottonwoods) are present in the Project Site.

Common Name *Scientific Name*	Status[1]	Description of Habitat Requirements	Potential to Occur in Project Site
Reptiles			
Northern California legless lizard *Anniella pulchra*	SSC	Moist soil in sparsely vegetated areas. Coastal dune, valley-foothill, chaparral, and coastal scrub habitats.	**Not Expected**. Very little, if any suitable habitat in the Project Site. The soils are mostly hydric peat with sandy fill around the border of the levee.
western pond turtle *Emys marmorata*	SSC, FPT	Perennial ponds, deep slow-moving streams, marshes and lakes are habitat for this species at 6,000 ft and below in elevation. Eggs are laid in loose soil on land in oak woodlands, mixed coniferous forests, broadleaf forests and grasslands, usually within 400 ft of ponds, lakes, slow streams and marshes with vegetated borders, rocks, or logs. Logs, rocks, cattail mats, and exposed banks are required for basking.	**Potential**. Suitable habitat is present in ponds and agricultural canals/ditches within the Project Site.
giant garter snake *Thamnophis gigas*	FT, ST	Found primarily in marshes, sloughs, drainage canals, and irrigation ditches, especially around rice fields, and occasionally in slow-moving creeks. Basks on vegetation near water in spring, and utilizes animal burrows and vegetation piles during hotter weather.	**Documented**. Numerous sightings along northern border of the Project Site. The sightings were along the levee road and in emergent vegetation on the south bank of the False River.

1. FT – Federal Threatened; FE – Federal Endangered; FC – Federal Candidate; FPT – Federal Proposed Threatened; ST – State Threatened; SE – State Endangered; BCC – USFWS Birds of Conservation Concern; SSC – CDFW Species of Special Concern; FP – CDFW Fully Protected; WL – CDFW Watch List

Table A-2. Special-status Vascular Plant Species Documented in the Project Vicinity.

Note: Species highlighted in gray have suitable habitat present within the Project Site.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Amsinckia grandiflora large-flowered fiddleneck (Boraginaceae)	FE/CE/1B.1	Cismontane woodland, Valley and foothill grassland; Microhabitat: none; 885-1,805 feet; (March) April-May	**Not Expected.** Project Site is below species' preferred elevation.
Arctostaphylos auriculata Mt. Diablo manzanita (Ericaceae)	--/--/1B.3	Chaparral (sandstone), Cismontane woodland; Microhabitat: none; 445-2,135 feet; January-March	**Not Expected.** Project Site is below species' preferred elevation.
Arctostaphylos manzanita ssp. *laevigata* Contra Costa manzanita (Ericaceae)	--/--/1B.2	Chaparral (rocky); Microhabitat: none; 1,410-3,610 feet; January-March (April)	**Not Expected.** Project Site is below species' preferred elevation.
Astragalus tener var. *tener* alkali milk-vetch (Fabaceae)	--/--/1B.2	Playas, Valley and foothill grassland (adobe clay), Vernal pools; Microhabitat: Alkaline; 5-195 feet; March-June	**Low Potential.** No adobe clay or alkaline grasslands present.
Atriplex cordulata var. *cordulata* heartscale (Chenopodiaceae)	--/--/1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland (sandy); Microhabitat: sometimes saline, Alkaline (sometimes); 0-1,835 feet; April-October	**Low Potential.** Marginally suitable habitat present (no Chenopod scrub, Meadows or seeps, or alkaline grasslands).
Atriplex coronata var. *coronata* crownscale (Chenopodiaceae)	--/--/4.2	Chenopod scrub, Valley and foothill grassland, Vernal pools; Microhabitat: Alkaline, Clay (often); 5-1,935 feet; March-October	**Low Potential.** Marginally suitable habitat present (no Chenopod scrub, Vernal pools, or alkaline grasslands).
Atriplex depressa brittlescale (Chenopodiaceae)	--/--/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland, Vernal pools; Microhabitat: Alkaline, Clay; 5-1,050 feet; April-October	**Low Potential.** Marginally suitable habitat present (no Chenopod scrub, Playas, Vernal pools, meadows or seeps or alkaline grasslands).
Blepharizonia plumosa big tarplant (Asteraceae)	--/--/1B.1	Valley and foothill grassland; Microhabitat: Clay (usually); 100-1,655 feet; July-October	**Not Expected.** Project Site is below species' preferred elevation.
Brasenia schreberi watershield (Cabombaceae)	--/--/2B.3	Marshes and swamps (freshwater); Microhabitat: none; 0-7,220 feet; June-September	**Potential.** Suitable habitat is present within the Project Site but not documented in the local vicinity.
Calandrinia breweri Brewer's calandrinia (Montiaceae)	--/--/4.2	Chaparral, Coastal scrub; Microhabitat: Burned areas, Disturbed areas, Loam (sometimes), Sandy (sometimes); 35-4,005 feet; (January) March-June	**Not Expected.** Project Site is below species' preferred elevation.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Calochortus pulchellus Mt. Diablo fairy-lantern (Liliaceae)	--/--/1B.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland; Microhabitat: none; 100-2,755 feet; April-June	**Not Expected.** Project Site is below species' preferred elevation.
Carex comosa bristly sedge (Cyperaceae)	--/--/2B.1	Coastal prairie, Marshes and swamps (lake margins), Valley and foothill grassland; Microhabitat: none; 0-2,050 feet; May-September	**Potential.** Suitable habitat is present within the Project Site.
Centromadia parryi ssp. *parryi* pappose tarplant (Asteraceae)	--/--/1B.2	Chaparral, Coastal prairie, Marshes and swamps (coastal salt), Meadows and seeps, Valley and foothill grassland (vernally mesic); Microhabitat: Alkaline (often); 0-1,380 feet; May-November	**Low Potential**. Marginally suitable habitat present (no Chaparral, Coastal Prairie, Meadows and seeps, or alkaline grasslands).
Centromadia parryi ssp. *rudis* Parry's rough tarplant (Asteraceae)	--/--/4.2	Valley and foothill grassland, Vernal pools; Microhabitat: Alkaline, Roadsides (sometimes), Seeps, Vernally Mesic; 0-330 feet; May-October	**Low Potential.** Marginally suitable habitat present (no Vernal pools, Seeps, or alkaline grasslands).
Chloropyron molle ssp. *molle* soft salty bird's-beak (Orobanchaceae)	FE/CR/1B.2	Marshes and swamps (coastal salt); Microhabitat: none; 0-10 feet; June-November	**Low Potential.** Marginally suitable habitat present (no coastal salt marsh—mostly freshwater).
Cicuta maculata var. *bolanderi* Bolander's water-hemlock (Apiaceae)	--/--/2B.1	Marshes and swamps (brackish, coastal, freshwater); Microhabitat: none; 0-655 feet; July-September	**Potential.** Suitable habitat is present within the Project Site.
Convolvulus simulans small-flowered morning-glory (Convolvulaceae)	--/--/4.2	Chaparral (openings), Coastal scrub, Valley and foothill grassland; Microhabitat: Clay, Seeps, Serpentinite; 100-2,430 feet; March-July	**Not Expected.** Project Site is below species' preferred elevation.
Cryptantha hooveri Hoover's cryptantha (Boraginaceae)	--/--/1A	Inland dunes, Valley and foothill grassland (sandy); Microhabitat: none; 30-490 feet; April-May	**Not Expected.** Project Site is below species' preferred elevation.
Downingia pusilla dwarf downingia (Campanulaceae)	--/--/2B.2	Valley and foothill grassland (mesic), Vernal pools; Microhabitat: none; 5-1,460 feet; March-May	**Not Expected.** Marginally suitable habitat present (no Vernal pools and mesic grasslands are disturbed and).
Eleocharis parvula small spikerush (Cyperaceae)	--/--/4.3	Marshes and swamps; Microhabitat: none; 5-9,910 feet; (April) June-August (September)	**Potential.** Suitable habitat is present within the Project Site but not documented in the local vicinity.
Eriogonum nudum var. *psychicola* Antioch Dunes buckwheat (Polygonaceae)	--/--/1B.1	Inland dunes; Microhabitat: none; 0-65 feet; July-October	**Not Expected.** Project Site has no dune habitat.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Eriogonum truncatum Mt. Diablo buckwheat (Polygonaceae)	--/--/1B.1	Chaparral, Coastal scrub, Valley and foothill grassland; Microhabitat: Sandy; 10-1,150 feet; April-September (November-December)	**Not Expected.** Project Site has no dune habitat.
Eriophyllum jepsonii Jepson's woolly sunflower (Asteraceae)	--/--/4.3	Chaparral, Cismontane woodland, Coastal scrub; Microhabitat: Serpentinite (sometimes); 655-3,365 feet; April-June	**Not Expected.** Project Site is below species' preferred elevation.
Eryngium jepsonii Jepson's coyote-thistle (Apiaceae)	--/--/1B.2	Valley and foothill grassland, Vernal pools; Microhabitat: Clay; 10-985 feet; April-August	**Not Expected.** Marginally suitable habitat present (no Vernal pools or suitable clay).
Eryngium racemosum Delta button-celery (Apiaceae)	--/CE/1B.1	Riparian scrub (vernally mesic clay depressions); Microhabitat: none; 10-100 feet; (May) June-October	**Not Expected.** Suitable habitat is present within the Project Site but not documented in the local vicinity.
Erysimum capitatum var. *angustatum* Contra Costa wallflower (Brassicaceae)	FE/CE/1B.1	Inland dunes; Microhabitat: none; 10-65 feet; March-July	**Not Expected.** Project Site has no dune habitat.
Eschscholzia rhombipetala diamond-petaled California poppy (Papaveraceae)	--/--/1B.1	Valley and foothill grassland (alkaline, clay); Microhabitat: none; 0-3,200 feet; March-April	**Not Expected.** Marginally suitable habitat present (no alkaline clay).
Extriplex joaquinana San Joaquin spearscale (Chenopodiaceae)	--/--/1B.2	Chenopod scrub, Meadows and seeps, Playas, Valley and foothill grassland; Microhabitat: Alkaline; 5-2,740 feet; April-October	**Low Potential.** Marginally suitable habitat present (no Chenopod scrub, Meadows and seeps, Playas, or alkaline grassland).
Fritillaria agrestis stinkbells (Liliaceae)	--/--/4.2	Chaparral, Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland; Microhabitat: Clay, Serpentinite (sometimes); 35-5,100 feet; March-June	**Not Expected.** Project Site is below species' preferred elevation.
Fritillaria liliacea fragrant fritillary (Liliaceae)	--/--/1B.2	Cismontane woodland, Coastal prairie, Coastal scrub, Valley and foothill grassland; Microhabitat: Serpentinite (often); 10-1,345 feet; February-April	**Not Expected.** Marginally suitable habitat present (no serpentinite grasslands and no other associated habitats present).
Galium andrewsii ssp. *gatense* phlox-leaf serpentine bedstraw (Rubiaceae)	--/--/4.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; Microhabitat: Rocky, Serpentinite; 490-4,755 feet; April-July	**Not Expected.** Project Site is below species' preferred elevation.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Helianthella castanea Diablo helianthella (Asteraceae)	--/--/1B.2	Broad-leafed upland forest, Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Microhabitat: Azonal soil, often partial Shade, Rocky (usually); 195-4,265 feet; March-June	**Not Expected.** Project Site is below species' preferred elevation.
Hesperevax caulescens hogwallow starfish (Asteraceae)	--/--/4.2	Valley and foothill grassland (mesic clay), Vernal pools (shallow); Microhabitat: Alkaline (sometimes); 0-1,655 feet; March-June	**Not Expected.** Marginally suitable habitat present (no Vernal pools and no mesic clay).
Hesperolinon breweri Brewer's western flax (Linaceae)	--/--/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; Microhabitat: Serpentinite (usually); 100-3,100 feet; May-July	**Not Expected.** Project Site is below species' preferred elevation.
Hibiscus lasiocarpos var. *occidentalis* woolly rose-mallow (Malvaceae)	--/--/1B.2	Marshes and swamps (freshwater); Microhabitat: Often in riprap on sides of levees.; 0-395 feet; June-September	**Potential.** Suitable habitat is present within the Project Site.
Isocoma arguta Carquinez goldenbush (Asteraceae)	--/--/1B.1	Valley and foothill grassland (alkaline); Microhabitat: none; 5-65 feet; August-December	**Low Potential.** Marginally suitable habitat present (no alkaline grassland).
Lasthenia conjugens Contra Costa goldfields (Asteraceae)	FE/--/1B.1	Cismontane woodland, Playas (alkaline), Valley and foothill grassland, Vernal pools; Microhabitat: Mesic; 0-1,540 feet; March-June	**Not Expected.** Marginally suitable habitat present (no Vernal pools, no Playas, and no mesic clay).
Lasthenia ferrisiae Ferris' goldfields (Asteraceae)	--/--/4.2	Vernal pools (alkaline, clay); Microhabitat: none; 65-2,295 feet; February-May	**Not Expected.** Project Site is below species' preferred elevation.
Lathyrus jepsonii var. *jepsonii* Delta tule pea (Fabaceae)	--/--/1B.2	Marshes and swamps (brackish, freshwater); Microhabitat: none; 0-15 feet; May-July (August-September)	**Potential.** Suitable habitat is present within the Project Site (primarily along outboard levee).
Lilaeopsis masonii Mason's lilaeopsis (Apiaceae)	--/CR/1B.1	Marshes and swamps (brackish, freshwater), Riparian scrub; Microhabitat: none; 0-35 feet; April-November	**Potential.** Suitable habitat is present within the Project Site.
Limosella australis Delta mudwort (Scrophulariaceae)	--/--/2B.1	Marshes and swamps (brackish, freshwater), Riparian scrub; Microhabitat: Usually mud banks, Streambanks (usually); 0-10 feet; May-August	**Potential.** Suitable habitat is present within the Project Site.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Lupinus albifrons var. *abramsii* Abrams' lupine (Fabaceae)	--/--/3.2	Broad-leafed upland forest, Chaparral, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Microhabitat: Serpentinite (sometimes); 410-6,560 feet; April-June	**Not Expected.** Project Site is below species' preferred elevation.
Madia radiata showy golden madia (Asteraceae)	--/--/1B.1	Cismontane woodland, Valley and foothill grassland; Microhabitat: none; 80-3,985 feet; March-May	**Not Expected.** Project Site is below species' preferred elevation.
Malacothamnus hallii Hall's bush-mallow (Malvaceae)	--/--/1B.2	Chaparral, Coastal scrub; Microhabitat: none; 35-2,495 feet; (April) May-September (October)	**Not Expected.** Project Site is below species' preferred elevation.
Myosurus minimus ssp. *apus* little mousetail (Ranunculaceae)	--/--/3.1	Valley and foothill grassland, Vernal pools (alkaline); Microhabitat: none; 65-2,100 feet; March-June	**Not Expected.** Project Site is below species' preferred elevation.
Navarretia heterandra Tehama navarretia (Polemoniaceae)	--/--/4.3	Valley and foothill grassland (mesic), Vernal pools; Microhabitat: none; 100-3,315 feet; April-June	**Not Expected.** Project Site is below species' preferred elevation.
Navarretia leucocephala ssp. *bakeri* Baker's navarretia (Polemoniaceae)	--/--/1B.1	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools; Microhabitat: Mesic; 15-5,710 feet; April-July	**Not Expected.** Marginally suitable habitat present (no Cismontane woodland, no Lower montane coniferous forest, no Meadow and seeps, no Vernal pools, and mesic grassland is disturbed).
Navarretia nigelliformis ssp. *radians* shining navarretia (Polemoniaceae)	--/--/1B.2	Cismontane woodland, Valley and foothill grassland, Vernal pools; Microhabitat: Clay (sometimes); 215-3,280 feet; (March) April-July	**Not Expected.** Project Site is below species' preferred elevation.
Oenothera deltoides ssp. *howellii* Antioch Dunes evening-primrose (Onagraceae)	FE/CE/1B.1	Inland dunes; Microhabitat: none; 0-100 feet; March-September	**Not Expected.** Project Site has no dune habitat.
Plagiobothrys hystriculus bearded popcornflower (Boraginaceae)	--/--/1B.1	Valley and foothill grassland (mesic), Vernal pools (margins); Microhabitat: often vernal swales; 0-900 feet; April-May	**Not Expected.** Marginally suitable habitat present (no Vernal pools, no vernal swales, and mesic grasslands are disturbed).
Potamogeton zosteriformis eel-grass pondweed (Potamogetonaceae)	--/--/2B.2	Marshes and swamps (freshwater); Microhabitat: none; 0-6,105 feet; June-July	**Potential.** Suitable habitat is present within the Project Site.

Scientific Name **Common Name (Family)**	**Status[1] Federal/ State/CRPR**	**Habitat, Elevation, and Blooming Period**	**Potential to Occur in Project Site**
Sagittaria sanfordii Sanford's arrowhead (Alismataceae)	--/--/1B.2	Marshes and swamps (shallow freshwater); Microhabitat: none; 0-2,135 feet; May-October (November)	**Potential.** Suitable habitat is present within the Project Site, but not been documented in the local vicinity.
Scutellaria galericulata marsh skullcap (Lamiaceae)	--/--/2B.2	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps (mesic); Microhabitat: none; 0-6,890 feet; June-September	**Potential.** Suitable habitat is present within the Project Site.
Scutellaria lateriflora side-flowering skullcap (Lamiaceae)	--/--/2B.2	Marshes and swamps, Meadows and seeps (mesic); Microhabitat: none; 0-1,640 feet; July-September	**Potential.** Suitable habitat is present within the Project Site but not documented in the local vicinity.
Senecio aphanactis chaparral ragwort (Asteraceae)	--/--/2B.2	Chaparral, Cismontane woodland, Coastal scrub; Microhabitat: Alkaline (sometimes); 50-2,625 feet; January-April (May)	**Not Expected.** Project Site is below species' preferred elevation.
Senecio hydrophiloides sweet marsh ragwort (Asteraceae)	--/--/4.2	Lower montane coniferous forest, Meadows and seeps; Microhabitat: Mesic; 0-9,185 feet; May-August	**Not Expected.** No suitable habitat is present.
Sidalcea keckii Keck's checkerbloom (Malvaceae)	FE/--/1B.1	Cismontane woodland, Valley and foothill grassland; Microhabitat: Clay, Serpentinite; 245-2,135 feet; April-May (June)	**Not Expected.** Project Site is below species' preferred elevation.
Symphyotrichum lentum Suisun Marsh aster (Asteraceae)	--/--/1B.2	Marshes and swamps (brackish, freshwater); Microhabitat: none; 0-10 feet; (April) May-November	**Potential.** Suitable habitat is present within the Project Site, and has been documented in local vicinity.
Tropidocarpum capparideum caper-fruited tropidocarpum (Brassicaceae)	--/--/1B.1	Valley and foothill grassland (alkaline hills); Microhabitat: none; 5-1,495 feet; March-April	**Low Potential.** Marginally suitable habitat present (no alkaline grassland hills).
Viburnum ellipticum oval-leaved viburnum (Viburnaceae)	--/--/2B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest; Microhabitat: none; 705-4,595 feet; May-June	**Not Expected.** Project Site is below species' preferred elevation.

Notes: Compiled from a CNPS 9-Quad search centered on the Jersey Island quadrangle. Bloom Periods in Parentheses indicate that the species *occasionally* blooms during that period. Elevation range within the Project Site is -15 to +10 feet.

[1]**Rarity Status Codes:** E = Federally or State listed as Endangered, T = Federally or State listed as Threatened, R = State listed as Rare

CRPR Codes: CRPR List 1A = Plants presumed extirpated in California and either rare or extinct elsewhere; CRPR List 1B = Plants rare, threatened or endangered in CA and elsewhere; CRPR List 2A = Plants presumed extirpated in California but common elsewhere; CRPR List 2B = Plants rare, threatened or endangered in California but more common elsewhere; CRPR List 3 = More information is needed about plant; CRPR 4 = Plants of limited distribution, a watch list. CRPR: '.1' = Seriously threatened in CA; '.2' = Fairly threatened in CA; '.3' = Not very threatened in CA

APPENDIX B

REPRESENTATIVE PHOTOGRAPHS OF THE PROJECT SITE

(Recorded January, 2024)



Photo 1. Ephemeral wetland habitat with deeper seasonal wetland habitat, facing south. Note the large, isolated Himalayan blackberry stand in the background.



Photo 2. Seasonal wetland habitat flooded after a large rain event, facing south.



Photo 3. Woody riparian habitat adjacent to marsh habitat, facing southwest.



Photo 4. Emergent marsh habitat, facing northwest. Southern border of the woody riparian habitat visible in the background.



Photo 5. Degraded emergent marsh habitat, facing south.



Photo 6. Large drainage ditch with deep, perennial water, facing south.



Photo 7. Large Himalayan blackberry thicket with an adjacent seasonal wetland, facing south. This thicket extends most of the north-south length of the Project Site.



Photo 8. Non-native annual grassland habitat, facing south.



Photo 9. Soil pit highlighting the black histic peat soil that lies beneath most of the Project Site.

Appendix B.3 Wetland Mapping Memo

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MEMORANDUM

To: Carl Jensen– Mitigation Investment Holdings	**Date:** 2/19/24
From: Henry Hwang, Cassie Pinnell - VNLC	**No. Pages:** 11 incl. figures and photos
Subject: Wetland Assessment of Potential 170-acre Mitigation Bank Site – Jersey Island	

Mitigation Investment Holdings (MIH) is assessing a 170-acre site on Jersey Island for potential restoration of perennial wetland habitats to serve as habitat for giant garter snake (*Thamnophis gigas*) as part of efforts to establish a mitigation bank for this species at the site. This site has some wetland habitats, including both natural rain-fed wetlands and artificially-managed features. Some or all these wetlands may be considered 'jurisdictional' with certain impacts from development regulated under federal or state environmental laws.

This memo presents a preliminary assessment of the extent and type of potential jurisdictional wetlands on the site, likely constraints to restoration posed by these wetlands, and recommendations for MIH to proceed with some level of restoration that is cost-effective. **Figure 1** and **Figure 2** display the regional setting of the site and soils data of the site respectively. We conducted the wetland mapping shown on **Figure 3** through a combination of remote mapping using Google Earth aerial imagery, LiDAR data, local wetland data, soil data, and site visits conducted January 19th and 23rd to check conditions and collect field data. Since the site is moderately sized and complex from a wetland standpoint, this mapping is preliminary but does provide a reasonably accurate map of the extent and type of wetlands on the site for planning purposes. The wetland features displayed on **Figure 3** represent a generous interpretation of the wetland extent on the site. A generous wetland mapping approach was conducted as conditions for an accurate wetland assessment were not present at the time of the site visit due to previous heavy rainfall and a lack of identifiable plant species. A complete and accurate delineation of all potential jurisdictional wetlands on the site, if needed, would best be conducted in the spring or early summer when indicators of wetland hydrology are less influenced by rainfall and a greater percentage of plant species are identifiable.

1.0 Site Overview

The approximately 170-acre site is located on the northeastern corner of the roughly 3,500-acre Jersey Island located in Contra Costa County (see **Figure 1**). Like many of the islands in the Sacramento-San Joaquin Delta, this island has been leveed and diked in order to convert the natural tidal marsh habitat into agricultural land. Over time, the elevation of the island has subsided and is significantly below sea-level in many areas. The soils of the site are hydric and largely comprised of muck series soils derived from decomposed plant materials. Northern portions of the site along the inboard side of the levee also include a range of fill soils with sandy to clay textures from when the levee was improved between 2013 and 2015. According to a site manager, ash is also deposited in northeastern corner of the site.

The elevation of the site ranges from six feet above sea-level along portions of the levees to approximately 16 feet below sea-level in the southwestern corner of the site (see **Figure 2**). A series of maintained drainage ditches transport water across the site from east to west with water being pumped in from the surrounding slough and then back off the island. Although there appear to be few areas with perennial water features on

the site, the water table appears to be near the surface in many areas. The height of the water table is also influenced by the tide. The drainage ditch system is mainly used to control the amount of water on the site and provide drinking water to cattle. Cattle grazing is the only current land use on the site. Historically, the site appears to have been farmed with old furrows still existing in many of the fields.

2.0 Wetland Mapping Methods

The wetland assessment of the site was achieved through a combination of field surveys and remote mapping techniques. A field visit was conducted on January 19th, 2024 with senior ecologists John Vollmar, Cassie Pinnell, and staff ecologists Henry Hwang, Misaki Yonashiro, and Nicholas Vollmar. A second follow up site visit was conducted on January 23rd, 2024 by the same staff ecologist team.

Field surveys consisted of traversing the site by foot and inspecting the full range of potential wetland habitats present. At representative wetland habitats, data was collected on the extent of the feature, all identifiable vegetation species, soil texture, and signs of wetland hydrology. GIS referenced maps were created using LiDAR imagery for navigation around the site. Representative wetland features were recorded using sub-meter accurate handheld Trimble GPS units. Wetland feature boundaries were determined in the field through a combination of factors including standing water, local topography, changes in vegetation, and hydric soil indicators. At a variety of locations around the site, soil pits were dug to a depth of at least 12 inches in order to analyze the soil profile, determine soil texture and inspect the height of the water table.

Remote mapping was completed for areas that were not physically mapped in the field. Remote mapping was aided by time series aerial photography available on Google Earth Pro that revealed ponded areas throughout a range of months and years. Local basins were identified using LiDAR data and used to in combination with field data and aerial imagery to estimate the area of seasonal depressional wetlands.

3.0 Wetland Mapping Results

Figures 3 shows the extent of potential wetlands on the site, mapped on a preliminary basis. Since the conditions at the time of the surveys were not sufficient for accurately determining the extent of wetland features on the site, no official acreages were reported. Descriptions of the major wetland habitat types found on the site are described below.

Seasonal/Ephemeral Wetlands

Seasonal or ephemeral wetlands likely represent the most prevalent wetland habitat on the site. They are found throughout most of the open fields across the site. These features are rain-fed and most do not appear to hold water past late spring. These wetland features form in relatively shallow basins and support a mix of facultative and obligate wetland plant species including, rough cocklebur (*Xanthium strumarium*). curly dock (*Rumex crispus*), and rabbitsfoot grass (*Polypogon monspeliensis*). Other plant species were likely present in these features but could not be identified at the time of the surveys. Dominant plant species in the surrounding uplands included reed fescue (*Festuca arundinacea*), Mediterranean barley (*Hordeum murinum*), and poison hemlock (*Conium maculatum*). Some of these seasonal and ephemeral wetlands had clear topographical and vegetation boundaries to the uplands but many had more indistinct boundaries.

These wetland habitat features often formed in natural depressions but were also present in old drainage ditches and furrows in the fields resulting in long linear features. The seasonal and ephemeral wetland features were found most commonly on the Rindge muck soil series but were also present in lower densities on the Venice muck soil series on the eastern portion of the site. However, a majority of the potential seasonal/ephemeral wetland features corresponded to the lowest elevation areas of the site and where past farming practices have created ruts and furrows in the fields. Very large ephemeral wetlands were observed during the field surveys which formed in the southeastern corner of the site and along portions of the southern boundary of the site. These features and most other basins on the site were fully ponded at the time of the site visit due to recent heavy rains and soil pits revealed saturated soils and a water table within

12 inches of the surface. Based on historical aerial imagery, these features primarily pond after recent rain events and do not remain ponded for a substantial amount of time. The preliminary wetland assessment estimates approximately 14.5 acres of this habitat type. It is likely that if a formal wetland delineation survey is conducted during more favorable conditions later in the spring, the extent of the seasonal and ephemeral wetland features will be smaller than as displayed on **Figure 3**.

Woody Riparian Wetland

Woody riparian wetland features were classified by a woody overstory dominated by willow species. This habitat type was primarily found along a narrow channel that is oriented east to west in the northern portion of the site. The hydrology in these habitats appears to be mainly influenced by the lower elevation resulting in a high water near the surface. Additionally, sources of water for these features may include the maintained drainage ditches that run parallel to these features. Willow species documented in these features include Gooding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*). Other plant species in the understory include forbs such as Mexican rush (*Juncus mexicanus*) and stinging nettle (*Urtica dioica*) and tall emergent vegetation including California bulrush (*Schoenoplectus californicus*) and broadleaf cattail (*Typha latifolia*).

Limited areas of standing water were observed but soils appeared fully saturated throughout this habitat type and the water table was near surface of the soil. This habitat type was found on both Rindge muck and Venice muck. It is likely that due to the low channel that this habitat type was found in that standing water is present year-round. Approximately 11.3 acres of woody riparian wetland are estimated to be present on the site based on the preliminary wetland assessment. Based on the prevalence of many obligate wetland plant species, topography, and clear hydrologic indicators, we have confidence the location and extent of this wetland habitat type as mapped represent jurisdictional wetlands. Songbird and raptor species were abundant in this habitat type.

Emergent Marsh

Emergent marsh includes wetland habitats that are dominated by tall emergent vegetation such as cattails, tules, and rushes. These wetland habitats are mainly distributed along the east-west oriented channel in the northern portion of the site in shallow depressions where the water table was found to be near or at the surface. These features are dominated by emergent vegetation species including California bulrush, broadleaf cattail and in more limited areas narrow leaf cattail (*Typha angustifolia*), common reed (*Phragmites australis*), and giant reed (*Arundo donax*). A patch of emergent mash dominated by alkali bulrush (*Bolboschoenus maritimus*) is also present in the western portion of the site in an open field. This habitat is primarily found alongside woody riparian habitats and is often encroached on by non-native Himalayan blackberry (*Rubus armeniacus*).

This wetland habitat type occurs on both Rindge muck and Venice muck series soils. Limited amounts of open water are present in this habitat type with emergent vegetation and litter comprising vast majority of the surface cover. There are an estimated 5.1 acres of emergent marsh mapped on the site based on the preliminary wetland assessment. These habitat features as displayed on **Figure 3** likely represent jurisdictional wetlands based on the dominance of obligate wetland plant species and other clear signs of hydrology.

Degraded Emergent Wetland

The degraded emergent wetland was found in similar habitat to both woody riparian woodland and emergent marsh. However, this wetland habitat supported a different vegetation community composed of a significant portion of non-native and invasive plant species. Dominant plant species include, bristly ox tongue (*Helminthotheca echioides*), rough cocklebur, poison hemlock, salt marsh baccharis (*Baccharis glutinosa*) an unknown species of smartweed (*Persicaria* sp.). The portion of the channel this habitat type occurs in appears to be more disturbed and sedimented than other portions of the channel that support emergent marsh and riparian woodland.

This habitat type is found on Venice muck soils. A drainage ditch runs parallel to the degraded wetland and is separated by a mound of spoil soils from maintenance of the irrigation ditch. Signs of wetland hydrology are less obvious in this area and the coverage of wetland plants is lower than in nearby emergent marsh habitat. Soils appeared saturated at the time of the site visit but based on the vegetation this site likely is dry during summer and fall months. Approximately 2.5 acres of this habitat type were mapped on the site based on the preliminary wetland assessment.

Drainage Ditch

Drainage ditches are located throughout the site and also represent the deepest wetland features on site. They are actively maintained by removing soil when they become too filled in by sediment. Water is pumped into the drainage ditches from he nearby slough and is carried down to the western end of the site where it is pumped back into the sloughs. The drainage ditches measure an average of three feet deep from the bottom of the channel to the top of the bank but may be deeper or shallower in some areas. Banks of these ditches are generally steep due to the ditch maintenance. The pumps are often turned off during periods of rain or when water is abundant on the site for other reasons resulting in fluctuating water levels in the ditches. The drainage ditches support a variety of emergent and floating vegetation including broadleaf cattail, narrow leaf cattail, floating water primrose (*Ludwigia peploides*), parrots feather (*Myriophyllum aquaticum*), mosquito fern (*Azolla filiculoides*), and duckweed (*Lemna minor*). These features occur on both Rindge much and Venice muck soils. The hydrology of the features is heavily influenced by the management of the site but is mainly ponded year-round. There are approximately 1.5 acres of actively managed drainage ditches on the site based on the preliminary wetland assessment.

Himalayan Blackberry

Himalayan blackberry was included as a separate habitat type as it was closely associated with other wetland habitat types including woody riparian wetlands, emergent marsh, and the drainage ditches on site. Because Himalayan blackberry is ranked as facultative in the Arid West under the National Wetland Plant List, if hydrology exists beneath these stands of blackberry, it would likely be considered jurisdictional wetlands. Since stands of Himalayan blackberry were often many meters across and impenetrable, it was not possible to determine the extent of wetland hydrology beneath these stands. Similarly, LiDAR data for the site does not penetrate below the blackberry and thus it is unclear if basins or channels that are more likely to hold water under stands of blackberry exist. In many cases where dense stands of Himalayan blackberry were observed, it appeared by be growing on slightly elevated and non-saturated surfaces near other wetland habitats and therefore large portions of these stands may not represent wetlands. Approximately 5.7 acres of Himalayan blackberry are mapped on the site. Based on the conditions observed in the field, we believe that most of this habitat type would not qualify as jurisdictional wetlands but it is possible that limited areas of wetland habitat exist within this habitat type.

4.0 Recommendations and Discussion

The natural wetlands that we mapped are widely distributed throughout the site with the greatest concentration of seasonal wetlands in the western portion of the site. A large wetland channel supporting emergent marsh and woody riparian wetland exists in the northern portion of the site. Determining the total extent of wetlands on the site is currently most challenging due to the uncertainty of wetland hydrology and plant species present at many of the seasonal wetlands. Given the distribution, it appears that wetland restoration efforts would impact the fewest potential wetland features in the eastern and central portions of the site. These impacts may need to be potentially mitigated by creating or restoring new wetlands elsewhere on the Jersey Island property. Conducting a formal wetland delineation survey later in the season would yield more accurate wetland acreages and extents and likely decrease the total amount of seasonal wetlands presented in this wetland habitat assessment.

Preliminary results are included in the attached data sheets, site photos, and figures.

Potential Jersey Island Mitigation Site
Wetland Habitat Assessment Photographs



General view of the site taken from the levee showing woody riparian channel and fields. Taken 01/19/2024



Representative potential depressional seasonal wetland. Taken 01/23/2024

Potential Jersey Island Mitigation Site
Wetland Habitat Assessment Photographs



Old field furrows supporting potential ephemeral wetlands. Taken 1/23/2024



Dark histic hydric peat soils from the central portion of the site. Taken 1/19/2024

Potential Jersey Island Mitigation Site
Wetland Habitat Assessment Photographs



Piled dredged soils from nearby drainage ditch adjacent to degraded wetland channel.
Taken 1/19/2024



Dense stand of tules in a freshwater emergent marsh on the eastern edge of the site.
Taken 1/18/2024

Potential Jersey Island Mitigation Site
Wetland Habitat Assessment Photographs



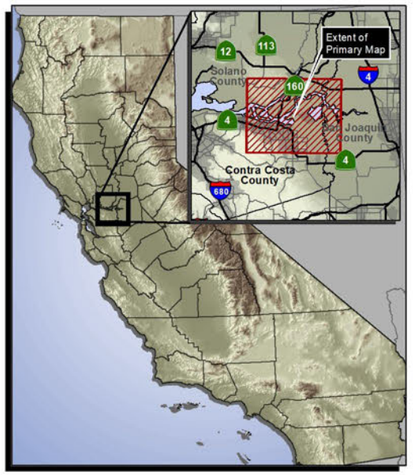
A dense stand of Himalayan blackberry along a drainage ditch. Taken 1/19/2024

Figure 1
Vicinity Map

Jersey Island
Contra Costa County, California

Legend

- Conceptual Bank Area (~170 ac.)
- Jersey Island (~ 3,500 ac.)



N
W E
S

1:100,000

1 inch = 8,333 feet at tabloid layout

0 1 2 3 4 Km
0 0.5 1 2 Miles

Data Sources: VNLC, 2024 | USGS, Various Years Data
GIS/Cartography by: Henry Hwang, Feb. 2024
Map File: DRG_Vic_422_B-L_2024_0207.mxd

Vollmar NATURAL LANDS CONSULTING

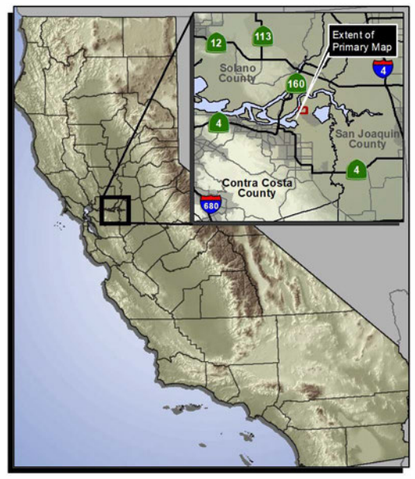
Figure 2
Soil and Elevation Map

Jersey Island
Contra Costa County, California



Legend

- Soil Unit Boundary
- Conceptual Bank Area (~170
- Jersey Island (~ 3,500 ac.)



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W E
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1:6,900

1 inch = 575 feet at tabloid layout

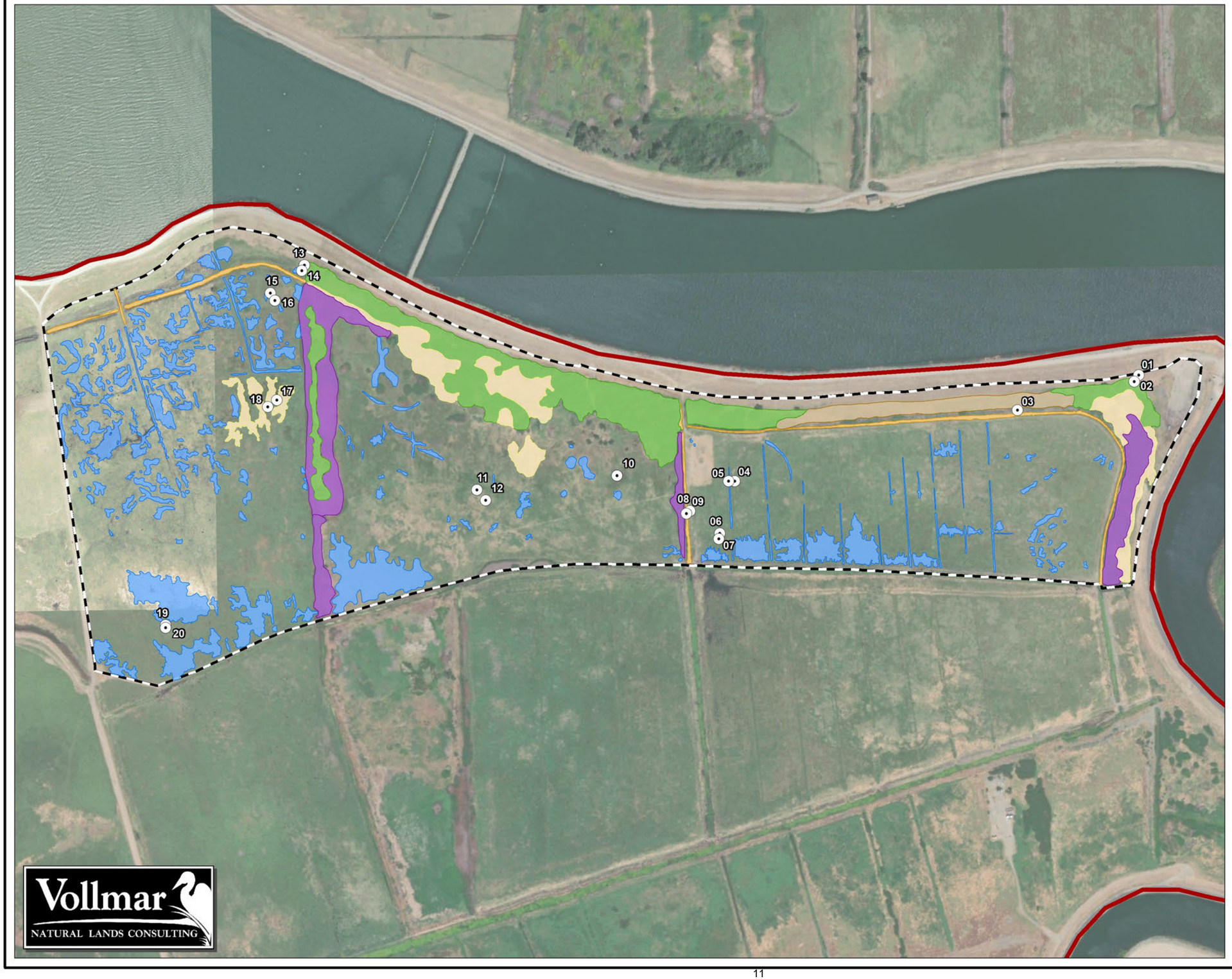
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0 250 500 1,000 Feet

Data Sources: VNLC, 2024 | USGS, Various Years I USDA 2012 Service Layer
GIS/Cartography by: Henry Hwang, Jan. 2024
Map File: 468B_Soils_B-L_2024-0205.mxd

Vollmar NATURAL LANDS CONSULTING

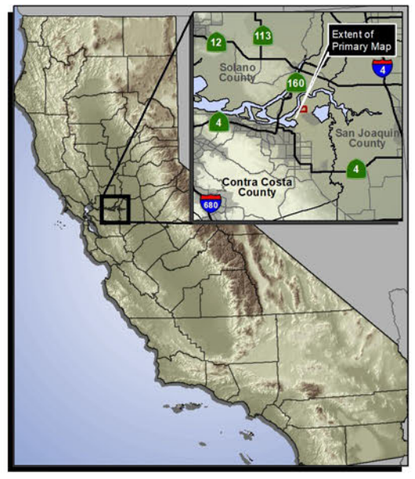
Figure 3
Wetland Habitat Assessment Map

Jersey Island
Contra Costa County, California



Legend

- Delineation Point
- Conceptual Bank Area (~170 ac.)
- Jersey Island (~ 3,500 ac.)
- Seasonal/Ephemeral Wetland
- Woody Riparian Wetland
- Emergent Marsh
- Degraded Emergent Wetland
- Drainage Ditch
- Himalayan Blackberry



N
W E
S

1:6,000

1 inch = 500 feet at tabloid layout

0 75 150 225 300 Meters
0 250 500 1,000 Feet

Data Sources: VNLC, 2024 | USGS, Various Years
Service Layer Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
GIS/Cartography by: Henry Hwang, Jan. 2024
Map File: 468B_Wetlands_Assessment_B-L_2024-0213_.mxd

Appendix B.4 Cultural Resources Evaluation Technical Report

Cultural and Architectural History Resources Inventory and Evaluation Report for the Jersey Island Mitigation Bank Project

Contra Costa County, California

Prepared For:

Mitigation Investment Holdings, LLC
248 Southwoods Centre
Columbia, Illinois 62236

Prepared By:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS
2525 Warren Drive
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July 2024

MANAGEMENT SUMMARY

ECORP Consulting, Inc. was retained in 2023 to conduct a cultural resources inventory for the Jersey Island Mitigation Bank Project in Contra Costa County, California. Mitigation Investment Holdings proposes the construction of a mitigation bank to provide foraging, basking, and sheltering habitat for Giant Garter Snake. The mitigation bank will contain open-water, perennial, or semi-permanent marsh; edge habitat; constructed upland berms; and restored riparian scrub. This study was conducted in accordance with the California Environmental Quality Act (CEQA), in addition to Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations in 36 CFR 800, for the evaluation of historic-age buildings and structures.

The records search results indicated that three previous cultural resources studies have been conducted within the Project Area. As a result of those studies, a segment of P-7-4988 (a segment of the Jersey Island levee) was previously recorded just outside of the Project Area, along the northern and eastern boundaries. A Cultural Resources Inventory Report that was prepared by AECOM in 2014 and an updated California Department of Parks and Recreation form that was prepared by archaeologist Robin Hoffman in 2019 both recommended that resource P-7-4988 was not eligible for the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) (Appendix D).

Due to a change in the Project Area boundaries after the initial field survey was complete, ECORP completed an additional survey of the unsurveyed portion of the Project Area. During ECORP's 2024 field surveys, one historic-age resource was identified inside the Project Area: JL-01 (a network of earthen ditches). ECORP recorded JL-01, completed an architectural history evaluation of the resource using CRHR and NRHP eligibility criteria, and recommends it not eligible.

Therefore, no known Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA will be affected by the Proposed Project. Recommendations for a Contractor Environmental Awareness Training for construction crew and procedures for unanticipated discoveries are also provided.

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Appendix B – Sacred Lands File Coordination
Appendix C – Project Area Photographs

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
BLM	Bureau of Land Management
BP	Before present
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CCTS	Central California Taxonomic System
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DPR	Department of Parks and Recreation
ESA	Environmental Science Associates
GLO	General Land Office
ISD	Ironhouse Sanitary District
LAFCO	Local Agency Formation Commission
LSV	Lower Sacramento Valley
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OHP	Office of Historic Preservation
PRC	Public Resources Code
Project	Jersey Island Mitigation Bank Project
RPA	Registered Professional Archaeologist
SHPO	State Historic Preservation Officer
TCRs	Tribal cultural resources
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. was retained in 2023 to conduct a cultural resources inventory for the Jersey Island Mitigation Bank Project in Contra Costa County, California. A survey of the Proposed Project Area was required to identify potentially eligible cultural resources (i.e., archaeological sites and historic buildings, structures, and objects) that could be affected by the Project.

1.1 Project Location and Description

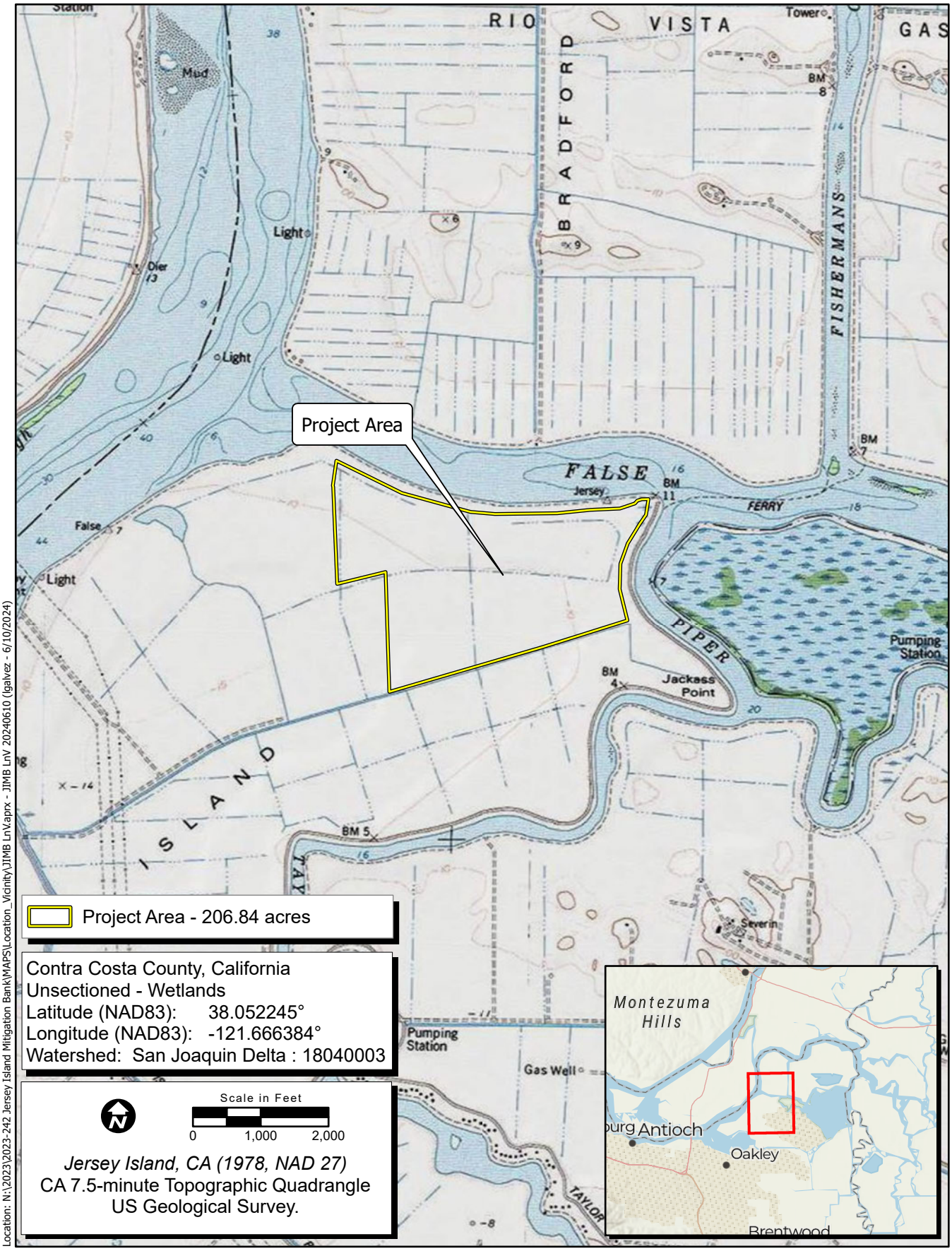
The 206.84-acre Project Area is located in an unsectioned wetland land grant, as depicted on the 1978 U.S. Geological Survey (USGS) Jersey Island, California 7.5-minute topographic quadrangle map (Figure 1) within Assessor's Parcel Numbers (APNs) 027-010-002 and 027-010-005. The Project is located on Jersey Island, south of Bradford Island, west of Bethel, Island and north of the City of Oakley (Figure 2).

The Proposed Project entails the construction of a mitigation bank to provide foraging, basking, and sheltering habitat for giant garter snakes. The mitigation bank will contain open-water, perennial, or semi-permanent marsh; edge habitat; constructed upland berms; and restored riparian scrub. The construction will include excavation to a maximum depth of 3 feet for deep, open-water habitat, which will provide primary foraging habitats for Giant Garter Snake. The construction also includes excavation to a maximum depth of 2 feet for an open-water section, which will facilitate vegetation growth for plants such as bulrushes and cattails. The excavated soil will be used to construct elevated berms and mounds next to the open water and marshes; these elevated regions would be several feet above the surrounding area and would provide overwintering habitat.

Additionally, the Proposed Project plans to integrate the existing ditch network on Jersey Island in several locations to provide water and subsequent drainage for the restored habitats. The existing ditch network provides water to agricultural fields via existing siphons along False River and Taylor Slough. Following the integration of the existing ditch network, the water will be drained to the main pumps to allow water to drain from Jersey Island into False River. A concrete flashboard riser will be installed in the bank of the existing ditches at each diversion or drainage point, which will allow for the controlled input and output of water, as needed. Each flashboard riser will be approximately 3 feet wide and 6 feet tall and will have a series of removable boards to control water levels within the restored habitats. The flashboard risers will not inhibit the existing use of the ditch network to supply and drain water to agricultural fields outside of the proposed mitigation bank. The Project does not include alterations to the levee.

1.2 Area of Potential Effects

The Area of Potential Effects (APE) consists of the horizontal and vertical limits of a project and includes the area within which significant impacts or adverse effects to Historical Resources or Historic Properties could occur as a result of the project. The APE is defined for projects subject to regulations implementing Section 106 (federal law and regulations). For projects subject to the California Environmental Quality Act (CEQA) review, the term Project Area is used rather than APE. The terms Project Area and APE are interchangeable for the purpose of this document.



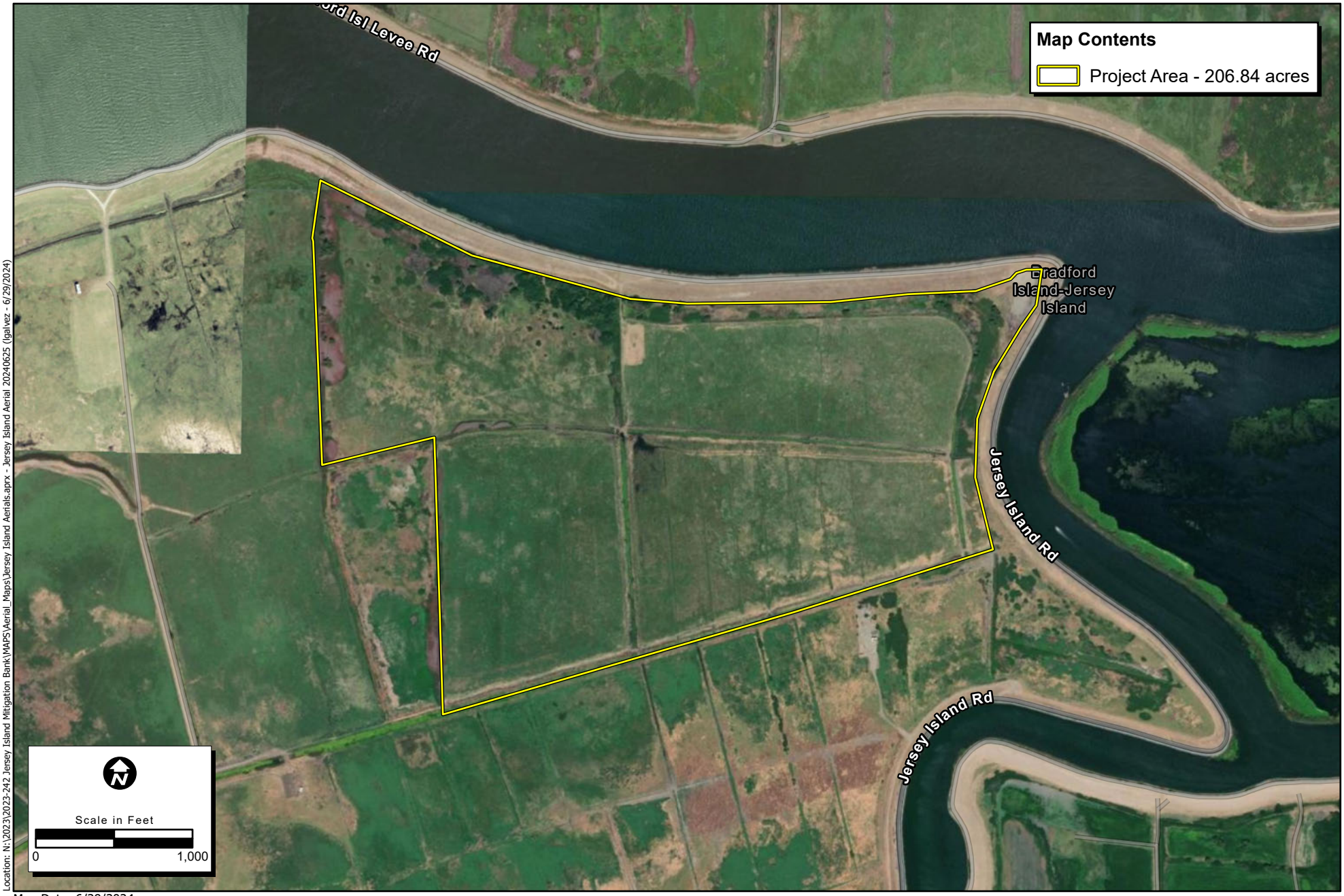
Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Location_Vicinity\JIMB LnV.aprx - JIMB LnV 20240610 (lgalvez - 6/10/2024)

Map Date: 6/10/2024
Sources: ESRI, USGS

Figure 1. Location and Vicinity

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank



Map Date: 6/29/2024

Sources: Vollmar, Esri World Imagery, Maxar

Figure 2. Location and Vicinity (Aerial)

The horizontal APE consists of all areas where activities associated with a project are proposed and, in the case of this Project, equals the Project Area subject to environmental review under the National Environmental Policy Act (NEPA) and CEQA. This includes areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, paving, and other elements in the official Project description. The horizontal APE is illustrated in Figures 1 and 2 and represents the survey coverage area.

The vertical APE is described as the maximum depth below the surface to which excavations for project foundations and facilities will extend. Therefore, the vertical APE for this Project includes all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project Area but could extend as deep as 5 feet below the current surface; therefore, a review of geologic and soils maps was necessary to determine the potential for buried archaeological sites that cannot be seen on the surface. Buried archaeological sites that are within the top three feet of the ground are often visible on the surface.

The vertical APE also is described as the maximum height of structures that could impact the physical integrity and integrity of setting of cultural resources, including districts and traditional cultural properties. For this Project, the above-surface vertical APE is as high as 6 feet above surface, which is the maximum height of the flashboard riser.

1.3 Regulatory Context

The CEQA lead agency for this Project is the Ironhouse Sanitary District. There is currently no NEPA or Section 106 lead agency for this Project; however, if the Project has the potential to impact Waters of the U.S., then the U.S. Army Corps of Engineers (USACE) would be the NEPA and Section 106 lead agency.

A review of the regulatory context is provided below; however, the inclusion of any of these laws and regulations in this report does not make a law or regulation apply when it otherwise would not. Similarly, the omission of any other laws and regulations from this section does not mean that they do not apply. Rather, the purpose of this section is to provide context in explaining why the study was carried out in the manner documented herein.

1.3.1 National Environmental Policy Act

NEPA establishes national policy for the protection and enhancement of the environment. Part of the function of the federal government in protecting the environment is to "preserve important historic, cultural, and natural aspects of our national heritage." Cultural resources need not be determined eligible for the National Register of Historic Places (NRHP) through the National Historic Preservation Act (NHPA) of 1966 (as amended) to receive consideration under NEPA. NEPA is implemented by regulations of the Council on Environmental Quality (40 Code of Federal Regulations [CFR] 1500-1508).

The definition of *effects* in the NEPA regulations includes adverse and beneficial effects on historic and cultural resources (40 CFR 1508.8). Therefore, the *Environmental Consequences* section of an Environmental Impact Statement [see 40 CFR 1502.16(f))] must analyze potential effects to historic or cultural resources that could result from the proposed action and each alternative. In considering whether

an alternative may "significantly affect the quality of the human environment," a federal agency must consider, among other things:

- Unique characteristics of the geographic area, such as proximity to historic or cultural resources (40 CFR 1508.27(b)(3)), and
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP (40 CFR 1508.27(b)(8)).

Therefore, because historic properties are a subset of *cultural resources*, they are one aspect of the *human environment* defined by NEPA regulations.

1.3.2 National Historic Preservation Act

The federal law that covers cultural resources that could be affected by federal undertakings is the NHPA of 1966, as amended. Section 106 of the NHPA requires that federal agencies take into account the effects of a federal undertaking on properties listed in or eligible for the NRHP. The agencies must afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. A federal undertaking is defined in 36 CFR 800.16(y):

> "A federal undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with Federal financial assistance; and those requiring a Federal permit, license, or approval."

The regulations that stipulate the procedures for complying with Section 106 are in 36 CFR 800. The Section 106 regulations require:

- definition of the APE;
- identification of cultural resources within the APE;
- evaluation of the identified resources in the APE using NRHP eligibility criteria;
- determination of whether the effects of the undertaking or project on eligible resources will be adverse; and
- agreement on and implementation of efforts to resolve adverse effects, if necessary.

The federal agency must seek comment from the State Historic Preservation Officer (SHPO) and, in some cases, the ACHP, for its determinations of eligibility, effects, and proposed mitigation measures. Section 106 procedures for a specific project can be modified by negotiation of a Memorandum of Agreement or Programmatic Agreement between the federal agency, the SHPO, and, in some cases, the project proponent.

Effects to a cultural resource are potentially adverse if the lead federal agency, with the SHPO's concurrence, determines the resource eligible for the NRHP, making it a Historic Property, and if

application of the Criteria of Adverse Effects (36 CFR 800.5[a][2] et seq.) results in the conclusion that the effects will be adverse. The NRHP eligibility criteria, contained in 36 CFR 60.4, are as follows:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess aspects of integrity of location, design, setting, materials, workmanship, feeling, association, and
>
> A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B. that are associated with the lives of persons significant in our past; or
>
> C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D. that have yielded, or may be likely to yield, information important in prehistory.

In addition, the resource must be at least 50 years old, barring exceptional circumstances (36 CFR 60.4). Resources that are eligible for, or listed on, the NRHP are *historic properties*.

Regulations implementing Section 106 of the NHPA (36 CFR 800.5) require that the federal agency, in consultation with the SHPO, apply the Criteria of Adverse Effect to historic properties within the APE. According to 36 CFR 800.5(a)(1):

> "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association."

1.3.3 California Environmental Quality Act

CEQA is the state law that applies to a project's impacts on cultural resources. A project is an activity that may cause a direct or indirect physical change in the environment and that is undertaken or funded by a state or local agency, or requires a permit, license, or lease from a state or local agency. CEQA requires that impacts to Historical Resources be identified and, if the impacts will be significant, then apply mitigation measures to reduce the impacts.

A Historical Resource is a resource that 1) is listed in or has been determined eligible for listing in the California Register of Historical Resources (CRHR) by the State Historical Resources Commission, or has been determined historically significant by the CEQA lead agency because it meets the eligibility criteria for the CRHR, 2) is included in a local register of historical resources, as defined in Public Resources Code (PRC) 5020.1(k), or 3), and has been identified as significant in a historical resources survey, as defined in PRC 5024.1(g) (California Code of Regulations [CCR] Title 14, Section 15064.5(a)).

The eligibility criteria for the CRHR are as follows (CCR Title 14, Section 4852(b)):

(1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

(2) It is associated with the lives of persons important to local, California, or national history;

(3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or

(4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition, the resource must retain integrity, which is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, Section 4852(c)). Resources that have been determined eligible for the NRHP are automatically eligible for the CRHR.

Impacts to a Historical Resource, as defined by CEQA (listed in an official historic inventory or survey or eligible for the CRHR), are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired (CCR Title 14, Section 15064.5(b)). Demolition or alteration of eligible buildings, structures, and features that they would no longer be eligible would result in a significant impact. Whole or partial destruction of eligible archaeological sites would result in a significant impact. In addition to impacts from construction resulting in destruction or physical alteration of an eligible resource, impacts to the integrity of setting (sometimes termed *visual impacts*) of physical features in the Project Area could also result in significant impacts.

Tribal cultural resources (TCRs) are defined in Section 21074 of the California PRC as sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either included in or determined to be eligible for inclusion in the CRHR, or are included in a local register of historical resources as defined in subdivision (k) of Section 5020.1, or are a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. Section 1(b)(4) of Assembly Bill (AB) 52 established that only California Native American tribes, as defined in Section 21073 of the California PRC, are experts in the identification of TCRs and impacts thereto. Because ECORP does not meet the definition of a California Native American tribe, it only addresses information in this report for which it is qualified to identify and evaluate, and that which is needed to inform the cultural resources section of CEQA documents. This report, therefore, does not identify or evaluate TCRs. Should California Native American tribes ascribe additional importance to or interpretation of archaeological resources described herein, or provide information about non-archeological TCRs, that information is documented separately in the AB 52 tribal consultation record between the tribe(s) and lead agency and summarized in the TCRs section of the CEQA document, if applicable.

1.3.4 U.S. Army Corps of Engineers Regulations

If the Project would affect waters of the United States the Project proponent must meet requirements of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899 and/or Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, and would therefore, seek authorization from the U.S. Army Corps of Engineers. The USACE Sacramento District provides guidance for preparation of Section 106 reports in "2020 Sacramento District Regulatory Branch Guidelines for Compliance with Section 106 of the NHPA of 1966, as amended." Apart from the requirements of the NHPA, all historic properties are subject to consideration under the USACE's NEPA processes (33 CFR Part 325, Appendix B), and the USACE's public interest review requirements contained in 33 CFR 320.4. Therefore, historic properties are included as a factor in the district engineer's decision on each Clean Water Act (CWA) 404 permit application.

1.4 Report Organization

The following report documents the study and its findings and was prepared in conformance with the California Office of Historic Preservation's (OHP) *Archaeological Resource Management Reports: Recommended Contents and Format*. Appendix A includes a confirmation of the records search with the California Historical Resources Information System (CHRIS) and historical society coordination. Appendix B contains documentation of a search of the Sacred Lands File. Appendix C presents photographs of the Project Area. Appendix D contains confidential cultural resource site locations and site records.

Sections 6253, 6254, and 6254.10 of the California Code authorize state agencies to exclude archaeological site information from public disclosure under the Public Records Act. In addition, the California Public Records Act (Government Code § 6250 et seq.) and California's open meeting laws (The Brown Act, Government Code § 54950 et seq.) protect the confidentiality of Native American cultural place information. Because the disclosure of information about the location of cultural resources is prohibited by the Archaeological Resources Protection Act of 1979 (16 U.S. Code 552 470hh) and Section 307103 of the NHPA, it is exempted from disclosure under Exemption 3 of the federal Freedom of Information Act (5 U.S. Code 552) Likewise, the Information Centers of the CHRIS maintained by the OHP prohibit public dissemination of records search information.

2.0 SETTING

2.1 Environmental Setting

The Project Area is located within a tule marsh area that is surrounded by estuaries, sloughs, and salt marsh land of the Sacramento-San Joaquin Delta. False River is located approximately 125 feet north of the Project Area, and San Joaquin River is located approximately 800 feet to the northwest. The elevations within the Project Area range between 2 and 13 feet below mean sea level. The Jersey Island levee system borders the Project Area to the north and east, and open marsh and agricultural fields border the Project Area to the west and south.

2.2 Geology and Soils

Atwater (1982) describes the Sacramento-San Joaquin Delta as the arm of the San Francisco estuary that reaches into the Central Valley of California. All the major waterways of the Delta discharge via a single constricted outlet into a chain of estuarine bays and straits. Peat and mud deposited in tidal wetlands (which directly overlie alluvium or eolian sand) and derived from streams that originated in the Sierra Nevada, Coast Ranges, and South Cascade Range entered the San Francisco Bay (Atwater 1982; Land Subsidence in California 2018).

The Geologic Map of California identifies the underlying geology of the Project Area as both marine and nonmarine (continental) sedimentary rocks that date from the Pleistocene through the Holocene (State of California 2015). The underlying geology is described as unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits. It is composed of mostly nonmarine sedimentary rocks but includes marine deposits near the coast.

According to the Natural Resources Conservation Service (NRCS) Web Soil Survey website (NRCS 2023), the Project Area contains two soil types:

- Rindge muck, 0 to 2 percent slopes, partially drained MLRA 16 (Rd)—This soil type originates from organic material derived from reeds and tule. It is a poorly drained soil with a depth to water table of about 0 inches.
- Venice muck, MLRA 16 (Vb)—This soil type originates from herbaceous organic material over alluvium derived from igneous, metamorphic, and sedimentary rocks. It is a very poorly drained soil with a depth to water table of more than 80 inches.

As discussed further in Section 3, current conservative estimates place initial human occupation of the San Francisco Bay Area approximately 10,000 years ago. Evidence of human occupation is found more frequently near water ways, and the Project Area borders the San Joaquin River to the south. Without the levee protecting the land, the Project Area and surrounding areas would frequently flood. In addition, Delhi Sands, which often are associated with pre-contact cemeteries and village sites in this area, are not mapped inside the Project Area. Therefore, the Project Area has a low potential for buried pre-contact resources despite the underlying geology dating to the time of initial occupation and the increased potential for human occupation along waterways. However, soil composition and proximity to waterways are not the only factors in determining potential for buried resources; this is discussed further in Section 6.2.

2.3 Vegetation and Wildlife

Prior to the late 1880s when the levee system within Project Area was built, the Project Area would have been a tule marsh consisting of tall, dense graminoid plant communities (Küchler 1977). The dominant plant species would have been common tule and cattail. Such areas are not suitable for habitation by pre-contact populations (such as village sites or cemeteries), but this area may have been utilized as a resource-gathering location.

Prior to the arrival of European-Americans, fauna within the Project Area would have included littoral (adjacent to a body of water) resources such as varieties of gastropods and crustaceans, in addition to estuarine fish species in the deeper waters, waterfowl, and small mammals. Marine mammals would also likely have been present in the Delta channels and on the shoreline.

3.0 CULTURAL CONTEXT

3.1 Regional Pre-Contact History

It is generally believed that human occupation of California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 8,000 BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted probably consisted mostly of large species still alive today. Bones of extinct species have been found but cannot definitively be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and floral foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978).

Around 8,000 BP, there was a shift in focus from hunting toward a greater reliance on plant resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 5,000 BP, is sometimes referred to as the Millingstone Horizon (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to 8,000 BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

Archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments in sites dating to after about 5,000 BP. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Flaked-stone tools became more refined and specialized, and bone tools were more common. New peoples from the Great Basin began entering Southern California during this period. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. During this period, known as the Late Horizon, population densities were higher than before, and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups that the first Europeans encountered during the 18th century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The presence of small projectile points indicates the introduction of the bow and arrow into the region sometime around 2,000 BP (Moratto 1984; Wallace 1978).

3.2 Local Pre-Contact History

Archaeological research in central California began in the late nineteenth century at the University of California in Berkeley. Later, guided by Kroeber, scientific investigation and excavation of San Francisco Bay area shell mounds began. N.C. Nelson described and mapped over 400 major Bay Area mounds, some of which had already been leveled or destroyed, but many were still large and obvious when the survey was complete in 1908 (Nelson 1909). Uhle had excavated the Emeryville Shellmound (ALA-309) in 1902, where he noted that deeper earlier deposits contained different artifact assemblages, different burial modes, and differing percentages of faunal remains than did shallower later deposits, thus indicating cultural change through time (Uhle 1907). Nelson later reported on excavations at CCO-295 reported on CCO-298 and CCO-300, all located along the eastern Bayshore. Kroeber (1925) summarized their data as did Schenck (1926), adding new data from additional excavations at Emeryville. Both rejected Uhle's hypothesis, concluding that the mounds showed great homogeneity internally and between sites and demonstrated very little cultural change through time, and were therefore of scant research value.

In 1939, following several years of work by Sacramento Junior College, Lillard, Heizer, and Fenenga (Lillard et al. 1939) presented a cultural sequence based on sites in the Lower Sacramento Valley (LSV) and Delta; this came to be known as the Central California Taxonomic System (CCTS) after Beardsley (1954). Formulated before the advent of radiocarbon (and later, obsidian hydration) dating, depositional stratigraphy, cultural patterns, and regular changes in artifact assemblages at LSV sites were used as the key time markers. A tripartite chronological system was proposed, with Early, Middle, and Late Horizon.

Fredrickson presented another formulation of the CCTS, with a different explanatory model, based largely on North Coast data but also applicable to East Bay shellmounds, Delta sites, and some interior Contra Costa County sites (Fredrickson 1973, 1974). He proposed a different organizational scheme, with 12,000 years of California prehistory divided into five patterns based on similar technology, economic practices, mortuary patterns, concepts of wealth, and changes in type, amount, and direction of trade; relative chronology was emphasized over assigning patterns to specific time periods: Paleo-Indian (12,000 to 8,000 BP); Lower, Middle, and Upper Archaic (8,000 BP to AD 500); and Upper and Lower Emergent (AD 500 to 1,800). These chronological sequences generally correspond to three cultural patterns: Windmiller (Lower to Middle archaic), Berkeley (middle to Upper Archaic) and Augustine (Emergent).

Windmiller tradition (as defined by Beardsley 1948) is general defined by large, heavy stemmed and leaf-shaped projectile points commonly made of a variety of materials other than obsidian, *Haliotis* and *Olivella* shell beads and ornaments, trident fish spears, baked clay balls (presumably for cooking in baskets), flat slab milling stones, small numbers of mortars, and ventrally extended burials oriented toward the west. The subsistence pattern of Windmiller groups probably emphasized hunting and fishing, with supplemental seed collecting (possibly including acorns) (Heizer 1949; Moratto 1984; Ragir 1972).

The Berkeley Pattern (Fredrickson 1974) in general characterized by tightly flexed burials with variable orientation, red ochre stains in burials, distinctive *Olivella* and *Haliotis* beads and ornaments, distinctive charmstones, cobble mortars and evidence of wooden mortar, numerous bone tools and ornaments, large, heavy foliate and lanceolate concave base projectile points made of materials other than obsidian, and objects of baked clay.

The Augustine Pattern (Fredrickson 1974) era primarily represents both local innovation and the blending of new cultural traits introduced into the Central Valley, the emergence of which appears to have been associated with the expansion of Wintun populations from the north, leading to an increase in settlements in the area after 550 BP (Bennyhoff 1994; Moratto 1984). This pattern is distinguished in the archaeological record by intensive fishing, extensive use of acorns, elaborate ceremonialism, social stratification, and cremation of the dead. Artifacts include bow and arrow technology (evidenced by small projectile points), mortars and pestles, and fish harpoons with unilaterally or bilaterally placed barbs in opposed or staggered positions (Bennyhoff 1950). Mortuary patterns include flexed burials and cremations, with elaborate material goods found in association with prestigious individuals.

3.3 Ethnographic History

The Native Americans who inhabited the Mount Diablo and Delta region at Spanish contact in the 1770s are most commonly known as Bay Miwok, with Plains Miwok to the northeast, Ohlone to the south and west, and Northern Valley Yokuts to the east.

The prehistoric Bay Miwok were hunters and gatherers; they adapted to and managed their abundant local environment so well that some places were continuously occupied for thousands of years. Compared to modern standards, population density always remained relatively low, but the Delta area was one of the most densely lived-in areas of prehistoric California for centuries. The Miwok had perfected living in and managing myriad environments, some rich enough to allow large permanent villages of "collectors" to exist, others less abundant and more encouraging of a more mobile "forager" way of life. Littoral (shoreline) and riparian environments, including the Delta marshlands, were obviously more productive and were therefore most sought out, most intensively utilized and occupied (Levy 1978).

As throughout Central California, the acorn was the dietary staple of the Bay Miwok, but a large number of floral and faunal resources were utilized, particularly grass seeds. Like other native Californians, the Miwok managed their environment to improve it for their use; for example, by burning grass and brush lands annually to improve forage for deer and rabbits, keep the land open and safer from predators and their neighbors, and improve productivity of many resources they depended upon (Levy 1978).

The basic unit of Bay Miwok society was likely the "tribelet", a small independent group of usually related intermarried families occupying a specific territory and speaking the same language or dialect. The tribelet might consist of 200 to 400 people in favorable areas, but perhaps 100 to 200 in less productive zones. Inter-tribelet relationships were socially and economically necessary, however, to supply both marriage partners and goods and services not locally available. Trade and marriage patterns were usually, but not always, dictated by proximity; traditional enemies were usually also defined by proximity (Levy 1978).

Regional festivals and religious dances would bring groups together during periods of suspended hostilities. There was usually a strict distinction between women’s work harvesting plant foods, processing and cooking them, weaving baskets, raising small children, and men’s work, which included hunting and fishing, trade, warfare, and training older sons. Textiles and basketry were very important throughout Central California, used for everything from baby beds and carriers to burial shrouds, food storage and cooking vessels and even the common woven brush hut was a kind of large basket; fine basket making skills conferred prestige on women (Levy 1978). The Spanish reported (relatively) large permanent villages

in the Diablo/Delta region in the 1770s meaning the local resource catchment was large, varied, and abundant enough to support a sedentary hunting and gathering economy (Levy 1978).

3.4 Regional History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and four presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated the majority of the California region during this period. The purpose of the missions and presidios was to establish Spanish economic, military, political, and religious control over the Alta California territory. This included the forced movement of much of the native population to the missions, followed by conversion to Catholicism and instruction in Spanish crafts and agriculture (Castillo 1978; Cleland 1941).

During the Spanish period, several Spanish exploratory expeditions led by Fages, Portolá, Crespi, Anza, Rivera, and Moraga passed through the Project vicinity to explore the Central Valley (Levy 1978). The initial Spanish exploration of the San Ramon, Amador, and Livermore valleys took place between 1769 and 1810 (Levy 1978).

The Mexican government closed the missions in the 1830s and former mission lands, as well as previously unoccupied areas, were granted to retired soldiers and other Mexican citizens for use as cattle ranches. Much of the land along the coast and in the interior valleys became part of Mexican land grants or "ranchos" (Robinson 1948). During the Mexican period there were small towns at San Francisco (then known as Yerba Buena) and Monterey. The rancho owners lived in one of the towns or in an adobe house on the rancho. The Mexican Period includes the years 1821 to 1848.

Following the secularization of the missions in 1833, the Rancho Los Médanos (also spelled Megaños and Mejanos, "The Sand Hills") was granted to Jose Noriega on July 24, 1835, which includes land in today's Antioch, Oakley, Knightsen, and Brentwood. The Rancho los Médanos, in the shadow of Mount Diablo, consisted of more than 13,000 acres of land (Cowan 1956). In 1837, Noriega sold Los Médanos to Dr. John Marsh for $500 (Emanuels 1993). Marsh practiced medicine from his abode along a stream on the Rancho Los Médanos. Marsh was one of the first to practice medicine in the San Joaquin Valley and was usually paid in cattle for his services; the further he traveled, the more cows he expected (Kyle 2002). In 1842, Marsh had 6,000 head of cattle, the largest herd in California (Jensen 2008). The beef and produce grown on the rancho were shipped to the gold mines and to San Francisco (John Marsh Historic Trust 2017). Marsh later built what became known as the Stone House on the rancho near the original adobe house for his wife Abigail (Emanuels 1993; John Marsh Historic Trust 2017). The Stone House was completed in November 1856. John's wife Abigail died in August 1855, three years after the birth of their daughter, Alice, and never lived in the mansion (Kyle 2002).

Marsh lived in the Stone House for only a few weeks after it was completed. On September 3, 1856, Marsh was murdered on the road to Martinez by three vaqueros who claimed Marsh owed them money for branding his calves (John Marsh Historic Trust 2017). This site, known as The Murder of Dr. John Marsh, is marked as California Historical Landmark #722 (OHP 1996). Both the Stone House and the Rancho were left to his two children, Charles and Alice. The Stone House, situated within the Marsh Creek State Park, is one of the first major residences in the San Joaquin Valley, and was recognized as a National Register

Property in 1977 (John Marsh Historic Trust 2017). The Marsh Creek State Park is located approximately three miles southeast of the Project Area.

John Sutter, a European immigrant, built a fort at the confluence of the Sacramento and American rivers in 1839 and petitioned the Mexican governor of Alta California for a land grant, which he received in 1841. Sutter built a flour mill and grew wheat near the fort (Bidwell 1971). Gold was discovered in the flume of Sutter's lumber mill at Coloma on the South Fork of the American River in January 1848 (Marshall 1971). That same year, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold initiated the 1849 California Gold Rush, bringing thousands of miners and settlers to California, most of whom settled in the north.

The American period began in 1848 when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States. As a result of the treaty, Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries, which were surveyed by the U.S. Surveyor General's office. Land outside the land grants became federal public land which was surveyed into sections, quarter sections, and quarter-quarter sections. The federal public land could be purchased at a low fixed price per acre or could be obtained through homesteading after 1862 (Robinson 1948).

3.5 Contra Costa County History

Contra Costa County is one of the original 27 California counties created upon statehood in 1850. The county's economy was based on grazing, agriculture, and coal mining, which began at the same time as the Gold Rush. In 1848, coal was discovered on the northern slopes of Mount Diablo, attracting immigrants from all over the world who settled in boomtowns around the mines. By 1880, the coal industry had collapsed, leaving many boomtowns abandoned. However, the population centers of Pittsburg, Antioch, and Brentwood, as well as the railroads and road networks that were built to transport coal and passengers, remained, and were utilized by subsequent industries such as sand mining and fruit and nut production (Estes et al. 2006; Kyle 2002).

Although the coal industry was largely replaced with agriculture by 1880, grazing and crop raising had always been an important part of the county's economy. In 1852, S. Hastings, the Contra Costa County Assessor, reported an "estimate of the aggregate quantity of tillable land in this county is 132,500 acres. Grazing land, 53,000 acres. The amount of Government land is probably 4,000 acres." Agriculture in the county consisted mostly of raising cattle and growing barley, along with broom corn (Eddy 1852:2).

In 1857, nearly 80 percent of the land within Contra Costa County was cultivated, primarily with wheat and barley. Cattle and chickens were the primary livestock raised and the county was one of the leading egg producers in the state (Higley 1858).

In 1910, Balfour, Guthrie & Company, agricultural experts and investors, purchased Rancho Los Meganos, a former Mexican land grant, and contributed to the economic development of the area around Brentwood. They revolutionized agriculture and fresh fruit production by installing the first irrigation system, subdivided land and offered it for sale for farms and orchards (East Contra Costa County 2019).

When Balfour, Guthrie & Company first acquired the rancho, wheat, oats, and barley covered the area. In 1910, the company created a demonstration orchard farm on a 10-acre parcel near Brentwood to show how nut orchards could thrive in the area (Munro-Fraser 1926). In 1914, the company installed an irrigation system, which included a concrete ditch that carried water from the Indian River through laterals and distributed water to the 13,000 acres of the Rancho (Munro-Fraser 1926). Once the land was irrigated, English walnuts and alfalfa were planted and soon became profitable (Munro-Fraser 1926). Beginning in 1922, Balfour, Guthrie & Company began planting orchards in Brentwood to add to the agricultural growth of the city and had established California's largest dry-yard and packing shed by the end of the 1920s. By 1926, the firm had become the East Contra Costa Irrigation District, and by 1928, the landscape had been transformed from fields of grain to orchards.

Until circa 1960, Contra Costa County had the greatest population along the shorelines of eastern San Francisco Bay and Suisun Bay. The valleys of Central Contra Costa County remained dominated by farming and ranching. Prior to the Bay Bridge opening in 1936 and the Caldecott Tunnel opening in 1937, residential commuter suburbs around the Bay Area did not exist. After World War II, residential commuter suburbs began to expand around communities that originally were established in the late nineteenth century (Cerny 2007). From these late 19th century communities came the towns and cities that make up Contra Costa County today. Dramatic growth in population for central and eastern Contra Costa County has continued to increase since the 1970s.

Brentwood began to develop after the San Pablo and Tulare Railroad reached the town in 1878. In 1878, the San Pablo & Tulare Railroad Company, predecessor to the Southern Pacific Railroad, built a track from Martinez to Banta, creating a direct line from Contra Costa County to the San Joaquin Valley and transcontinental service. The railroad traveled through Brentwood via Banta, near Tracy. From this time until the 1980s, Brentwood and surrounding towns reflected the rich agricultural history of east Contra Costa County with fruit orchards and fields of crops. Brentwood's downtown was laid out in a grid of four corners with a main street, hotel, and commercial buildings surrounded by residential neighborhoods. Beyond the downtown area are rural ranch complexes and agricultural fields (Cerny 2007). With the population of Brentwood increasing, residents created the Brentwood Improvement Association in 1947 and campaigned for incorporation. In 1948, Brentwood was officially incorporated as a city in Contra Costa County. At the time Brentwood had a population of 1,729 residents. In 1990, Brentwood had a population of 7,500 (Cerny 2007) and by 2000, the city's population had increased to 23,300 (East Contra Costa County 2019). The city is surrounded by the Contra Costa County Agricultural Core, which is active productive farmland. However, many of the large agricultural fields that were once farmed by Balfour, Guthrie & Company are now filled with residential subdivisions and retail centers.

Three Ginochio brothers immigrated to the United States from Italy in the late 1800s. The brothers settled in Contra Costa County and engaged in ranching operations including thousands of acres surrounding Mount Diablo. U.S. Census Records from 1900 list three brothers, Pete, Stephen, and Dominies, age 27, 25, and 30, respectively, living in one household in Contra Costa County (U.S. Census 1900). The brothers are listed as farmers and having immigrated to the United States from Italy. The family also settled in the mining town of Nortonville, which was located just south of Pittsburg. The family business began as the

5L's Ranch and later began the Ginochio Livestock Company. The relatives of the three brothers continued ranching and raising livestock into the twenty-first century on land within Contra Costa County.

3.5.1 Jersey Island

Two men named Hagen and Davis, both natives of Jersey Island off the Coast of England, were the first to inhabit Jersey Island and named it after their place of origin (Durham 1998). Agriculture dominated Jersey Island and the surrounding delta region. In 1901, the Jersey Island Packing Company sold Jersey Island to the California Asparagus Company for $102,000 (Martinez News-Gazette 1901). In 1910, D.W. Carmicheal and A.L. Shinn, a Sacramento attorney, purchased Jersey Island and rented out tracts to farmers (Martinez Daily Gazette 1910). Reclamation District 830 was formed in 1911 to provide levee drainage and maintenance services to Jersey Island after extensive flooding problems (Contra Costa Local Agency Formation Commission [LAFCO] 2011). During this period, the U.S. Government had been promoting the development of swampland for agricultural use. Asparagus, celery, beans, onions, and alfalfa constituted the primary crops grown on Jersey Island (Martinez Daily Gazette 1910). By 1913, W.Q. Wright came to own much of Jersey Island, and in 1924, the land was consolidated under the Jersey Island Farm Company (Martinez Daily Standard 1924). By 1944, Delta Properties retained ownership of Jersey Island, which it would hold until it sold its last 50 acres to the Ironhouse Sanitary District (ISD) in 2011 (Contra Costa LAFCO 2015). Today, ISD remains the sole owner of Jersey Island. The island currently consists of 16 miles of levees, which were built by previous occupants using available materials (Ironhouse Sanitary District 2024).

Jersey Island is one of approximately 55 islands that are within the Sacramento-San Joaquin River Delta in Contra Costa County. Jersey Island is approximately 3,520 acres and is bounded by the San Joaquin River-Stockton Deepwater Shipping Channel to the west, False River to the north, Taylor Slough to the east, and Dutch Sough to the south. The island is approximately below mean sea level.

4.0 METHODS

4.1 Personnel Qualifications

Registered Professional Archaeologist (RPA) Christa Westphal, who meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology, supervised this cultural resource investigation. Staff Archaeologist Arik Bord, RPA, Associate Archaeologist Evelyn Hildebrand, RPA, and Associate Archaeologist Erica Ramirez-Schroeder conducted the fieldwork. Ms. Hildebrand, Ms. Ramirez-Schroeder, and Mr. Bord prepared the technical report. Lisa Westwood, RPA provided technical report review and quality assurance.

Christa Westphal is a Senior Archaeologist with more than 10 years of experience in California cultural resources management. She has experience in many aspects of archaeological fieldwork, laboratory, and reporting. These include archaeological survey, excavation, monitoring, artifact analysis, artifact collections management, graphics production, Geographic Information System analysis, CHRIS records searches, Native American Heritage Commission (NAHC) requests, preparation of California Department of Parks

and Recreation (DPR) forms and author and contributor of technical reports. She holds a B.A. and M.A. in Anthropology.

Arik J. K. Bord, RPA is a Staff Archaeologist with more than 10 years of experience in Anthropology and Archaeology, particularly in the Caribbean, Florida Gulf, California, and Great Basin regions. He has experience in most aspects of archaeological laboratory and fieldwork, including curation and conservation of archaeological and cultural materials, survey, excavation, data recovery, mapping, analysis, development of field and laboratory methods, public outreach, academic scholarship, and teaching. He holds an A.A. in Social and Behavioral Sciences, B.A. and M.A. degrees in Anthropology, and is currently completing his Ph.D.

Evelyn Hildebrand, RPA, is an Associate Archaeologist with over six years of experience working in cultural resource management across California. She holds an M.A. in Applied Archaeology and a B.A. in Anthropology with a focused curriculum in archaeology. She meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology. She has participated in various aspects of archaeological fieldwork including survey, test excavation, data recovery, artifact analysis, construction monitoring, both as an archaeological monitor and field lead, and the recording and recovery of pre-contact and historic-period archaeological sites. She has contributed to and authored multiple cultural resources reports.

Erica Ramirez-Schroeder is an Associate Archaeologist with 5 years of experience in California cultural resources management. She has experience in many aspects of archaeological fieldwork, laboratory, and reporting. These include archaeological survey, monitoring, artifact collection management, artifact analysis, CHRIS record searches, preparation of DPR forms, and ground penetrating radar. She holds a B.A. in History and an M.A. in Cultural Resources Management.

Lisa Westwood, RPA has 29 years of experience and meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historical archaeology. She holds a B.A. in Anthropology and an M.A. in Anthropology (Archaeology). She is the Director of Cultural Resources for ECORP.

4.2 Records Search Methods

ECORP requested a records search for the Project Area at the Northwest Information Center (NWIC) of the CHRIS at Sonoma State University on December 20, 2023 (NWIC File No. 23-0880; Appendix A). The purpose of the records search was to determine the extent of previous surveys within a 0.5-mile (800-meter) radius of the Proposed Project Area, and whether previously documented pre-contact or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area. NWIC staff completed and returned the records search to ECORP on January 12, 2024.

In addition to the official records and maps for archaeological sites and surveys in Contra Costa County, the following historic references were also reviewed: Built Environment Resource Directory (OHP 2023); Historic Property Data File for Contra Costa County (OHP 2012); the National Register Information System (National Park Service [NPS] 2023); Office of Historic Preservation, California Historical Landmarks (CHL; OHP 2023); CHL (OHP 1996 and updates); California Points of Historical Interest (OHP 1992 and updates); Directory of Properties in the Historical Resources Inventory (1999); Caltrans Local Bridge Survey

(California Department of Transportation [Caltrans] 2019); Caltrans State Bridge Survey (Caltrans 2018); and *Historic Spots in California* (Kyle 2002).

Other references examined include a RealQuest Property Search. Maps reviewed include the following:

- 1862 Bureau of Land Management (BLM) General Land Office (GLO) Plat Map for Township 2 North, Range 3 East;
- 1910 USGS Jersey Island, California topographic quadrangle map (1:31,680 scale); and
- USGS Jersey Island, California topographic quadrangle map (1:24,000 scale) from1952 (including the 1968 photorevised version) and 1975.

ECORP reviewed aerial photographs taken in 1939, 1957, 1958, 1959, 1964, 1966, 1967, 1968, 1978, 1984, 1987, 1993, 2002 through 2006, and 2008 through 2023 for any indications of property usage and built environment.

ECORP also searched the Contra Costa County Historic Resources Inventory.

4.3 Sacred Lands File Coordination Methods

In addition to the records search, ECORP contacted the California NAHC on December 20, 2023 to request a search of the Sacred Lands File for the Project Area (Appendix B). This search determines whether the California Native American tribes within the Project Area have recorded Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. In requesting a search of the Sacred Lands File, ECORP solicited information from the Native American community regarding TCRs, but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal laws. The lead agencies do not delegate government-to-government authority to any private entity to conduct tribal consultation.

4.4 Other Interested Party Consultation Methods

ECORP emailed letters to the Contra Costa County Historical Society and East Contra Costa County Historical Society on December 20, 2023 to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area (Appendix A).

4.5 Field Methods

ECORP subjected the Project Area to an intensive pedestrian survey on January 23, 2024, under the guidance of the *Secretary of the Interior's Standards for the Identification of Historic Properties* (NPS 1983) using 15-meter transects (Figure 3). Additionally, due to a change in the Project Boundaries after the initial field survey was completed, ECORP performed an additional intensive pedestrian survey of the unexamined portions of the Project Area on June 20, 2024.At the time, ECORP examined the ground surface for indications of surface or subsurface cultural resources and inspected the general morphological characteristics of the ground surface for indications of subsurface deposits that may be

manifested on the surface, such as circular depressions or ditches. Whenever possible, ECORP examined the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances for artifacts or for indications of buried deposits. ECORP archaeologists did not conduct subsurface investigations or artifact collections during the pedestrian survey.

Standard professional practice requires that all cultural resources encountered during the survey be recorded using DPR 523-series forms approved by the OHP. The resources are usually photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence using appropriate DPR forms.

5.0 RESULTS

5.1 Records Search

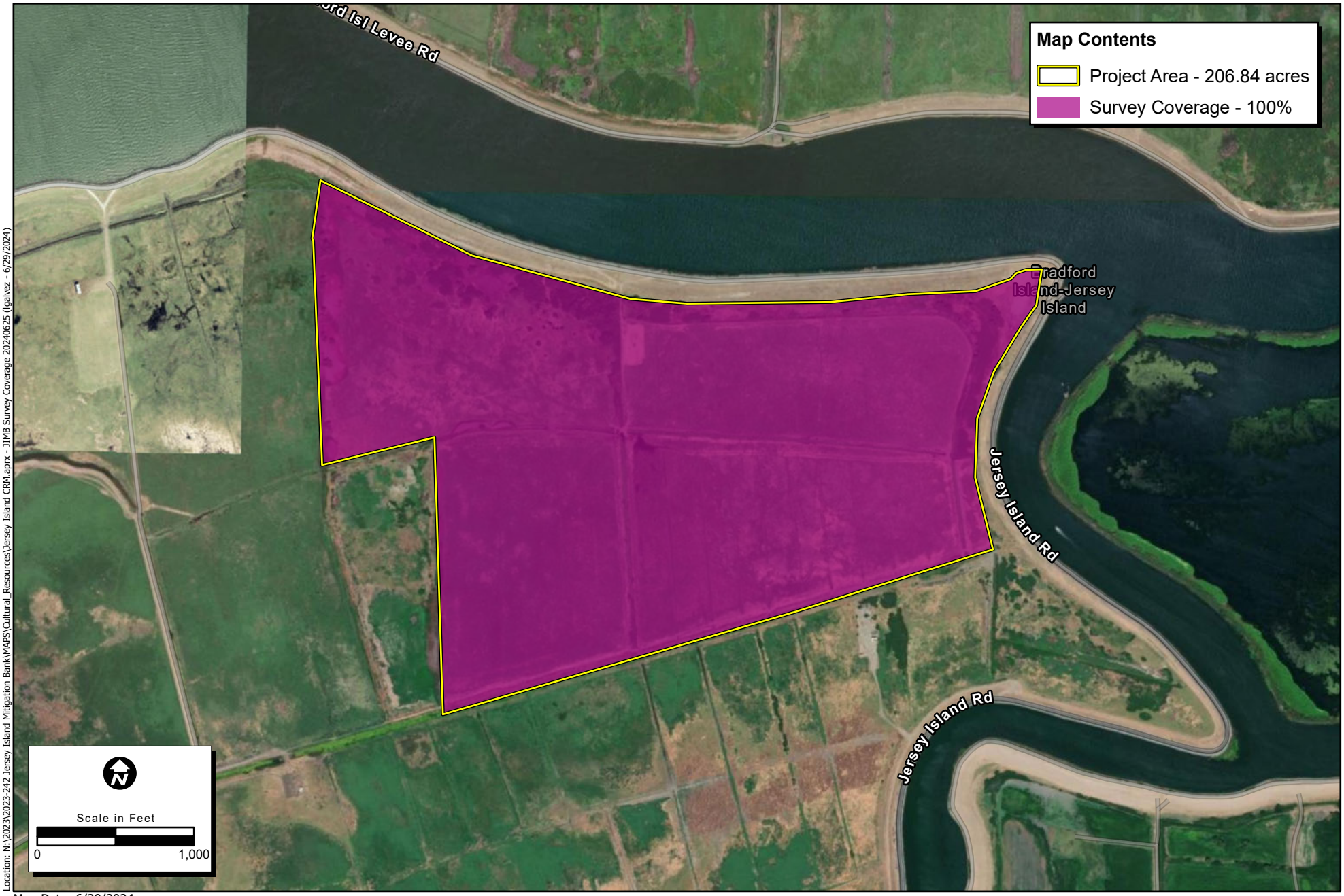
The records search consisted of a review of previous research and literature, records on file with the NWIC for previously recorded resources, and aerial photographs and maps of the vicinity.

5.1.1 Previous Research

Fifteen previous cultural resource investigations have been conducted within 0.5 mile of the Project Area, covering approximately 95 percent of the total area surrounding the Project Area within the records search radius. Of the 15 studies, three were conducted within the Project Area (Table 1). Appendix A lists all the reports located within 0.5 mile of the Project Area. These studies revealed the presence of sites associated with water-management and flood-control activities. The previous studies were conducted between 1995 and 2014.

Table 1. Previous Cultural Studies within the Project Area

Report Number	Author	Report Title	Year
S-39931	Miley Paul Holman	A Report of Findings of a Cultural Resource Survey of the Iron House Sanitary District (ISD) Project, Oakley and Jersey Island, Contra Costa County, California	2005
S-45244	Nikki Polson	A Cultural Resource Inventory for the Delta Feasibility Study, Contra Costa County, California	2014
S-53472	U.S Army Corps of Engineers	Western Delta Islands Reconnaissance Investigation, Contra Costa and Sacramento Counties, Cultural Resources Investigation	1995



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Cultural_Resources\Jersey Island CRM.aprx - JIMB Survey Coverage 20240625 (lgalvez - 6/29/2024)

Map Date: 6/29/2024

Sources: Vollmar, Esri World Imagery, Maxar

Figure 3. Survey Coverage

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2023-242 Jersey Island Mitigation Bank

The results of the records search indicate that the entire Project Area has been previously surveyed for cultural resources; however, these studies were conducted in smaller segments, at different times, by different consultants, and more than 10 years ago under obsolete standards. Therefore, ECORP conducted a pedestrian survey of the Project Area under current protocols.

The records search also determined that four previously recorded historic-era cultural resources are located within 0.5 mile of the Project Area (Table 2). All four resources are historic-era sites associated with early 20th-century water management and flood control. One resource (P-7-4988) bounds the Project Area to the north and east: P-7-4988, the Jersey Island Levee. A description of the levee is discussed in Section 5.4.1.1. No previously recorded resources are within the Project Area.

Table 2. Previously Recorded Cultural Resources within 0.5 Mile of the Project Area

Trinomial CA-CCO-	Primary Number P-7-	Recorder and Year	Age/Period	Site Description	Adjacent to the Project Area?
–	3098	William Kostura 2001	Historic	Bethel Island Levee	No
–	4526	Nikki Polson 2013	Historic	Franks Tract Levee	No
–	4988	Richard 2014; Robin Hoffman 2019	Historic	Jersey Island Levee	Yes; the resource bounds the Project Area to the north and east
–	4989	Richard 2014; Robin Hoffman 2019	Historic	Bradford Island Levee	No

5.1.2 Records

The OHP's Built Environment Resource Directory for Contra Costa County (dated August 9, 2022) did not include any resources within 0.5 mile of the Project Area (OHP 2022). The list included two properties on Bethel Island, which is located approximately 2.5 miles south of the Project Area.

The National Register Information System (NPS 2023) failed to reveal any eligible or listed properties within the Project Area. The nearest National Register property is the SP Hard, Roswell, Bulter House (Property ID No. 93001020), which is located at 815 West First Street in the City of Antioch, approximately 8 miles southwest of the Project Area.

ECORP reviewed resources listed as CHLs (OHP 1996) by the OHP (2023) on December 19, 2023. The nearest listed landmark is No. 932 Mount Diablo Coal Field, which is located approximately 11.75 miles southwest of the Project Area.

Historic Spots in California (Kyle 2002) mentions that Contra Costa County was one of the original 27 counties in California. The name *Contra Costa* was derived from the Spanish word for *opposite coast*, which is attributed to Spanish colonizers viewing the area from the shores of San Francisco.

A RealQuest online property search for APNs 027-010-002 and 027-010-002-7 revealed that the parcels consist of 210.62 and 480.18 acres, respectively, and are both zoned for heavy agriculture (A-3) and public use (NEC). No other property history information was available at RealQuest.

The Caltrans Bridge Local and State Inventories (Caltrans 2018, 2019) did not list any historic bridges within 0.5-mile of the Project Area.

A review of the Contra Costa County Historic Registry does not list any resources on Jersey Island.

According to Kroeber (1932) the nearest Native American village is located on Bethel Island, which is approximately 2 miles south of the Project Area.

5.1.3 Map Review and Aerial Photographs

The review of aerial photographs and maps of the Project Area provides information on the past land uses of the Project Area and potential for buried archaeological sites. This information shows that the Project Area was swamp land until it was converted for agricultural purposes. Following is a summary of the review of maps and photographs:

- The 1862 BLM GLO Plat map for Township 2 North, Range 3 East depicts the Project Area within swamp and overflowed land.
- The 1910 USGS Jersey Island, California topographic quadrangle map (1:31,680 scale) depicts a levee outside of and abutting the Project Area's northern and eastern boundaries. The map depicts an east–west-oriented unimproved road following the levee's alignment along the Project Area's northern boundary, in addition to four buildings along the road. Three of the four buildings are located to the north and outside of the Project Area, and the easternmost building appears to be located within the northeastern portion of the Project Area. The northern terminus of a north–south-oriented road terminates at the east–west-oriented unimproved road. The map depicts Franks Traits to the east of the Project Area, Bethel Tract to the southeast, Bradford Island to the north, Piper Slough to the east, and False River and San Joaquin River to the north and west, respectively.
- An aerial photograph from 1939 shows the Project Area situated within a processed agricultural field, in addition to a network of irrigation ditches throughout the Project Area. The boat ramp at the present-day Bradford Island Ferry landing outside of the northeastern boundary of the Project Area is shown.
- The 1952 USGS Jersey Island, California topographic quadrangle map (1:24,000 scale) no longer depicts the two unimproved roads nor the four buildings along the east–west-oriented unimproved road. A road is depicted atop the levee encompassing the perimeter of Jersey Island, including along the northern boundary of the Project Area; the portion of the road bounding the Project Area to the east is depicted as an improved road, while the remainder of the road within the vicinity of the Project Area is depicted as being unimproved. Within the Project Area, the map depicts a network of irrigation ditches flowing in both north–south and east–west directions.

- Aerial photographs from 1957, 1958, and 1959 show the Project Area as situated within agricultural land. The photographs also show the ditches throughout the island and within the Project Area.
- The 1968 photorevised version of the 1952 USGS Jersey Island, California (1:24,000 scale) and the 1978 USGS Jersey Island, California (1:24,000 scale) topographic quadrangle maps do not depict any changes or developments within the Project Area. The portion of the levee road bounding the Project Area to the east is now depicted as a secondary highway.
- Aerial photographs from 1964, 1966, 1968, 1978, 1984, 1987, 1993, and from 2002 through 2006 show the Project Area as agricultural land. The photographs show a road on the top of the levee, which corresponds with present-day Jersey Island Road. Portions of the road border, but are outside of, the Project Area's northern boundary. The equipment lot in the northeastern portion of the Project Area which will be used as a staging area during the Project first appears on the 1993 photographs.
- All other aerial photographs from 2008 through 2023 show the Project Area in its present-day state, with the exception of seasonal and annual vegetation, inundation, and ground cover differences. Beginning in 2009, an east–west-oriented unimproved road on the levee crown is shown; the road borders the Project Area's northern boundary and joins a farm track extending southward to a cleared area near the center of the Project Area.

In sum, the majority of the Project Area was inundated until the construction of the Jersey Island Levee System sometime prior to 1910,. A network of irrigation ditches constructed sometime prior to 1939 are still visible throughout the Project Area. The Project Area remains largely vacant and primarily used for agricultural purposes.

5.2 Sacred Lands File Results

A search of the Sacred Lands File by the NAHC revealed the presence of Native American cultural resources in the Project Area. ECORP recommends that the lead agency reach out to the individuals and tribes identified by the NAHC, in addition to conducting any other required consultation. A record of all correspondence is provided in Appendix B.

5.3 Other Interested Part Consultation Results

ECORP has not received any responses to the letters sent to the Contra Costa County Historical Society and East Contra Costa Historical Society as of the date of the preparation of this document.

5.4 Field Survey Results

ECORP surveyed the Project Area for cultural resources on January 23, 2024 and June 20, 2024. The Project Area was covered with grasses with patches of exposed soil, blackberry bushes and other vegetation. Ponds of water with depths ranging from several inches to approximately 2 feet were also observed (Figure 4). Ground surface visibility ranged from 0 to 80 percent. Ground visibility was 80 percent in the areas with short grasses, and approximately 0 to 10 percent in areas with dense vegetation and ponds of

water (Figure 5). A network of ditches bisect the Project Area in several places and forms the southern boundary of the Project Area. ECORP observed several modern irrigation pipes, valves, signs, sign posts, fences. The Jersey Island Levee bounds the Project Area to the north and east. ECORP examined the area and verified the levee was outside of the Project Area.

ECORP visited the location of the easternmost building and the east–west-oriented unimproved road that was depicted on the 1910 USGS Jersey Island, California topographic quadrangle map and did not observe any indications or remnants of the building and the road. During the survey, ECORP observed that at least two of the locations of the former buildings north of the Project Area were located adjacent to current station identification markers for the levee. These signs are part of a series of stations that provide information about the location and elevation points on a levee. ECORP infers that the easternmost building may have been a levee station that has since been removed (as evidenced by the 1954 version of the 1952 USGS Jersey Island, California topographic map) and replaced with modern signposts. ECORP observed a break in the tree line at the location of the east–west-oriented unimproved road; however, in that location, the archaeologists observed modern irrigation pipes and valves exiting the levee and continuing underground. Therefore, ECORP infers that this break may have been the result of ongoing maintenance of the levee and not part of the east–west-oriented unimproved road.

ECORP did not observe pre-contact cultural material during the survey.



Figure 4. Project Area Overview (view north; January 23, 2024).



Figure 5. Dense Vegetation Overview (view southeast, January 23, 2024).

5.4.1 Cultural Resources

As a result of previous investigations by other firms, no cultural resources were previously recorded inside the Project Area. However, P-7-4988 (segment of Jersey Island Levee) runs along the northern and eastern boundaries of the Project Area.

ECORP revisited P-7-4988 and recorded JL-01 (a network of earthen ditches). Site descriptions follow, and confidential DPR site records are provided in Appendix D.

5.4.1.1 P-7-4988 (Jersey Island Levee)

The Jersey Island Levee was originally recorded in 2014 by AECOM as part of the Cultural Resources Inventory Report for the Emergency Drought Barrier Project. AECOM described the resource as a segment of an earthen levee with riprap on its water side and a narrow, gravel road on the levee crown. In 2019, Environmental Science Associates (ESA) revisited P-7-4988 and observed that the appearance matched the original site record. During the field survey, ECORP examined the portions of the Jersey Island Levee surrounding the Project Area and verified the resource boundaries as outside of the Project Area.

AECOM (2014) evaluated P-7-4988 using NRHP and CRHR eligibility criteria and determined it not eligible. ESA (2019) concurred with the recommendation of not eligible. ECORP found the portions of the levee surrounding the Project Area matched the previous recording events and did not observe anything in the field or the archival records which would alter the previous evaluation.

5.4.1.2 JL-01 (Network of Earthen Ditches)

The Project Area includes a network of earthen ditches (Figure 6). The ditches measure about six feet in width and vary in length. The ditches are generally oriented north–south and east–west. The ditches first

appear in a 1939 aerial photograph, but their exact construction date is unknown. The ditches were built by previous farmers who inhabited Jersey Island and provided irrigation and flood control.



Figure 6. Overview of JL-01 (Detail View; January 23, 2024)

Evaluation of JL-01

Resource JL-01 does not meet any of the criteria for listing in the NRHP or CRHR, either individually or as part of an existing historic district, as demonstrated below.

Built circa 1939, JL-01 delivered irrigation water and provided flood control for the farmers of Jersey Island and is reflective of the trend of 1930s-era agricultural development in Contra Costa County. These ditches, however, did not shape the overall history of Jersey Island. Resource JL-01 constitutes just a few of the many ditches that were built on Jersey Island and in Contra Costa County in the 20th century. There is nothing in the archival record to suggest that JL-01, on its own, shaped the agricultural development of the region. Its development did not represent a major innovation in water conveyance systems. It is not associated with events that have made a significant contribution to the broad patterns of Contra Costa County's history. Therefore, JL-01 is not eligible for the NRHP/CRHR under Criterion A/1.

To be eligible under NRHP/CRHR Criterion B/2, the ditches would need to be directly associated with a person considered historically significant at the local, state, or national level. Archival research failed to indicate any such direct association between individuals that are known to be historic figures at the national, state, or local level and JL-01. Local farmers built and maintained JL-01, but research failed to uncover significant individuals who farmed the land. Therefore, JL-01 is not eligible for the NRHP/CRHR under Criterion B/2.

As a network of conventional earthen ditches, they lack character-defining features and are indistinguishable from multiple similar earthen ditches in the vicinity of Jersey Island. The utilitarian design

of the ditches offers few embellishments or noteworthy construction features. Resource JL-01 does not embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant distinguishable entity whose components may lack individual distinction. Therefore, JL-01 is not eligible for the NRHP/CRHR under criterion C/3.

The information potential of JL-01 is expressed in its built form, alignment, and in the historical record. It has not yielded, nor is likely to yield, information important in history or prehistory. Therefore, JL-01 is not eligible for the NRHP/CRHR under Criterion D/4.

Integrity of JL-01

JL-01 possesses integrity of location, setting, design, workmanship, and materials, but lacks integrity of feeling and association. Resource JL-01 remains a network of earthen ditches on Jersey Island; however, the surrounding land is no longer used for farming. The earthen ditches have partially eroded after years of disuse with no upkeep or maintenance. Resource JL-01 no longer conveys the aesthetic of 20th-century earthen ditches that were used for farming.

Regardless of integrity, due to lack of historical significance, JL-01 does not meet NRHP or CRHR eligibility criteria as an individual resource or as part of any known or suspected historic district; the resource is not listed on any Certified Local Government historic property register.

6.0 MANAGEMENT CONSIDERATIONS

6.1 Conclusions

The records search and the 2024 field survey yielded one historic-era ditch network (JL-01) within the Project Area and one historic-era levee system (P-7-4988) bounding the Project Area to the north and east.

ECORP evaluated JI-01 using NRHP and CRHR eligibility criteria and recommends it not eligible. AECOM evaluated P-7-4988 in 2014 using NRHP and CRHR eligibility criteria and determined it not eligible. ECORP concurs with the previous evaluation and observed nothing in the field or the archival record which could potentially alter the previous evaluation.

Therefore, no known Historic Properties or Historical Resources will be affected by the Proposed Project. Furthermore, because the project will not impact the levee along the boundary, ECORP recommends a finding of Less than Significant with Mitigation Incorporated under CEQA and No Historic Properties Affected under Section 106. Until the lead agencies concur with the identification and evaluation of eligibility of cultural resources, no project activity should occur.

6.2 Likelihood for Subsurface Cultural Resources

The likelihood of buried archaeological deposits supports a moderate potential because the Project Area's soil composition contains alluvium from the San Joaquin River and False River. However, the likelihood for buried archaeological sites within the Project Area reduces to a low potential because the Project Area is

not conducive to long-term habitation due to the poor soil drainage of the area. Additionally, the lack of archaeological resources documented within 0.5 mile of the Project Area implies a lower overall potential for buried cultural resources. Therefore, a low potential for archaeological sites exists within the Project Area.

6.3 Recommendations

6.3.1 Contractor Awareness Training Program

The lead agency shall ensure that a Contractor Awareness Training Program is delivered to train equipment operators about cultural resources. The program shall be designed to inform construction personnel about: federal and state regulations pertaining to cultural resources and tribal cultural resources; the subsurface indicators of resources that shall require a work stoppage; procedures for notifying the lead agency of any occurrences; project-specific requirements and mitigation measures; and enforcement of penalties and repercussions for non-compliance with the program.

The training shall be prepared by a qualified professional archaeologist and may be provided either through a brochure, video, or in-person tailgate meeting, as determined appropriate by the archaeologist. The training shall be provided to all construction supervisors, forepersons, and operators of ground-disturbing equipment. All personnel shall be required to sign a training roster. The construction manager is responsible for ensuring that all required personnel receive the training. The Construction Manager shall provide a copy of the signed training roster to the lead agency as proof of compliance.

6.3.2 Post-Review Discoveries

There always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources. Both CEQA and Section 106 of the NHPA require the lead agency to address any unanticipated cultural resource discoveries during Project construction. Therefore, ECORP recommends the lead agency adopt and implement the following mitigation measures to reduce potential adverse impacts to less than significant:

- If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:

- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
- If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, the archaeologist shall immediately notify the lead agencies. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures, if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines or a historic property under Section 106 NHPA, if applicable.

Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or a Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

- If the find includes human remains, or remains that are potentially human, they shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Contra Costa County Coroner (per Section 7050.5 of the Health and Safety Code). The provisions of Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California PRC, and AB 2641 will be implemented. If the coroner determines the remains are Native American and not the result of a crime scene, the coroner will notify the NAHC, which then will designate a Native American Most Likely Descendant (MLD) for the Project (Section 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC can mediate (Section 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (Section 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

The lead agency is responsible for ensuring compliance with these mitigation measures. Section 15097 of Title 14, Chapter 3, Article 7 of CEQA, *Mitigation Monitoring or Reporting*, "The public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program."

7.0 REFERENCES CITED

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LIST OF APPENDICES

Appendix A – Records Search Confirmation and Historical Society Coordination

Appendix B – Sacred Lands File Coordination

Appendix C – Project Area Photographs

Appendix D – ***Confidential*** Cultural Resource Site Locations and Site Records

APPENDIX A

Records Search Confirmation and Historical Society Coordination

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1400 Valley House Drive, Suite 210
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
https://nwic.sonoma.edu

1/12/2024 NWIC File No.: 23-0880

Christa Westphal
ECORP Consulting, Inc.
2525 Warren Drive
Rocklin, CA 95677

Re: Jersey Island Mitigation Bank Project (2023-242)

The Northwest Information Center received your record search request for the project area referenced above, located on the Jersey Island USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a ½ mile radius:

Resources within project area:	P-07-004988
Resources within ½ mile radius:	P-07-003098; P-07-004526; P-07-004989
Reports within project area:	S-039931; S-045244; S-053472
Reports within ½ mile radius:	S-004991; S-008845; S-011826; S-012275; S-012300; S-017298; S-023674; S-043684; S-043834; S-047656; S-049400; S-051681

**A portion of this search area extends beyond the purview of the NWIC*

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed	☒ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed

Local Inventories:	☐ enclosed	☐ not requested	☒ nothing listed
GLO and/or Rancho Plat Maps:	☐ enclosed	☒ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed
Soil Survey Maps:	☐ enclosed	☒ not requested	☐ nothing listed

*Notes:

** Current versions of these resources are available on-line:

Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.html

Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA

Shipwreck Inventory: http://www.slc.ca.gov/Info/Shipwrecks.html

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Justin Murazzo
Researcher

Report List

23-0880 :: Jersey Island Mitigation Bank Project (2023-242)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-004991	Voided - ASC #703	1980		Western Leg - Alaska Highway Pipeline Project: Cultural Resources, Volume II, Pacific Gas Transmission Company, Pacific Gas and Electric Company, Evaluation of Previously Recorded Archaeological Sites	Wirth Associates, Inc.	57-000130, 57-000131
S-004991a		1982	J. Christina Smith	Alaska Gasline PEA	Wirth & Associates	
S-008845		1986	Georgie Waugh	Cultural Resource Survey, Brannan Island and Franks Tract State Recreation Areas	University of California, Department of Environmental Design	
S-011826		1980	Dorothea J. Theodoratus, Mary Pyle Peters, Clinton M. Blount, Pamela J. McGuire, Richard D. Ambro, Michael Crist, Billy J. Peck, and Myrna Saxe	Montezuma I and II Cultural Resources	Theodoratus Cultural Research; Archaeological and Environmental Services	48-000041, 48-000042, 48-000123, 48-000124, 48-000125, 48-000126, 48-000127, 48-000128, 48-000129, 48-000130, 48-000131, 48-000132, 48-000133, 48-000134, 48-000135, 48-000136, 48-000137, 48-000138, 48-000139, 48-000140, 48-000141, 48-000142, 48-000199
S-012275		1990	Melinda Romano	Archaeological Survey and Cultural Resources Inventory, Brentwood Alternative, California, PGT-PG&E Pipeline Expansion Project	INFOTEC Research, Inc.	07-000071, 07-000080, 07-000383, 07-000721
S-012300		1990	Michael J. Moratto, Thomas L. Jackson, Richard Pettigrew, Randall F. Schalk, David Chavez, Eric C. Gibson, Claudia B. Hemphill, Christian J. Miss, Barry A. Price, Melinda Romano, C. Kristina Roper, Brian P. Wickstrom, Michael S. Burney, Clayton G. Lebow, Jon Silvermoon, and Michael K. Crist	Final Cultural Resources Assessment Report, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Phase 1: Survey, Inventory, and Preliminary Evaluation of Cultural Resources	INFOTEC Research, Inc.; Biosystems Analysis, Inc.	06-000228, 06-000229, 06-000230, 07-000027, 07-000321, 07-000377, 07-000378, 43-000179, 43-000468, 43-001011, 48-000401, 48-000402, 48-000403, 48-000404, 48-000405, 57-000130, 57-000131, 57-000184, 57-000185, 57-000186, 57-000187, 57-000190
S-012300a		1990	Michael J. Moratto and Thomas L. Jackson	Cultural Resources Assessment Report, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California, Phase 1: Cultural Resources Inventory Atlas	INFOTEC Research, Inc; BioSystems Analysis, Inc	

Report List

23-0880 :: Jersey Island Mitigation Bank Project (2023-242)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-017298	Voided - S-16212; Voided - S-16384	1991	Michael J. Moratto, Thomas L. Jackson, Richard M. Pettigrew, Barry A. Price, Susan K. Goldberg, John Holson, Randall F. Schalk, Robert Bryson, Melissa Darby, Jeff Hall, Clayton G. Lebow, Gordon Lothson, Christian Miss, Melinda Romano, Kristina Roper, Rae Schwaderer, Dwight D. Simons, Lou Ann Speulda, Gerald Weber, Brian Wickstrom, and Judith A. Willig	Archaeological Testing and Evaluation Report, 1990 Field Season, and Historic Properties Treatment Plan, for 1991 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California. Volume I: Synopsis of Testing and Evaluation and Historic Properties Treatment Plan	INFOTEC Research, Inc.; BioSystems Analysis, Inc.	06-000229, 06-000242, 48-000401, 48-000405, 57-000130, 57-000131, 57-000184, 57-000187, 57-000190
S-017298a		1991	John J. Holson, Thomas L. Jackson, Jeffrey T. Hall, Charles H. Miksicek, Dwight D. Simons, Kristina Roper Wickstrom, Rae Schwaderer, Gerald Weber, Brian P. Wickstrom, Mary Kathleen Davis, John L. Edwards, Jay King, Thomas M. Origer, Christopher M. Stevenson, John Salter, Lisa Stinson, and Jessica Van der Feen	Archaeological Testing and Evaluation Report, 1990 Field Season, and Historic Properties Treatment Plan, for 1991 Field Season, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California: Volume II.D: California Descriptive Reports and Data Compendia-Prehistoric Sites	INFOTEC Research, Inc.; BioSystems Analysis, Inc.	
S-017298b		1991	Michael Ostrogorsky, Roberta S. Greenwood, Adrian Praetzellis, and Lou Ann Speulda	Archaeological Testing and Evaluation Report, 1990-1991 Field Season and Historic Properties Treatment Plan for 1991 Field Season, PGT-PG&E Pipeline: Volume III, Synopsis of Testing and Evaluation, Historic Sites	INFOTEC Research Inc.; BioSystems Analysis Inc.	
S-017298c		1991	Adrian Praetzellis, Mary Praetzellis, Susan H. Alvarez, and Karana Hattersley-Drayton	Archaeological Testing and Evaluation Report, 1990-1991 Field Season, and Historic Properties Treatment Plan for 1991 Field Season, PGT-PG&E Pipeline: Volume IIID, Descriptive Reports and Data Compendia, Historic Sites, California	INFOTEC Research Inc.; BioSystems Analysis Inc.	

Report List

23-0880 :: Jersey Island Mitigation Bank Project (2023-242)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-023674		1994	Michael J. Moratto, Richard M. Pettigrew, Barry A. Price, Lester A. Ross, Randall F. Schalk, Rick Atwell, Andrew Bailey, Gary Bowyer, Robert U. Bryson, Tim Canaday, Dianne Gardner, William Hildebrandt, Kurt T. Katsura, Clayton G. Lebow, Pat Mikkelsen, Scott Mumma, Lynda Sekora, Nancy D. Sharp, Craig Skinner, Lou Ann Speulda, Sharon Waechter, and Judith A. Willig	Archaeological Investigations, PGT-PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California: Volume 1 Project Overview, Research Design and Archaeological Inventory	INFOTEC Research, Inc., Far Western Anthropological Research Group, Inc.	06-000183, 06-000184, 06-000228, 06-000229, 06-000242, 07-000080, 07-000383, 07-000412, 07-000413, 07-000721, 48-000402, 57-000130, 57-000192, 57-000193
S-023674a		1995	William R. Hildebrandt, Patrica J. Mikkelsen, Amy G. Gilreath, Sharon A. Waechter, John E. Berg, Paul D. Bouey, C. Kristina Roper, Randall T. Milliken, Ricky G. Atwell, Andrew J. Bailey, Kelly McGuire, Clayton G. Lebow, Kurt T. Katsura, and Jill Onken	Volume IIC, Book 1 and 2 Summary Reports: Prehistoric Sites, California	INFOTEC Research Inc. and Far Western Anthropological Research Group Inc.	
S-023674b		1995	Gary C. Bowyer, Lou Ann Speulda, Lynda J. Sekora, Lester A. Ross, Andrew J. Bailey, David Conca, Fred Crisson, David De Vries, Charles M. Hodges, Michael Ostrogorsky, Nancy Renk, and David G. Weatherby	Volume III Summary Reports: Historic Sites, Archaeological Investigations, PGT- PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California	INFOTEC Research Inc.	

Report List

23-0880 :: Jersey Island Mitigation Bank Project (2023-242)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-023674c		1995	Ricky G. Atwell, William R. Hildebrant, Clayton G. Lebow, Patricia Mikkelsen, Michael J. Moratto, Richard M. Pettigrew, Lester A. Ross, Randall F. Schalk, Lynda J. Sekora, Lou Ann Speulda, Gary C. Bowyer, Charles M. Hodges, Deborah Jones, Michael Ostrogorsky, and Nancy D. Sharp	Volume IV Synthesis of Findings: Archaeological Investigations, PGT- PG&E Pipeline Expansion Project, Idaho, Washington, Orgeon, and California	INFOTEC Research Inc. and Far western Anthropolical Research Group Inc.	
S-023674d		1995	Robert U. Bryson, Craig E. Skinner, Richard M. Pettigrew, Kenneth R. Bethard, Gary C. Bowyer, Catherine S. Fowler, Amy J. Gilreath, Douglas R. Harro, Williams R. Hildebrandt, Sally Ishikawa, Patricia Mikkelsen, Janet M. Mitchell, Michael J. Moratto, Scott Mumma, Margaret Newman, Kathryn Puseman, Matthen J. Root, Linda Scott-Cummings, Nancy D. Sharp, Nancy A. Stenholm, Gerald Upshaw, Philip R. Watson, and Eric Wohlgemuth	Volume V Technical Studies: Archaeological Investigations, PGT-P&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California	INFOTEC Research Inc. and Far Western Anthropological Research Group Inc.	
S-023674e		1995	Richard M. Pettigrew, Sandra Barnes, Janet M. Mitchell, Patricia Mikkelsen, and William Hildebrandt	Volume V Technical Studies Appendices Book 1-3: Archaeological Investigations, PGT- PG&E Pipeline Expansion Project, Idaho, Washington, Oregon, and California	INFOTEC Research Inc. and Far Western Anthropological Research Group	
S-023674f		1994	Sharon Waechter*, Jill Onken**, Amy Gilreath*, Paul D. Bouey*, Eric Wohlgemuth*, and Nancy D. Sharp**	37.0 Site CA-CCO-368	*Far Western Anthropological Research Group, Inc.; **INFOTEC Research, Inc.	

Report List

23-0880 :: Jersey Island Mitigation Bank Project (2023-242)

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
S-023674g		1992	C.Kristina Roper and Barry A. Price	36.0 Site CA-SOL-348	INFOTEC Research, Inc	
S-039931		2005	Miley Paul Holman	A Report of Findings of a Cultural Resource Survey of the Iron House Sanitary District (ISD) Project, Oakley and Jersey Island, Contra Costa County, California	Holman & Associates	
S-043684		2008	Douglas M.Davy, Humphrey Calicher, and William Shapiro	Cultural Resources Inventory for the California-Oregon Transmission Project, Right-of-Way Maintenance, Environmental Assessment	CH2M HILL; Pacific Legacy	06-000229, 06-000242, 07-000080, 07-000081, 07-004512, 07-004513, 57-000035, 57-000082, 57-000088, 57-000089, 57-000130
S-043684a		2007	Douglas M.Davy, Humphrey Calicher, and William Shapiro	Draft Report: Cultural Resources Inventory for the California-Oregon Transmission Project, Right-of-Way Maintenance, Environmental Assessment	CH2M HILL; Pacific Legacy	
S-043834	OHP PRN - COE 100728 A	2010	Nikki Polson	Cultural Resources Survey of 109.9 Acres on Bethel Island, Contra Costa County, California	U.S. Army Corps of Engineers	
S-045244		2014	Nikki Polson	A Cultural Resource Inventory for the Delta Feasibility Study, Contra Costa County, California	US Army Corps of Engineers, Sacramento District	07-004526, 07-004527
S-047656		1992	Michael J. Moratto, Judith A. Willig, Charles Hodges, Barry A. Price, Craig Skinner, Mary Feagins, Clyde Woods, Dianne Gardner, and Cassandra Hamphill	Final Cultural Resources Monitoring Plan for "A" Construction Spreads, PGT-PG&E Pipeline Expansion Project	INFOTEC Research Inc.	
S-049400	Agency Nbr - PM 31312715; Agency Nbr - PM 31312716	2017	Esme Hammerle	Cultural Resources Constraints Report: Table Mtn-Tesla 109/429 & Vaca-Tesla 31/132, Emergency Tower Work, Sacramento and Contra Costa Counties, PM Number: 31312716 / 31312715	Garcia and Associates	
S-051681	Other - Purchase Order Number DACWO-75-P-1866	1975	G. James West and Peter D. Schulz	An Archaeological Survey of the Stockton Ship Channel Dredged Material Disposal Sites, False River Cut-off, Levee Setback Sites and U.S. Navy Lands at Port Chicago		07-000711
S-053472		1995		Western Delta Islands Reconnaissance Investigation, Contra Costa and Sacramento Counties, Cultural Resources Investigation	U.S. Army Corps of Engineers	07-000025, 07-000349, 07-000350

From:	Erica Ramirez
To:	info@cocohistory.org
Cc:	Christa Westphal
Subject:	Cultural Resources Identification Effort: Contra Costa County Historical Society
Date:	Wednesday, December 20, 2023 2:23:00 PM
Attachments:	Contra Costa HSL.pdf image001.gif

Dear Contra Costa County Historical Society,

Attached is a letter and a map regarding the cultural resources study for the Jersey Island Mitigation Bank Project in Contra Costa County, California.

We are seeking information parties that may have knowledge or concerns about possible cultural resources within or adjacent to the Project Area.

Feel free to reach out if you have questions and thank you for time.

Best,

Erica J. Ramirez-Schroeder (She/Her)

Associate Archaeologist

Federal Small Business

California Small Business for Public Works (SB-PW)

Rocklin Headquarters Office

2525 Warren Drive, Rocklin, California 95677

Ph: 916.782.9100

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

December 20, 2023

Contra Costa Historical Society
724 Escobar Street
Martinez, California 94553
Sent via email: info@cocohistory.org

RE: Cultural Resources Identification Effort for the Jersey Island Mitigation Bank Project, Contra Costa County, California

Dear Contra Costa Historical Society:

ECORP Consulting, Inc. has been retained to assist in the planning of the development of the project indicated above. As part of the identification effort, we are seeking information from all parties that may have knowledge of or concerns with historic properties or cultural resources in the area of potential effect.

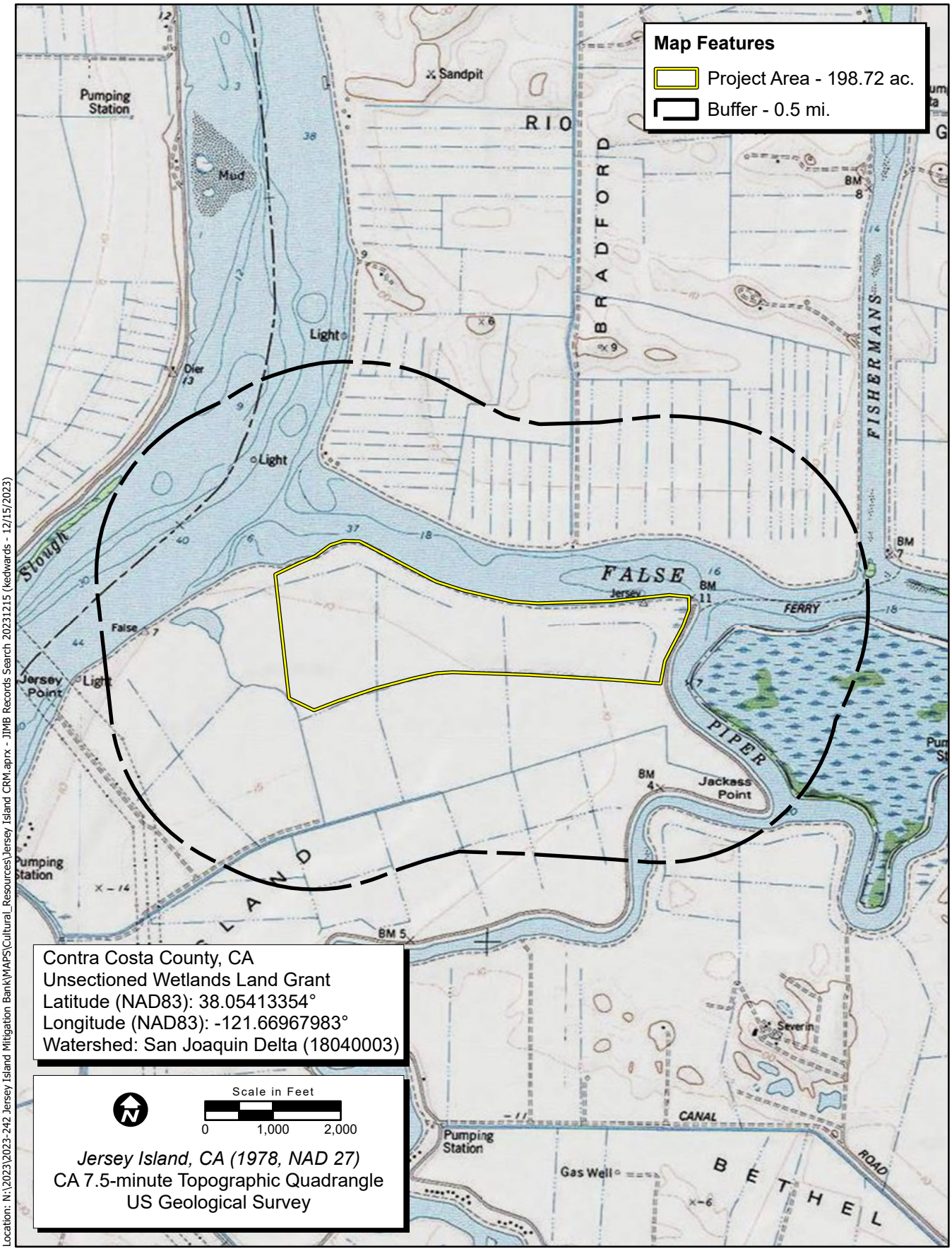
Included is a map showing the project area outlined. We would appreciate input on this undertaking from the historical society with concerns about possible cultural properties or potential impacts within or adjacent to the area of potential effect. If you have any questions, please contact me at (916) 782-9100 or eramriez@ecorpconsulting.com.

Thank you in advance for your assistance in our cultural resource management study.

Sincerely,

Erica Ramirez-Schroeder, M.A.
Associate Archaeologist

Attachment:
Project Area Map



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Cultural_Resources\Jersey Island CRM.aprx - JIMB Records Search 20231215 (kedwards - 12/15/2023)

Map Date: 12/15/2023
Sources: ESRI, USGS

Records Search

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank

From:	Erica Ramirez
To:	ecchs@eastcontracostahistory.org
Cc:	Christa Westphal
Subject:	Cultural Resources Identification Effort: East Contra Costa County Historical Society
Date:	Wednesday, December 20, 2023 2:22:00 PM
Attachments:	East Contra Costa HSL.pdf image001.gif

Dear East Contra Costa County Historical Society,

Attached is a letter and a map regarding the cultural resources study for the Jersey Island Mitigation Bank Project in Contra Costa County, California.

We are seeking information parties that may have knowledge or concerns about possible cultural resources within or adjacent to the Project Area.

Feel free to reach out if you have questions and thank you for time.

Best,

Erica J. Ramirez-Schroeder (She/Her)

Associate Archaeologist

Federal Small Business

California Small Business for Public Works (SB-PW)

Rocklin Headquarters Office

2525 Warren Drive, Rocklin, California 95677

Ph: 916.782.9100

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

December 20, 2023

East Contra Costa Historical Society
P.O. Box 202
Brentwood, California 94513
Sent via email: ecchs@eastcontracostahistory.org

RE: Cultural Resources Identification Effort for the Jersey Island Mitigation Bank Project, Contra Costa County, California

Dear East Contra Costa Historical Society:

ECORP Consulting, Inc. has been retained to assist in the planning of the development of the project indicated above. As part of the identification effort, we are seeking information from all parties that may have knowledge of or concerns with historic properties or cultural resources in the area of potential effect.

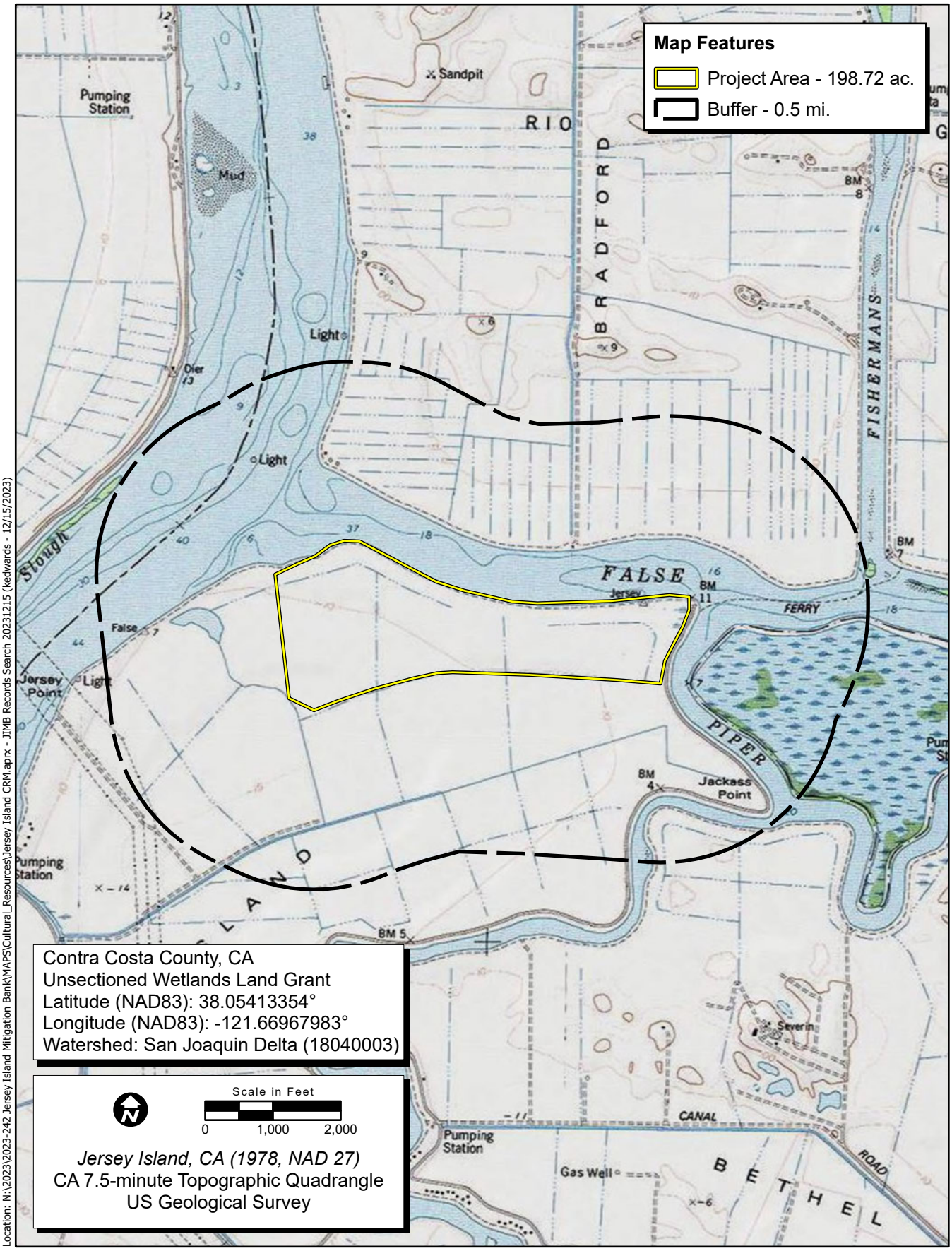
Included is a map showing the project area outlined. We would appreciate input on this undertaking from the historical society with concerns about possible cultural properties or potential impacts within or adjacent to the area of potential effect. If you have any questions, please contact me at (916) 782-9100 or eramriez@ecorpconsulting.com.

Thank you in advance for your assistance in our cultural resource management study.

Sincerely,

Erica Ramirez-Schroeder, M.A.
Associate Archaeologist

Attachment:
Project Area Map



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Cultural_Resources\Jersey Island CRM.aprx - JIMB Records Search 20231215 (kedwards - 12/15/2023)

Map Date: 12/15/2023
Sources: ESRI, USGS

Records Search

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank

APPENDIX B

Sacred Lands File Coordination

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Jersey Island Mitigation Bank Project (2023-242)

County: Contra Costa

USGS Quadrangle Name: Jersey Island, California 1978

Unsectioned Wetlands Land Grant

Company/Firm/Agency: ECORP Consulting, Inc.

Contact Person: Erica Ramirez-Schroeder

Street Address: 2525 Warren Drive

City: Rocklin **Zip:** 95677

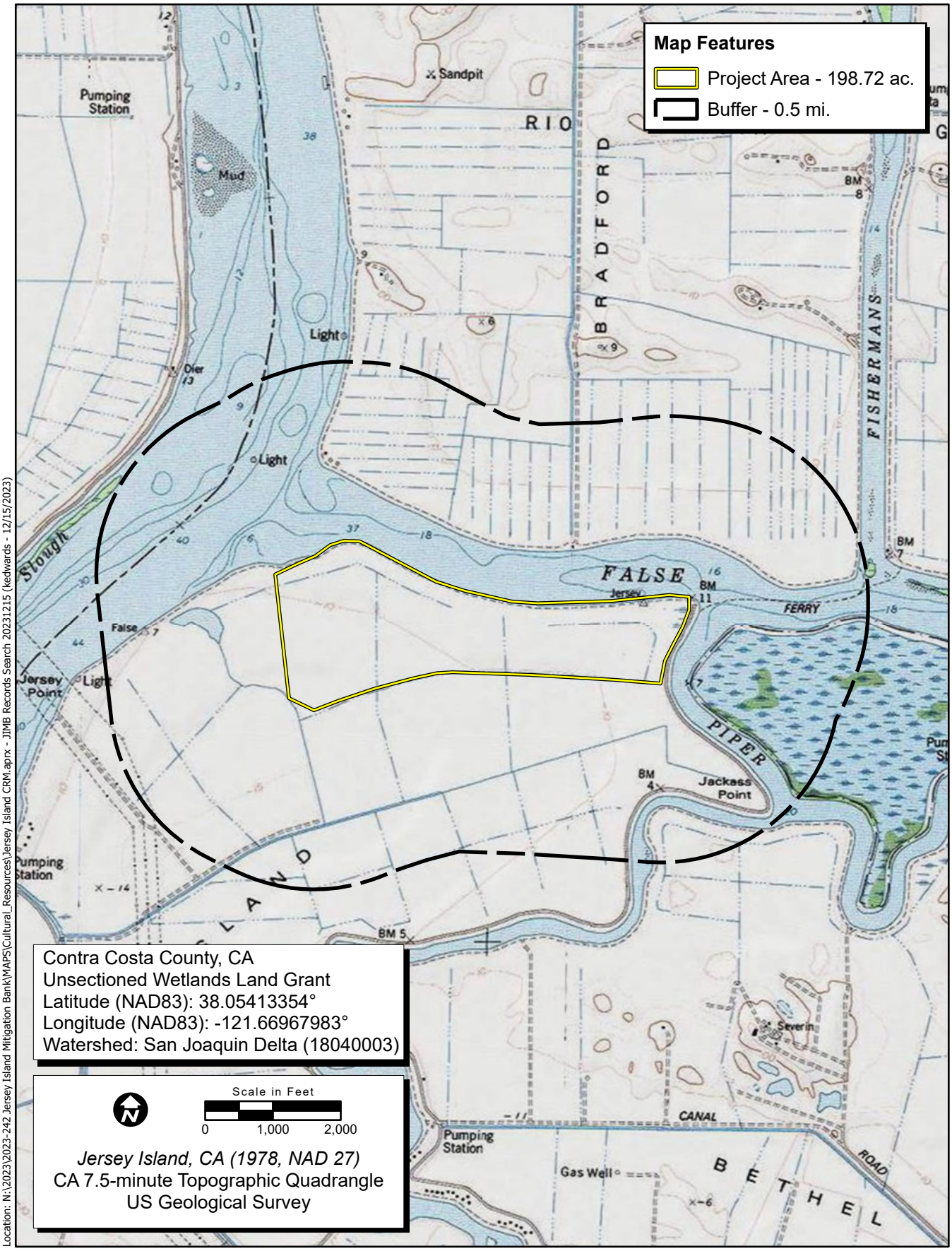
Phone: 916-782-9100

Fax: 916-782-9134

Email: eramirez@ecorpconsulting.com

Project Description:

Please see the attached map for reference.



Location: N:\2023\2023-242 Jersey Island Mitigation Bank\MAPS\Cultural_Resources\Jersey Island CRM.aprx - JIMB Records Search 20231215 (kedwards - 12/15/2023)

Map Date: 12/15/2023
Sources: ESRI, USGS

Records Search

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

2023-242 Jersey Island Mitigation Bank

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 28, 2023

Erica Ramirez-Schroeder
ECORP Consulting, Inc.

Via Email to: eramirez@ecorpconsulting.com

Re: Jersey Island Mitigation Bank (2023-242) Project, Contra Costa County

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Contra Costa County
12/28/2023

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Amah Mutsun Tribal Band	N	Ed Ketchum, Vice-Chairperson		(530) 578-3864		aerieways@aol.com	Costanoan Northern Valley Yokut	Merced,Monterey,San Benito,Santa Clara,Santa Cruz	7/20/2023
Amah Mutsun Tribal Band	N	Valentin Lopez, Chairperson	P.O. Box 5272 Galt, CA, 95632	(916) 743-5833		vjltestingcenter@aol.com	Costanoan Northern Valley Yokut	Merced,Monterey,San Benito,Santa Clara,Santa Cruz	7/20/2023
Amah MutsunTribal Band of Mission San Juan Bautista	N	Irene Zwierlein, Chairperson	3030 Soda Bay Road Lakeport, CA, 95453	(650) 851-7489	(650) 332-1526	amahmutsuntribal@gmail.com	Costanoan	Alameda,Contra Costa,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz	
Chicken Ranch Rancheria of Me-Wuk Indians	F	Lloyd Mathiesen, Chairperson	P.O. Box 1159 Jamestown, CA, 95327	(209) 984-9066	(209) 984-9269	lmathiesen@crtribal.com	Me-Wuk	Alpine,Amador,Calaveras,Contra Costa,El Dorado,Fresno,Madera,Mariposa,Merced,Mono,Sacramento,San	
Confederated Villages of Lisjan Nation	N	Cheyenne Gould, Tribal Cultural Resource Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
Confederated Villages of Lisjan Nation	N	Corrina Gould, Chairperson	10926 Edes Avenue Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
Confederated Villages of Lisjan Nation	N	Deja Gould, Language Program Manager	10926 Edes Ave Oakland, CA, 94603	(510) 575-8408		cvltribe@gmail.com	Bay Miwok Ohlone Delta Yokut	Alameda,Contra Costa,Sacramento,San Joaquin,Santa Clara,Solano,Stanislaus	3/22/2023
Guidiville Rancheria of California	F	Michael Derry, Historian	PO Box 339 Talmage, CA, 95481	(707) 391-1665		historian@guidiville.net	Pomo	Alameda,Contra Costa,Lake,Marin,Mendocino,Napa,Sacramento,San Joaquin,Solano,Sonoma	6/21/2023
Guidiville Rancheria of California	F	Bunny Tarin, Tribal Administrator	PO Box 339 Talmage, CA, 95481	(707) 462-3682		admin@guidiville.net	Pomo	Alameda,Contra Costa,Lake,Marin,Mendocino,Napa,Sacramento,San Joaquin,Solano,Sonoma	6/21/2023
Indian Canyon Mutsun Band of Costanoan	N	Ann Marie Sayers, Chairperson	P.O. Box 28 Hollister, CA, 95024	(831) 637-4238		ams@indiancanyon.org	Costanoan	Alameda,Contra Costa,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz	
Indian Canyon Mutsun Band of Costanoan	N	Kanyon Sayers-Roods, MLD Contact	1615 Pearson Court San Jose, CA, 95122	(408) 673-0626		kanyon@kanyonkonsulting.com	Costanoan	Alameda,Contra Costa,Monterey,San Benito,San Francisco,San Mateo,Santa Clara,Santa Cruz	4/17/2018
Muwekma Ohlone Indian Tribe of the SF Bay Area	N	Monica Arellano, Vice Chairwoman	20885 Redwood Road, Suite 232 Castro Valley, CA, 94546	(408) 205-9714		monicavarellano@gmail.com	Costanoan	Alameda,Contra Costa,Marin,Merced,Napa,Sacramento,San Francisco,San Joaquin,San Mateo,Santa Clara,Santa Cruz,Solano,Sonoma,Stanislaus	7/12/2019
Nashville Enterprise Miwok-Maidu-Nishinam Tribe	N	Cosme Valdez, Chairperson	P.O. Box 580986 Elk Grove, CA, 95758-0017	(916) 396-1173		valdezcome@comcast.net	Miwok	Alpine,Amador,Calaveras,Contra Costa,El Dorado,Fresno,Madera,Mariposa,Merced,Mono,Sacramento,San	7/17/2023
Nashville Enterprise Miwok-Maidu-Nishinam Tribe	N	Leland Valdez, Cultural Resources		(916) 429-8047			Miwok	Alpine,Amador,Calaveras,Contra Costa,El Dorado,Fresno,Madera,Mariposa,Merced,Mono,	7/17/2023
Northern Valley Yokut / Ohlone Tribe	N	Timothy Perez, Tribal Compliance Officer	P.O. Box 717 Linden, CA, 95236	(209) 662-2788		huskanam@gmail.com	Costanoan Northern Valley Yokut	Alameda,Calaveras,Contra Costa,Fresno,Madera,Mariposa,Merced,Sacramento,San Benito,San Joaquin,Santa	11/21/2023
The Ohlone Indian Tribe	N	Vincent Medina, Cultural Leader	17365 Via Del Rey San Lorenzo, CA, 94580	(510) 610-7587		vincent.d.medina@gmail.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
The Ohlone Indian Tribe	N	Andrew Galvan, Chairperson	P.O. Box 3388 Fremont, CA, 94539	Phone: (510) 882-0527	(510) 687-9393	chochenyo@AOL.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	7/24/2023
The Ohlone Indian Tribe	N	Desiree Vigil, THPO	259 Winwood Avenue Pacifica, CA, 94044	(650) 290-0245		dirwin0368@yahoo.com	Bay Miwok Ohlone Patwin Plains Miwok	Alameda,Contra Costa,San Francisco,San Mateo,Santa Clara	11/30/2023
Tule River Indian Tribe	F	Joey Garfield, Tribal Archaeologist	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	joey.garfield@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San Benito,San	7/22/2016
Tule River Indian Tribe	F	Kerri Vera, Environmental Department	P. O. Box 589 Porterville, CA, 93258	(559) 783-8892	(559) 783-8932	kerri.vera@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San Benito,San	7/22/2016
Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San Benito,San	
Wilton Rancheria	F	Cultural Preservation Department,	9728 Kent Street Elk Grove, CA, 95624	(916) 683-6000		cpd@wiltonrancheria-nsn.gov	Miwok	Alameda,Alpine,Amador,Contra Costa,El Dorado,Mono,Nevada,Placer,Sacramento,San Joaquin,Solano,Stanislaus,Sutter,Yolo,Yuba	8/7/2023
Wilton Rancheria	F	Dahlton Brown, Executive Director of Administration	9728 Kent Street Elk Grove, CA, 95624	(916) 683-6000		dbrown@wiltonrancheria-nsn.gov	Miwok	Alameda,Alpine,Amador,Contra Costa,El Dorado,Mono,Nevada,Placer,Sacramento,San Joaquin,Solano,Stanislaus,Sutter,Yolo,Yuba	8/7/2023
Wilton Rancheria	F	Herbert Griffin, Executive Director of Cultural Preservation	9728 Kent Street Elk Grove, CA, 95624	(916) 683-6000		hgriffin@wiltonrancheria-nsn.gov	Miwok	Alameda,Alpine,Amador,Contra Costa,El Dorado,Mono,Nevada,Placer,Sacramento,San Joaquin,Solano,Stanislaus,Sutter,Yolo,Yuba	8/7/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Jersey Island Mitigation Bank (2023-242) Project, Contra Costa County.

Record: PROJ-2023-006391
Report Type: List of Tribes
Counties: All
NAHC Group: All

APPENDIX C

Project Area Photographs

State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

PHOTOGRAPH RECORD

Trinomial

Page 1 of **1** **Project Name: Jersey Island Mitigation Bank (2023-242)** **Year** 2024
Camera: Android Lens Size: 35mm
Film Type and Speed: Digital Negatives Kept at: ECORP Consulting, Inc.

Mo.	Day	Subject/Description	View Toward	Accession #
1	23	Project Area Overview at Southwest Corner	N	090602
1	23	Project Area Overview at Southwest Corner	E	090608
1	23	Ponds of Standing Water	detail	091408
1	23	West Side of Berm	N	091840
1	23	West Side of Berm	S	093528
1	23	West Side of Berm	W	093535
1	23	JL-01, Ditch	detail	093938
1	23	JL-01, Ditch	detail	093943
1	23	Modern Pump Feature, Noted	detail	094636
1	23	Modern Irrigation Feature, Noted	detail	094757
1	23	Overview- Overgrown Vegetation	S	100330
1	23	Overview- Overgrown Vegetation	S	100744
1	23	Overview- Overgrown Vegetation	SE	100748
1	23	Overview of Levee	detail	101135
1	23	Overview Levee- Riprap	detail	101151
1	23	Overview Of Levee	detail	101343
1	23	Example, No Road No Structure Present	S	101510
1	23	East Side of Berm	N	103929
1	23	East Side of Berm	E	103933
1	23	Flooded Section of Project Area	detail	104542
1	23	Flooded Ditch North End	detail	105330
1	23	Southeast Corner of Berm	N	114723
1	23	Southeast Corner of Berm	W	114727
1	23	Transmission lines	N	115930
1	23	Transmission lines	N	115933
1	23	Empty Lot	SW	121649


20240123_121649


20240123_090602


20240123_090608


20240123_091408


20240123_091840


20240123_093528


20240123_093535


20240123_093938


20240123_093943


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20240123_094757


20240123_100330


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20240123_101151


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20240123_103929


20240123_103933


20240123_104542


20240123_105330


20240123_114723


20240123_114727


20240123_115930


20240123_115933





















































State of California — The Resources Agency **Primary #**
DEPARTMENT OF PARKS AND RECREATION **HRI#**

PHOTOGRAPH RECORD

Trinomial

Page 1 of **Resource/Project Name: 2023-242 Jersey Island** **Year** 2024
Camera: android Lens Size:
Film Type and Speed: Digital Negatives Kept at: ECORP Consulting, Inc.

Mo.	Day	Initials	Subject/Description	View Toward	Accession #
6	20	EH	Project Area overview southwest corner	N	090051
			Project Area overview southwest corner	E	090055
			Project Area overview west side	N	101818
			Project Area overview	N	111749
			Project Area overview	W	112153
			Project Area overview southeast corner	E	113406
			Project Area overview southeast corner	E	121043
			Project Area overview	N	121046
			Ditch	W	123651
			Ditch	N	123751
			Parking lot	W	124308
			Parking lot	W	124312
			Parking lot	W	124317
			Project Area overview	W	124626
			Project Area overview	W	124628
			Project Area overview	W	124630
			Project Area overview	W	124718




































20240620_090051


20240620_090055


20240620_101818


20240620_111749


20240620_112153


20240620_113406


20240620_121043


20240620_121046


20240620_123651


20240620_123751


20240620_124308


20240620_124312


20240620_124317


20240620_124626


20240620_124628


20240620_124630


20240620_124718