Initial Study/Proposed Mitigated Negative Declaration

for the Kushner Tentative Subdivision Map

July 2022

City of Isleton Planning Department

101 2nd Street, Isleton, CA 95641

916-777-7770

CEQA Environmental Checklist

PROJECT DESCRIPTION AND BACKGROUND

Project Title: Kushner Tentative Subdivision Map

Lead agency name: City of Isleton

Address: 101 2nd Street, Isleton, CA 95641

Contact person: Yvonne Zepeda, City Clerk **Phone number:** 916-777-7770

Project sponsor's name: Robert Wood **Phone Number:** 530-446-6765

Project Owner: Alexander Kushner

Project Location: 501 6th Street, Isleton, CA 95641

General plan description: LD (Low Density)

Zoning: R-1-7 (Single Family Residential)

Description of project:

The applicant proposes to subdivide the 1.13-acre property into seven lots for single-family residential development. The subject property is located on 6th Street at the corner of D Street and Gas Well Road. The parcel currently is undeveloped. All lots will be accessed by existing public right of ways. Lots 1, 2, and 3 will be accessed via D Street. Lots 4 and 5 will be accessed via 6th Street, and Lots 6 and 7 will be accessed via Gas Well Road. City water and sewer are available to the property.

The zoning designation for this parcel is R-1-7, which is characterized as low-density, single-family housing and allows lot areas of 7,000 square feet minimum. The proposed Tentative Map will split the parcel into 7 lots: Lot 1 (7,143 SF), Lot 2 (7,000 SF), Lot 3 (7,000 SF), Lot 4 (7,000 SF), Lot 5 (7,000 SF), Lot 6 (7,000 SF), and Lot 7 (7,174 SF).

Surrounding land uses and setting: The project site is surrounded by vacant land to the north, a house to the west, a storage and commercial operations to the east, and some industrial activities on a vacant lot to the south.

Other public agencies whose approval is required (e.g., permits, financial approval, participation agreements)**:**

Final Subdivision Map, if this Tentative Map is approved, encroachment permits for street, sidewalk and drainage improvements, building permits for any future houses on the lots; all subject to approval by the City of Isleton.

NATIVE AMERICAN CONSULTATION

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) section 21080.3.1? ☐ Yes ☒ No

If yes, ensure that consultation and heritage resource confidentiality follow PRC sections 21080.3.1 and 21080.3.2 and California Government Code 65352.4

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.

Note: Cultural Study concludes that the project has not potentially significant impacts on tribal resources. No tribes have contacted the City to request consultation under State law.

Initial Study Attachments

A. Biological Resources Assessment, Greg Matuzak Environmental Consulting, June 2022
B. Cultural Resources Inventory Survey, Sean Michael Jenson, M.A. May 17, 2022

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 4 for additional information.

- ☐ Aesthetics
- ☐ Agriculture and Forestry
- ☐ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Energy
- ☐ Geology/Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and 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 (choose one):

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

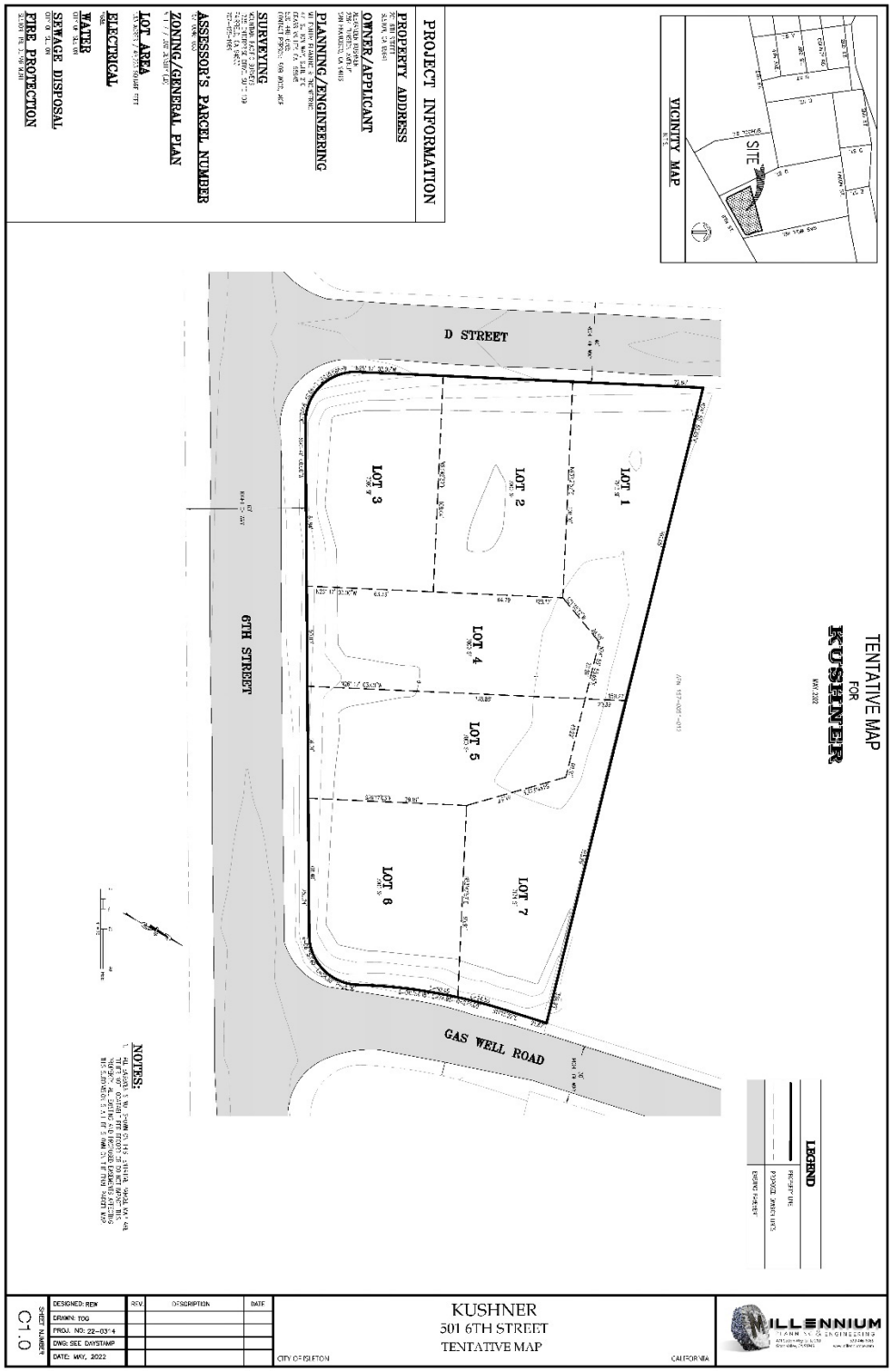
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ 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 impact" 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.

Charles Bergson, City Manager		
Print Name	Signature	Date


TENTATIVE MAP
FOR
KUSHNER
MAY 2022
PROJECT INFORMATION
PROPERTY ADDRESS
OWNER/APPLICANT
PLANNING/ENGINEERING
SURVEYING
ASSESSOR'S PARCEL NUMBER
ZONING/GENERAL PLAN
LOT AREA
ELECTRICAL
WATER
SEWAGE DISPOSAL
FIRE PROTECTION
VICINITY MAP
SITE
D STREET
6TH STREET
GAS WELL ROAD
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LEGEND
NOTES:
KUSHNER
501 6TH STREET
TENTATIVE MAP
CITY OF EXETER
CALIFORNIA
MILLENNIUM
DESIGNED: REW
DRAWN: TOG
PROJ. NO: 22-03'4
DWG: SEE DAYSTAMP
DATE: MAY, 2022
REV.
DESCRIPTION
DATE
SHEET NUMBER
C1.0

Photos of Project Site:

Example of House within Subdivision:
(Site Plan)

Example of House within Subdivision:
(Photo Example)

CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

Question	CEQA Determination
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
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 a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	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?	Less Than Significant Impact

Environmental Setting or Reference

The project is located in the City of Isleton, a small community on the Sacramento – San Joquin River Delta. Isleton is located on State Route 160 (SR 160) and near State Highway 12 (SH 12) and not on a scenic highway. A photo example of one of the houses that could be constructed in the proposed subdivision show an attractive two-story house.

Evaluation of Potential Aesthetic Impacts:

a-b) No Impact. There are no designated scenic vistas or any significant scenic resources in the project area that may be impacted by the project. Therefore, no impacts are expected.

c-d) Less than Significant Impact. The project would not degrade the existing visual character or quality of the site or the surroundings, nor would it create a new source of substantial light or glare. The project does not propose any development on the site. However, future development

of the site would include new single-family residences, which would be subject to City standards for light and glare, and would be visually consistent with the rural character of the area (see photo design of typical house). This type of development is consistent with the Zoning and General Plan for the project site. Therefore, impacts would be less than significant because the new (future) development will remain residential in nature.

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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

Question	CEQA Determination
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?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	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))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

Environmental Setting or Reference

The Department of Conservation's map entitled "Sacramento County Important Farmland 2018" designates the site as "Other Land" on the project site. "Other Land" is defined as land which does not meet the criteria of any other category. Common examples include low density rural development, wetlands, dense brush and timberlands, gravel pits, and small water bodies.

California Government Code Section 51104(g) defines “Timber,” “Timberland,” and “Timberland Production Zone” for the purposes of CEQA as either trees of any species maintained for eventual harvest for forest production purposes (“Timber”); privately owned land, or land acquired for State Forest purposes, used for growing and harvesting timber (“Timberland”); or “Timberland Production Zone” which means an area zoned and used for growing and harvesting timber. The project site is not considered “Timber” or “Timberland”.

Evaluation of Potential Agriculture and Forestry Impacts

a - e) No Impact. The site is not designated as Prime, Unique, or Farmland of Statewide Importance. Furthermore, the site is not under a Williamson Act contract and is not currently zoned for agricultural uses. Therefore, the proposed project will not result in adverse impacts to agricultural resources.

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:

Question	CEQA Determination
a) Conflict with or obstruct implementation of the applicable air quality plan?	Less Than Significant with Mitigation Incorporated
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?	Less Than Significant with Mitigation Incorporated
c) Expose sensitive receptors to substantial pollutant concentrations?	Less Than Significant with Mitigation Incorporated
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less Than Significant with Mitigation Incorporated

Environmental Setting or Reference

The project site is located within the Sacramento Metropolitan Air Quality Management District (SMAQMD), which is part of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin has been further divided into Planning Areas called the Northern Sacramento Valley Air Basin (NSVAB) and the Greater Sacramento Air region, designated by the U.S. Environmental Protection Agency (EPA) as the Sacramento Federal Ozone Non-attainment Area. The Nonattainment area consists of all of Sacramento and Yolo counties, and parts of El Dorado, Solano, Placer, and Sutter counties.

SMAQMD is responsible for limiting the amount of emissions that can be generated throughout the County by various stationary and mobile sources. Specific rules and regulations have been adopted by the SMAQMD Board of Directors that limit the emissions that can be generated by various uses and/or activities, and identify specific pollution reduction measures that must be

implemented in association with various uses and activities. These rules not only regulate the emissions of the six criteria pollutants, but also toxic emissions and acutely hazardous materials. Emissions sources subject to these rules are regulated through the SMAQMD's permitting process. Through this permitting process, the SMAQMD also monitors the amount of stationary emissions being generated and uses this information in developing new clean air plans. The proposed project would be subject to SMAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts. Sacramento County is a known area of non-attainment for state and federal standards for ozone and particulate matter less than 10 microns in diameter (PM10). Implementation of the project would result in increases in both construction emissions and increases in reactive organic gases (ROG) and NOx, which are precursor components of ozone, and PM10.

Evaluation of Potential Air Quality Impacts:

a) Less than Significant Impact with Mitigation Incorporated. The project would not substantially conflict with or obstruct implementation of the Sacramento Metropolitan Air Quality Attainment Plan, or the goals and objectives of the City's General Plan. Although the project does not propose any development on the site at this time, future development of residential properties as shown on the tentative subdivision map would involve short-term construction activities that could result in minor increases in air pollutant emissions. The activities, such as grading, can generate temporary or short-term increase in dust and particulate matter, but would be expected to be minor due to the small size of the proposed project. Any future construction activities on the site would be subject to SMAQMD and City regulations designed to reduce impacts to air quality. Therefore, a less than significant impact is expected.

b - d) Less than Significant Impact with Mitigation Incorporated. The Sacramento Metropolitan Air Quality Management District (SMAQMD) has adopted guidelines for determining potential adverse impacts to air quality in the region. The SMAQMD guidelines state that construction of 27 Single Family Residential units or more is considered a potentially significant adverse impact. Although no development is proposed as part of this project, future development of the site will include seven single-family residences. Given that the proposed project is well below the SMAQMD threshold, impacts to air quality are considered less than significant. In addition, effects on air quality can be divided into short term construction-related effects and those associated with long term operation of the project. Construction activities, such as grading and vehicular traffic, may generate temporary or short-term increase in dust and particulate matter, and are expected to be minor due to the small size of the proposed project. The air pollutants generated by the proposed project would be primarily dust and particulate matter during construction of single-family residences. No sensitive receptors would be exposed to minor amounts of construction dust and equipment emissions for short or long-term exposure nor would there be objectionable odors created by this proposed project. This proposed project is a tentative subdivision map, and does not involve any activity that would generate odors. Uses on the new parcels would be residential and as such, would not create objectionable odors affecting a substantial number of people.

Implementation and adherence to Mitigation Measures AIR 1 through AIR 8 will reduce potential impacts to less than significant.

Mitigation measures:

AIR 1: Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Sacramento Metropolitan Air Quality Management

District (SMAQMD). Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas for adequate dust control.

AIR 2: Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements.

AIR 3: Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Sacramento Metropolitan Air Quality Management District (SMAQMD) and the City Fire Chief.

AIR-4. During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.

AIR-5. Grading permits shall be secured for any applicable activity from the City of Isleton Building Department. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project.

AIR-6 Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.

AIR-7 If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from SMAQMD prior to beginning any construction activities. Contact SMAQMD for more details.

AIR-8. All engines must notify Sacramento Metropolitan Air Quality Management District (SMAQMD) prior to beginning construction activities and prior to engine use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements.

BIOLOGICAL RESOURCES

Would the project:

Question	CEQA Determination
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 Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?	Less Than Significant Impact
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?	Less Than Significant Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Less Than Significant Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

Environmental Setting

A Biological Assessment was conducted by Greg Matuzak Environmental Consulting in June, 2022 (Attachment A). The subject parcel is located within a rural developed setting just south of the Sacramento River within the City of Isleton in Sacramento County, CA. The subject parcel is adjacent to/nested within a largely developed area given the proximity to 6th Street, D Street, Gas Well Road, downtown City of Isleton, and the rural residential properties that are located adjacent to the subject parcel/Project area. Therefore, any development within the subject parcel/Project area would have an overall low potential to impact sensitive wildlife and plant resources given the low likelihood of such sensitive biological resources to occur within or immediately adjacent to the subject parcel. Furthermore, the Sacramento River is located approximately 1,000 feet to the north of the subject parcel/Project area and the Georgiana Slough and Ox Bow Marina are located approximately 4,000 feet to the south of the subject parcel/Project area. A majority of sensitive biological resources within the greater Project area associate with the aquatic and riverine systems, including riparian habitats, that are located

within the delta region of northern California. Therefore, this Biological Resources Assessment concludes that the subject parcel does not contain any sensitive biological resources or any sensitive habitats for special-status species and the development of the Project would not have an impact on such sensitive biological resources.

Evaluation of Potential Biological Impacts

a) No Impact - None of the special-status wildlife species identified within 3 miles of the proposed Project area have a potential to occur with the subject parcel/Project area. Therefore, any site disturbance and noise would have no potential to impact these or any other special-status wildlife species, including nesting migratory birds and raptors so pre-construction nesting bird surveys are not required as part of the Tentative Map project within the subject parcel.

b) Less than significant impact. According to the Biological Assessment prepared by Greg Matuzak Environmental Consulting LLC in June 2022, the project will not have a substantial adverse effect on any riparian habitat and/or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c) Less than significant impact. According to the Biological Assessment prepared by Greg Matuzak Environmental Consulting LLC in June 2022, the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

d) **Less than significant impact.** According to the Biological Assessment prepared by Greg Matuzak Environmental Consulting LLC in June 2022, the project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) **No Impact.** The Project is consistent with local policies or ordinances protecting biological resources. No impact will occur and no mitigation is needed.

f) **No Impact**. The project is not located in an area covered under an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact will occur and no mitigation is needed.

CULTURAL RESOURCES

Would the project:

Question	CEQA Determination
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	Less Than Significant Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less Than Significant with Mitigation Incorporated

Question	CEQA Determination
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	Choose an item.

Environmental Setting

This section evaluates the proposed Project's potential impacts on archaeological, historical, and paleontological resources. Resources of concern include, but are not limited to, prehistoric and historic artifacts, burials, sites of religious or cultural significance to Native American groups, and historic structures. This section provides a detailed discussion of impacts potentially attributable to the proposed project, and criteria used to determine impact significance to cultural resources. A report, Cultural Resource Investigation Survey, Kushner Residential Development Project was prepared by Sean Michael Jensen, M.A. in May 2022, was prepared for this project site (Attachment B).

Existing records at the North Central Information Center document that none of the present APE had been subjected to previous archaeological investigation, and that one traditional cultural landscape (P-34-5225) had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. No prehistoric or historic-era cultural resources were identified during the pedestrian survey. The traditional cultural landscape (P-34-5225) was subjected to a formal evaluation, and recommended not eligible for the CRHR due to a substantial lack of integrity.

Evaluation of Potential Cultural Resource Impacts

a) **Less Than Significant Impact.** Intensive pedestrian surveys and records searches were conducted in June 2021, no historic resources were discovered in the Project area. As a result, no eligible built environment resources occur in the Project area.

b) **Less Than Significant Impact with Mitigation Incorporated.** See discussion under item a) above.

c) **Less Than Significant Impact with Mitigation Incorporated.** See discussion under item a) above.

Less Than Significant with Mitigation. As indicated in the Historic Resource Investigation report prepared for the project, no human remains were identified within the project area (Sub-Terra Heritage Resource Investigations, 2021). There is the possibility of accidental discoveries of human remains during construction-related ground-disturbing activities. The procedures identifiedin State Health and Safety Code Section 7050.5 will reduce potential impact. State Health and Safety Code Section 7050.5 requires that if human remains are found no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. Implementation and adherence to CUL-1 and CUL-2 will reduce potential impacts to less than significant. Based on the absence of significant historical resources/unique archaeological resources within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed, although the following Mitigation Measures are considered appropriate:

Mitigation Measures

CUL-1. In the event that human remains are inadvertently encountered during any project associated ground-disturbing activity or at any time subsequently, State law shall be followed, which includes but is not limited to immediately contacting the County Coroner's office upon any discovery of human remains.

CUL-2. In the event of an inadvertent discovery of previously unidentified cultural material, archaeological consultation should be sought immediately in accordance with the provisions of the Cultural Resource Investigation Survey, Kushner Residential Development Project was prepared by Sean Michael Jensen, M.A. in May 2022.

ENERGY

Would the project:

Question	CEQA Determination
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less Than Significant Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less Than Significant Impact

Environmental Setting or Reference

Buildings in California are required to comply with California's Energy Efficiency Standards for Residential and Nonresidential Buildings established by CEC regarding energy conservation standards and found in Title 24, Part 6 of the California Code of Regulations. Energy efficient buildings require less electricity.

Evaluation of Potential Energy Impacts

a) **Less Than Significant Impact.** The project proposes a seven-lot single-family residential tentative subdivision map on a currently undeveloped site. During construction there would be a temporary consumption of energy resources for the movement of equipment and materials. The construction and operation of the project would be required by State law to comply with the California Green Building Standards Code (commonly known as "CALGreen"). Compliance with local, state, and federal regulations, which limit engine idling times and require recycling construction debris, would reduce short-term energy demand during the project's construction to the extent feasible and project construction would not result in a wasteful or inefficient use of energy. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or use of equipment that would not conform to current emissions standards and related fuel efficiencies. Furthermore, individual project elements are required to be consistent with City policies and emissions reductions strategies, and would not consume energy resources in a wasteful or inefficient manner.

b) **Less Than Significant Impact.** The proposed residential subdivision map would not conflict with or obstruct an energy plan. The proposed project would adhere to all Federal, State and local agency requirements.

GEOLOGY AND SOILS

Would the project:

Question	CEQA Determination
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 Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
ii) Strong seismic ground shaking?	Less Than Significant Impact
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant Impact
iv) Landslides?	Less Than Significant Impact
b) Result in substantial soil erosion or the loss of topsoil?	Less Than Significant 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?	Less Than Significant with Mitigation Incorporated
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?	Less Than Significant with Mitigation Incorporated
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Less Than Significant Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant with Mitigation Incorporated

Environmental Setting

Soils of the Isleton planning area are Delta peat, ranging from 101 to as much as 40' in depth; These soils have undergone varying degrees of subsidence over the years and subsidence continues as the result of exposure (oxidation) of peat soils to the drying factors of air and subsequent shrinkage and wind erosion. Such subsidence is typical throughout the Delta.

These naturally occurring conditions require special engineering evaluation for determining appropriate foundation design for structures.

Evaluation of Potential Geology and Soils Impacts

a) i. **Less than Significant Impact**. There are no known faults crossing through the project site. The site is not located within an Alquist-Priolo earthquake hazard zone. Therefore, less than significant impacts would occur with respect to fault rupture.

ii. **Less than Significant Impact**. The project would be designed and constructed in accordance with the requirements of the Uniform Building Code. As a result, the risk of ground shaking would be reduced to a minimum and is considered to be less than significant.

iii. **Less than Significant Impact**. Liquefaction is most likely to occur in deposits of water-saturated alluvium or similar deposits of artificial fill. The potential for liquefaction must account for soil types and density, the groundwater table, and the intensity of ground shaking. Within Sacramento County, the downtown area and the Delta are areas that have been suggested as posing potential liquefaction problems. Based upon the known soil, groundwater, and ground shaking conditions within the City of Isleton (as identified in the General Plan), the potential for liquefaction is considered low. Therefore, adverse impacts from liquefaction are expected to be less than significant.

iv. **Less than Significant Impact**. The area of the project site proposed for construction is relatively flat; therefore, the likelihood of landslides is minimal. Adverse impacts from landslides are expected to be less than significant.

b) **Less Than Significant Impact with Mitigation Incorporated**. Grading of the site during future development may create minor contour changes necessary to direct surface runoff. Construction of improvements to accommodate the subdivision would also result in the placement of paving and concrete. Erosion control will be required to mitigate impacts. As a condition of approval of any grading or building permit, the contractor is required to control dust and wind erosion through a combination of watering and erosion control practices. The project would not result in substantial soil erosion, siltation, or loss of topsoil. Therefore, a less than significant impact is expected.

c) **Less than Significant Impact with Mitigation Incorporated**. The project site is essentially level with little topographic variation. There is lack of information on the site's geological characteristics to determine the level of risk to exposing people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving the geologic characteristics of the site. However, there are examples of similar and more intense development around the project site, that such potential impacts can be avoided through appropriate treatment. A preliminary soils study will be required to mitigate impacts to a level of non-significance.

d) **Less than Significant Impact with Mitigation Incorporated.** The project site may have the potential for expansive soils. There is lack of information on the site's geological characteristics to determine if there are expansive soils on the site. However, there are examples of similar and more intense development around the project site, that such potential impacts can be avoided through appropriate treatment. A preliminary soils study will be required to mitigate impacts to a level of non-significance.

e) Less than Significant Impact. The proposed project is within an area that is identified to utilize septic tank systems and not connect to a public municipal wastewater disposal system. Any septic system installed on the proposed lot must be installed pursuant to Sacramento County Environmental Health improvement standards. Therefore, no significant impacts from sewage disposal are expected.

***g)* Less than Significant Impact**. As referenced in the Cultural Report, there is no evidence of any unique paleontological resources on the site. Also, there is no evidence of any unique geologic feature on the site.

Implementation and adherence to Mitigation Measures GEO-1 will reduce potential impacts to less than significant.

Mitigation Measure

GEO-1. Prior to final map recordation, a preliminary soils report, prepared by a registered civil engineer and based upon adequate test borings, shall be submitted for the subdivision. Additional subdivision measures may be added to mitigate potential geologic/soil conditions on the site to accommodate residential development. If the indicates the presence of critically expansive soils or other soils problems which, if not corrected, would lead to structural defects, a soils investigation of each lot in the subdivision may be required by the City Engineer. Such soils investigation shall be done by a registered civil engineer, who shall recommend the corrective action which is likely to prevent structural damage to each structure proposed to be constructed in the area where such soils problem exists.

GEO-2: Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the City for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.

GEO-3: Prior to any ground disturbance, (if applicable), the applicant shall submit and obtain a Grading Permit from the City in accordance with the City of Isleton Municipal code(s). Plans for grading shall include disclosure of location and method of treatment/storage of exported materials.

GEO-4: The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance.

GREENHOUSE GAS EMISSIONS

Would the project:

Question	CEQA Determination
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant with Mitigation Incorporated

Question	CEQA Determination
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant with Mitigation Incorporated

Environmental Setting

The project site is located within the Sacramento Metropolitan Air Quality Management District (SMAQMD), which is part of the Sacramento Valley Air Basin. The Sacramento Valley Air Basin has been further divided into Planning Areas called the Northern Sacramento Valley Air Basin (NSVAB) and the Greater Sacramento Air region, designated by the U.S. Environmental Protection Agency (EPA) as the Sacramento Federal Ozone Non-attainment Area. The Nonattainment area consists of all of Sacramento and Yolo counties, and parts of El Dorado, Solano, Placer, and Sutter counties.

SMAQMD is responsible for limiting the emissions that can be generated throughout the County by various stationary and mobile sources. Specific rules and regulations have been adopted by the SMAQMD Board of Directors that limit the emissions (including greenhouse gas) that can be generated by various uses and/or activities, and identify specific greenhouse gas reduction measures that must be implemented in association with various uses and activities. The proposed project would be subject to SMAQMD rules and regulations.

Evaluation of Potential Greenhouse Gas Emissions Impacts

a) **Less Than Significant Impact with Mitigation Incorporated**. Air quality impacts, including Carbon Dioxide emissions from the project, which contribute to global warming, need to be analyzed using the current guidelines or procedures specified by the local air district or the Air Resources Board. Calculations of CO2, CH4, and N2O emissions are provided to identify the magnitude of potential project effects. This analysis focuses on CO2, CH4, and N2O since these comprise 98.9 percent of all GHG emissions by volume (IPCC 2007) and are the GHG emissions that the project would emit in the greatest quantities. Fluorinated gases, such as HFC, PFCs, and SF6 were not used in this analysis, as they are primarily associated with industrial processes and the proposed project involves retail development and does not include an industrial component. Emissions of all GHGs are converted into metric tons of carbon dioxide equivalent (MT of CO2e), which presents the volume of GHGs equivalent to the global warming effect of CO2. While minimal amounts of other GHGs, such as chlorofluorocarbons (CFC), would be emitted, they would not substantially add to the calculated CO2e quantities. Calculations are based on the California Air Pollution Control Officers Association (CAPCOA) CEQA & Climate Change white paper (CAPCOA 2008).

To assist lead agencies in determining significance, in October 2014 SMAQMD adopted the current GHG thresholds of significance which include a CO 2 construction threshold (1,100 metric tons GHG/year), a land use operational threshold (1,100 metric tons GHG/year), and a stationary source operational threshold (10,000 metric tons GHG/year). Projects whose emissions are expected to meet or exceed the significance criteria will have a potentially significant ad verse impact on global climate change. Based on this GHG threshold a project that generates less than 110 Vehicles Miles Traveled (VMT) per day

would be considered to have a negligible impact.

This project results in a net increase in six dwelling units which will increase greenhouse gas emissions from both house construction and residential occupancy and use. Greenhouse gas contributions from this project would potentially result in a significant GHG impact since this would result in an increase of approximately 200 VMT (based on SMAWMD Threshold Standards). However, the greenhouse gas emissions generated by the project is expected to be reduced with residential construction requirements under the California Green Building Code with requires that all new houses be EV capable. Each dwelling unit must have a listed raceway to accommodate a dedicated 208/40-volt branch circuit. This is anticipated to reduce emissions to less than significant.

b. **Less Than Significant Impact**. See discussion above (a).

HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Question	CEQA Determination
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant 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?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant 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?	No Impact
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?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

Environmental Setting

The project is on vacant property intended for residential development per the City of Isleton General Plan. There is nothing unique to this property that would indicate that future residential development would result in adverse hazardous outcomes.

Evaluation of Potential Hazards and Hazardous Materials Impacts

a, b) **Less Than Significant Impact.** The use of hazardous substances during normal construction activities is expected to be limited in nature, and would be subject to standard handling and storage requirements. Accordingly, impacts related to the release of hazardous substances are considered less than significant.

***c*) Less than Significant Impact**. There are no existing or proposed school sites within one-quarter mile of the project site. Further, operation of the proposed project does not propose a use that involves activities that would emit hazardous substances or waste that would affect a substantial number of people and is therefore considered to have a less than significant impact. No mitigation measures are required.

d) No Impact. The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. Therefore, there is no impact.

e) No Impact. Isleton is not located within the boundaries of an airport land use plan or within two miles of a public airport. No impact will occur and no mitigation in needed.

f, g) No Impact. Isleton is surrounded by cultivated farmland, and the Sacramento River. The threat of wildland fires is considered to be minimal.

HYDROLOGY AND WATER QUALITY

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	Less Than Significant Impact
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;	Less Than Significant Impact

Question	CEQA Determination
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Less Than Significant Impact
(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; or	Less Than Significant Impact
(iv) impede or redirect flood flows?	Less Than Significant Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Less Than Significant Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less Than Significant Impact

Environmental Setting

Isleton is located along the south bank of the Sacramento River, approximately 3.12 miles upstream of its confluence with Steamboat Slough. Isleton's elevation is approximately 5 feet above sea level. The city is confronted with persistent flood hazards due to its iconic location within the California Delta and the surrounding water features such as the Sacramento River, Georgiana Slough, San Joaquin River, and Mokelumne River. Virtually the entire city lies within the 100-year flood zone designated by the Federal Emergency Management Agency (FEMA), as displayed in Flood Hazard Map Exhibit below.

Isleton has been flooded by the Sacramento/San Joaquin River systems at least five times since its inception as a City. The most recent 1972 flood, caused by a failed levee on the south side of Brannan-Andrus Levee Maintenance District (BALMD) along the right bank levee of the San Joaquin River, left Isleton under as much as eight feet of water.

Evaluation of Potential Hydrology and Water Quality Impacts

a) Less Than Significant Impact. Construction activities disturbing one acre or more of land are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity. Since the project site involves more than one acre in size the applicant is required to submit a NOI to the RWQCB that covers the General Construction Permit (GCP) prior to the beginning of construction. The GCP requires the preparation and implementation of a Water Quality Management Plan (WQMP) and a Storm Water Pollution Prevention Plan (SWPPP) both of which must be prepared before construction can begin. The SWPPP outlines all activities to prevent stormwater contamination, control sedimentation and erosion, and compliance with Clean Water Act (CWA) requirements during construction. Implementation of the SWPPP starts with the commencement of construction and continues through to the completion of the project. The WQMP outlines the project site design, source control and treatment control of BMPs utilized throughout the life of the project. Upon completion of project construction, the City, as the applicant must submit a Notice of Termination (NOT) to the RWQCB to indicate that construction is completed. Therefore, with

implementation of NPDES and the SWPPP in compliance with the RWQCB, impacts to water quality and discharge requirements.

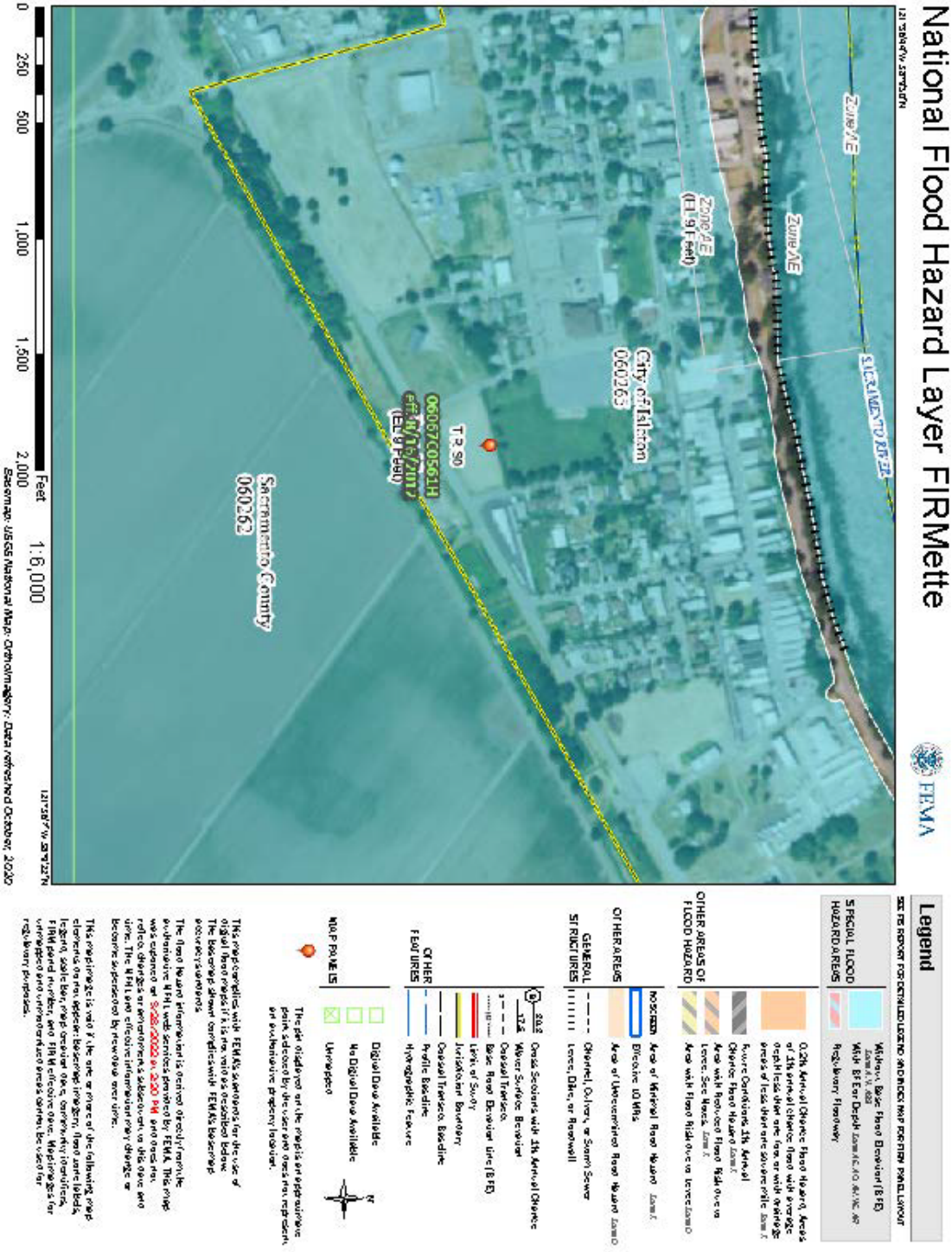
b) Less Than Significant Impact. The development of a net increase in six dwellings would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. All houses within the subdivision would be served public water. There will be no groundwater extraction from wells on the site. Public water supply is from California America Water Company which maintains the system consisting of three wells. pumps. water treatment equipment, water storage, distribution piping, fire hydrants. valves and other equipment. The system draws from groundwater with a storage capacity of over 100,000. The project is estimated to result in an increase of about 500 gallons per day water demand from the public system (about 85 gallons per day per dwelling) which is considered negligible.

c) Less Than Significant Impact. The project site is located in an AE-9 Flood Hazard Zone based on Federal Emergency Management Agency (FEMA) mapping (see Flood Hazard Map next page). Each dwelling unit within the subdivision will need to be constructed so the living portion of the unit is located above the flood elevation. As shown in the project description, the typical house will have non-occupied space, such as the garage located on the bottom floor and the living area located above the flood elevation. All construction on the subdivision lots will be required to comply with Chapter 5.52 of the Municipal Code regarding Flood Damage Protection. This Code outlines standards for construction within flood hazard zones. In addition, as part of the final map recordation clearances may be required obtain a Conditional Letter of Map Revision (CLOMR) to address how the project would affect the hydrologic and/or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway or effective Base Flood Elevations**.**

d) Less Than Significant Impact. As noted in c above, proposed improvements from the project are within the floodplain. All improvements shall be conducted in accordance with Chapter 5.52 of the Municipal Code regarding Flood Damage Protection, which includes avoidance of pollutants into the flood area.

e) Less Than Significant Impact. Addressed in c and d above.

Flood Hazard Map



LAND USE AND PLANNING

Would the project:

Question	CEQA Determination
a) Physically divide an established community?	No Impact
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?	No Impact

Environmental Setting

The 1.13-acre property is designated low density residential (6-9 housing units per net acre) in the City's current General Plan and is located in the R-1-7 residential Zoning District. Subdivision of the property into 7 residential lots for single family development would be consistent with both general plan and zoning of the project site.

Evaluation of Potential Land Use and Planning Impacts

a) **No Impact.** The proposed Project would not physically divide an established community. The proposed project involves the development of a 7-lot single-family residential subdivision and associated infrastructure improvements, including roadways. The proposed improvements will not physically divide an established community.

b) **No Impact**. The applicable local land use plan is the City General Plan. The proposed Project is consistent with the City's General Plan policies.

MINERAL RESOURCES

Would the project:

Question	CEQA Determination
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?	No Impact
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?	No Impact

Environmental Setting or Reference

The State Mining and Geology Board (SMGB) prioritizes areas to be classified as containing significantmineral resources and areas to be designated as containing mineral deposits of regional or statewide significance. Mineral Resource Zone (MRZ) categories are used to identify areas of identified, undetermined, and unknown mineral resource significance.

Evaluation of Potential Mineral Resource Impacts

a) **No Impact.** The State Mining and Geology Board (SMGB) prioritizes areas to be classified as containing significantmineral resources and areas to be designated as containing mineral deposits of regional or statewide significance. Mineral Resource Zone (MRZ) categories are used to identify areas of identified, undetermined, and unknown mineral resource significance. No MRZ designations have been applied to theCity of Isleton.

b) **No Impact.** See response to item a) above.

XIII. NOISE

Would the project result in:

Question	CEQA Determination
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?	Less Than Significant Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	Less Than Significant Impact
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?	No Impact

Environmental Setting

This section evaluates short-term and long-term potential noise impacts of the proposed Project on sensitive uses adjacent to the proposed Project site.

The need to mitigate noise impacts under State of California requirements is triggered by one of the following:

- New development proposed adjacent to a roadway that will be negatively impacted by the existing or future traffic noise.
- A new roadway proposed to cross through or along an existing development, where future traffic noise will negatively impact the development.
- Expansion of an existing roadway where projected traffic noise will negatively impact adjoining land uses.
- Establishment of a new land use that will negatively impact on existing use; or
- Establishment of a new land use the will be negatively impacted by the proximity of an existing noise producing use.

Evaluation of Potential Noise and Vibration Impacts

a) Less than Significant with Mitigation Incorporated. Short-term noise impacts would occur during construction of the proposed Project. Construction-related, short-term noise levels would be higher than existing ambient noise levels in the vicinity of the Project site, but would cease once Project construction is completed.

Construction and Noise Generation from Project: Two types of short-term noise impacts could occur during Project construction. First, construction crew commutes and the transport of construction equipment and materials to the Project site would incrementally increase noise levels on roads accessing the Project site. The second type of short-term noise impact is related to noise generated during Project construction. Construction is conducted in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics that change the character of the noise generated on site. Therefore, the noise levels will vary as construction progresses. Despite the variety in the types and sizes of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

Typical maximum noise levels range up to 85 dBA Lmax at 50 feet during the noisiest construction phases. Site preparation, which includes excavation and grading, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavators, bulldozers, backhoes and front loaders. Earthmoving and compacting equipment includes graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings.

b) Less than Significant Impact. Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors where the motion may be discernible; without the effects associated with the shaking of a building, there is less adverse reaction. Typical sources of groundborne vibration are heavier construction activities (e.g., blasting and pile driving), steel-wheeled trains, and occasional traffic on rough roads. Construction for the proposed Project does not require the use of blasting or pile driving and would not result in substantial vibration.

c) No Impact. The project site is not located with 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.

XIV. POPULATION AND HOUSING

Would the project:

Question	CEQA Determination
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 roads or other infrastructure)?	Less Than Significant Impact

Question	CEQA Determination
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

Environmental Setting

The proposed project would result in the creation of 7 single family lots. According to the City of Isleton Housing Element, the average household size is 2.01 persons per household. Based on this figure, and the proposed number of housing units that could be constructed on the parcel, the proposed project could add 14 new residents to the local population.

Evaluation of Potential Population and Housing Impacts

a) Less Than Significant Impact. Since the project includes the development of 7 single-family residential lots into the community, it will result in a minor increase in population. However, the development is consistent with the development anticipated for the project area by the Isleton General Plan. Therefore, this impact is less than significant.

b) No Impact. The Project site is currently vacant land that would be subdivided into 7 lots. As such, the proposed Project would not displace existing housing. Development of the proposed Project would increase the housing inventory of the City of Isleton by 7 single-family residential units which would be consistent with the General Plan land use designation of the site and buildout of the City.

XV. PUBLIC SERVICES

Would the project 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 following public services:

Question	CEQA Determination
a) Fire protection?	Less Than Significant Impact
b) Police protection?	Less Than Significant Impact
c) Schools?	Less Than Significant Impact
d) Parks?	Less Than Significant Impact
e) Other public facilities?	Less Than Significant Impact

Environmental Setting

The City of Isleton cooperates with Sacramento County Sherrif for police services and has its own Fire Department. The City Public Works Department manages the parks system.

Evaluation of Potential Public Service Impacts

a - e) Less than significant impact. The proposed project does not propose any new fire protection facilities. The proposed project will result in incremental demand for these services. In accordance with Chapter 3.56 of the Municipal Code, payment of development impact fees for house development will off-set the impacts the project would have on these City services.

School impact fees collected at the time building permits are issued for houses within the subdivision will off-set the impacts from this project on school services and facilities.

There would be a minimal increase in the use of existing park facilities as a result of the net increase in 6 single-family residences once built out. This would result in an additional demand of recreational facilities from six new families occupying all dwellings in the subdivision. This would be considered a negligible impact.

Police protection services within the City of Isleton are provided through a contract with the Sacramento County Sherrif Department. Development of the proposed Project may incrementally increase the demand for police protection services due to the increased population of residents on the site. This would be considered a negligible impact.

XVI. RECREATION

Question	CEQA Determination
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?	Less Than Significant Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less Than Significant Impact

Environmental Setting

The City Public Works Department oversees park maintenance. City facilities accommodate a wide range of activities, including softball,soccer, volleyball, and basketball. The proposed Project is not adjacent any parks or other recreational facilities.

Evaluation of Potential Recreation Impacts

a, b) Less Than Significant Impact. There would be a minimal increase in the use of existing recreational facilities as a result of the net increase in 6 single-family residences once built out. This would result in an additional demand of recreational facilities from six new families occupying all dwellings in the subdivision. This would be considered a negligible impact.

XVII. TRANSPORTATION

Would the project:

Question	CEQA Determination
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Less Than Significant Impact
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less Than Significant Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less Than Significant Impact
d) Result in inadequate emergency access?	Less Than Significant Impact

Environmental Setting

All lots will be accessed by existing public right of ways. Lots 1, 2, and 3 will be accessed via D Street. Lots 4 and 5 will be accessed via 6th Street, and lots 6 and 7 via Gas Well Road. The site is relatively flat. The proposed subdivision provides adequate access.

Evaluation of Potential Transportation Impacts

a) Less than Significant Impact. The subject property is surrounded and accessed on the south, east and west sides of 6th, D Street and Gas Well Road, via residential streets. All lots will have adequate access. Street improvements to the project will be completed prior to any new dwelling unit construction or occupancy. The project will comply with all City regulations and policies addressing the circulation system

b) Less than Significant Impact. Based on the International Traffic Engineers manual the project will result in some increased traffic of about 57 average trips daily for six more single family dwellings over the existing development scenario of about 10 trips if the site was built out with a single dwelling unit. This would be considered negligible to current traffic levels in the neighborhood and would not result in significant increases in Vehicle Miles Traveled (VMT) as provided under Section 15064.3 of the CEQA Guidelines.

c) Less than Significant Impact. All lots proposed in the subdivision would have adequate access to residential streets and driveway access to each lot should not result in any dangerous vehicular conflicts.

d) Less than Significant Impact. As proposed, the project is not expected to result in any impact related to adequate emergency access

TRIBAL CULTURAL RESOURCES

Would the project 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:

Question	CEQA Determination
a) 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	Less Than Significant Impact
b) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Less Than Significant Impact

Environmental Setting

Chapter 532, Statutes of 2014 (i.e., AB 52), requires Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and *State CEQA Guidelines* §15064.5[a]). A resource may be listed as a historical resource in the California Register if it meets any of the following National Register of Historic Places criteria as defined in PRC §5024.1(C):

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

B. Is associated with the lives of persons important in our past.

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

D. Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change" to a historical resource, according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired." As detailed in response to Checklist Question 3.5a, a Project-

specific cultural resources assessment was conducted for the Project site and included archaeological and historical records search, communication with Native American tribal representatives, and an intensive pedestrian survey of the Project site (Appendix C). The records search revealed 458 cultural resources were previously recorded within one mile of the Project site. The Project site has not been subject to a previous cultural resources assessment and no cultural resources have been previously identified within its boundaries. The intensive pedestrian survey of the Project site failed to identify any prehistoric archaeological remains and the results of the survey indicate that the surface of entire Project site has been disturbed by existing uses occupying the site.

Evaluation of Potential Tribal and Cultural Impacts

a) **Less than significant with mitigation incorporated.** Chapter 532, Statutes of 2014 (i.e., AB 52), requires Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include "[s]ites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources." AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource qualifies as a "tribal cultural resource."

b) **Less than Significant with Mitigation Incorporated.** CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register); (2) is listed in a local register of historical resources as defined in PRC §5020.1(k); (3) is identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); or (4) is determined to be a historical resource by a project's Lead Agency (PRC §21084.1 and *State CEQA Guidelines* §15064.5[a]).

A resource may be listed as a historical resource in the California Register if it meets any of the following National Register of Historic Places criteria as defined in PRC §5024.1(C):
A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

B. Is associated with the lives of persons important in our past.

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

D. Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change" to a historical resource, according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired." As detailed in response to Checklist Question 3.5a, a Project-specific cultural resources assessment was conducted for the Project site and included archaeological and historical records search, communication with Native American tribal representatives, and an intensive pedestrian survey of the Project site (Appendix C). The records search revealed 458 cultural resources were previously recorded within one mile of the Project site. The Project site has not been subject to a previous cultural resources assessment and no cultural resources have been previously identified within its boundaries. The intensive pedestrian survey of the Project site failed to identify any prehistoric archaeological remains and the results of the survey indicate that the surface of entire Project site has been disturbed by existing uses occupying the site.

In accordance with California Government Code Section 65092, on or after March 1, 2005, local governments must consult with tribes before designating open space, if the affected land

contains a cultural place and if the affected tribe has requested public notice. In this case, no tribe has requested consultation from the City of Isleton under this Code, so the City is not obligated to request further consultation from tribes.

Based on the absence of significant historical resources/unique archaeological resources within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed, although the following Mitigation Measures are considered appropriate:

Mitigation Measures:

See Cultural Resource section of this ISMND. CUL 1 and CUL 2 mitigation measure apply to this Tribal Cultural Resource section.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

Question	CEQA Determination
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less Than Significant Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less Than Significant 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?	Less Than Significant Impact
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?	Less Than Significant Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less Than Significant Impact

Environmental Setting

The Project will connect to existing gas, electric, and sanitary sewer stub outs in the adjacent street rights-of-way. Runoff from the lots would be collected in a series of at-grade concrete swales, catch basins, and pipe conveyance system (including water quality BMPs). The collected site runoff would be conveyed and discharged to the existing via a new drainage ditch or pipe.

Evaluation of Potential Utility and Service Systems Impacts

a) Less Than Significant Impact. The project will not impact existing and/or proposed utility/service infrastructure systems, including but not limited to water/wastewater treatment systems, storm water drainage systems, electric power, natural gas, or telecommunications facilities. The project parcels will be served with sanitary sewer and have power through PG&E.

b) Less Than Significant Impact. The development of a net increase in six dwellings would not substantially increase water service demands. All houses within the subdivision would be served public water. There will be no groundwater extraction from wells on the site. Public water supply is from California America Water Company which maintains the system consisting of three wells, Pumps, water treatment equipment, water storage, distribution piping, fire hydrants. valves and other equipment. The system draws from groundwater with a storage capacity of over 100,000. The project is estimated to result in an increase of about 500 gallons per day water demand from the public system (about 85 gallons per day per dwelling) which is considered negligible.

c) Less than Significant Impact. Sewage collection, treatment and disposal is provided by the City of Isleton. The City's sewage treatment plant was replaced in 1976 following the flood which damaged the old plant in 1972. Consisting of engineered evaporation/percolation ponds located along Georgiana Slough southeast of the City, the facility provides only a primary level of treatment. The plant currently has sufficient capacity to service a net six additional dwellings as proposed by this subdivision.

d) Less than Significant Impact. The project would be required to coordinate with the waste hauler, Cal Waste Recovery, to develop collection of recyclable materials from the project site on a common schedule as set forth in applicable local, regional, and state programs. Solid waste is transported to the Delta transfer station near Isleton from where it is trucked to the County's 656-acre sanitary landfill at Kiefer Blvd. and Grantline Road southeast of Sacramento. The County's landfill site has an expected useful life to the year 2040. Materials that would be recycled by the project include paper products, glass, aluminum, and plastic. Additionally, the project would berequired to comply with applicable elements of AB 1327, Chapter 18 (California Solid Waste Reuse and Recycling Access Act of 1991) and other applicable local, state, and federal solid wastedisposal standards.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact

Question	CEQA Determination
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?	Less Than Significant 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?	No Impact
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?	No Impact

Evaluation of Potential Wildfire Impacts

a) **No Impact.** The project as designed will provide sufficient emergency access.

b) **Less than Significant Impact.** The site is virtually flat and with minimal slope and therefore will not exacerbate wildfire risks exposing project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire

c) **No Impact.** The Project is located in a non-rural urbanized area served by existing water and roadway infrastructure and does not require the installation or maintenance of wildland protection features such as fire roads, fuel breaks, or emergency water sources. In the absence of any need for such features, no impact (temporary or ongoing) would result from development of the proposed uses.

d) **No Impact.** Similar to adjacent properties, the Project site is flat. No hillside areas or natural areas prone to wildfire fire are located in the immediate Project vicinity. As the Project would not expose persons or structures to post-fire slope instability or post-fire drainage, no impact would occur.

XX1. MANDATORY FINDINGS OF SIGNIFICANCE

Question	CEQA Determination
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?	Less Than Significant Impact

Question	CEQA Determination
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 projects, and the effects of probable future projects)?	Less Than Significant Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Less Than Significant Impact

City of Isleton – Mitigation Monitoring Checklist

Project Name: Kushner Tentative Subdivision Map File Numbers: Tentative Map 2022-1
Approval Date: _____ EIR or Neg. etc.: Mitigated Negative Declaration

The mitigation measures outlined below were incorporated into the approval for this project in order to reduce potentially significant environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented and fulfills the City's monitoring pursuant to Section 15097 of the CEQA Guidelines.

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
1.	Air Quality	Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Sacramento Metropolitan Air Quality Management District (SMAQMD). Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas for adequate dust control.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
2.	Air Quality	Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements.		
3.	Air Quality	Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Sacramento Metropolitan Air Quality Management District (SMAQMD) and the City Fire Chief.		
4.	Air Quality	During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.		
5.	Air Quality	Grading permits shall be secured for any applicable activity from the City of Isleton Building Department. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
6.	Air Quality	Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.		
7.	Air Quality	If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from SMAQMD prior to beginning any construction activities. Contact SMAQMD for more details.		
8.	Air Quality	All engines must notify Sacramento Metropolitan Air Quality Management District (SMAQMD) prior to beginning construction activities and prior to engine use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements.		
9.	Cultural and Tribal	In the event that human remains are inadvertently encountered during any project associated ground-disturbing activity or at any time subsequently, State law shall be followed, which includes but is not limited to immediately contacting the County Coroner's office upon any discovery of human remains.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
10.	Cultural and Tribal	In the event of an inadvertent discovery of previously unidentified cultural material, archaeological consultation should be sought immediately in accordance with the provisions of the Cultural Resource Investigation Survey, Kushner Residential Development Project was prepared by Sean Michael Jensen, M.A. in May 2022.		
11.	Geology and Soils	Prior to final map recordation, a preliminary soils report, prepared by a registered civil engineer and based upon adequate test borings, shall be submitted for the subdivision. Additional subdivision measures may be added to mitigate potential geologic/soil conditions on the site to accommodate residential development. If the indicates the presence of critically expansive soils or other soils problems which, if not corrected, would lead to structural defects, a soils investigation of each lot in the subdivision may be required by the City Engineer. Such soils investigation shall be done by a registered civil engineer, who shall recommend the corrective action which is likely to prevent structural damage to each structure proposed to be constructed in the area where such soils problem exists.		

Mitigation Measure	Type	Monitoring Shown on Department Plans	Verified Implementation	Remarks
12.	Geology and Soils	Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the City for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.		
13.	Geology and Soils	Prior to any ground disturbance, (if applicable), the applicant shall submit and obtain a Grading Permit from the City in accordance with the City of Isleton Municipal code(s). Plans for grading shall include disclosure of location and method of treatment/storage of exported materials.		
14.	Geology and Soils	The applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance.		

Explanation of Headings

Type = Project (mitigation for this specific project), ongoing, and/or cumulative.
Monitoring Department = Department or agency responsible for monitoring a particular mitigation measure.
Shown on Plans = When a mitigation measure is shown on the construction plans, this column must be initialed and dated.
Verified Implementation = When mitigation measure has been implemented, this column must be initialed and dated.
Remarks = Area for describing status of ongoing mitigation measure, or other information.

Biological Resources Assessment

201 6th Street in the City of Isleton, CA

(APNs: 157-0040-053, 1.13 Acres)

Prepared for:
Alexander Kushner (Applicant)
201 6th Street
Isleton, CA 95641

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Nevada City, CA 95959
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June 2022

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Appendices

1.0 INTRODUCTION

This Biological Resources Inventory contains recommendations for minimizing and mitigating for potential impacts to sensitive biological resources with potential to occur within and directly adjacent to the 201 6th Street Tentative Map Project (Project) area (see Appendix A for a Parcel Report and Topo Site Plan). The Project area is located within Andrus Island between the Sacramento River and Georgiana Slough where the Ox Bow Marina is located. The Project area is located approximately 1,000 feet directly south of the Sacramento River and it is located approximately 4,000 feet north of the Georgiana Slough. Georgiana Slough begins northeast of the City of Isleton and connects the Sacramento River with the Mokelumne River helping to create Andrus Island. Within a FEMA Special Flood Hazard Area (Zone AE, Elevation 9 Feet). The Project area does not contain streams, drainages, or drainage swales and it is located along 6th Street between Gas Well Road and D Street within the downtown area of the City of Isleton. In total, the Project area is 1.13-acres in size and the APN is 157-0040-053 (see attached APN and Parcel maps covering the Project area as well as the Tentative Map this Biological Resources Assessment covers).

The proposed Project would create seven (7) lots, each approximately 7,000 square feet each. Currently, the subject parcel does not include an existing parking area, nor does it contain a single-family residence or any other permanent structures. The Project area does contain some landscaping, areas that have been graded, a large area containing gravel, an RV, two large shade structures with seating adjacent to the RV onsite, large temporary storage container, and an outhouse. The entirety of the Project area is currently fenced with a locked gate and entrance into the subject parcel being located off of Gas Well Road.

The subject parcel contains historic vegetation removal and disturbance due to grading, placement of gravel within the central section of the Project area, planting of olive trees within the eastern section of the Project area, and disturbance related to the placement of a large storage container and RV within the subject parcel. The Project area is located within an area of a high level of disturbance and therefore, it is dominated by non-native annual grassland and invasive weed species.

This Biological Resources Assessment is being developed for submission and approval by the City of Isleton. The subject parcel is located within the Isleton USGS Topo Quad and within Sacramento County. The intent of this Biological Resources Assessment is to identify areas of potential sensitivity in terms of the biological resources potentially located within and adjacent to the proposed Project area. In addition, this Biological Resources Assessment provides recommendations on minimizing potential impacts to such sensitive biological resources if they occur within or adjacent to the Project area. Given the distance of the Project area from the Sacramento River to the north and

Georgiana Slough to the south, as well as the site being completely flat with no topography, Best Management Practices (BMPs) to minimize erosion and sedimentation downslope are proposed as part of this reporting to ensure that such erosion would have no impact on the surrounding roads to the south, east, and west of the Project area and the developed parcel adjacent to the north of the Project area. Sensitive biological resources include special-status plant and wildlife species, and the presence of stream and wetland features that could potentially meet the U.S. Army Corps of Engineers (Corps) criteria as a "waters of the United States," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA), and streams that could be under the jurisdiction of the California Department of Fish and Wildlife (CDFW) under the California Fish and Wildlife Code Section 1600 *et. seq*. However, given the lack of aquatic resources within the Project area or adjacent to the Project area, stream and other aquatic resources are not discussed within this Biological Resources Assessment.

2.0 METHODS

In order to evaluate the Project area for the presence of any sensitive biological resources, baseline information from databases and reporting for similar projects in the City of Isleton and Sacramento County was collected and reviewed prior to conducting reconnaissance-level biological surveys within the subject parcel. The database searches, background research, and reconnaissance-level biological surveys characterized the baseline conditions of the subject parcel.

Based on the baseline conditions of the subject parcel, an assessment was implemented to determine if any special-status plant or wildlife species have the potential to use the subject parcel or adjacent areas at any time during their life cycles. The baseline conditions also identified the presence of any sensitive habitat or communities if they were identified within the subject parcel. The assessment was conducted for the entirety of the subject parcel/Project area and reviews the potential for sensitive biological resources to be located within the subject parcel/Project area as part of the Biological Resources Assessment compliance required to be included in this report for the proposed Project.

Sensitive Biological Resources

The following information was used to identify potential special-status plant and wildlife species within the region surrounding the subject parcel that could be found to use the subject parcel:

- California Department of Fish and Wildlife's California Natural Diversity Database records search of a 3-mile buffer around the Project area (CDFW, 2022);
- California Native Plant Society's online Inventory of Rare and Endangered Plants of California known to occur within the 7.5-minute Isleton USGS Quadrangle where the proposed Project is located (CNPS, 2022);
- The U.S. Fish and Wildlife Service Information, Planning, and Consultation System (IPaC) for endangered, threatened, and proposed listed species for the proposed Project area (USFWS, 2022);
- National Wetland Inventory (NWI, 2022);
- United States Department of Agriculture (USDA) Soils Mapper (USDA, 2022);
- Natural Resources Conservation Service (NRCS) Hydric Soils List for Sacramento County (NRCS, 2022); and

- City of Isleton General Plan (City of Isleton, 2000).

Reconnaissance-level Biological Resources Field Surveys

Reconnaissance-level biological survey was conducted on foot of the entirety of the Project area by Greg Matuzak, a Biological Resources Consultant, on June 1st, 2022. The purpose of the survey was to identify sensitive habitat and vegetation types within the overall Project area and to identify sensitive riparian vegetation and wetland vegetation associated with streams and wetlands, if present. In addition, the reconnaissance-level biological survey was conducted to determine habitats and vegetation within the subject parcel and the potential for any special-status plant and wildlife species identified within the desktop analysis and background research to occur within the entirety of the Project area.

An assessment was made based on the results of the background research, reconnaissance-level biological resources survey, and the Tentative Map associated with the proposed Project to determine if the subject parcel/Project area contains sensitive biological resources that could be impacted by site disturbance and development. A photo log of the subject parcel and a list of plant and wildlife species observed during the reconnaissance-level biological resources survey was compiled (see Appendix E and Appendix B respectively). Additionally, the attached appendices include the results of several database searches for USDA soil types, NWI federal waters and wetlands, and the results of the reporting associated with the USFWS database search.

3.0 RESULTS

Environmental Setting

The proposed Project is located within the Sacramento – San Joaquin River Delta and is an expansive inland river delta and estuary in Northern California in the United States. The Sacramento – San Joaquin River Delta is formed at the western edge of the Central Valley by the confluence of the Sacramento and San Joaquin rivers and lies just east of where the rivers enter Suisun Bay. The Sacramento – San Joaquin River Delta is recognized for protection by the California Bays and Estuaries Policy. The total area of the Delta, including both land and water, is about 1,100 square miles (2,800 km^2).

The Sacramento – San Joaquin River Delta was formed by the raising of sea level following glaciation, leading to the accumulation of Sacramento and San Joaquin River sediments behind the Carquinez Strait, the sole outlet from the Central Valley to San Pablo and San Francisco Bays and the Pacific Ocean. The narrowness of the Carquinez Strait coupled with tidal action has caused the sediment to pile up, forming expansive islands. In its natural state, the Sacramento – San Joaquin River Delta was a large freshwater marsh, consisting of many shallow channels and sloughs surrounding low islands of peat and tule.

The proposed Project area is located in an area protected by levees and is totally disturbed through development and intensive agricultural development. The proposed new water pipeline will be constructed within pavement in the City of Isleton and the Ox Bow Marina and it will be constructed within land under agricultural production and passing through an existing levee maintained by the Brannan-Andrus Levee Maintenance District and Reclamation District #317. Therefore, the proposed Project area does not contain sensitive biological resources such as federal or state listed species or sensitive habitats that would require additional state and/or federal environmental permitting approvals prior to the implementation of the proposed Project.

The subject parcel supports a highly disturbed non-native annual grassland with several invasive weed species identified within the subject parcel/Project area. A USDA soils map and an NWI map covering the subject parcel are included in Appendix C and Appendix D respectively. Appendix E includes a Photo Log of the Project area and Appendix A includes the Parcel Report and Tentative Map covering the subject parcel and the Project area.

Plant Communities

Plant communities have been classified based on the California Wildlife Habitat Relationships System developed by the California Department of Fish and Wildlife (CDFW). The CDFW also manages the California Natural Diversity Data Base (CNDDB),

which is a database inventory of the previously identified locations of rare and endangered plants, wildlife, and natural communities in California. A list of plants and wildlife documented during the field surveys is attached in Appendix B to this Biological Resources Inventory.

The dominant plant communities are discussed below.

Non-Native Annual Grassland

Non-native grassland areas occur throughout the subject parcel/Project area and along the three frontage roads surrounding the Project area, including 6th Street, D Street, and Gas Well Road. These grassland areas include habitat that is periodically disturbed due to grading, vegetation removal, addition of gravel, addition of temporary structures such as an RV, storage container, outhouse, etc. This series is dominated mostly by non-native Mediterranean annual grasses such as wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and ryegrass (*Lolium perenne*).

Other typical exotic annual grasses include silver hairgrass (*Aira caryophyllea*), little quaking grass (*Briza minor*), and an assemblage of native and non-native forbs such as curly dock (*Rumex crispus*), wild mustard (*Hirschfeldia incana*), English plantain (*Plantago lanceolata*), California poppy (*Escholzia californica*), common vetch (*Vicia sativa ssp. nigra*), field bindweed (Convulvulus arvensis), turkey mullein (*Eremocarpus setigerus)*, butter-and-eggs (*Triphysaria eriantha ssp. eriantha*), blue-eyed grass (*Sisyrinchium bellum*), yellow star-thistle (*Centaurea solstitialis*), and various clovers (*Trifolium sp.*). In areas that remain moist during the growing season, specifically along the roadside drainages lining 6th Street, D Street, and Gas Well Road, meadow barley (*Hordeum brachyantherum*), reed fescue (*Festuca arundinacea*), velvet grass (*Holcus lanatus*) and smooth crabgrass (*Digitaria ischaemum*).

Common Wildlife

The non-native grassland communities are fairly open habitat, providing foraging for many wildlife species such as rabbits, rodents, birds, lizards, snakes, coyotes, and foxes. Species that are commonly found in annual grassland areas include red-tailed hawk (*Buteo jamaicensis*), western rattlesnake (*Crotalus viridis*), California ground squirrel (*Spermophilus beecheyi*), western burrowing owl (*Athene cunicularia*), California vole (*Microtus californicus*), black-tailed jackrabbit (*Lepus califonricus*) western fence lizard (*Sceloporus occidentalis*), and a variety of songbirds. However, given the existing fencing around the complete perimeter of the subject parcel/Project area and the high levels of disturbance, it is likely that many of these species do not occupy or move through the subject parcel/Project area.

SPECIAL STATUS SPECIES

Special-status species were considered for this Biological Resources Inventory based on a current review of the California Natural Diversity Data Base (CNDDB) and database information provided by the United States Fish and Wildlife Service (USFWS) for the subject parcel and overall Project area. The database searches did reveal fourteen (14) species that have been previously identified within 3 miles of the Project area. The species identified within the CNDDB are broken up below between special-status plant species and special-status wildlife species.

Special-Status Plants

A species site suitability analysis evaluating the potential to occur within and near the Project area was completed for all plant species that were documented in the background research data compilation and during pre-surveys. The five (5) special-status plant species identified within 3 miles of the proposed Project area (CNDDB 2022) are listed below along with their state and federal listing, if any, and their potential to occur within the proposed Project area.

- *Lathyrus jepsonii var. jepsonii* – Delta tule pea (federal: none, state: none, CNPS: 1B.2) – No potential to occur in Project site – **no impact**
- *Lilaeopsis masonii* – Mason's lilaeopsis (federal: none, state: Rare, CNPS: 1B.1) – No potential to occur in Project site – **no impact**
- *Sagittaria sanfordii* – Sanford's arrowhead (federal: none, state: none, CNPS: 1B.2) – No potential to occur in Project site – **no impact**
- *Scutellaria lateriflora* – side-flowering skullcap (federal: none, state: none, CNPS: 2B.2) – No potential to occur in Project site – **no impact**
- *Symphyotrichum lentum* – Suisun Marsh aster (federal: none, state: none, CNPS: 1B.2) – No potential to occur in Project site – **no impact**

Given the high levels of disturbance within the subject parcel/Project, there is a very low likelihood of any special-status plant species occurring within the Tentative Map area. Therefore, special-status plant species would not be impacted by the proposed Project.

Special-Status Wildlife

Seven special-status wildlife species have been known to occur within 3 miles of the proposed subject parcel/Project area (CDFW 2022). Nesting raptors and other nesting migratory birds protected under the Migratory Bird Treaty Act (MBTA) were the only special status wildlife species identified as having a very low potential to occur

within the Project area. Based on desktop research, records search, and habitat assessment completed on June 1, 2022 by a CDFW Qualified Biologist, ten (10) special-status wildlife species were documented within 3 miles of the subject parcel/Project area. No special-status wildlife species were detected during the reconnaissance-level surveys; however, it is recommended a pre-construction nesting bird survey be completed in the Project area within 2 weeks prior to construction if construction is planned to begin during the avian nesting season (approximately March 1 – August 31).

The 10 special-status wildlife species identified within 3 miles of the proposed Project area (CNDDB 2022) are listed below along with their state and federal listing, if any, and their potential to occur within the proposed Project area.

- *Anthicus sacramento* – Sacramento anthicid beetle (federal: none, state: species of special concern) – No potential to occur in Project area – **no impact**.
- *Buteo swainsoni* – Swainson's hawk (federal: none, state: Endangered) – No potential nesting habitat within Project site, no potential foraging habitat occurs within Project area - **no impact**.
- *Emys marmorata* – western pond turtle (federal: none, state: species of special concern) – No potential to occur in Project area – **no impact**.
- *Lasiurus blossevillii* – western red bat (federal: none, state: species of special concern) – Roosting sites do not occur in Project area, neither does foraging habitat – **no impact**.
- *Lasiurus cinereus* – hoary bat (federal: none, state: species of special concern) – Roosting sites do not occur in Project area, neither does foraging habitat – **no impact**.
- *Melospiza melodia* – song sparrow ("Modesto" population) – No potential nesting habitat within Project site, potential foraging habitat does not occur within Project area – **no impact**.
- *Spirinchus thaleichthys* – longfin smelt (federal: Candidate, state: Threatened) – No potential to occur in Project area – **no impact**.
- *Laterallus jamaicensis coturiculus* – California black rail (federal: none, state: Threatened) – Suitable habitat for the species does not occur in Project area – **no impact**.
- *Falco peregrinus anatum* – American peregrine falcon (federal: delisted, state: delisted, species of special concern) – No potential nesting habitat or foraging habitat within the Project area for this species – **no impact**.

- *Oncorhynchus mykiss irideus pop. 11* – Steelhead Central Valley DPS (federal: Threatened, state: none) – No potential to occur in Project area – **no impact**.

None of the special-status wildlife species identified within 3 miles of the proposed Project area have a potential to occur with the subject parcel/Project area. Therefore, any site disturbance and noise would have no potential to impact these or any other special-status wildlife species, including nesting migratory birds and raptors so pre-construction nesting bird surveys are not required as part of the Tentative Map project within the subject parcel.

4.0 CONCLUSIONS

The subject parcel is located within a rural developed setting just south of the Sacramento River within the City of Isleton in Sacramento County, CA. The subject parcel is adjacent to/nested within a largely developed area given the proximity to 6th Street, D Street, Gas Well Road, downtown City of Isleton, and the rural residential properties that are located adjacent to the subject parcel/Project area. Therefore, any development within the subject parcel/Project area would have an overall low potential to impact sensitive wildlife and plant resources given the low likelihood of such sensitive biological resources to occur within or immediately adjacent to the subject parcel. Furthermore, the Sacramento River is located approximately 1,000 feet to the north of the subject parcel/Project area and the Georgiana Slough and Ox Bow Marina are located approximately 4,000 feet to the south of the subject parcel/Project area. A majority of sensitive biological resources within the greater Project area associate with the aquatic and riverine systems, including riparian habitats, that are located within the delta region of northern California. Therefore, this Biological Resources Assessment concludes that the subject parcel does not contain any sensitive biological resources or any sensitive habitats for special-status species and the development of the Project would not have an impact on such sensitive biological resources.

REGULATORY REQUIREMENTS – ORDINANCE REQUIREMENTS

A number of state and federal agencies, including the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW) have regulatory authority over special status species and sensitive habitats.

The regulatory aspects include:

- The United States Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) regulate the discharge of dredge or fill material into waters of the United States under Section 404 of the CWA ("waters of the United States" include wetlands and lakes, rivers, streams, and their tributaries). Wetlands are defined for regulatory purposes as areas "…inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions." Project proponents must obtain a permit from the USACE for all discharges of fill material into waters of the United States, including wetlands, before proceeding with a proposed action.

- The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under Section 9 of the Federal Endangered Species Act (ESA). The act protects listed species from harm or "take"

which is broadly defined as "…the action of harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct." For any project involving a federal agency in which a listed species could be affected, the federal agency must consult with the USFWS in accordance with Section 7 of the ESA. The USFWS issues a biological opinion and, if the project does not jeopardize the continued existence of the listed species, issues an incidental-take permit.

- The California Department of Fish and Wildlife (CDFW) has jurisdiction over species listed as threatened or endangered under section 2080 of the CDFW Code. The California Endangered Species Act (CESA) prohibits take of state-listed threatened and endangered species. The state Act differs from the federal Act in that it does not include habitat destruction in its definition of take. The CDFW defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CDFW may authorize take under the CESA through Sections 2081 agreements. If the results of a biological survey indicate that a state-listed species would be affected by the project, the CDFW would issue an Agreement under Section 2081 of the CDFW Code and would establish a Memorandum of Understanding for the protection of state-listed species. CDFW maintains lists for threatened, endangered, and candidate species. California candidate species are afforded the same level of protection as listed species. California also designates Species of Special Concern (SSC), which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational or educational values. These species do not have the same legal protection as listed species but may be added to official lists in the future.

- Compliance with Section 401 of the CWA is required for any project requiring a federal action (i.e. USACE) permit or federal funding) with construction that could have an impact to surface water quality. The Regional Water Quality Control Board (RWQCB) is a responsible for administering the Section 401 permitting program in California.

- California Native Plant Society (CNPS) is a non-profit group dedicated to preserving the state's native flora. It has developed lists of plants of special concern in California. The special-status plant species discussed above is listed as CNPS List 4.2, which characterizes "Plants of Limited Distribution."

- City of Isleton General Plan and Municipal Code protecting stream resources, trees, and other biological resources.

It is recommended however, that indirect impacts from potential erosion, sedimentation, and other related water quality impacts should be avoided and minimized such that any runoff would be maintained within the Project area. This would avoid and minimize and potential impact to vegetation and water quality within the roadside drainages along the edges of 6th Street, D Street, and Gas Well Road, as well as the developed parcel located adjacent to the north of the subject parcel/Project area. Standard BMPs are usually identified within the hydrology and water quality sections of the CEQA documentation to cover the proposed Project. Additionally, given the Project area is located within a FEMA Special Flood Hazard Area with a Flood Elevation of 9 Feet, Project engineers will be required to adhere to local, state, and federal floodplain compliance to ensure any structures within or adjacent to the Project area are not negatively affected by developing within such a FEMA Special Flood Hazard Area.

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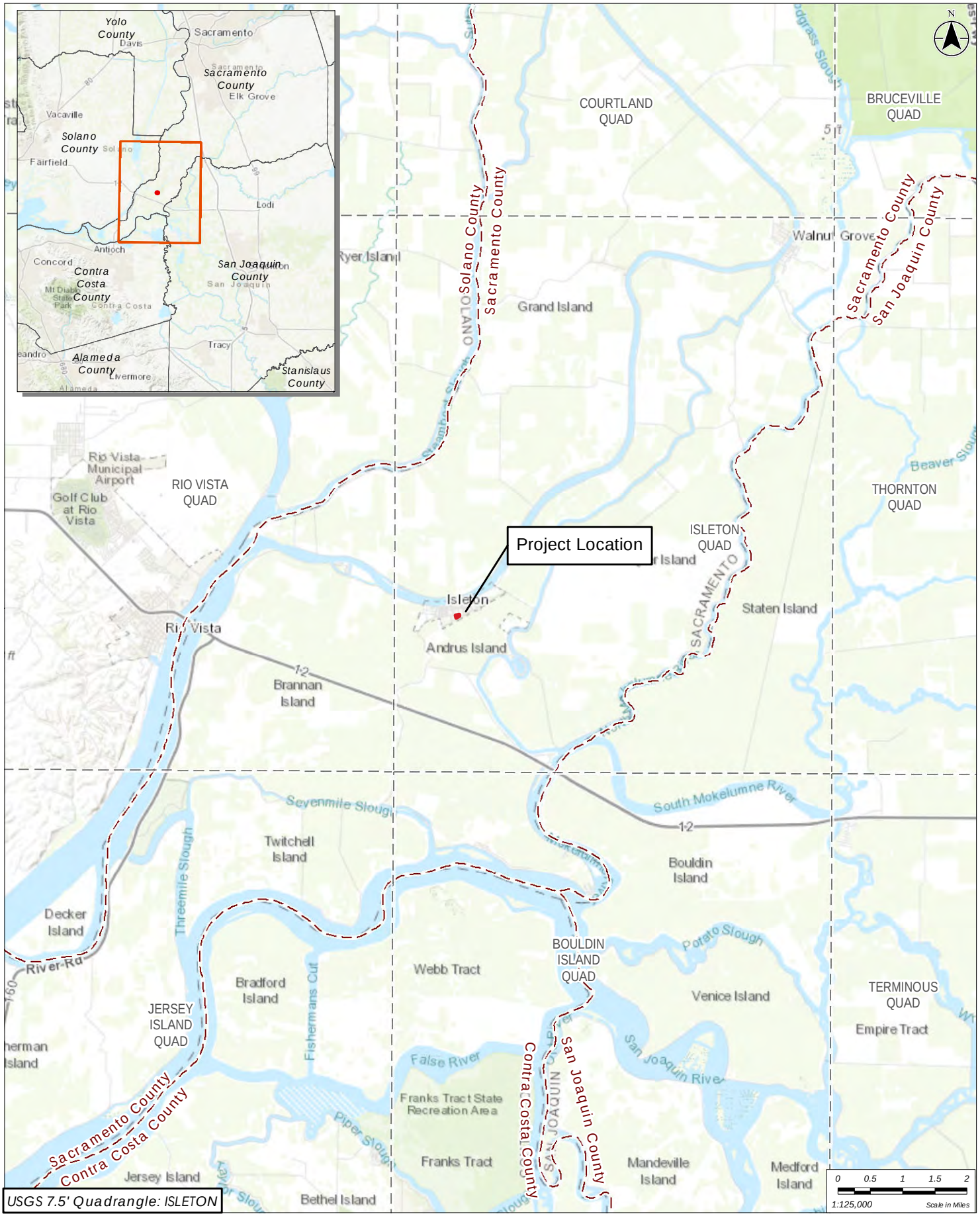
Appendix A

Parcel Report and Tentative Map



GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

501 6th Sreet, Isleton

Figure 1. Vicinity Map

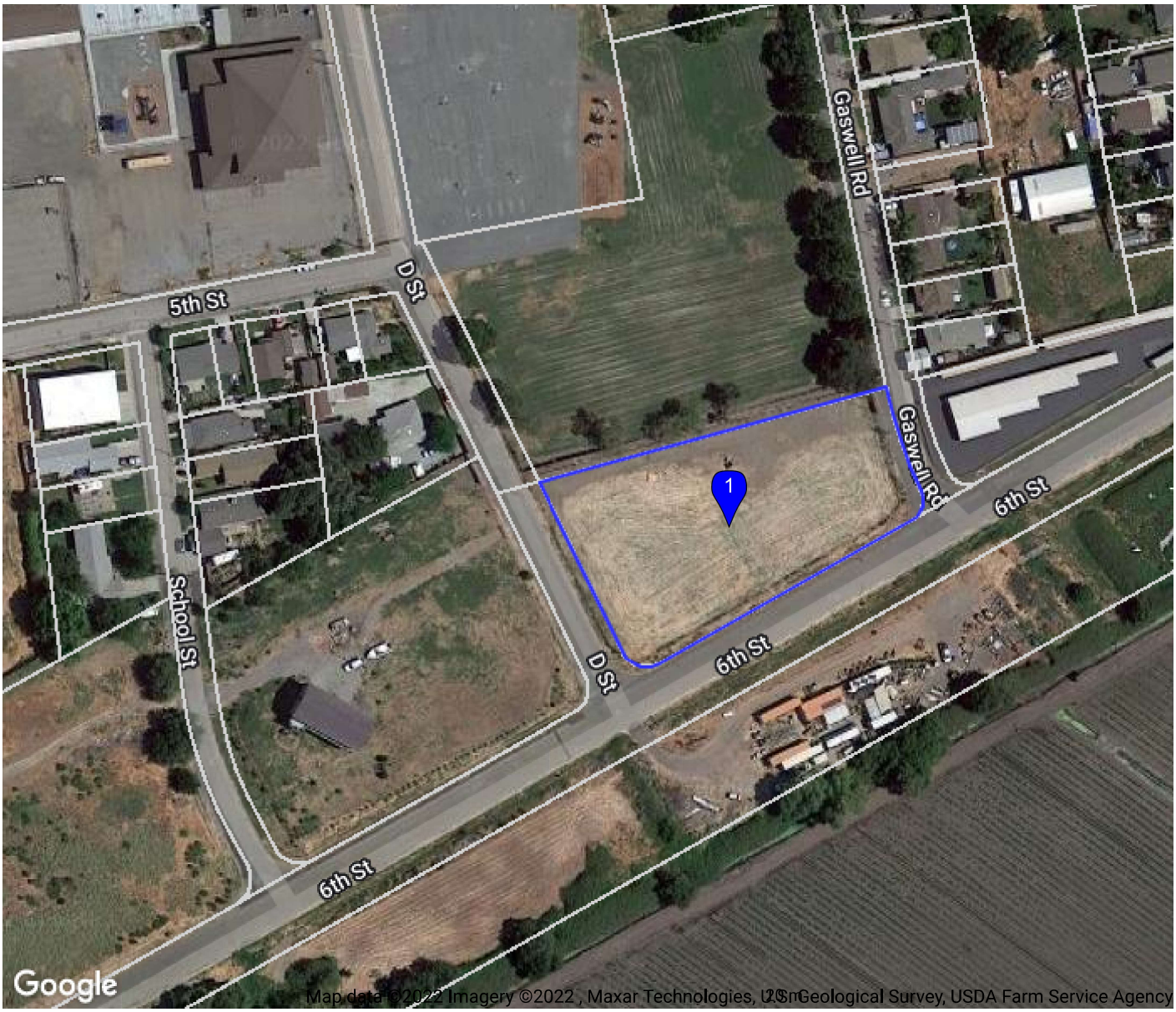
Prepared: Melissa Nugent 5/16/2022 D:__GIS_Matuzak\20220515_Sac_501_6thSt\mxd\Fig1_Vicinity_Sac_501_6thSt.mxd

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

501 6th Sreet, Isleton

Figure 2. Project Location Map

Prepared: Melissa Nugent 5/16/2022 D:__GIS_MatuzaK\20220515_Sac_501_6thSt\mxd\Fig2_SiteMap_Sac_501_6thSt..mxd



PARCELQUEST
LIST 1
DETAIL

☑ 1 Property Address: 501 6TH ST ISLETON CA 95641-7014

Ownership

County:	**SACRAMENTO, CA**
Assessor:	**CHRISTINA WYNN, ASSESSOR**
Parcel # (APN):	**157-0040-053-0000**
Parcel Status:	**ACTIVE**
Owner Name:	**KUSHNER ALEXANDER**
Mailing Address:	**2364 FUNSTON AVE SAN FRANCISCO CA 94116**
Legal Description:	**POR. SBE 872-34-48-4 LYING EL'Y. OF D ST., WL'Y. OF GAS WELLRD., & NL'Y. OF PUBLIC R/W PER I.O.D. 831220/1280.**

Assessment

Total Value:	**$155,000**	Use Code:	**IAADFA**	Use Type:	**VACANT**
Land Value:	**$155,000**	Tax Rate Area:	**001-001**	County Zoning:	**LD**
Impr Value:		Year Assd:	**2021**	Census Tract:	**98.00/1**
Other Value:		Property Tax:		Price/SqFt:	
% Improved:	**0%**	Delinquent Yr:			
Exempt Amt:		HO Exempt:	**N**		

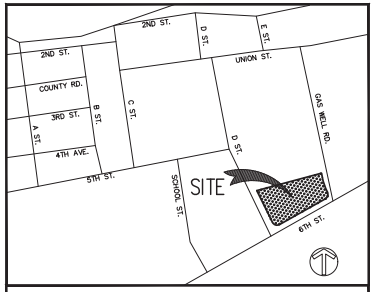
Sale History

	Sale 1	Sale 2	Sale 3	Transfer
Document Date:	**11/03/2020**	**07/08/2016**	**05/08/2006**	**11/03/2020**
Document Number:	**2011030111**	**1607080071**	**0605081640**	**2011030111**
Document Type:	**GRANT DEED**	**GRANT DEED**		
Transfer Amount:	**$155,000**	**$18,000**		
Seller (Grantor):	**MAGNATE FUND 2 LLC/MAGNA**			

Property Characteristics

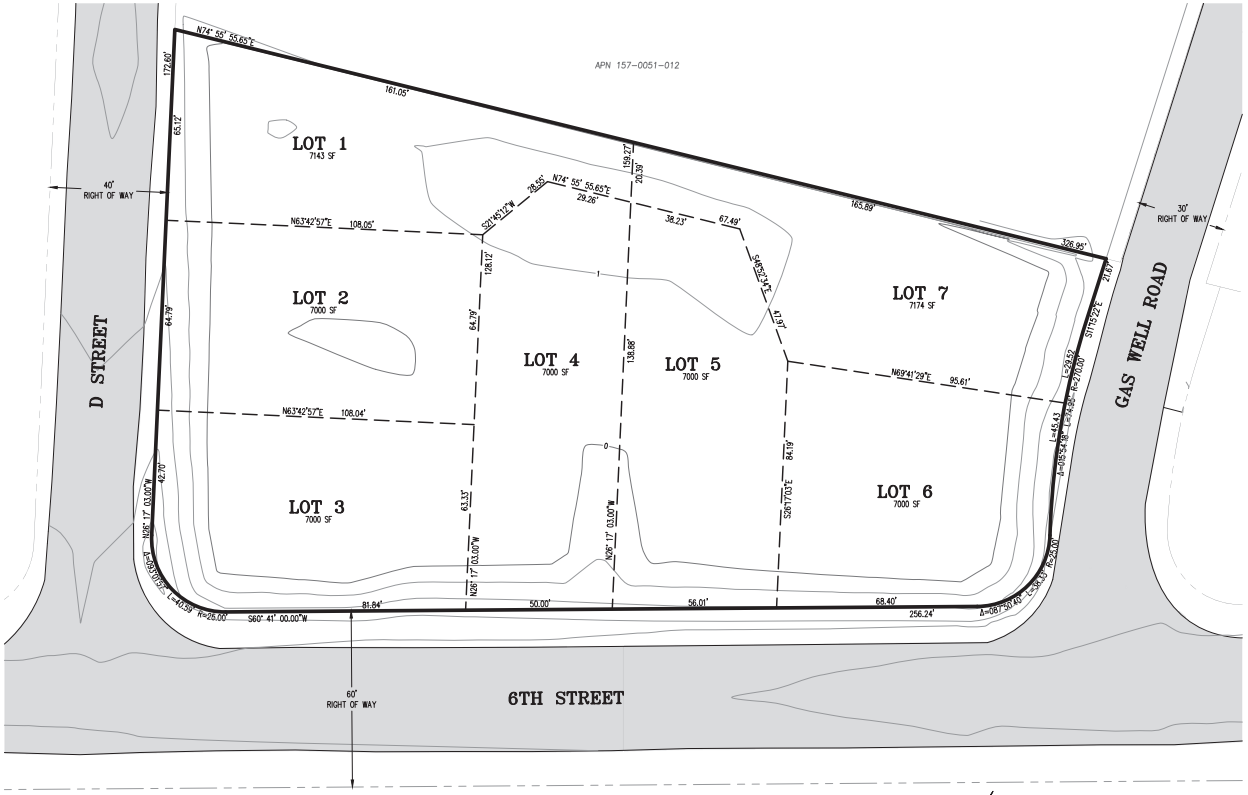
Bedrooms:		Fireplace:		Units:	
Baths (Full):		A/C:		Stories:	
Baths (Half):		Heating:		Quality:	
Total Rooms:		Pool:		Building Class:	
Bldg/Liv Area:		Park Type:		Condition:	
Lot Acres:	**1.160**	Spaces:		Site Influence:	
Lot SqFt:	**50,530**	Garage SqFt:		Timber Preserve:	
Year Built:				Ag Preserve:	
Effective Year:					

TENTATIVE MAP
FOR
KUSHINER
MAY, 2022



VICINITY MAP
N.T.S.

LEGEND	
	PROPERTY LINE
	PROPOSED DIVISION LINES
	EXISTING PAVEMENT



PROJECT INFORMATION

PROPERTY ADDRESS
201 6TH STREET
ISLETON, CA 95641

OWNER/APPLICANT
ALEXANDER KUSHNER
2364 FUNSTON AVENUE
SAN FRANCISCO, CA 94116

PLANNING/ENGINEERING
MILLENNIUM PLANNING & ENGINEERING
471 SUTTON WAY, SUITE 210
GRASS VALLEY, CA 95945
530-446-6765
CONTACT PERSON: ROB WOOD, AICP

SURVEYING
MOUNTAIN PACIFIC SURVEYS
1735 ENTERPRISE DRIVE, SUITE 109
FAIRFIELD, CA 94533
707-425-1969

ASSESSOR'S PARCEL NUMBER
157-0040-053

ZONING/GENERAL PLAN
R-1-7 / LOW DENSITY (LD)

LOT AREA
1.13 ACRES / 49,223 SQUARE FEET

ELECTRICAL
PG&E

WATER
CITY OF ISLETON

SEWAGE DISPOSAL
CITY OF ISLETON

FIRE PROTECTION
ISLETON FIRE DEPARTMENT

0 10 20 40 FEET
1" = 20'

NOTES:
1. ALL EASEMENTS NOT SHOWN ON THIS TENTATIVE PARCEL MAP ARE EITHER NOT LOCATABLE PER RECORD OR DO NOT IMPACT THIS PROPERTY. ALL EXISTING AND PROPOSED EASEMENTS AFFECTING THIS SUBDIVISION SHALL BE SHOWN ON THE FINAL PARCEL MAP.

MILLENNIUM
PLANNING & ENGINEERING
471 Sutton Way, Suite 210
Grass Valley, CA 95945
www.millenniumpe.com

KUSHNER
501 6TH STREET
TENTATIVE MAP
CALIFORNIA
CITY OF ISLETON

REV.	DESCRIPTION	DATE

DESIGNED: REW
DRAWN: TOG
PROJ. NO.: 22-0314
DWG: SEE DAYSTAMP
DATE: MAY, 2022

SHEET NUMBER
C1.0

Appendix B

Plants Observed

Appendix C

USDA Soils Map

SOIL TYPE*

201 - Rindge mucky silt loam, partially drained, 0 to 2 percent slopes, MLRA 16
206 - Sailboat silt loam, partially drained, 0 to 2 percent slopes, MLRA 16
209 - Sailboat- Urban land complex, partially drained, 0 to 2 percent slopes, MLRA 17
222 - Scribner clay loam, partially drained, 0 to 2 percent slopes, MLRA 16
247 - Water

* Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online. Accessed 11/11/2020

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

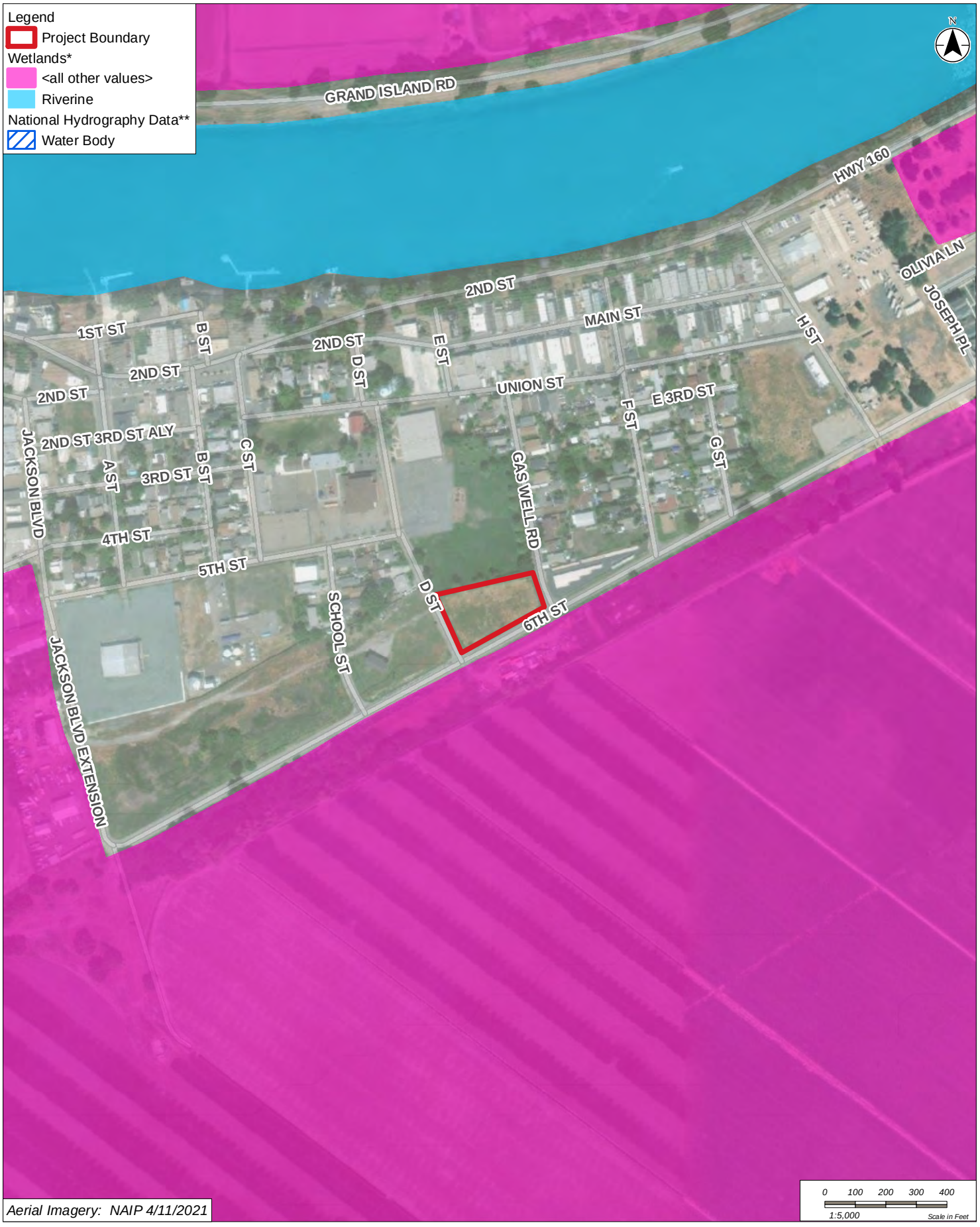
501 6th Sreet, Isleton

Figure 4. Soils Map

Prepared: Melissa Nugent 5/16/2022 D:__GIS_Matuzak\20220515_Sac_501_6thSt\mxd\Fig4_SoilsMap_Sac_501_6thSt.mxd

Appendix D

National Wetland Inventory and FEMA Maps



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Environmental Consulting LLC
Nevada City, CA

501 6th Sreet, Isleton

* Data downloaded from https://www.fws.gov/wetlands/Data/Data-Download.html 3/6/2019
** National Hydrography Dataset (NHD) downloaded from http://nhd.usgs.gov March, 2019

Prepared: Melissa Nugent 5/16/2022 D:__GIS_Matuzak\20220515_Sac_501_6thSt\mxd\Fig5_NWI-NHD_Sac_501_6thSt.mxd

Figure 5. Wetlands and Water Features Map

National Flood Hazard Layer FIRMette

FEMA

121°36'44"W 38°9'50"N

121°36'7"W 38°9'22"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

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

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/28/2022 at 2:20 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Appendix E

Photo Log

Photos of the June 1st, 2022 Field Surveys of the Project Area

Photo 1: Southern frontage to the Project area looking west along 6th street with the Project area to the right.

Photo 2: Looking northwest along the eastern edge of the Project area along Gas Well Road. Photo is looking at the northeastern corner of the Project area.

Photo 3: Looking west from the northeastern section of the Project area. Project area is dominated by non-native annual grassland and is highly disturbed.

Photo 4: Project area is highly disturbed and where vegetation is present it is dominated by non-native annual grassland species.

Photo 5: Project area is highly disturbed and where vegetation is present it is dominated by non-native annual grassland species.

Photo 6: Project area is highly disturbed and where vegetation is present it is dominated by non-native annual grassland species.

Photo 7: Looking northeast from the southwestern section of the Project area. The Project area is dominated by non-native annual grassland species.

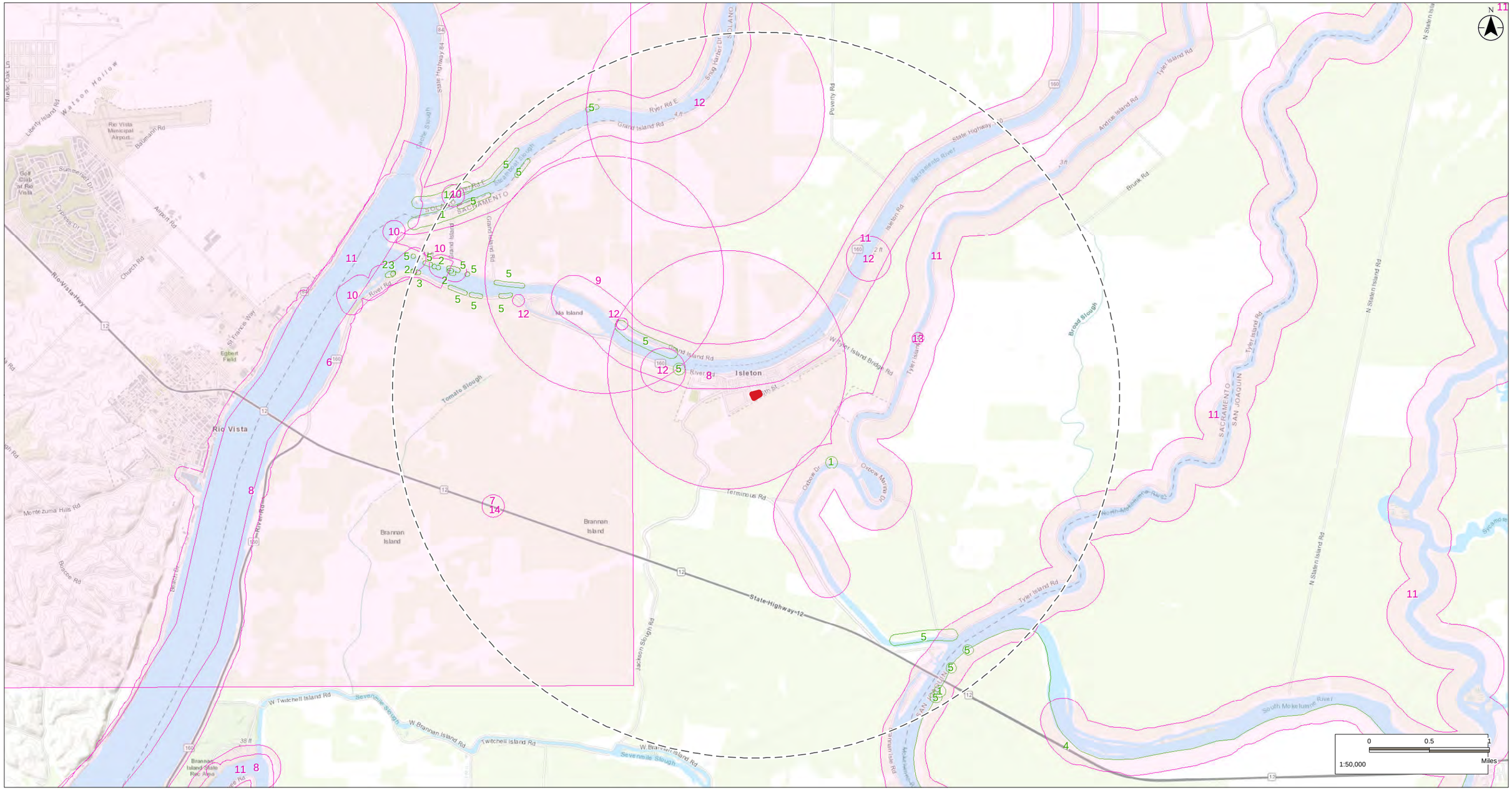
Photo 8: Looking southeast along the western section of the Project area. The Project area is dominated by non-native annual grassland species.

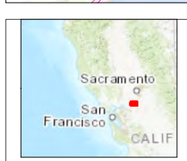
Photo 9: Looking east along the northern section of the Project area. The open field/Project area to the right is dominated by non-native annual grassland species.

Photo 10: Looking northeast along the northern section of the Project area. The open field/Project area is dominated by non-native annual grassland species.

Appendix F

USFWS and CNDDB Species Lists and Occurrence Report for Project Area





Legend

- Project Location
- 3 mile Buffer on Project Area
- CNDDB Plant Occurence*
- CNDDB Wildlife Occurence*
- Critical Plant Habitat** (none)
- Critical Wildlife Habitat** (none)

* *California Natural Diversity Database (CNDDB) Data: Downloaded 5/6/2022, from the California Department of Fish and Wildlife*
** *United States Fish and Wildlife Service (USFWS) Critical Habitat Data: Downloaded November, 2021 from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html*

CNDDB OCCURRENCES*

Plant Species

1. Delta tule pea
2. Mason's lilaeopsis
3. Sanford's arrowhead
4. Side-flowering skullcap
5. Suisun Marsh aster

Wildlife Species

8. California black rail
6. American peregrine falcon
7. Hoary bat
8. Longfin smelt
9. Sacramento anthicid beetle
10. Song sparrow ("Modesto" population)
11. *Steelhead - Central Valley DPS*
12. *Swainson's hawk*
13. *Western pond turtle*
14. *Western red bat*

CRITICAL HABITAT OCCURRENCES**

Plant Habitat

None

Wildlife Habitat

None

GREG MATUZAK
Environmental Consulting LLC
Nevada City, CA

501 6th Sreet, Isleton

Figure 3. CNDDB and Critical Habitat Map

Prepared: Melissa Nugent 5/16/2022 D:__GIS_Matuzak\20220515_Sac_501_6thSt\mxd\Fig3_CNDDB_Sac_501_6thSt.mxd

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: EOndx IS (102187 OR 12141 OR 19249 OR 27185 OR 27187 OR 32121 OR 32579 OR 32652 OR 41767 OR 41785 OR 41786 OR 43300 OR 56175 OR 69701 OR 69702 OR 81808 OR 83590 OR 83601 OR 83602 OR 83603 OR 84309 OR 90692 OR 90695 OR 90964 OR 90968 OR 92687)

Map Index Number: 10952
EO Index: 27187
Key Quad: Isleton (3812125)
Element Code: ABNKC19070
Occurrence Number: 120
Occurrence Last Updated: 1989-08-10

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 1981-07-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-06-26
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

1 MILE SW OF ISLETON, ON THE SACRAMENTO RIVER.

Detailed Location:

Ecological:

Threats:

General:

DFG SWHA #SA021. TWO ADULTS OBSERVED ON 17 JUL 1981. SITE INACTIVE 1980-1984.

PLSS: T04N, R03E, Sec. 26 (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4224794 E620777
Latitude/Longitude: 38.16296 / -121.62134
Elevation (feet):

County Summary:	Quad Summary:
Sacramento	Isleton (3812125)

Sources:

DFG84U0003 CALIFORNIA DEPARTMENT OF FISH & GAME - SWAINSON'S HAWK NEST RECORDS FROM DFG NONGAME BIRDS & MAMMALS SECTION (WILDLIFE BRANCH); MISSING. 1984-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 10966
EO Index: 27185
Key Quad: Isleton (3812125)
Element Code: ABNKC19070
Occurrence Number: 121
Occurrence Last Updated: 1989-08-10

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 1984-06-26
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1984-06-26
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

1 MILE SOUTH OF WALKER LANDING, ON GRAND ISLAND ROAD, EAST OF STEAMBOAT SLOUGH.

Detailed Location:

Ecological:

HABITAT CONSISTS OF GOOD RIPARIAN.

Threats:

General:

DFG SWHA #SA020. OBSERVED FROM 2 DIFFERENT LOCATIONS W/IN THIS AREA. NEST FOUND IN 1983. 1 ADULT OBS PERCHING 1984.

PLSS: T04N, R03E, Sec. 14 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4228317 E621308
Latitude/Longitude: 38.19463 / -121.61468
Elevation (feet): 5

County Summary:

Sacramento, Solano

Quad Summary:

Isleton (3812125), Rio Vista (3812126)

Sources:

DFG84U0003 CALIFORNIA DEPARTMENT OF FISH & GAME - SWAINSON'S HAWK NEST RECORDS FROM DFG NONGAME BIRDS & MAMMALS SECTION (WILDLIFE BRANCH); MISSING. 1984-10-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 41767
EO Index: 41767
Key Quad: Rio Vista (3812126)
Element Code: ABNKC19070
Occurrence Number: 754
Occurrence Last Updated: 2012-11-30

Scientific Name: *Buteo swainsoni*
Common Name: Swainson's hawk

Listing Status: **Federal:** None
State: Threatened
Rare Plant Rank:
Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed: 1994-07-07
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-07-27
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH SIDE OF THE SACRAMENTO RIVER, AT THE ENTRANCE TO VIERRAS RESORT, 2.5 MILES ENE OF RIO VISTA.

Detailed Location:

MAPPED TO COORDINATES FROM CDFW 1994 SWAINSON'S HAWK DATABASE.

Ecological:

1994: NEST TREE WAS A COTTONWOOD; SURROUNDED BY AGRICULTURE.

Threats:

General:

2 ADULTS AND 1 JUVENILE OBSERVED AT THE NEST ON 7 JUL 1994. SITE RESURVEYED ON 27 JUL 2000 FROM ACROSS RIVER, 1 SWAINSON'S HAWK OBS SOARING, NEST NOT SEEN; SURVEY WAS LATE IN THE SEASON.

PLSS: T04N, R03E, Sec. 21, SE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4225715 E618826
Latitude/Longitude: 38.17152 / -121.64345
Elevation (feet): 10

County Summary:

Sacramento

Quad Summary:

Rio Vista (3812126)

Sources:

DFG94U0003 DFG - NONGAME BIRDS & MAMMALS - TABLE OF SWAINSON'S HAWK NEST RECORDS THROUGH 1994. 1994-XX-XX

LEW00F0023 LEWIS, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2000-07-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41785	**EO Index:**	41785
Key Quad:	Isleton (3812125)	**Element Code:**	ABNKC19070
Occurrence Number:	766	**Occurrence Last Updated:**	2012-12-03

Scientific Name: *Buteo swainsoni*

Common Name: Swainson's hawk

Listing Status: **Federal:** None

State: Threatened

Rare Plant Rank:

Other Lists: BLM_S-Sensitive
IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5

State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	2000-07-22	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-07-22	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SACRAMENTO RIVER, ABOUT 0.5 MILE NORTH OF THE ISLETON BRIDGE, NE OF ISLETON.

Detailed Location:

TERRITORY SA063 IN CDFW DATABASE; MAPPED TO 1994 UTMS & "0.5 MI N OF ISLETON BRIDGE...19573 HWY 160, ON E SIDE OF RIVER." THAT ADDRESS IS IN COURTLAND; ISLETON RD WAS LIKELY MEANT. 2000: "ISLETON RD...~0.20 MI N OF BRIDGE ON E SIDE."

Ecological:

1988 NEST TREE WAS A 60' EUCALYPTUS, SURROUNDING LAND USE WAS AGRICULTURE. 1994 NEST TREE WAS A COTTONWOOD. 2000 NEST TREE WAS A 60' EUCALYPTUS; SURROUNDED BY RIPARIAN TO THE NW AND SW, AND ROW CROPS TO THE NE AND SE.

Threats:

General:

2 ADULTS AND 3 JUVENILES OBSERVED IN 1988. 2 ADULTS OBSERVED NESTING ON 6 JUL 1994. 2 ADULTS OBSERVED DEFENDING NEST FROM A RED-TAILED HAWK ON 22 JUL 2000.

PLSS:	T04N, R04E, Sec. 19 (M)	**Accuracy:**	1/5 mile	**Area (acres):**	0
UTM:	Zone-10 N4226322 E623518	**Latitude/Longitude:**	38.17635 / -121.58978	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
Sacramento	Isleton (3812125)

Sources:

DFG94U0003	DFG - NONGAME BIRDS & MAMMALS - TABLE OF SWAINSON'S HAWK NEST RECORDS THROUGH 1994. 1994-XX-XX
LEW00F0002	LEWIS, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BUTEO SWAINSONI (NEST SITE) 2000-07-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	41786	**EO Index:**	41786
Key Quad:	Rio Vista (3812126)	**Element Code:**	ABNKC19070
Occurrence Number:	767	**Occurrence Last Updated:**	2012-11-30

Scientific Name: *Buteo swainsoni* **Common Name:** Swainson's hawk

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Threatened **Other Lists:** BLM_S-Sensitive, IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5

State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	1988-XX-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2000-07-27	**Occurrence Rank:**	Unknown
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

WEST END OF LONG ISLAND, IN THE SACRAMENTO RIVER, 1 MILE WNW OF ISLETON.

Detailed Location:

TERRITORY SA064 FROM CDFW 1979-1994 SWAINSON'S HAWK OBSERVATIONS DATABASE AT "SACRAMENTO RIVER, LONG ISLAND."

Ecological:

1988: NEST TREE WAS A COTTONWOOD; SURROUNDED BY RESIDENTIAL. 1994: POSSIBLE NEST TREE IN COTTONWOOD, SURROUNDED BY AGRICULTURAL LAND. 2000: DOMINANT TREE SPP WERE ASH, LIVE OAK, SYCAMORE. BARN OWL OBSERVED.

Threats:

General:

1988: PAIR OBSERVED NESTING. 1994: 1 LIGHT-MORPH MALE & 1 DARK-MORPH MALE OBSERVED PERCHING, SOARING ON 28 APR; NEST IN COTTONWOOD OBS BUT NO ACTIVITY THERE. 2000: SITE REVISITED ON 27 JUL, NO NEST OR SWHA OBS (POSSIBLY DUE TO LATE SURVEY).

PLSS:	T04N, R03E, Sec. 27 (M)	**Accuracy:**	80 meters	**Area (acres):**	0
UTM:	Zone-10 N4225411 E620219	**Latitude/Longitude:**	38.16860 / -121.62760	**Elevation (feet):**	20

County Summary:	**Quad Summary:**
Sacramento	Rio Vista (3812126)

Sources:

DFG94U0003	DFG - NONGAME BIRDS & MAMMALS - TABLE OF SWAINSON'S HAWK NEST RECORDS THROUGH 1994. 1994-XX-XX
LEW00F0028	LEWIS, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2000-07-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A0630
EO Index: 102187
Key Quad: Rio Vista (3812126)
Element Code: ABNKD06071
Occurrence Number: 48
Occurrence Last Updated: 2016-06-17

Scientific Name: *Falco peregrinus anatum*
Common Name: American peregrine falcon

Listing Status: **Federal:** Delisted
*** SENSITIVE *** **State:** Delisted
CNDDB Element Ranks: **Global:** G4T4
State: S3S4

Rare Plant Rank:
Other Lists: CDF_S-Sensitive
CDFW_FP-Fully Protected

General Habitat:
NEAR WETLANDS, LAKES, RIVERS, OR OTHER WATER; ON CLIFFS, BANKS, DUNES, MOUNDS; ALSO, HUMAN-MADE STRUCTURES.

Micro Habitat:
NEST CONSISTS OF A SCRAPE OR A DEPRESSION OR LEDGE IN AN OPEN SITE.

Last Date Observed: 2015-05-14
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2015-05-14
Occurrence Rank: Unknown
Owner/Manager:
Trend: Unknown
Presence: Presumed Extant

Location:
SENSITIVE LOCATION INFORMATION SUPPRESSED.

Detailed Location:
PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological:
URBAN STRUCTURE - DRAWBRIDGE OVER RIVER, ADJACENT TO AGRICULTURAL LAND.

Threats:

General:

PLSS:
Accuracy: 1/10 mile
Area (acres): 18
UTM:
Latitude/Longitude:
Elevation (feet): 10

County Summary:	Quad Summary:
Sacramento	Rio Vista (3812126)

Sources:

STE14F0010	STEWART, G. - FIELD SURVEY FORM FOR FALCO PEREGRINUS ANATUM 2014-05-15
STE15F0008	STEWART, G. (UNIVERSITY OF CALIFORNIA, SANTA CRUZ) - FIELD SURVEY FORM FOR FALCO PEREGRINUS ANATUM 2015-05-14

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89950	**EO Index:**	90964
Key Quad:	Rio Vista (3812126)	**Element Code:**	ABPBXA3013
Occurrence Number:	63	**Occurrence Last Updated:**	2013-08-07

Scientific Name: *Melospiza melodia pop. 1*

Common Name: song sparrow ("Modesto" population)

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3?Q

State: S3?

General Habitat:

CENTRAL LOWER BASIN OF GREAT VALLEY, FROM COLUSA COUNTY SOUTH TO STANISLAUS COUNTY AND EAST OF SUISUN MARSHES. BREEDS CHIEFLY BELOW 200 FEET ELEVATION.

Micro Habitat:

FRESHWATER MARSHES, RIPARIAN THICKETS, SPARSELY VEGETATED IRRIGATION CANALS, AND VALLEY OAK RESTORATION SITES. COVER CONSISTS OF WILLOW AND NETTLE THICKETS, GROWTHS OF TULES AND CATTAILS, AND RIPARIAN OAK FORESTS WITH SUFFICIENT UNDERSTORY OF BLACKBERRY.

Last Date Observed:	2009-05-28	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-28	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG SACRAMENTO RIVER, JUST S OF CONFLUENCE WITH STEAMBOAT SLOUGH AND CACHE SLOUGH, 2 MILES NE OF RIO VISTA.

Detailed Location:

1910 SPECIMENS COLLECTED AT "RIO VISTA" & 1921 SPECIMENS COLLECTED AT "1 MI NE RIO VISTA." MAPPED TO 2009 COORDINATES. DWR DETERMINED DETECTIONS WERE FOR "MODESTO" POPULATION BASED ON LOCATION. ONLY BIRDS DETECTED AS NESTING WERE MAPPED.

Ecological:

HABITAT DESCRIBED AS RIPARIAN & MARSH. GRINNELL (1923) DESCRIBED M. M. MAILLIARDI AS SLIGHTLY DIFFERENT FROM SSP. HEERMANNI; PATTEN (2009) STATED MAILLIARDI SPECIMENS WERE "INDISTINGUISHABLE FROM...HEERMANNII."

Threats:

General:

7 SPECIMENS (CAS #82048-54) COLLECTED IN 1910. 3 SPECIMENS (MVZ #43165-7) COLLECTED 22 DEC 1921. 1 & 17 DETECTED AND DETERMINED TO BE NESTING IN AREA 13 APR & 28 MAY 2009. 16 SONG SPARROWS PERCHED IN AREA 28 APR 2009.

PLSS:	T04N, R03E, Sec. 20, SE (M)	**Accuracy:**	non-specific area	**Area (acres):**	157
UTM:	Zone-10 N4226118 E617200	**Latitude/Longitude:**	38.17536 / -121.66193	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
Sacramento, Solano	Rio Vista (3812126)

Sources:

DWR11D0001	CALIFORNIA DEPARTMENT OF WATER RESOURCES - DELTA HABITAT CONSERVATION AND CONVEYANCE PROGRAM / BAY DELTA CONSERVATION PLAN SURVEY DATA 2010 2011-03-23
GRI21S0001	GRINNELL, W. - MVZ #43165 COLLECTED 1 MI NE RIO VISTA 1921-12-22
GRI21S0002	GRINNELL, W. - MVZ #43166 COLLECTED 1 MI NE RIO VISTA 1921-12-22
GRI21S0003	GRINNELL, W. - MVZ #43167 COLLECTED 1 MI NE RIO VISTA 1921-12-22
GRI23A0001	GRINNELL, J. (MUSEUM OF VERTEBRATE ZOOLOGY) - NOTES ON SOME BIRDS OBSERVED IN THE VICINITY OF COLUSA, CALIFORNIA. CONDOR 25(5):172-176. 1923-05-12
LIT10S0001	LITTLEJOHN, C. - CAS #82048 COLLECTED FROM RIO VISTA 1910-03-11
LIT10S0002	LITTLEJOHN, C. - CAS #82049 COLLECTED FROM RIO VISTA 1910-03-12
LIT10S0003	LITTLEJOHN, C. - CAS #82050 COLLECTED FROM RIO VISTA 1910-03-12
LIT10S0004	LITTLEJOHN, C. - CAS #82051 COLLECTED FROM RIO VISTA 1910-03-12
LIT10S0005	LITTLEJOHN, C. - CAS #82052 COLLECTED FROM RIO VISTA 1910-11-17
LIT10S0006	LITTLEJOHN, C. - CAS #82053 COLLECTED FROM RIO VISTA 1910-03-12
LIT10S0007	LITTLEJOHN, C. - CAS #82054 COLLECTED FROM RIO VISTA 1910-03-12
PAT09A0001	PATTEN, M. & C. PRUETT - THE SONG SPARROW, MELOSPIZA MELODIA, AS A RING SPECIES: PATTERNS OF GEOGRAPHIC VARIATION, A REVISION OF SUBSPECIES, AND IMPLICATIONS FOR SPECIATION. SYST. AND BIODIV. 7(1)33-62. 2009-02-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89954	**EO Index:**	90968
Key Quad:	Rio Vista (3812126)	**Element Code:**	ABPBXA3013
Occurrence Number:	64	**Occurrence Last Updated:**	2013-08-07

Scientific Name: *Melospiza melodia pop. 1*

Common Name: song sparrow ("Modesto" population)

Listing Status: **Federal:** None

State: None

Rare Plant Rank:

Other Lists: CDFW_SSC-Species of Special Concern

CNDDB Element Ranks: **Global:** G5T3?Q

State: S3?

General Habitat:

CENTRAL LOWER BASIN OF GREAT VALLEY, FROM COLUSA COUNTY SOUTH TO STANISLAUS COUNTY AND EAST OF SUISUN MARSHES. BREEDS CHIEFLY BELOW 200 FEET ELEVATION.

Micro Habitat:

FRESHWATER MARSHES, RIPARIAN THICKETS, SPARSELY VEGETATED IRRIGATION CANALS, AND VALLEY OAK RESTORATION SITES. COVER CONSISTS OF WILLOW AND NETTLE THICKETS, GROWTHS OF TULES AND CATTAILS, AND RIPARIAN OAK FORESTS WITH SUFFICIENT UNDERSTORY OF BLACKBERRY.

Last Date Observed:	2009-05-18	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2009-05-18	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG STEAMBOAT SLOUGH, JUST E OF CACHE SLOUGH, 2.75 MI WNW OF ISLETON AND ABOUT 2.75 MI NE OF RIO VISTA.

Detailed Location:

MAPPED TO INCLUDE PROVIDED COORDINATES. DWR DETERMINED DETECTIONS WERE FOR "MODESTO" POPULATION BASED ON LOCATION. ONLY BIRDS DETECTED WITH NESTING BEHAVIOR WERE MAPPED.

Ecological:

HABITAT DESCRIBED AS NON-RIPARIAN SHRUB-SCRUB. GRINNELL (1923) DESCRIBED M. M. MAILLIARDI AS SLIGHTLY DIFFERENT FROM SSP. HEERMANNI; PATTEN (2009) STATED MAILLIARDI SPECIMENS WERE "INDISTINGUISHABLE FROM...HEERMANNII."

Threats:

General:

1 DETECTED AND DETERMINED TO BE NESTING IN AREA 18 MAY 2009.

PLSS:	T04N, R03E, Sec. 21, NW (M)	**Accuracy:**	1/10 mile	**Area (acres):**	0
UTM:	Zone-10 N4227108 E617934	**Latitude/Longitude:**	38.18419 / -121.65339	**Elevation (feet):**	10

County Summary:	**Quad Summary:**
Sacramento, Solano	Rio Vista (3812126)

Sources:

DWR11D0001	CALIFORNIA DEPARTMENT OF WATER RESOURCES - DELTA HABITAT CONSERVATION AND CONVEYANCE PROGRAM / BAY DELTA CONSERVATION PLAN SURVEY DATA 2010 2011-03-23
GRI23A0001	GRINNELL, J. (MUSEUM OF VERTEBRATE ZOOLOGY) - NOTES ON SOME BIRDS OBSERVED IN THE VICINITY OF COLUSA, CALIFORNIA. CONDOR 25(5):172-176. 1923-05-12
PAT09A0001	PATTEN, M. & C. PRUETT - THE SONG SPARROW, MELOSPIZA MELODIA, AS A RING SPECIES: PATTERNS OF GEOGRAPHIC VARIATION, A REVISION OF SUBSPECIES, AND IMPLICATIONS FOR SPECIATION. SYST. AND BIODIV. 7(1)33-62. 2009-02-22

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	91603	**EO Index:**	92687
Key Quad:	Bouldin Island (3812115)	**Element Code:**	AFCHA0209K
Occurrence Number:	27	**Occurrence Last Updated:**	2014-02-27

Scientific Name: *Oncorhynchus mykiss irideus pop. 11*

Common Name: steelhead - Central Valley DPS

Listing Status: **Federal:** Threatened

State: None

Rare Plant Rank:

Other Lists: AFS_TH-Threatened

CNDDB Element Ranks: **Global:** G5T2Q

State: S2

General Habitat:

POPULATIONS IN THE SACRAMENTO AND SAN JOAQUIN RIVERS AND THEIR TRIBUTARIES.

Micro Habitat:

Last Date Observed:	2012-05-07	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-05-07	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN, DFG, TNC	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

SACRAMENTO-SAN JOAQUIN DELTA, FROM CHIPPS ISLAND TO SAN JOAQUIN R AT DOS REIS(RM51) & SACRAMENTO R AT GARCIA BEND (RM49).

Detailed Location:

AREA OF DELTA MAPPED INCLUDES 19 BEACH SEINE SITES AT WHICH STEELHEAD WERE REGULARLY DETECTED, 1976-2012; VARIOUS MIDWATER TRAWL SITES SAMPLED 1968-2005; AND THE CHIPPS ISLAND TRAWL SITE, OPERATED SINCE 1976.

Ecological:

LOWER RIVERS & DELTA MOSTLY UNSUITABLE FOR REARING DUE TO HIGH WATER TEMPS; FUNCTION MAINLY AS MIGRATORY CORRIDOR. 2012 TELEMETRY STUDY SHOWED MAIN JUVENILE EMIGRATION ROUTE THROUGH MAINSTEM SACRAMENTO R; & MIGRATORY SUCCESS LESS THAN 25%.

Threats:

ENTRAINMENT; DREDGING; BANK EROSION; CHANNEL OCCLUSION BY SILT & AQUATIC VEGETATION; POLLUTED RUNOFF.

General:

ANNUAL SEINE CATCH 1-136 (HIGH IN 1995) SINCE 1976; OVER 90% HATCHERY-ORIGIN (HO) FROM 2000-2012. CHIPPS TRAWL CATCH 9-488 (HIGH IN '95); %HO INCREASED FROM 2000-12. ANALYSIS SUGGESTS PRODUCTION OF 100-300K WILD SMOLTS/YR; MAY BE DECLINING.

PLSS:	T03N, R03E, Sec. 13 (M)	**Accuracy:**	non-specific area	**Area (acres):**	55,159
UTM:	Zone-10 N4218343 E622752	**Latitude/Longitude:**	38.10457 / -121.59990	**Elevation (feet):**	

County Summary:

Contra Costa, Sacramento, San Joaquin, Solano, Yolo

Quad Summary:

Lathrop (3712173), Stockton West (3712183), Holt (3712184), Woodward Island (3712185), Terminous (3812114), Bouldin Island (3812115), Jersey Island (3812116), Antioch North (3812117), Honker Bay (3812118), Thornton (3812124), Isleton (3812125), Rio Vista (3812126), Courtland (3812135), Liberty Island (3812136), Florin (3812144), Clarksburg (3812145)

Sources:

BDA06D0001	BAY DELTA AND TRIBUTARIES PROJECT - BAY DELTA AND TRIBUTARIES PROJECT WEBSITE STEELHEAD DOWNLOAD [1/12/2006 BDAT WEBSITE] 2006-01-12
DEK13R0001	DEKAR, M. ET AL. (U.S. FISH AND WILDLIFE SERVICE) - USFWS DELTA JUVENILE FISH MONITORING PROGRAM REVIEW: BACKGROUND REPORT PREPARED FOR REVIEW BY THE IEP SCIENCE ADVISORY GROUP. 2013-06-XX
FFC07R0001	FISHERY FOUNDATION OF CALIFORNIA - WESTERN DELTA SEINE SURVEY 2005-2006. 2007-03-XX
FOS05A0001	FOSS, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - SALVAGE OF HATCHERY-RELEASED JUVENILE STEELHEAD AT THE STATE WATER PROJECT AND CENTRAL VALLEY PROJECT FISH FACILITIES. 2005-XX-XX
NMF11R0002	NATIONAL MARINE FISHERIES SERVICE (NOAA) - CENTRAL VALLEY RECOVERY DOMAIN 5-YEAR REVIEW: SUMMARY AND EVALUATION OF CENTRAL VALLEY STEELHEAD DPS. 2011-XX-XX
NOB01A0001	NOBRIGA, M. & P. CADRETT - DIFFERENCES AMONG HATCHERY AND WILD STEELHEAD: EVIDENCE FROM DELTA FISH MONITORING PROGRAMS. IEP NEWSLETTER 14(3):30-38. 2001-XX-XX
SIN12A0001	SINGER, G. ET AL. (UNIVERSITY OF CALIFORNIA, DAVIS) - INTERANNUAL VARIATION OF REACH SPECIFIC MIGRATORY SUCCESS FOR SACRAMENTO RIVER HATCHERY YEARLING LATE-FALL RUN CHINOOK SALMON AND STEELHEAD TROUT. 2012-05-22
SPE13R0001	SPEEGLE, J. ET AL. (U.S. FISH AND WILDLIFE SERVICE) - ANNUAL REPORT: JUVENILE FISH MONITORING DURING THE 2010 AND 2011 FIELD SEASONS WITHIN THE SAN FRANCISCO ESTUARY, CALIFORNIA. 2013-01-XX
STO11D0002	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 1976-2011 MONITORING DATA. 2011-XX-XX
STO11D0004	STOCKTON FISH AND WILDLIFE OFFICE - CHIPPS ISLAND TRAWLS CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 1976-2011 MONITORING DATA. 2011-XX-XX
STO13D0001	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 2012-2013 MONITORING DATA. 2013-XX-XX
STO13D0003	STOCKTON FISH AND WILDLIFE OFFICE - CHIPPS ISLAND TRAWLS CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 2012-2013 MONITORING DATA. 2013-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89693	**EO Index:**	90692
Key Quad:	Isleton (3812125)	**Element Code:**	AFCHB03010
Occurrence Number:	16	**Occurrence Last Updated:**	2013-07-25

Scientific Name: *Spirinchus thaleichthys* **Common Name:** longfin smelt

Listing Status:	**Federal:**	Candidate	**Rare Plant Rank:**	
	State:	Threatened	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5		
	State:	S1		

General Habitat:

EURYHALINE, NEKTONIC AND ANADROMOUS. FOUND IN OPEN WATERS OF ESTUARIES, MOSTLY IN MIDDLE OR BOTTOM OF WATER COLUMN.

Micro Habitat:

PREFER SALINITIES OF 15-30 PPT, BUT CAN BE FOUND IN COMPLETELY FRESHWATER TO ALMOST PURE SEAWATER.

Last Date Observed:	2002-05-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-09-25	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

SACRAMENTO RIVER AT ISLETON (RM 17.4).

Detailed Location:

SPECIMEN LOCALITY "SACRAMENTO RIVER, ISLETON BRIDGE." USFWS BEACH SEINE SITE SR017E.

Ecological:

USFWS BEACH SEINING SINCE 1976, WEEKLY SINCE THE '90S. A FEW MILES UPSTREAM OF THE CENTRAL SPAWNING GROUNDS AS CURRENTLY UNDERSTOOD, BELOW RIO VISTA. LONGFIN SMELT SPAWN FURTHER UPSTREAM IN YEARS WITH LOW INFLOWS FROM RIVERS TO DELTA.

Threats:

BAY-DELTA POPULATION IN DECLINE DUE TO DIVERSION, DROUGHT, ENTRAINMENT, FOOD LIMITATION CAUSED BY INVASIVE AMUR CLAM.

General:

1 COLLECTED IN 1949 (CAS #212385). 3 ADULTS CAUGHT IN SEINES, MAR 1979. 1 JUVENILE (28 MM FL) CAUGHT IN MAY 2002. SUBSEQUENT EFFORTS DETECTED NO LONGFIN SMELT.

PLSS:	T04N, R03E, Sec. 26 (M)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-10 N4224811 E621631	**Latitude/Longitude:**	38.16300 / -121.61158	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
Sacramento	Isleton (3812125), Rio Vista (3812126)

Sources:

FWS12R0001	U.S. FISH AND WILDLIFE SERVICE - ENDANGERED AND THREATENED WILDLIFE AND PLANTS; 12-MONTH FINDING ON A PETITION TO LIST THE SAN FRANCISCO BAY-DELTA POPULATION OF THE LONGFIN SMELT AS ENDANGERED OR THREATENED 2012-03-13
FWS49S0001	U.S. FISH AND WILDLIFE SERVICE - CAS #212385 COLLECTED FROM SACRAMENTO RIVER AT ISLETON BRIDGE 1949-01-28
STO11D0002	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 1976-2011 MONITORING DATA. 2011-XX-XX
STO13D0001	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 2012-2013 MONITORING DATA. 2013-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	89700	**EO Index:**	90695
Key Quad:	Jersey Island (3812116)	**Element Code:**	AFCHB03010
Occurrence Number:	17	**Occurrence Last Updated:**	2013-08-05

Scientific Name: *Spirinchus thaleichthys* **Common Name:** longfin smelt

Listing Status:	**Federal:**	Candidate	**Rare Plant Rank:**	
	State:	Threatened	**Other Lists:**	
CNDDB Element Ranks:	**Global:**	G5		
	State:	S1		

General Habitat:

EURYHALINE, NEKTONIC AND ANADROMOUS. FOUND IN OPEN WATERS OF ESTUARIES, MOSTLY IN MIDDLE OR BOTTOM OF WATER COLUMN.

Micro Habitat:

PREFER SALINITIES OF 15-30 PPT, BUT CAN BE FOUND IN COMPLETELY FRESHWATER TO ALMOST PURE SEAWATER.

Last Date Observed:	2012-04-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2012-09-27	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN, DPR, DFG, STATE	**Trend:**	Decreasing
Presence:	Presumed Extant		

Location:

SACRAMENTO RIVER FROM CACHE SLOUGH (RIO VISTA) DOWNSTREAM TO UPPER SUISUN BAY NEAR PITTSBURG.

Detailed Location:

6 USFWS BEACH SEINE SITES, N TO S: SR014W (RIO VISTA), SR012E&W (STUMP/SANDY BEACH), TM001N (BRANNAN ISLAND), & MS001N (SHERMAN ISLAND). 10 MULTI-STUDY CDFW MONITORING STATIONS #513, 520, 703, 704, 705, 706, 707, 711, 801, 804.

Ecological:

A KEY SPAWNING GROUNDS FOR THE BAY-DELTA POPULATION. SURVEYS IN AREA (& START YEAR): CDFW SPRING [=SPAWNING] KODIAK TRAWL (2002), 20MM [=LARVA] (1995), SMELT LARVAL SURVEY[SLS] (2009); USFWS BEACH SEINES (1979); DREDGE MONITORING (2006-08).

Threats:

DIVERSION, DROUGHT, ENTRAINMENT, FOOD LIMITATION BY AMUR CLAM. DREDGING TO MAINTAIN SHIPPING CHANNELS A POSSIBLE THREAT.

General:

396 COLLECTED 1946-48, 4 IN 1974. LOW #S CAUGHT IN FWS SEINES. 20MM(SLS) CATCH/YR: 232/'96 7650/'97 409/'99 3022/'00 2636/'01 9278/'02 2040/'03 2305/'04 361/'05 0/'06 753/'07 3956/'08 2270(3214)/'09 1160(3586)/'10 4(4195)/'11 501(5412)/'12.

PLSS:	T03N, R02E, Sec. 12 (M)	**Accuracy:**	non-specific area	**Area (acres):**	12,111
UTM:	Zone-10 N4219903 E614216	**Latitude/Longitude:**	38.11975 / -121.69699	**Elevation (feet):**	0

County Summary:	**Quad Summary:**
Contra Costa, Sacramento, Solano	Jersey Island (3812116), Antioch North (3812117), Honker Bay (3812118), Rio Vista (3812126)

Sources:

ADI12D0001	ADIB-SAMII, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-BAY DELTA DIVISION) - CDFW SMELT LARVA SURVEY, 2009-2012 2012-10-11
ADI12D0002	ADIB-SAMII, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-BAY DELTA DIVISION) - DFG SPRING KODIAK TRAWL SURVEY DATA, 1995-2012 2012-10-11
ADI13D0001	ADIB-SAMII, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-BAY DELTA DIVISION) - DFG 20MM SURVEY DATA, 1995-2012 2013-04-08
CAY74S0001	CAYWOOD & WILCOX - LACM #24707 COLLECTED FROM SACRAMENTO RIVER, 200 M ABOVE CLIFF HOUSE 1974-01-09
CAY74S0002	CAYWOOD, M. - LACM #24708 COLLECTED FROM SACRAMENTO RIVER, 200 M ABOVE CLIFF HOUSE 1974-06-02
FWS47S0005	U.S. FISH AND WILDLIFE SERVICE - CAS #215424 COLLECTED NEAR MOUTH OF MAYBERRY SLOUGH 1947-07-31
FWS48S0001	U.S. FISH AND WILDLIFE SERVICE - CAS SPECIMENS COLLECTED AT TOLAND'S LANDING, 1946-1948. 1948-03-26
LIN09F0006	LINDBERG, J. (UNIVERSITY OF CALIFORNIA, DAVIS) - FIELD SURVEY FORM FOR SPIRINCHUS THALEICHTHYS 2009-12-09
NOV08F0017	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-08-22
NOV08F0018	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-08-22
NOV08F0019	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-03
NOV08F0020	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-03
NOV08F0021	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-03
NOV08F0022	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-03
NOV08F0023	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-03
NOV08F0024	NOVOTNY, S. & K. WILLIAMSON (SWCA ENVIRONMENTAL CONSULTANTS) - FIELD SURVEY FORM FOR ACIPENSER TRANSMONTANUS & SPIRINCHUS THALEICHTHYS 2008-09-05
ROS07A0001	ROSENFIELD, J. & R. BAXTER (UNIVERSITY OF CALIFORNIA, DAVIS) - POPULATION DYNAMICS AND DISTRIBUTION PATTERNS OF LONGFIN SMELT IN THE SAN FRANCISCO ESTUARY. TRANSACTIONS OF THE AMERICAN FISHERIES SOCIETY 136:1577-1592 2007-XX-XX
STO11D0002	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 1976-2011 MONITORING DATA. 2011-XX-XX
STO13D0001	STOCKTON FISH AND WILDLIFE OFFICE - BEACH SEINES CHINOOK & PELAGIC ORGANISM DECLINE SPECIES 2012-2013 MONITORING DATA. 2013-XX-XX
SWC06R0001	SWCA ENVIRONMENTAL CONSULTANTS - STOCKTON AND SACRAMENTO DEEPWATER SHIP CHANNEL MAINTENANCE DREDGING PROJECT - 2006 FISH COMMUNITY AND ENTRAINMENT MONITORING REPORT. 2006-12-17
SWC07R0001	SWCA ENVIRONMENTAL CONSULTANTS - STOCKTON AND SACRAMENTO DEEPWATER SHIP CHANNEL MAINTENANCE DREDGING PROJECT - 2007 FISH COMMUNITY AND ENTRAINMENT MONITORING REPORT. 2007-12-11
WAN91R0001	WANG, J. - EARLY LIFE STAGES AND THE EARLY LIFE HISTORY OF THE DELTA SMELT IN THE SACRAMENTO-SAN JOAQUIN ESTUARY, WITH COMPARISON OF EARLY LIFE STAGES OF THE LONGFIN SMELT 1991-08-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68993
EO Index: 69701
Key Quad: Rio Vista (3812126)
Element Code: AMACC05030
Occurrence Number: 207
Occurrence Last Updated: 2007-04-19

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority
CNDDB Element Ranks: **Global:** G3G4
State: S4

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1999-09-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-09-24
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

BRANNAN ISLAND, ABOUT 1.8 ROAD MILES SE OF INTERSECTION OF HWYS 12 AND 160.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE, WITH LOCALITY "RIVER EDGE." SOURCE LISTS 4 COORDINATES FOR "BRANNAN SRA." BAT ASSUMED TO BE DETECTED AT ALL 4 LOCATIONS (OCC #206-207).

Ecological:

NO TREES. CONSISTS OF GRASSLAND OR SHRUBS.

Threats:

General:

BAT(S) DETECTED ON 24 SEP 1999.

PLSS: T04N, R03E, Sec. 33, SE (M)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-10 N4222952 E618515
Latitude/Longitude: 38.14667 / -121.64745
Elevation (feet): 20

County Summary:

Sacramento

Quad Summary:

Rio Vista (3812126)

Sources:

PIE04R0001 PIERSON, E. ET AL. - DISTRIBUTION AND STATUS OF WESTERN RED BATS (LASIURUS BLOSSEVILLII) IN CALIFORNIA 2004-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68993
EO Index: 69702
Key Quad: Rio Vista (3812126)
Element Code: AMACC05060
Occurrence Number: 65
Occurrence Last Updated: 2007-04-19

Scientific Name: *Lasiurus blossevillii*
Common Name: western red bat

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
WBWG_H-High Priority

CNDDB Element Ranks: **Global:** G4
State: S3

General Habitat:

ROOSTS PRIMARILY IN TREES, 2-40 FT ABOVE GROUND, FROM SEA LEVEL UP THROUGH MIXED CONIFER FORESTS.

Micro Habitat:

PREFERS HABITAT EDGES AND MOSAICS WITH TREES THAT ARE PROTECTED FROM ABOVE AND OPEN BELOW WITH OPEN AREAS FOR FORAGING.

Last Date Observed: 1999-09-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-09-24
Occurrence Rank: Unknown
Owner/Manager: DPR-BRANNAN ISLAND SRA
Trend: Unknown
Presence: Presumed Extant

Location:

BRANNAN ISLAND, ABOUT 1.8 ROAD MILES SE OF INTERSECTION OF HWYS 12 AND 160.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE, WITH LOCALITY "RIVER EDGE." SOURCE LISTS 4 COORDINATES FOR "BRANNAN SRA." BAT ASSUMED TO BE DETECTED AT ALL 4 LOCATIONS (OCC #64-65).

Ecological:

NO TREES. CONSISTS OF GRASSLAND OR SHRUBS.

Threats:

General:

BAT(S) DETECTED ON 24 SEP 1999.

PLSS: T04N, R03E, Sec. 33, SE (M)
Accuracy: 1/10 mile
Area (acres): 0
UTM: Zone-10 N4222952 E618515
Latitude/Longitude: 38.14667 / -121.64745
Elevation (feet): 20

County Summary:

Sacramento

Quad Summary:

Rio Vista (3812126)

Sources:

PIE04R0001 PIERSON, E. ET AL. - DISTRIBUTION AND STATUS OF WESTERN RED BATS (LASIURUS BLOSSEVILLII) IN CALIFORNIA 2004-04-15

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 43300
EO Index: 43300
Key Quad: Isleton (3812125)
Element Code: ARAAD02030
Occurrence Number: 518
Occurrence Last Updated: 2000-07-25

Scientific Name: *Emys marmorata*
Common Name: western pond turtle

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G3G4
State: S3

Rare Plant Rank:
Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_VU-Vulnerable
USFS_S-Sensitive

General Habitat:
A THOROUGHLY AQUATIC TURTLE OF PONDS, MARSHES, RIVERS, STREAMS AND IRRIGATION DITCHES, USUALLY WITH AQUATIC VEGETATION, BELOW 6000 FT ELEVATION.

Micro Habitat:
NEEDS BASKING SITES AND SUITABLE (SANDY BANKS OR GRASSY OPEN FIELDS) UPLAND HABITAT UP TO 0.5 KM FROM WATER FOR EGG-LAYING.

Last Date Observed: 1999-07-05
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1999-07-05
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
EAST SIDE OF GEORGIANA SLOUGH, 1 MILE EAST OF ISLETON.

Detailed Location:

Ecological:

Threats:

General:
1 INDIVIDUAL OBSERVED ON 5 JUL 1999.

PLSS: T04N, R04E, Sec. 30 (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4225259 E624192
Latitude/Longitude: 38.16669 / -121.58228
Elevation (feet):

County Summary:	Quad Summary:
Sacramento	Isleton (3812125)

Sources:

HOL99F0003 HOLLEY, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-DELTA LEVEES PROJECT) - FIELD SURVEY FORM FOR CLEMMYS MARMORATA (MARMORATA) 1999-07-05

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 10897
Key Quad: Rio Vista (3812126)
Occurrence Number: 1
EO Index: 12141
Element Code: IICOL49010
Occurrence Last Updated: 2004-10-05

Scientific Name: *Anthicus sacramento*
Common Name: Sacramento anthicid beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists: IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1
State: S4

General Habitat:
RESTRICTED TO SAND DUNE AREAS.

Micro Habitat:
INHABIT SAND SLIPFACES AMONG BAMBOO AND WILLOW BUT MAY NOT DEPEND ON PRESENCE OF THESE PLANT SPECIES.

Last Date Observed: 1977-06-27
Last Survey Date: 1977-06-27
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
WEST END OF GRAND ISLAND, 1 MI W OF ISLETON.

Detailed Location:

Ecological:

Threats:

General:
TYPE LOCALITY; TYPE SPECIMEN DEPOSITED AT CAS. 2 PARATYPES AND ONE NON-TYPE SPECIMEN DEPOSITED IN THE CALIFORNIA STATE COLLECTION OF ARTHROPODS (CDFA).

PLSS: T04N, R03E, Sec. 22 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4226072 E619972
Latitude/Longitude: 38.17458 / -121.63030
Elevation (feet): 15

County Summary:	Quad Summary:
Sacramento	Isleton (3812125), Rio Vista (3812126)

Sources:

CHA78A0001	CHANDLER, D.S. - A NEW ANTHICUS FROM CA. (COLEOPTERA: ANTHICIDAE). PAN-PACIFIC ENTOMOLOGIST 54:15-17. 1978-XX-XX
CHA78R0001	CHANDLER, D.S. - REPORT OF THE DISTRIBUTION OF ANTHICUS SACRAMENTO, THE SACRAMENTO ANTHICID BEETLE. REPORT TO SACRAMENTO. 1978-XX-XX
SHA05S0006	SHANKS, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-CALIFORNIA NATURAL DIVERSITY DATABASE) - MUSEUM SPECIMEN DATA TAKEN FROM CALIFORNIA STATE COLLECTION OF ARTHROPODS (CDFA). 2005-04-20

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 80865
EO Index: 81808
Key Quad: Rio Vista (3812126)
Element Code: PDAPI19030
Occurrence Number: 220
Occurrence Last Updated: 2010-11-29

Scientific Name: *Lilaeopsis masonii*
Common Name: Mason's lilaeopsis

Listing Status: **Federal:** None
State: Rare
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro Habitat:

TIDAL ZONES, IN MUDDY OR SILTY SOIL FORMED THROUGH RIVER DEPOSITION OR RIVER BANK EROSION. IN BRACKISH OR FRESHWATER. 0-10 M.

Last Date Observed: 2009-09-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-09-18
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ALONG THE SACRAMENTO RIVER BETWEEN GRAND ISLAND AND BRANNAN ISLAND.

Detailed Location:

MAPPED BY CNDDB AS 4 POLYGONS ACCORDING TO 2010 DWR DIGITAL DATA IN THE SW 1/4 OF SECTION 21 AND THE SE 1/4 OF SECTION 20.

Ecological:

EXPOSED TIDAL MUD FLAT WITH SCIRPUS, HYDROCOTYLE, POLYGONUM, AND JUNCUS EFFUSUS.

Threats:

General:

MANY DENSE TO SCATTERED PATCHES OBSERVED IN 2009.

PLSS: T04N, R03E, Sec. 21, SW (M)
Accuracy: specific area
Area (acres): 6
UTM: Zone-10 N4226153 E617684
Latitude/Longitude: 38.17562 / -121.65640
Elevation (feet): 5

County Summary:

Sacramento

Quad Summary:

Rio Vista (3812126)

Sources:

DWR10D0001 CALIFORNIA DEPARTMENT OF WATER RESOURCES - BAY DELTA CONSERVATION PLAN SURVEY DATA 2010-01-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 37577
Key Quad: Isleton (3812125)
Occurrence Number: 66
EO Index: 32579
Element Code: PDASTE8470
Occurrence Last Updated: 2005-04-01

Scientific Name: *Symphyotrichum lentum*
Common Name: Suisun Marsh aster

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_USDA-US Dept of Agriculture

General Habitat:
MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro Habitat:
MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-15 M.

Last Date Observed: 2002-XX-XX
Last Survey Date: 2002-XX-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
VICINITY OF CONFLUENCE OF MOKELUMNE RIVER AND GEORGIANA SLOUGH.

Detailed Location:
MAPPED AS FOUR POLYGONS: NORTHERN POLYGON FROM HOL99F0005 (1999), TWO CENTRAL POLYGONS FROM HUD02F0022 (2002), AND SOUTHERN POLYGON FROM PER94U0002 (1994). PLANTS ON SOUTHERN TYLER ISLAND AND NORTHWESTERN BOULDIN ISLAND.

Ecological:
OUTER LEVEE SLOPE AND INTERTIDAL ZONE.

Threats:
IN AREA SUBJECT TO PERPETUAL TIDAL AND RECREATIONAL WAVE FORCES.

General:
OBSERVED IN 1999 AND 2002. EO #127 LUMPED HERE.

PLSS: T03N, R04E, Sec. 07, NE (M)
Accuracy: specific area
Area (acres): 45
UTM: Zone-10 N4220880 E624649
Latitude/Longitude: 38.12717 / -121.57783
Elevation (feet): 5

County Summary:
Sacramento, San Joaquin

Quad Summary:
Bouldin Island (3812115), Isleton (3812125)

Sources:

HOL99F0005	HOLLEY, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-DELTA LEVEES PROJECT) - FIELD SURVEY FORM FOR SYMPHYOTRICHUM LENTUM 1999-07-05
HUD02F0022	HUDDLESTON, R. ET AL. - FIELD SURVEY FORM FOR SYMPHYOTRICHUM LENTUM 2002-XX-XX
PER94U0002	PERRINE, P. & B. BABA - BOULDIN ISLAND AREA: OBSERVATION INFO AND MAPS FOR LATHYRUS JEPSONII JEPSONII, ASTER LENTUS, LILAEOPSIS MASONII, HIBISCUS LASIOCARPUS & LIMOSELLA SUBULATA 1994-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82601
EO Index: 83590
Key Quad: Isleton (3812125)
Element Code: PDASTE8470
Occurrence Number: 174
Occurrence Last Updated: 2018-12-28

Scientific Name: *Symphyotrichum lentum*
Common Name: Suisun Marsh aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_USDA-US Dept of Agriculture

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:

MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro Habitat:

MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-15 M.

Last Date Observed: 2008-01-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-01-21
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

LONG ISLAND AND ALONG HIGHWAY 160 JUST WEST OF ISLETON.

Detailed Location:

2 POLYGONS MAPPED BY CNDDB. SE POLYGON IS SPECIFIC, BASED ON 2008 BRONNY COORDINATES. NW POLYGON IS NON-SPECIFIC, BASED ON A 1972 NEILSON COLLECTION FROM "LONG ISLAND, SACRAMENTO RIVER, JUST WNW OF ISLETON."

Ecological:

ON MOUNDS WHICH HAVE BEEN ERODED AND SCOURED BY CONTINUOUS WAVE ATTENUATION. ASSOCIATED WITH JUNCUS EFFUSUS.

Threats:

BANK EROSION.

General:

SEEN ON LONG ISLAND IN 1972. APPROXIMATELY 3 ROBUST CLUMPS OBSERVED IN SE POLYGON IN 2008.

PLSS: T04N, R03E, Sec. 26, W (M)
Accuracy: non-specific area
Area (acres): 41
UTM: Zone-10 N4225145 E620592
Latitude/Longitude: 38.16614 / -121.62339
Elevation (feet): 5

County Summary:

Sacramento

Quad Summary:

Isleton (3812125), Rio Vista (3812126)

Sources:

BRO08F0010 BRONNY, C. - FIELD SURVEY FORM FOR SYMPHYOTRICHUM LENTUM 2008-01-21

NEI72S0004 NEILSON, J. & D. MCQUAID - NEILSON SN DAV #150935, #151128, #209839, #210220 1972-10-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82611
EO Index: 83601
Key Quad: Rio Vista (3812126)
Element Code: PDASTE8470
Occurrence Number: 180
Occurrence Last Updated: 2011-05-19

Scientific Name: *Symphyotrichum lentum*
Common Name: Suisun Marsh aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_USDA-US Dept of Agriculture

General Habitat:

MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro Habitat:

MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-15 M.

Last Date Observed: 2009-09-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-09-17
Occurrence Rank: Fair
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

STEAMBOAT SLOUGH, JUST EAST OF ITS JUNCTION WITH CACHE SLOUGH, NE OF RIO VISTA.

Detailed Location:

NORTH AND SOUTH SHORE OF STEAMBOAT SLOUGH. MAPPED BY CNDDB AS 3 POLYGONS ACCORDING TO 2010 DWR DIGITAL DATA. IN THE SOUTH HALF OF SECTION 16 EXTENDING EAST INTO THE SW 1/4 OF SECTION 15 AND EXTENDING SOUTH INTO THE NORTH HALF OF SECTION 21.

Ecological:

RIPRAP WITH RIPARIAN.

Threats:

General:

UNKNOWN NUMBER OF PLANTS OBSERVED IN 2009.

PLSS: T04N, R03E, Sec. 16, S (M)
Accuracy: specific area
Area (acres): 28
UTM: Zone-10 N4227341 E618463
Latitude/Longitude: 38.18622 / -121.64732
Elevation (feet): 5

County Summary:

Sacramento, Solano

Quad Summary:

Rio Vista (3812126)

Sources:

DWR10D0001 CALIFORNIA DEPARTMENT OF WATER RESOURCES - BAY DELTA CONSERVATION PLAN SURVEY DATA 2010-01-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82620
EO Index: 83602
Key Quad: Rio Vista (3812126)
Element Code: PDASTE8470
Occurrence Number: 181
Occurrence Last Updated: 2011-05-23

Scientific Name: *Symphyotrichum lentum*
Common Name: Suisun Marsh aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_USDA-US Dept of Agriculture

General Habitat:
MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro Habitat:
MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-15 M.

Last Date Observed: 2008-01-21
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2008-01-21
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
STEAMBOAT SLOUGH, ALONG RYER ROAD EAST APPROXIMATELY 1.8 ROAD MILES EAST OF RYER ISLAND FERRY, NE OF RIO VISTA.

Detailed Location:
IN THE SW 1/4 OF THE NE 1/4 OF SECTION 15.

Ecological:
ALONG TOE OF LEVEE.

Threats:
BANK EROSION.

General:
APPROXIMATELY 50 PLANTS OBSERVED IN 2008. THESE WERE DISCONTINUOUS COLONIES OF PLANTS ALONG A 400 FOOT STRETCH OF LEVEE.

PLSS: T04N, R03E, Sec. 15, NE (M)
Accuracy: specific area
Area (acres): 3
UTM: Zone-10 N4228307 E619787
Latitude/Longitude: 38.19475 / -121.63204
Elevation (feet): 10

County Summary:
Solano

Quad Summary:
Rio Vista (3812126)

Sources:
BRO08F0011 BRONNY, C. - FIELD SURVEY FORM FOR SYMPHYOTRICHUM LENTUM 2008-01-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 82621
EO Index: 83603
Key Quad: Rio Vista (3812126)
Element Code: PDASTE8470
Occurrence Number: 182
Occurrence Last Updated: 2011-05-24

Scientific Name: *Symphyotrichum lentum*
Common Name: Suisun Marsh aster

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2

CNDDB Element Ranks: **Global:** G2
State: S2
Other Lists: SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden
SB_USDA-US Dept of Agriculture

General Habitat:
MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro Habitat:
MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-15 M.

Last Date Observed: 2009-09-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-09-18
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
SACRAMENTO RIVER WEST OF IDA ISLAND, BETWEEN GRAND ISLAND AND BRANNAN ISLAND, BETWEEN RIO VISTA AND ISLETON.

Detailed Location:
BOTH SIDES OF THE SACRAMENTO RIVER. MAPPED BY CNDDB AS 9 POLYGONS ACCORDING TO 2010 DWR DIGITAL DATA.

Ecological:
LEVEE RIPRAP, PILINGS, TIDAL MUD BANKS, RIPARIAN MARSHES, AND LOGS.

Threats:

General:
TOTAL OF 439 PLANTS/CLUMPS OBSERVED IN 2009.

PLSS: T04N, R03E, Sec. 21, S (M)
Accuracy: specific area
Area (acres): 24
UTM: Zone-10 N4226042 E618130
Latitude/Longitude: 38.17455 / -121.65133
Elevation (feet): 10

County Summary:
Sacramento

Quad Summary:
Rio Vista (3812126)

Sources:
DWR10D0001 CALIFORNIA DEPARTMENT OF WATER RESOURCES - BAY DELTA CONSERVATION PLAN SURVEY DATA 2010-01-29

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 11226
Key Quad: Rio Vista (3812126)
Occurrence Number: 3
EO Index: 19249
Element Code: PDFAB250D2
Occurrence Last Updated: 2000-03-08

Scientific Name: *Lathyrus jepsonii var. jepsonii*
Common Name: Delta tule pea

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5T2
State: S2
Rare Plant Rank: 1B.2
Other Lists: SB_BerrySB-Berry Seed Bank
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

IN FRESHWATER AND BRACKISH MARSHES. OFTEN FOUND WITH TYPHA, ASTER LENTUS, ROSA CALIFORNICA, JUNCUS SPP., SCIRPUS, ETC. USUALLY ON MARSH AND SLOUGH EDGES. 0-5 M.

Last Date Observed: 1980-10-XX
Last Survey Date: 1980-10-XX
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

STEAMBOAT SLOUGH NEAR JUNCTION WITH SACRAMENTO RIVER.

Detailed Location:

UNKNOWN WHICH SIDE OF RIVER THE PLANTS WERE SEEN. SITE MAPPED TO ENCOMPASS ALL LIKELY HABITAT ALONG BOTH SIDES OF THE SLOUGH UP TO 0.5 MILE UPSTREAM FROM CONFLUENCE WITH THE SACRAMENTO RIVER. ACTUAL POP SIZE SMALLER THAN DEPICTED AT CNDDB.

Ecological:

EDGE OF SLOUGH JUST ABOVE HIGH WATER LINE. ASSOCIATED WITH EQUISETUM, VITUS CALIFORNICA, AND ROSA, QUERCUS LOBATA, PLATANUS RACEMOSA, ALNUS RHOMBIFOLIA, FRAXINUS, AND RUBUS.

Threats:

General:

5 PLANTS.

PLSS: T04N, R03E, Sec. 21 (M)
UTM: Zone-10 N4227078 E617784
Accuracy: non-specific area
Latitude/Longitude: 38.18394 / -121.65511
Area (acres): 70
Elevation (feet): 2

County Summary:

Sacramento, Solano

Quad Summary:

Rio Vista (3812126)

Sources:

DEA80F0003 DEAN, J. - FIELD SURVEY FORM FOR LATHYRUS JEPSONII VAR. JEPSONII 1980-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 37650
EO Index: 32652
Key Quad: Bouldin Island (3812115)
Element Code: PDFAB250D2
Occurrence Number: 59
Occurrence Last Updated: 1997-12-08

Scientific Name: *Lathyrus jepsonii var. jepsonii*
Common Name: Delta tule pea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_BerrySB-Berry Seed Bank
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:
MARSHES AND SWAMPS.

Micro Habitat:
IN FRESHWATER AND BRACKISH MARSHES. OFTEN FOUND WITH TYPHA, ASTER LENTUS, ROSA CALIFORNICA, JUNCUS SPP., SCIRPUS, ETC. USUALLY ON MARSH AND SLOUGH EDGES. 0-5 M.

Last Date Observed: 1994-08-17
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1994-08-17
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
NORTHWEST END OF BOULDIN ISLAND ALONG EAST BANK OF MOKELUMNE RIVER JUST SOUTH OF HIGHWAY 12.

Detailed Location:
MAPPED ABOUT 100 METERS SOUTH OF HIGHWAY ALONG RIVER SIDE OF LEVEE.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS MAP DETAIL.

PLSS: T03N, R04E, Sec. 07 (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4220533 E624537
Latitude/Longitude: 38.12406 / -121.57917
Elevation (feet): 1

County Summary:	Quad Summary:
San Joaquin	Bouldin Island (3812115)

Sources:

PER94U0002 PERRINE, P. & B. BABA - BOULDIN ISLAND AREA: OBSERVATION INFO AND MAPS FOR LATHYRUS JEPSONII JEPSONII, ASTER LENTUS, LILAEOPSIS MASONII, HIBISCUS LASIOCARPUS & LIMOSELLA SUBULATA 1994-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 56159
EO Index: 56175
Key Quad: Isleton (3812125)
Element Code: PDFAB250D2
Occurrence Number: 134
Occurrence Last Updated: 2004-07-20

Scientific Name: *Lathyrus jepsonii var. jepsonii*
Common Name: Delta tule pea

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: SB_BerrySB-Berry Seed Bank
SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

CNDDB Element Ranks: **Global:** G5T2
State: S2

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

IN FRESHWATER AND BRACKISH MARSHES. OFTEN FOUND WITH TYPHA, ASTER LENTUS, ROSA CALIFORNICA, JUNCUS SPP., SCIRPUS, ETC. USUALLY ON MARSH AND SLOUGH EDGES. 0-5 M.

Last Date Observed: 2004-07-09
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2004-07-09
Occurrence Rank: Poor
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

WATER SIDE OF THE NORTHERN LEVEE ALONG GEORGIANA SLOUGH, JUST UPSTREAM OF THE OXBOW, SOUTH OF ISLETON.

Detailed Location:

FOUND ON OUTSIDE OF RIPARIAN CORRIDOR NEAR LEVEE TOE.

Ecological:

RIPARIAN SCRUB HABITAT. DOMINANTS INCLUDE SALIX EXIGUA, S. GOODINGII, AND S. LASIOLEPIS. ASSOCIATES INCLUDE LEYMUS TRITICOIDES AND JUNCUS.

Threats:

LEVEE APPEARS TO BE MOWED OR GRAZED.

General:

1 PLANT SEEN IN 2004.

PLSS: T04N, R03E, Sec. 36, NE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4223588 E623050
Latitude/Longitude: 38.15179 / -121.59560
Elevation (feet): 0

County Summary:

Sacramento

Quad Summary:

Isleton (3812125)

Sources:

HEN04F0011 HENKE, J. - FIELD SURVEY FORM FOR LATHYRUS JEPSONII VAR. JEPSONII 2004-07-09

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 37124
EO Index: 32121
Key Quad: Bouldin Island (3812115)
Element Code: PDLAM1U0Q0
Occurrence Number: 2
Occurrence Last Updated: 2014-04-22

Scientific Name: *Scutellaria lateriflora*
Common Name: side-flowering skullcap

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 2B.2
Other Lists: IUCN_LC-Least Concern

CNDDB Element Ranks: **Global:** G5
State: S2

General Habitat:
MEADOWS AND SEEPS, MARSHES AND SWAMPS.

Micro Habitat:
WET MEADOWS AND MARSHES. IN THE DELTA, OFTEN FOUND ON LOGS. 0-500 M.

Last Date Observed: 1892-09-06
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1892-09-06
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
BOULDIN ISLAND.

Detailed Location:
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND BOULDIN ISLAND.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN 1892 COLLECTION BY BRANDEGEE. NEEDS FIELDWORK.

PLSS: T03N, R04E, Sec. 15 (M)
Accuracy: non-specific area
Area (acres): 6,035
UTM: Zone-10 N4218315 E628626
Latitude/Longitude: 38.10350 / -121.53293
Elevation (feet):

County Summary:
San Joaquin

Quad Summary:
Terminous (3812114), Bouldin Island (3812115), Isleton (3812125)

Sources:
BRA92S0021 BRANDEGEE, T. - BRANDEGEE SN UC #104313 1892-09-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 83304
EO Index: 84309
Key Quad: Rio Vista (3812126)
Element Code: PMALI040Q0
Occurrence Number: 84
Occurrence Last Updated: 2011-07-01

Scientific Name: *Sagittaria sanfordii*
Common Name: Sanford's arrowhead

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: BLM_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:

MARSHES AND SWAMPS.

Micro Habitat:

IN STANDING OR SLOW-MOVING FRESHWATER PONDS, MARSHES, AND DITCHES. 0-605 M.

Last Date Observed: 2009-09-18
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2009-09-18
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH SIDE OF SACRAMENTO RIVER, ABOUT 1 MILE WEST OF WESTERN END OF IDA ISLAND.

Detailed Location:

TWO COLONIES MAPPED IN THE NE 1/4 OF THE SE 1/4 OF SECTION 20 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 21 ACCORDING TO 2010 DIGITAL DATA FROM THE DEPARTMENT OF WATER RESOURCES.

Ecological:

EXPOSED TIDAL SANDY SHORELINE WITH SCIRPUS AND POLYGONUM. THE RARE LILAEOPSIS MASONII ALSO OCCURS AT THIS SITE.

Threats:

General:

40 PLANTS OBSERVED IN WESTERN POLYGON AND 50 PLANTS OBSERVED IN EASTERN POLYGON IN 2009.

PLSS: T04N, R03E, Sec. 20, SE (M)
Accuracy: specific area
Area (acres): 2
UTM: Zone-10 N4226084 E617377
Latitude/Longitude: 38.17503 / -121.65992
Elevation (feet): 5

County Summary:	Quad Summary:
Sacramento	Rio Vista (3812126)

Sources:

DWR10D0001 CALIFORNIA DEPARTMENT OF WATER RESOURCES - BAY DELTA CONSERVATION PLAN SURVEY DATA 2010-01-29

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Sacramento County, California

Local office

San Francisco Bay-Delta Fish And Wildlife

(916) 930-5603
(916) 930-5654

650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

http://kim_squires@fws.gov

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Clapper Rail Rallus longirostris obsoletus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4240	Endangered

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS

Delta Green Ground Beetle Elaphrus viridis — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2319

Monarch Butterfly Danaus plexippus — Candidate
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS

Conservancy Fairy Shrimp Branchinecta conservatio — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8246

Vernal Pool Fairy Shrimp Branchinecta lynchi — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS

Large-flowered Fiddleneck Amsinckia grandiflora — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5558

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Delta Smelt Hypomesus transpacificus https://ecos.fws.gov/ecp/species/321#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders

and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Nuttall's Woodpecker *Picoides nuttallii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse *Baeolophus inornatus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Tricolored Blackbird *Agelaius tricolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Wrentit *Chamaea fasciata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie *Pica nuttalli* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

CULTURAL RESOURCES INVENTORY SURVEY

Kushner Residential Development Project
1.16-Acres
City of Isleton, Sacramento County, California

Prepared for

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Keywords *for Information Center Use:*
Cultural Resources Inventory Survey, 1.16-Acres, Sacramento County, CEQA, USGS Isleton, Ca. 7.5' Quadrangle, No Significant Historical Resources, No Unique Archaeological Resources

May 17, 2022

GENESIS SOCIETY

ARCHAEOLOGICAL - HISTORICAL - CULTURAL RESOURCE MANAGEMENT SERVICES

ABSTRACT

This report details the results of a cultural resources inventory survey involving creation of a residential development, involving approximately 1.16-acres of land located immediately adjacent to the north side of 6th Street, the east side of D Street, and the west side of Gas Well Road, within the southern portion of the City of Isleton, Sacramento County, California.

The proponent proposes to create a seven-lot residential subdivision, which will include grading and land recontouring, and ultimately construction of new residential buildings, placement of buried utilities, and general landscaping.

Existing records at the North Central Information Center document that none of the present APE had been subjected to previous archaeological investigation, and that one traditional cultural landscape (P-34-5225) had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. No prehistoric or historic-era cultural resources were identified during the pedestrian survey. The traditional cultural landscape (P-34-5225) was subjected to a formal evaluation, and recommended not eligible for the CRHR due to a substantial lack of integrity.

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on April 20, 2022. The NAHC responded on April 27, 2022, indicating that a search of their Sacred Lands File was negative.

The probability of encountering buried archaeological sites within the APE is low. This conclusion is derived in part from the observed soil matrices which have been subjected to a high degree of disturbance associated with past impacts to the subject property. Evidence of ground disturbance assisted in determining whether or not subsurface resources were present within the APE. Overall, the soil types present and contemporary disturbance would warrant a finding of low probability for encountering buried archaeological sites.

Based on the absence of significant historical resources/unique archaeological resources within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed.

CONTENTS

1. INTRODUCTION

Project Background

This report details the results of a cultural resources inventory survey involving creation of a residential development, involving approximately 1.16-acres of land located immediately adjacent to the north side of 6th Street, the east side of D Street, and the west side of Gas Well Road, within the southern portion of the City of Isleton, Sacramento County, California.

The proponent proposes to create a seven-lot residential subdivision, which will include grading and land recontouring, and ultimately construction of new residential buildings, placement of buried utilities, and general landscaping.

Since the project will involve physical disturbance to ground surface and sub-surface components in conjunction with residential development, it has the potential to impact cultural resources that may be located within the area of potential effects (APE). In this case, the APE would consist of the circa 1.16-acre land area within which the residential development work will be undertaken. Evaluation of the project's potential to impact cultural resources must be undertaken in conformity with the City of Isleton and Sacramento County rules and regulations, and in compliance with requirements of the California Environmental Quality Act of 1970, Public Resources Code, Section 21000, et seq. (CEQA), and The California CEQA Environmental Quality Act Guidelines, California Administrative Code, Section 15000 et seq. (Guidelines as amended).

Regulatory Context

The following section provides a summary of the applicable regulations, policies and guidelines relating to the proper management of cultural resources.

The California Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Public Resources Code (PRC) Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). The criteria for listing resources on the CRHR were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
(2) Is associated with the lives of persons important in our past
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
(4) Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852(d)(2)). The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native

American, the coroner must contact the California NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

PRC Sections 21083.2(b)–(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource, even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance

> and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA [CEQA Guidelines Section 15064.5(b)(2)].

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2(a), (b), and (c)).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (PRC 21074(c); 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described in the following text, these procedures are detailed in PRC Section 5097.98.

Native American Historic Cultural Sites

State law (PRC Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the Native American Heritage Commission (NAHC).

In the event that Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from PRC Section

5097.98) and California Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended of the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98 (14 CCR 15064.5(e)).

Scope of Work

Compliance with CEQA (and County rules and regulations) requires completion of projects in conformity with the amended (October 1998) Guidelines, including in particular Section 15064.5. Based on these rules, regulations and Guidelines, the following specific tasks were considered an adequate and appropriate Scope of Work for the present archaeological survey:

- Conduct a records search at the North Central Information Center of the California Historical Resources Information System and consult with the Native American Heritage Commission. The goals of the records search and consultation are to determine (a) the extent and distribution of previous archaeological surveys, (b) the locations of known archaeological sites and any previously recorded archaeological districts, and (c) the relationships between known sites and environmental variables. This step is designed to ensure that, during subsequent field survey work, all significant/eligible cultural resources are discovered, correctly identified, fully documented, and properly interpreted.

- Conduct a pedestrian survey of the APE in order to record and evaluate any previously unidentified cultural resources. Based on map review, a complete coverage, intensive survey was considered appropriate, given the presence of moderate archaeological sensitivity within the property. The purpose of the pedestrian survey is to ensure that any previously identified sites are re-located and evaluated in relation to the present project/undertaking. For any previously undocumented sites discovered, the field survey would include formally recording these resources on State of California DPR-523 Forms.

- Upon completion of the records search and pedestrian survey, prepare a Final Report that identifies project effects and recommends appropriate mitigation measures for sites that might be affected by the undertaking and that are considered significant or potentially significant per CEQA, and/or eligible or potentially eligible for inclusion on the California Register of Historical Resources.

The remainder of the present document constitutes the Final Report for this project, detailing the results of the records search, consultation and pedestrian survey and providing recommendations for treatment of significant/eligible archaeological and historic sites. All field survey work followed guidelines provided by the Office of Historic Preservation (Sacramento) and conforms to accepted professional standards.

2. Location, Environmental and Cultural Context

Location

The project area consists of approximately 1.16-acres of land located immediately adjacent to the north side of 6th Street, the east side of D Street, and the west side of Gas Well Road, within the southern portion of the City of Isleton, Sacramento County, California. Lands affected are located within a portion of projected Section 33 of Township 5 North, Range 4 East, as shown on the USGS Isleton, California, 7.5' Series quadrangle (see attached ***APE Map***).

Environment

The project area consists of central-western Sacramento Valley lands located adjacent to the Sacramento River, within a basin that receives winter storm runoff from a significant watershed. The basin is formed in deep sediments of the Sacramento Valley, which in turn has been uplifted along its eastern margin where it interfaces with the lower foothills of the Sierra Nevada, and along its western margin where it interfaces with the Coast Range.

Isleton, within which the present APE is located, is situated at the nexus between the Sacramento Valley and the San Francisco Bay Area. Waters flowing from the mountain ranges and into the Sacramento River, then flow through the San Francisco Bay Area, and ultimately are disbursed into the Pacific Ocean.

Geologically, the Bay Area region has undergone intensive alteration over the past 12,000 years. It was during the Pleistocene that the Pacific shoreline extended approximately 15 miles further west then its present location, with subsequent, catastrophic melting of continent-spanning glaciers responsible for the present sea levels and shore line proximity. Concomitant with increases to sea level was the intrusion of salt water, easterly, which ultimately formed the Suisun Bay and the West Delta. The landscapes created by these climatic conditions ranged from saltmarsh and redwood forests to mixed evergreen woodlands and grasslands.

Topography within the APE is generally flat, with an elevation averaging approximately 5-feet above mean sea level. The region is characterized by a Mediterranean climate, with cool, rainy winters and hot, dry summers. The average annual temperature for the project area ranges from 38-91ºF, with the hottest temperatures occurring in July. The average yearly rainfall totals for the area are approximately 13 inches, with the maximum annual precipitation occurring in January.

The region once supported a variety of flora and fauna taxa which have been subsequently replaced with domesticated plants and a slimmer variety of animals, including marsh birds, ducks, geese, raptors, reptiles, amphibians and small mammals.

In view of the substantial surface water sources throughout this area, prehistoric use and occupation was generally intensive, but the population was not randomly distributed. Clearly, the most intensively occupied land areas were at elevated locations along the river systems and along the Valley/Foothill interface.

Based on geoarchaeological overviews prepared by Caltrans, geological surveys, and preliminary soil analysis, the present APE is composed of Rindge series soils which are associated with Historical to modern (150 cal BP to present) deposits. This soil type is not sensitive for buried pre-contact (Native American) archaeological deposits.

Prehistory

The Sacramento/San Joaquin Valley area generally has a long and complex cultural history with distinct regional patterns that extends back more than 11,000 years. The first generally agreed-upon evidence for the presence of prehistoric peoples in the area is represented by the distinctive fluted spear points (e.g. Heizer 1938), some resembling Clovis Points, found on the margins of extinct lakes in the San Joaquin Valley. The Clovis points are found on the same surface with the bones of extinct animals such as mammoths, sloths, and camels. Based on evidence from elsewhere, the ancient hunters who used these spear points existed during a narrow time range between about 10,900 BP and 11,200 BP (Moratto 2004).

The next cultural period represented, the Western Pluvial Lakes Tradition and thought by most to be subsequent to the Clovis period, is another widespread complex that is characterized by stemmed spear points. This poorly defined early cultural tradition is regionally known from a small number of sites in the Central Coast Range, San Joaquin Valley lake margins, and Sierra Nevada foothills. The cultural tradition is dated to between about 8,000 and 10,000 years ago and its practitioners may be the precursors to the subsequent cultural pattern (Wallace 1978).

About 8,000 years ago, many California cultures shifted the main focus of their subsistence strategies from hunting to seed gathering as evidenced by the increase in food-grinding implements found in archeological sites dating to this period. This cultural pattern is best known for southern California, where it has been termed the Milling Stone Horizon (Wallace, 1954, 1978). However, subsequent research suggests that the horizon may be more widespread than originally described and likely extended throughout the Valley (Moratto 2004); radiocarbon dates suggest a maximum age range between about 8,000 and 2,000 BP, but with most clustering between about 6,000 to 4,000 BP.

Cultural patterns as reflected in the archeological record, particularly specialized subsistence practices, became codified within the last 3,000 years. The archeological record becomes more complex, as specialized adaptations to locally available resources were developed and populations expanded. Many sites dated to this time period contain mortars and pestles and/or are associated with bedrock mortars implying the intense exploitation of the acorn. The range of subsistence resources utilized along with regional exchange systems expanded significantly. Along the coast and in the Central Valley, archeological evidence of social stratification and craft specialization is indicated by well-made artifacts such as charmstones

and beads, often found as mortuary items. Ethnographic lifeways serve as good analogs for this period.

Ethnography

The project area is located within territory claimed by the Utian-Miwokan-speaking Plains Miwok (Levy 1978) at the time of initial European-American entry into this region (*circa*. A.D. 1800). The Plains Miwok occupied a portion of the Central Valley's Sacramento-San Joaquin Delta and adjacent plains in lands that today include southern Sacramento County, eastern Solano County and northern San Joaquin County, including the southern reaches of both the Mokelumne and Cosumnes Rivers, and both banks of the Sacramento River from Rio Vista, northward to Freeport (ibid.).

The basic social unit for the Miwok was the family, although the village may also be considered a social, a political and economic unit (i.e., tribelet). The tribelet typically consisted of from 50-100 individuals, and was considered an independent sovereign that controlled a defined geographical boundary. Tribelet settlements ranged from semi-permanent villages to a variety of seasonal/special use sites used primarily for resource procurement. Within the Isleton area, one such tribelet has been documented. Bennyhoff (1977) and others have documented Guaypemne, a very small tribelet with a primary village located on Tyler Island, adjacent to Georgiana Slough. This tribelet likely controlled territory including Andrus, Tyler and Brannan Islands, prior to Spanish intrusions beginning in 1811. Resistant to the initial efforts by Spanish missionaries, the first inhabitants of Guaypemne were baptized in 1821, with the last members of the Tribelet to be bap began the proc were fully missionized by 1825, with most members relocated to Mission San Jose (ibid.).

Prehistoric Miwok villages consisted of dome-shaped houses covered with tule mats ar tule thatch. Semi-subterranean lodges were also constructed, and served as ceremonial centers for the tribelet. A variety of resources contributed to the Miwok economic patterns. Terrestrial resources included deer, elk, antelope, bear and a variety of small mammals, as well as seeds, acorns, roots, tubers and berries. Aquatic resources included a variety of fish, mussels, clams and snails. The collection and processing of these various food resources was accomplished with the use of a wide variety of wooden, bone and stone artifacts. The Miwok were very sophisticated in terms of their knowledge of the uses of local animals and plants, and of the availability of raw material sources that could be used in manufacturing an immense array of primary and secondary tools and implements. However, only fragmentary evidence of their material culture remains, due in part to perishability, and in part to the impacts to archaeological sites resulting from later (historic) land uses.

Historic Context

Historically, the interior of California was initially visited by Anglo-American fur trappers, Russian scientists, and Spanish-Mexican expeditions during the early part of the 19th Century. These early explorations were followed by a rapid escalation of European-

American activities, which culminated in the massive influx fostered by the discovery of gold at Coloma in 1848.

Early Spanish expeditions arrived from Bay Area missions as early as 1804, penetrating the northwestern San Joaquin Valley (Cook, 1976). By the mid-1820s, hundreds of fur trappers were annually traversing the Valley on behalf of the Hudson's Bay Company (Maloney, 1945). By the late 1830s and early 1840s, several small permanent European-American settlements had emerged in the Central Valley and adjacent foothill lands, including Ranchos in the interior Coast Range, and of course the settlement at New Helvetia (Sutter's Fort) at the confluence of the Sacramento and American Rivers (Sacramento).

The present APE is located within Sacramento County, which is one of California's original counties. Established in 1850, the county was named by Gabriel Moraga after the eponymous river that forms the county's western boundary.

With the discovery of gold in the Sierra Nevada, large numbers of European-Americans, Hispanics, and Chinese arrived in and traveled through the Valley. The Valley's east-side mining communities' demands for hard commodities led quickly to the expansion of ranching and agriculture throughout the Great Central Valley and the interior valleys of the Coast Range. Stable, larger populations arose and permanent communities slowly emerged in the Central Valley, particularly along major transportation corridors. Of particular importance in this regard was the transformation brought about by the railroad.
The Southern Pacific, Central Pacific and Atcheson Topeka and Santa Fe Railroads and a host of smaller interurban lines to the north and east around the cities of Sacramento, Stockton and Modesto began intensive projects in the late 1860s. By the turn of the century, nearly 3,000 miles of lines connected the cities of Modesto and Stockton with points south and north. Many of the valley's cities, including many in San Joaquin and adjacent Counties, were laid out as isolated railroad towns in the 1870s and 1880s by the Southern and Central Pacific, which not only built and settled, but continued to nurture the infant cities until settlement could be independently sustained.

One such railroad was the Sacramento Southern Railroad, which was to provide service between Sacramento and Stockton, with a branch extending from Walnut Grove to Antioch. Planning for the latter portion of this alignment fell through, and construction began in 1908 on the initial segment which ended at Walnut Grove. Following the end of World War II, the line was extended south to Isleton. This alignment previously was located adjacent to the present APE's southern boundary.

The community that would eventually become Isleton, is located on a geological feature known as Andrus Island. Consisting of landforms subjected to periodic, episodic flooding, several of these islands "populate" the delta region near confluences of rivers and streams with the Sacramento River. The upper elevation of Andrus Island was occupied by one George Andrus as early as 1852. In 1857, the State law allowed purchase of unpatented lands within one mile of the Sacramento River. Farmers rapidly purchased these lands, and in 1861 the Board of Swamp Land Commissioners determined that Andrus Island could benefit from construction of a levee. Over the following few years, the levees were

constructed, and by 1874, the population and agricultural production of the region warranted development of a town. Isleton was laid out by Josiah Pool and John Brocas, with formal incorporation occurring in 1923.

3. RECORDS SEARCH and SOURCES CONSULTED

Several types of information were considered relevant to evaluating the types of archaeological sites and site distribution that might be encountered within the project area. The information evaluated prior to conducting the pedestrian survey includes data maintained by the North Central Information Center, and available published and unpublished documents relevant to regional prehistory, ethnography, and early historic developments.

North Central Information Center Records

The official Sacramento County archaeological records were examined on April 20, 2022 (NCIC File No. SAC-22-88). This search documented the following existing conditions for a 0.25-mile radius centered on the APE:

- According to the Information Center's records, one resource (P-34-5225) has been documented within the present APE's boundary. Twelve (12) additional resources have been documented within the 0.25-mile search radius.

- According to the Information Center, none of the present APE has been subjected to previous archaeological investigation. Thirteen (13) investigations have been documented within the 0.25-mile search radius.

Other Sources Consulted

In addition to examining the archaeological site and survey records of Sacramento County maintained at the North Central Information Center, the following sources were also included in the search conducted at the Information Center, or were evaluated separately:

- The National Register of Historic Places (1986, Supplements).
- The California Register of Historical Resources.
- The California Inventory of Historic Resources (State of California 1976).
- The California Historical Landmarks (State of California 1996).
- The California Points of Historical Interest (May 1992 and updates).
- The Historic Property Data File (OHP 2012).
- Trail of the First Wagons over the Sierra Nevada (Graydon 1986).
- USGS Isleton, CA 7.5' topographic map (1910/1952).
- NETR topographic maps (1910, 1937, 1947, 1953, 1959, 1961, 1966, 1969, 1978, 1987, 1993, 2012, 2015, 2018).
- NETR Aerials (1957, 1964, 1968, 1974, 1978, 1984, 1987, 1993, 2005, 2009, 2010, 2012, 2014, 2016, 2018).

- Existing published and unpublished documents relevant to prehistory, ethnography, and early historic developments in the vicinity. These sources, reviewed below, provided a general environmental and cultural context by means of which to assess likely site types and distribution patterns for the project area.

4. CULTURAL RESOURCES SURVEY and CULTURAL INVENTORY

Survey Strategy and Field Work

All of the APE was subjected to intensive pedestrian survey by means of walking parallel transects spaced at 10-meter intervals.

In searching for cultural resources, the surveyor considered the results of background research and was alert for any unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants and other possible markers of cultural sites.

Fieldwork was undertaken on May 14, 2022 by Principal Investigator, Sean Michael Jensen, M.A. Mr. Jensen is a professional archaeologist, historian and architectural historian, with more than 35 years of experience in archaeology, architectural history and history, who meets the professional requirements of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (Federal Register, Vol. 48, No. 190), as demonstrated in his listing on the California Historical Resources Information System list of qualified archaeologists, architectural historians and historians. No special problems were encountered and all survey objectives were satisfactorily achieved.

General Field Observations

Fieldwork identified the following general conditions within the project area. All of the present APE has been impacted by intensive recontouring and grading. Examination of the NETR topographic maps shows that no buildings or structures had been documented within the APE. No buildings or structures appear on the 1984 or later NETR Aerials. A rectangular building or structure does appear within the northwestern portion of the present APE on the 1957, 1964, 1968 1974 and 1978 aerials, although the latter two depictions appear more like foundations during the 1970s. Nevertheless, no structures or buildings remain within the APE.

Roads are located adjacent to the west, south and east sides of the property, while both buried and overhead utilities were observed within/immediately adjacent to the subject property. Past demolition and subsequent lot clearing have resulted in lands composed of highly disturbed soil matrices. All of these various activities (see photos, below) have contributed to substantial disturbance of both the surface and subsurface soils within the APE, and consequently, reduce the probability of discovering intact subsurface cultural materials which may have once been present within the APE.

Area subjected to contemporary grading and excavation

Elevation difference between parcel and 6th Street

Historic Resources

No historic-era sites were observed within the present APE. The absence of such resources is best explained by the degree of disturbance to which all of the APE has been subjected.

Prehistoric Resources

No evidence of prehistoric activity or occupation was observed during the present pedestrian survey. The absence of such resources may be explained, at least in part, by the historic through contemporary disturbances to the entire APE. Secondarily, the absence of such resources may be partially explained by the more suitable habitation settings which can be found a short distance north of the present APE, situated on what had once been the natural river levee.

Tribal Cultural Resources

Originally recorded by Tremaine in 2018, this resource was classified as a Tribal Cultural Landscape, identified by the United Auburn Indian Community (UAIC) as Hoyo Sayo/Tah Sayo, and identified by the Wilton Rancheria as Waka-ce/Waka-Ly. The resource was described as extending along a 55-mile segment of the Sacramento River between the

confluence of that river with the Feather River in the north, and the Sacramento River's confluence with the Cosumnes River in the south. According to Tremaine (ibid.), the defining elements of "this landscape are the waterways, tule habitat, fisheries, and other wildlife. These natural resources once served as the lifeblood of the local inhabitants."

Interestingly, the Primary Record for this resource references a 2016 inventory report which involved lands near the present APE. That 2016 investigation prompted an extended Phase I (XPI) investigation of portions of Isleton, based on recommendations made by the UAIC and the Wilton Rancheria. The 2017 XPI report described excavating 1,290 cubic feet of material, all of which was examined for the presence of prehistoric/Native American artifacts and/or features. While no such materials were encountered during the work, it is important to note that P-34-5225 was recorded shortly after the 2017 efforts produced nil.

In 2020, Alshuth documented P-34-5225 within a project boundary on Sherman Island, and describes the approximate 10-acres of the resource observed as consisting of cattle pasture.

Tremaine did prepare a brief evaluation of P-34-5225, utilizing both the NRHP and the CRHR eligibility evaluation criteria, which is presented below directly from the resource's Primary Record.

> Significance Discussion.
>
> Criterion A/1: The Tribal Cultural Landscape is a culturally significant natural landscape for its association with the cultural practices and beliefs of the Nisenan and Plains Miwok, maintaining the continuing cultural identity of the living descendants, and contributing to the broader patterns of prehistory. The UAIC, Wilton Rancheria, and Ione Band regard this landscape as an area of tribal importance because of its association with events (traditional stories) such as how fire was acquired and how salmon received its color. Further, the UAIC cite the importance of the tule and tule habitat (yakin) as materials for creating traditional structures, clothing, and watercraft.
>
> Criterion B/2: The Tribal Cultural Landscape is not associated with the life of a specific person important to local, California, or national prehistory and history.
>
> Criterion C/3: The Tribal Cultural Landscape does not embody the distinctive characteristics of a type, period, region, or method of construction.
>
> Criterion D/4: The Tribal Cultural Landscape does not have the potential to yield information important to prehistory or history of the local area and California.

> Integrity Discussion.
>
> The key aspects considered for assessing integrity of this resource are location, setting, feeling, and association (design, materials, and workmanship are not relevant). The location of this Tribal Cultural Landscape has remained in place for thousands of years. The setting (landscape), while it has been heavily altered over the past century, still retains enough of the character defining elements (waterways, tule, fisheries, and other wildlife) to convey the significance of this resource. In terms of feeling and association, this landscape still holds cultural meaning to the local tribes. Because it has significance and retains sufficient integrity, this resource is considered eligible for the national and state registers.

The above-cited evaluation is presented here in order to establish the need for an updated evaluation. The integrity discussion dismisses three of the seven aspects of integrity, without argument, and fails to firmly establish the argument for this resource's ability to convey significance.

5. ELIGIBILITY RECOMMENDATIONS

General

Sites identified within the project area were to be evaluated for significance in relation to CEQA significance criteria. Historical resources per CEQA are defined as buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA requires that, if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed. Therefore, before developing mitigation measures, the significance of cultural resources must be determined in relation to criteria presented in PRC 15064.5, which defines a historically significant resource (one eligible for listing in the California Register of Historical Resources, per PRC SS5024.1) as an archaeological site which possess one or more of the following attributes or qualities:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

In addition, CEQA further distinguishes between archaeological sites that meet the definition of a significant historical resource as described above (for the purpose of determining effects), and "unique archaeological resources." An archaeological resource is considered "unique" (Section 21083.2(g)) when the resource not merely adds to the current body of knowledge, but when there is a high probability that the resource also:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In the present case, one resource has been identified within the APE.

Application of the Criteria to Historic Site "P-34-5225"

Specific application of the criteria to the traditional cultural landscape "P-34-5225" yields the following recommendations.

a) This resource is associated with events that have made significant contributions to the broad patterns of local or regional history and/or the cultural heritage of California. The Sacramento River, and its associated biome, clearly represent a foundational element of the geography, biology, and history of California. The resources present within this biome were exploited by people that have inhabited the valley for at least 10,000 years. While obvious, it is noted here that the resource is not a human-made resource, but a natural resource. Based on these findings, this resource would appear to be eligible for inclusion on the California Register of Historical Resources per Criterion 1), and this resource would appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

b) This site is associated with the lives of persons important to local and California history. This natural resource has been utilized, admired, and linked to humans for at least 10,000 years. Since written accounts of the region have been made, this resource has been associated with countless people that have made significant contributions to the region's and state's history. Based on these findings, this resource is recommended eligible for inclusion on the California Register of Historical Resources per Criterion 2). As well, based on these facts and considerations, this resource is recommended significant per the CEQA criterion under PRC SS5024.1.

c) This resources clearly represents a unique resource, with hydrologic and biologic complexities that are not witnessed elsewhere in the world. However, no known person is responsible for the creation of this resource, and without such attribution, the resource must be recommended not eligible for inclusion on the California Register of Historical Resources per Criterion 3). As well, based on these facts and considerations, this resource is not recommended significant per the CEQA criterion under PRC SS5024.1.

d) Data recovery work involving this resource could not be expected to provide unique or unusual additional information over and above that which exists in the existing site record, and in the various scientific studies collecting data on the resource that are ongoing. For these reasons, this resource is recommended not eligible for inclusion on the California Register of Historical Resources per Criterion 4). Similarly, based on these facts and considerations, this site is not recommended significant per the CEQA criterion under PRC SS5024.1.

While the site would appear to be eligible for inclusion on the CRHR, the issue of site integrity must be addressed. Site P-34-5225 represents a natural feature; one that has been argued to have contributed to local Native American mythology, economics and traditions, not through human alteration, but prior to any human alteration. Subsequent changes to the river, the surrounding biome, and the region, as a whole, have grossly detracted from the resource's integrity, and thus its ability to convey its historical/cultural significance. Consequently, these alterations have rendered this resource not eligible for inclusion on either the CRHR.

The National Register Bulletin 15: How to apply the National Register Criteria for Evaluation, Section VIII.: How to Evaluate the Integrity of a Property provides a step-by-step process by which potentially eligible properties are evaluated for Integrity. The seven aspects of integrity include: *Location, Design, Setting, Materials, Workmanship, Feeling* and *Association*.

Recall that Tremaine concluded, without argument, that *design*, *materials*, and *workmanship* were not relevant to the resource.

Location is the place where the historic property was constructed or the place where the historic event took place. Integrity of location refers to whether the property has been moved or relocated since its construction. A property is considered to have integrity of location if it was moved before or during its period of significance. Note that the legal presumption is that that the resource in question is the direct product or byproduct of human activity (i.e., constructed). Geomorphological evidence indicates that the Sacramento River has migrated over the past several hundred thousand years. During the Holocene, the river has migrated up to a mile, or more, in some instances. Nevertheless, in general, the river maintains relative continuity of its origin and termination points (although these too, especially the termination point have changed) and flow channel, and thus would retain the aspect of *Location*.

Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. In the present case, all of these elements (e.g. plan, space, structure, style) have been subjected to some degree of alteration. Based on all of the information available concerning the Sacramento River and its biome, the original design did not incorporate modern human technology of any sort. Modifications to the river and the overall system have resulted in significant compromises to the resource's *Design* attributes.

Setting is the physical environment of a historic property that illustrates the character of the place. Prior to human occupation of the region, no built environment was evident within the resource *Setting*. However, with the introduction of humans, slight modifications to the places around the river became evident. However, even these were "normal" and in "parity" to a greater degree prior to the 19th century. Since the early 19th century intensification of resource exploitation by humans in the region have altered the Setting in dramatic fashion. Airports, skyscrapers, freeways, and a host of additional changes have occurred within the recorded resource boundary, and thus confirm that the *Setting* has been substantially altered through the anthropogenic extensification and intensification.

Materials are the physical elements combined in a particular pattern or configuration to form the property during a period in the past. Integrity of *Materials* determines whether or not an authentic historic resource still exists. As previously discussed, the Sacramento River is a natural feature, and thus any introduction of Materials that occur due to introduction, and not natural means must be understood as an infringement on the resource's Materials aspect.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. *Workmanship* is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles. In the case of the Sacramento River and its immediate surroundings, and as previously noted, the introduction of technological features such as residential subdivisions, rice fields, law enforcement training centers, Swedish-based commercial retail shopping facilities, international air travel centers, and a host of other 20th and 21st century features, evidence *Workmanship* that falls outside of the original scope and breadth of the natural world.

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. There is no argument in support of the resource's Feeling as being unaltered from its original inception, and one merely has to stand in what appears to be the most pristine portion of the resource and look up at the passing aircraft, or hear the hum of vehicles on nearby roads, or see the massive ships traveling up and down the Sacramento River Deep Water Channel. The changes in *Setting*, *Location*, *Design*, *Materials*, and *Workmanship* have substantially reduced the *Feeling* that this natural feature once conveyed, and thus integrity of *Feeling* is compromised.

Association is the direct link between an important historic event or person and a historic property. A property retains *Association* if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like *Feeling*, *Association* requires the presence of physical features that convey a property's historic character.

Because *Feeling* and *Association* depend on individual perceptions, their retention *alone* is never sufficient to support eligibility of a property for the National Register.

In the case of the existing Sacramento River and its surroundings, *Association* requires that the associated event or person must be important, and thus not simply historic (i.e., eligible

under Criteria 1 and/or 2 in the case of the CRHR). As previously discussed, this resource has made significant contributions to local and state history, and it is associated with individuals that have made significant contributions to history. However, the Association of these events and persons with this resource are substantially different for those humans that utilized the river 2,000 years ago, when compared to humans that utilized the river during the past 100 years. In fact, it has been argued, at least by the very existence of this resource's Primary Record documentation, that the latter affects have compromised the resource's Association with the past. For these reasons, integrity of *Association* has been compromised.

Overall, an evaluation of the site's integrity results in the conclusion that it no longer possesses adequate elements of integrity to support an eligibility recommendation.

According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the significance criteria.

Considering the fact that resource integrity has been dramatically compromised, this resource is not considered significant per any of the eligibility criteria, and is therefore not recommended a significant historical resource, or a unique archaeological resource.

6. PROJECT EFFECTS

A project may have a significant impact or adverse effect on significant historical resources/unique archaeological resources if the project will or could result in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance or values of the historic resource would be materially impaired. Actions that would materially impair a cultural resource are actions that would alter or diminish those attributes of a site that qualify the site for inclusion in the California Register of Historical Resources.

Based on the specific findings detailed above under ***Cultural Resources Survey and Cultural Inventory***, no significant historical resources/unique archaeological resources are present within the project area and no significant historical resources/unique archaeological resources will be affected by the undertaking, as presently proposed.

7. NATIVE AMERICAN CONSULTATION

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on April 20, 2022. The NAHC responded on April 27, 2022, indicating that a search of their Sacred Lands File was negative.

8. PROJECT SUMMARY

This report details the results of a cultural resources inventory survey involving creation of a residential development, involving approximately 1.16-acres of land located immediately adjacent to the north side of 6th Street, the east side of D Street, and the west side of Gas Well Road, within the southern portion of the City of Isleton, Sacramento County, California.

The proponent proposes to create a seven-lot residential subdivision, which will include grading and land recontouring, and ultimately construction of new residential buildings, placement of buried utilities, and general landscaping.

Existing records at the North Central Information Center document that none of the present APE had been subjected to previous archaeological investigation, and that one traditional cultural landscape (P-34-5225) had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. No prehistoric or historic-era cultural resources were identified during the pedestrian survey. The traditional cultural landscape (P-34-5225) was subjected to a formal evaluation, and recommended not eligible for the CRHR due to a substantial lack of integrity.

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on April 20, 2022. The NAHC responded on April 27, 2022, indicating that a search of their Sacred Lands File was negative.

The probability of encountering buried archaeological sites within the APE is low. This conclusion is derived in part from the observed soil matrices which have been subjected to a high degree of disturbance associated with past impacts to the subject property. Evidence of ground disturbance assisted in determining whether or not subsurface resources were present within the APE. Overall, the soil types present and contemporary disturbance would warrant a finding of low probability for encountering buried archaeological sites.

Based on the absence of significant historical resources/unique archaeological resources within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed, although the following general provisions are considered appropriate:

1. ***Consultation in the event of inadvertent discovery of human remains***: In the event that human remains are inadvertently encountered during any project-associated ground-disturbing activity or at any time subsequently, State law shall be followed, which includes but is not limited to immediately contacting the County Coroner's office upon any discovery of human remains.

2. ***Consultation in the event of inadvertent discovery of cultural material***: The present evaluation and recommendations are based on the findings of an inventory-level surface survey only. There is always the possibility that important unidentified cultural materials could be encountered on or below the surface during the course of future construction activities. This possibility is particularly relevant considering the constraints generally to archaeological field survey, and particularly where past ground disturbance activities (e.g., flooding, grading, excavating, adjacent road and residential development, utilities, etc.) have partially obscured historic ground surface visibility, as in the present case. In the event of an inadvertent discovery of previously unidentified cultural material, archaeological consultation should be sought immediately.

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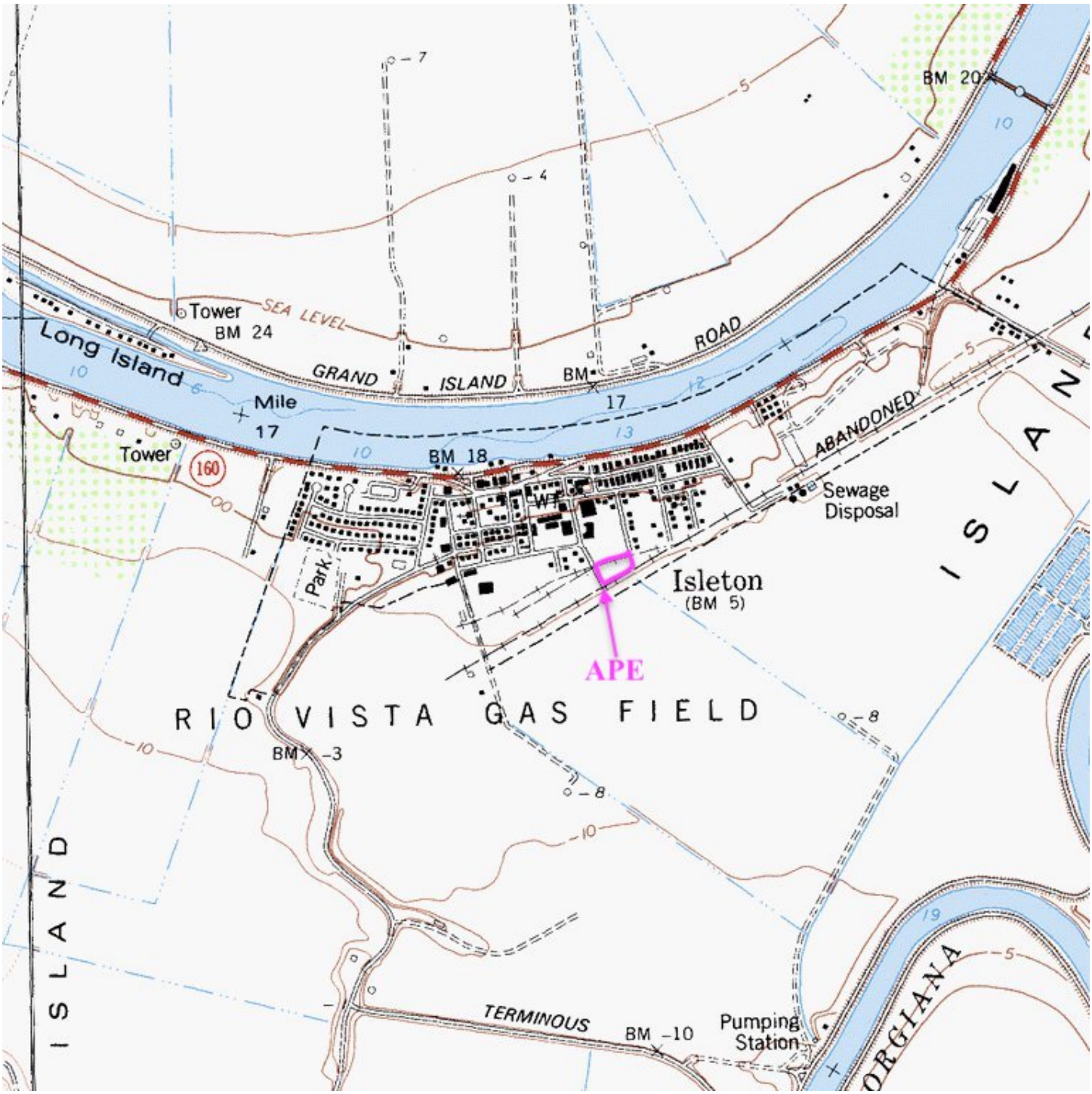
CULTURAL RESOURCES INVENTORY SURVEY

Kushner Residential Development Project
1.16-Acres
City of Isleton, Sacramento County, California

ATTACHMENTS

- APE Map
- Records Search from North Central Information Center (NCIC)
- Information request letter to the Native American Heritage Commission (NAHC)
- Response from the NAHC
- Site record for resource "P-34-5225"


Long Island
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SEA LEVEL
GRAND ISLAND
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BM 18
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Park
Isleton
(BM 5)
APE
RIO VISTA GAS FIELD
BM -3
TERMINOUS
BM -10
Pumping
Station
BM 20
ISLAND
ISLAND
ORGIANA

California Historical Resources Information System

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4/20/2022 NCIC File No.: SAC-22-88

Lisa Duggins-Rogers/Alex Kushner
Millennium Planning & Engineering
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Records Search Results for
501 6th Street, Isleton, CA 95641 (APN: 157-0040-053)

Lisa Duggins-Rogers/Alex Kushner:

Per your request received by our office on 4/20/2022, a complete records search was conducted by searching California Historic Resources Information System (CHRIS) maps for cultural resource site records and survey reports in Sacramento County within a 1/4-mile radius of the proposed project area.

Review of this information indicates that the proposed project area contains **one (1)** recorded indigenous-period/ethnographic-period resource(s) and **zero (0)** recorded historic-period cultural resource(s): P-34-5225 (Sacramento River Tribal Cultural Landscape). Additionally, **zero (0)** cultural resources study report(s) on file at this office cover(s) a portion of the proposed project area.

Outside the proposed project area, but within the 1/4-mile radius, the broader search area contains **one (1)** recorded indigenous-period/ethnographic-period resource(s) and **eleven (11)** recorded historic-period cultural resource(s): P-34-2110 (historic water lines and hydrants), P-34-2143 (Sacramento River Levee), P-34-2351 (Isleton Chinese and Japanese Commercial Districts), P-34-2473 (Isleton Oriental School Site), P-34-5111 (Southern Pacific Company Railroad), P-34-5198 (Gardiner Building), P-34-5199 (205 Second Street building), P-34-5200 (207 Second Street building), P-34-5201 (208 First Street building), P-34-5202 (209 Second Street), P-34-5203 (215 Second Street building), and P-34-5204 (Isleton Mound). Additionally, **thirteen (13)** cultural resources study report(s) on file at this office cover(s) a portion of the broader search area: 74, 1740, 1784, 4169, 4172, 7083, 9326, 12160, 12166, 12394, 12402, 12408, and 13085.

In this part of Sacramento County, archaeologists often locate indigenous-period/ethnographic-period habitation sites on elevated landforms near streams (Moratto *1984*: 173). This region is known as the ethnographic-period territory of the Plains Miwok. The Plains Miwok inhabited the lower reaches of the Mokelumne and Cosumnes River and both banks of the Sacramento River from Rio Vista to Freeport (Levy *1978*: 398). The proposed project search area is situated in the Sacramento Valley about 0.2 miles south of the Sacramento River. Given the extent of known cultural resources and the environmental setting, there is **moderate potential** for locating indigenous-period/ethnographic-period cultural resources in the immediate vicinity of the proposed project area.

Within the search area, the 1910 Isleton 7.5' USGS topographical map shows no evidence of historical activity at the project location. The town of Isleton is shown in the vicinity. The 1952 Isleton 7.5' USGS topographical map shows evidence of a railroad spur crossing through the subject parcel. This unrecorded railroad spur is a segment of P-34-5111 (Southern Pacific Company Railroad). P-34-5111, the mainline, ran along the southern boundary of the parcel which is now 6th Street. Given the extent of known cultural resources and patterns of local history, there is **moderate potential** for locating historic-period cultural resources in the immediate vicinity of the proposed project area.

LITERATURE REFERENCED DURING SEARCH:
In addition to the official records and maps for sites and studies in Sacramento County, the following inventories and references were also reviewed: National Register of Historic Places and California Register of Historical Resources - Listed properties; California Inventory of Historic Resources (*1976*); California State Historical Landmarks; California Points of Historical Interest; Office of Historic Preservation Built Environment Resources Directory (*2020*); Office of Historic Preservation Archaeological Determinations of Eligibility (*2012*); Caltrans State and Local Bridge Surveys; Gold Districts of California (Clark *1970*); California Gold Camps (Gudde *1975*); California Place Names (Gudde *1969*); Historic Spots in California (Hoover et al. *1966* [1990]); Trail of the First Wagons Over the Sierra Nevada (Graydon *1986*); California Archaeology (Moratto *1984*); and the Smithsonian Institution's Handbook of North American Indians, Volume 8, California (Levy *1978*).

SENSITIVITY STATEMENT:

1) With respect to cultural resources, it appears that the proposed project area **is potentially sensitive**.

2) Should the lead agency/authority require a cultural resources survey, a list of qualified local consultants can be found at http://chrisinfo.org. Please forward copies of any resulting reports and resource records from this project to the North Central Information Center (NCIC) as soon as possible. The lead agency/authority and cultural resources consultant should coordinate sending documentation to NCIC. Digital materials are preferred and can be sent to our office through our file transfer system or on a CD by mail via USPS to the address on the top of the first page.

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a qualified cultural resources professional has evaluated the project area. Project personnel should not collect cultural resources. Indigenous-period/ethnographic-period resources include: chert or obsidian flakes, projectile points, and other flaked-stone artifacts; mortars, grinding slicks, pestles, and other groundstone tools; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include: stone or adobe foundations or walls; structures and remains with square nails; mine shafts, tailings, or ditches/flumes; and refuse deposits or bottle dumps, often located in old wells or privies.

4) Identified cultural resources should be recorded on DPR 523 (A-L) historic resource recordation forms, available at https://ohp.parks.ca.gov/?page_id=28351.

5) Review for possible historic-period cultural resources has included only those sources listed in the referenced literature and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. If the area of potential effect contains such properties not noted in our research, they should be assessed by an architectural historian before commencement of project activities.

   Due to processing delays and other factors, it is possible that 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 California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact North Central Information Center at ncic@csus.edu or (916) 278-6217 if you have any questions about this records search.

Sincerely,

Paul Rendes, Coordinator
North Central Information Center

GENESIS SOCIETY

a Corporation Sole

Historic Preservation Services

April 20, 2022

Native American Heritage Commission

1550 Harbor Boulevard,
West Sacramento, California 95691

Subject: ***Kushner Development Project, circa 1.16-acres, City of Isleton, Sacramento County, California.***

Dear Commission:

We have been requested to conduct an archaeological survey, for the above-cited project, and are requesting any information you may have concerning archaeological sites or traditional use areas for this area. Any information you might supply will be used to supplement the archaeological and historical study being prepared for this project.

Project Name:	Kushner Development Project
County:	Sacramento
Map:	USGS Isleton, 7.5'
Location:	

Thanks in advance for your assistance.

Regards,

Sean Michael Jensen

Sean Michael Jensen, Administrator

(530) 680-6170

Montana Office
123 E Swift Creek Way
Kalispell, MT 59901

California Office
2398 Azalea Street
Kingsburg, CA 93631

seanjensen@comcast.net

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

April 27, 2022

Sean Jensen
Genesis Society

Via Email to: seanjensen@comcast.net

Re: Kushner Development Project, Sacramento County

Dear Mr. Jensen:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded 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. I suggest you contact all of those indicated; if they cannot supply information, they might 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 me. 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: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Sacramento County
4/27/2022

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk
Sacramento, CA, 95811
Phone: (916) 491 - 0011
Fax: (916) 491-0012
rhonda@buenavistatribe.com

Chicken Ranch Rancheria of Me-Wuk Indians
Lloyd Mathiesen, Chairperson
P.O. Box 1159 — Me-Wuk
Jamestown, CA, 95327
Phone: (209) 984 - 9066
Fax: (209) 984-9269
lmathiesen@crtribal.com

Guidiville Indian Rancheria
Donald Duncan, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Ione Band of Miwok Indians
Sara Dutschke, Chairperson
9252 Bush Street — Miwok
Plymouth, CA, 95669
Phone: (209) 245 - 5800
consultation@ionemiwok.net

Nashville Enterprise Miwok-Maidu-Nishinam Tribe
Cosme Valdez, Chairperson
P.O. Box 580986 — Miwok
Elk Grove, CA, 95758-0017
Phone: (916) 429 - 8047
Fax: (916) 429-8047
valdezcome@comcast.net

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 510 — Maidu
Browns Valley, CA, 95918
Phone: (530) 383 - 7234
tsi-akim-maidu@att.net

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

Tule River Indian Tribe
Kerri Vera, Environmental Department
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
kerri.vera@tulerivertribe-nsn.gov

Tule River Indian Tribe
Joey Garfield, Tribal Archaeologist
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
joey.garfield@tulerivertribe-nsn.gov

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu Miwok
Auburn, CA, 95603
Phone: (530) 883 - 2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

Wilton Rancheria
Dahlton Brown, Director of Administration
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
dbrown@wiltonrancheria-nsn.gov

Wilton Rancheria
Jesus Tarango, Chairperson
9728 Kent Street — Miwok
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 683-6015
jtarango@wiltonrancheria-nsn.gov

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 Kushner Development Project, Sacramento County.

Wilton Rancheria
Steven Hutchason, THPO
9728 Kent Street
Elk Grove, CA, 95624
Phone: (916) 683 - 6000
Fax: (916) 863-6015
shutchason@wiltonrancheria-nsn.gov
Miwok

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov
Patwin

Yocha Dehe Wintun Nation
Yvonne Perkins, THPO, Cultural Resources Chairman
P.O. Box 18
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov
Patwin

Yocha Dehe Wintun Nation
Laverne Bill, Director of Cultural Resources
P.O. Box 18
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov
Patwin

The Confederated Villages of Lisjan
Corrina Gould, Chairperson
10926 Edes Avenue
Oakland, CA, 94603
Phone: (510) 575 - 8408
cvltribe@gmail.com
Bay Miwok
Ohlone
Delta Yokut

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 Kushner Development Project, Sacramento County.

PRIMARY RECORD

Primary # P-34-005225 SUPPLEMENT
HRI #
Trinomial:
Other Listings:
NRHP Status Code:
Review Code: **Reviewer:** **Date:** **Resource Name or #:** Sacramento River TCL

P1. Other Identifier:

P2. Location: Restricted
a. County: Sacramento
b. USGS 7.5' Quad: Jersey Island **Date:** 1978
T 2**N**/**R** 3**E**; **Sherman Island**; **MDBM**
c. Address: N/A **City:** N/A **Zip:** 95471
d. UTM: Zone: 10 615067**mE** 4215841**mN** NAD27
e. Other Locational Information: This Tribal Cultural Landscape is approximately 55 miles in length and consists of a narrow corridor of the Lower Sacramento River from the confluence with the Mokelumne River at Collinsville north to the confluence with the Feather River at Verona.

P3a. Description: This Tribal Cultural Landscape (TCL) was recorded by Kim Tremaine in 2018. It is identified by the Nisenan as *Hoyo Sayo/Tah Sayo* (UAIC) and the Plains Miwok as *Waka-ce/Waka-Ly* (Wilton Rancheria), and roughly encompasses the Lower Sacramento River environment. The primary characteristics of this landscape are waterways, Tule habitat, fisheries, and other wildlife.

The portion of this TCL within the APE comprises approximately 10 acres and is currently pastureland for cattle.

P3b. Resource Attributes: AP16. Other

P4. Resources Present: District

P5. Photograph or Drawing: Photograph

P5b. Description of Photo: Overview, camera facing south

P6. Date Constructed/Age and Sources:
Prehistoric/Historical

P7. Owner and Address:
N/A

P8. Recorded by:
Taylor Alshuth
Tom Origer & Associates
P.O. Box 1531
Rohnert Park, CA 94927

P9. Date Recorded:
November 2020

P10. Type of Survey:
Reconnaissance

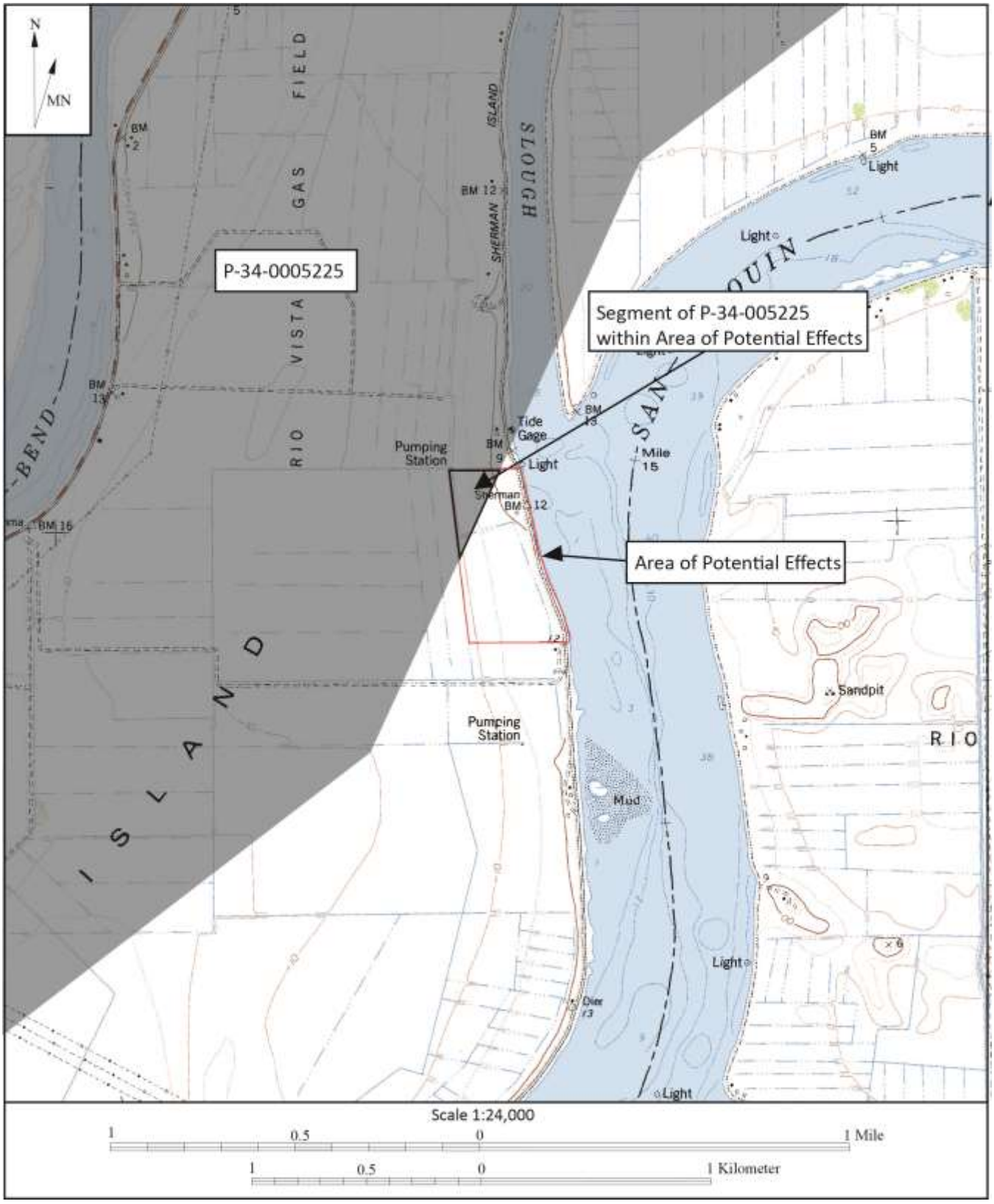
P11. Report Citation:
Alshuth, T. and E. Barrow
2020 *Cultural Resources Study for the San Joaquin River Setback Levee and Multi-Benefit Project, Sherman Island, Sacramento County, California*

P12. Attachments: Location Map

LOCATION MAP

Primary #: P-34-005225 SUPPLEMENT
HRI #:
Trinomial:
Resource Name or #: Sacramento River TCL
Date of Map: 1978

Map Name: Jersey Island **Scale:** 7.5'



State of California The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-34-005225
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

 ***Resource Name or #:** Sacramento River TCL
P1. Other Identifier:

***P2. Location:** ☒ **Not for Publication** ☐ **Unrestricted**

***a. County** Solano, Sacramento, Yolo, Sutter **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Antioch N., Jersey Island, Rio Vista, Isleton, Thornton, Liberty Island, Courtland, Bruceville, Clarksburg, Florin, Sacramento West, Sacramento East, Taylor Monument, Gray's Bend, Verona, Knight's Landing

Date 1952-1993 **T** 3N-10N; **R** 3E-5E; ☐ **of** ☐ **of Sec** unsectioned; MD **B.M.**

c. Address N/A City Collinsville (south) to Verona (north) Zip Multiple

d. UTM: (Give more than one for large and/or linear resources) Zone 10S,
South: 607219 mE/ 4211418 mN; North: 619015 mE/ 4294509 mN;
East: 632299 mE/ 4234061 mN; West: 614389 mE/ 4228610 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
A narrow corridor of the Lower Sacramento River from the confluence with the Mokelumne River at Collinsville north to the confluence with the Feather River at Verona. Approximately 55 miles in length.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
This Tribal Cultural Landscape, identified by the Nisenan as *Hoyo Sayo/Tah Sayo (*UAIC) and the Plains Miwok as *Waka-ce/Waka-Ly* (Wilton Rancheria), roughly encompasses the Lower Sacramento River environs. The primary character defining elements of this landscape are the waterways, tule habitat, fisheries, and other wildlife. These natural resources once served as the lifeblood of the local inhabitants. Today, relics of historical habitat still survive with the river supporting anadromous and resident fish populations, as well as shellfish, and waterfowl. The natural levees lining the banks of the river were covered with riparian forests. Behind the levee/forests were flood basins filled with both tidal and non-tidal freshwater emergent wetlands hosting vast stands of tules and large backwater lakes. The upland margins behind these wetlands/lakes, vegetated with willow thickets, were dissected by distributary networks of creeks that emptied into the flood basin sinks (see continuation sheet).

P5a. Photograph or Drawing

***P3b. Resource Attributes:** AP16 – Tribal Cultural Landscape

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☐ Site ☒ District ☐ Element of District ☐ Other

P5b. Description of Photo: Cosumnes River Wildlife Preserve

***P6. Date Constructed/Age and Source:**
☐ Historic ☐ Prehistoric ☒ Both

***P7. Owner and Address:** N/A

***P8. Recorded by:**
Kim Tremaine
Tremaine & Associates, Inc.
3380 Industrial Blvd. Suite 100
West Sacramento, CA 95691

***P9. Date Recorded:** 1/10/2018

***P10. Survey Type:** Intensive (For the project cited below)

***P11. Report Citation**:
Archaeological & Historic Architectural Survey Report, Isleton Water Distribution Improvement Project, Sacramento County, California. Prepared by Kim Tremaine with Contributions by Kara Brunzell, December 2016.

***Attachments:** ☐NONE ☒ Location Map ☒ Continuation Sheet ☐Building, Structure, and Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photograph Record ☐ Other (List):

P3a. Description (continued): Sacramento River Tribal Cultural Landscape

Resource Evaluation

Significance Discussion.

Criterion A/1: The Tribal Cultural Landscape is a culturally significant natural landscape for its association with the cultural practices and beliefs of the Nisenan and Plains Miwok, maintaining the continuing cultural identity of the living descendants, and contributing to the broader patterns of prehistory. The UAIC, Wilton Rancheria, and Ione Band regard this landscape as an area of tribal importance because of its association with events (traditional stories) such as how fire was acquired and how salmon received its color. Further, the UAIC cite the importance of the tule and tule habitat (*yakin*) as materials for creating traditional structures, clothing, and watercraft.

Criterion B/2: The Tribal Cultural Landscape is not associated with the life of a specific person important to local, California, or national prehistory and history.

Criterion C/3: The Tribal Cultural Landscape does not embody the distinctive characteristics of a type, period, region, or method of construction.

Criterion D/4: The Tribal Cultural Landscape does not have the potential to yield information important to prehistory or history of the local area and California.

Integrity Discussion. The key aspects considered for assessing integrity of this resource are *location*, *setting*, *feeling*, and *association* (*design*, *materials*, and *workmanship* are not relevant).

The *location* of this Tribal Cultural Landscape has remained in place for thousands of years. The *setting* (landscape), while it has been heavily altered over the past century, still retains enough of the character defining elements (waterways, tule, fisheries, and other wildlife) to convey the significance of this resource. In terms of *feeling* and *association*, this landscape still holds cultural meaning to the local tribes.

Because it has significance and retains sufficient integrity, this resource is considered eligible for the national and state registers.

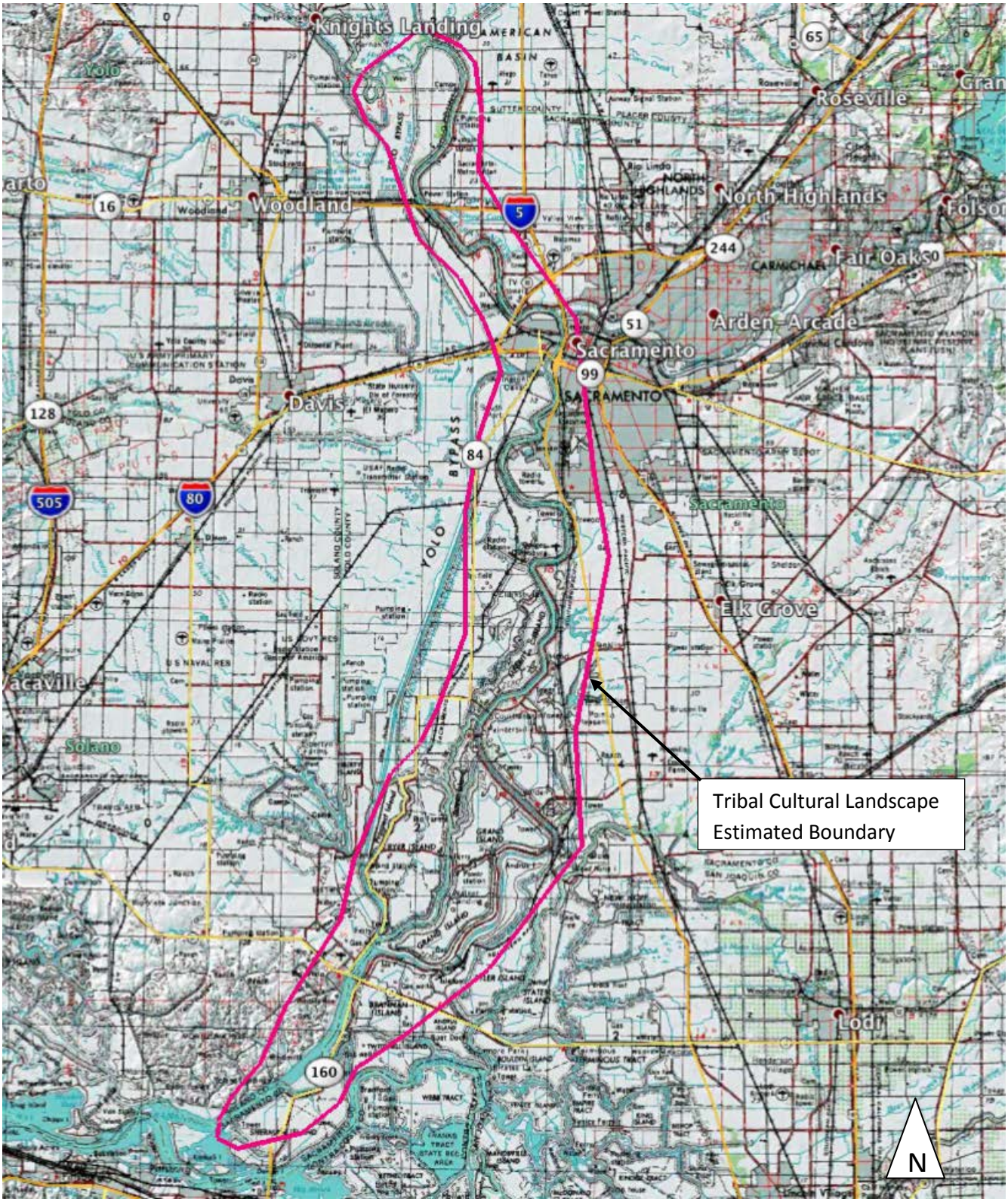
State of California Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-34-005225
HRI#
Trinomial

***Resource Name or #** Sacramento River TCL

***Map Name:** Sacramento ***Scale:** 1:250,000 ***Date of map:** 1957 (PR 1972)



California Historical Resources Information System

NORTH CENTRAL INFORMATION CENTER

AMADOR
EL DORADO
NEVADA
PLACER
SACRAMENTO
YUBA

California State University, Sacramento
6000 J Street, Folsom Hall, Suite 2042
Sacramento, California 95819-6100
phone: (916) 278-6217
fax: (916) 278-5162
email: ncic@csus.edu

4/20/2022 NCIC File No.: SAC-22-88

Lisa Duggins-Rogers/Alex Kushner
Millennium Planning & Engineering
471 Sutton Way, Suite 210
Grass Valley, CA 95945

Records Search Results for
501 6th Street, Isleton, CA 95641 (APN: 157-0040-053)

Lisa Duggins-Rogers/Alex Kushner:

Per your request received by our office on 4/20/2022, a complete records search was conducted by searching California Historic Resources Information System (CHRIS) maps for cultural resource site records and survey reports in Sacramento County within a 1/4-mile radius of the proposed project area.

Review of this information indicates that the proposed project area contains **one (1)** recorded indigenous-period/ethnographic-period resource(s) and **zero (0)** recorded historic-period cultural resource(s): P-34-5225 (Sacramento River Tribal Cultural Landscape). Additionally, **zero (0)** cultural resources study report(s) on file at this office cover(s) a portion of the proposed project area.

Outside the proposed project area, but within the 1/4-mile radius, the broader search area contains **one (1)** recorded indigenous-period/ethnographic-period resource(s) and **eleven (11)** recorded historic-period cultural resource(s): P-34-2110 (historic water lines and hydrants), P-34-2143 (Sacramento River Levee), P-34-2351 (Isleton Chinese and Japanese Commercial Districts), P-34-2473 (Isleton Oriental School Site), P-34-5111 (Southern Pacific Company Railroad), P-34-5198 (Gardiner Building), P-34-5199 (205 Second Street building), P-34-5200 (207 Second Street building), P-34-5201 (208 First Street building), P-34-5202 (209 Second Street), P-34-5203 (215 Second Street building), and P-34-5204 (Isleton Mound). Additionally, **thirteen (13)** cultural resources study report(s) on file at this office cover(s) a portion of the broader search area: 74, 1740, 1784, 4169, 4172, 7083, 9326, 12160, 12166, 12394, 12402, 12408, and 13085.

In this part of Sacramento County, archaeologists often locate indigenous-period/ethnographic-period habitation sites on elevated landforms near streams (Moratto *1984*: 173). This region is known as the ethnographic-period territory of the Plains Miwok. The Plains Miwok inhabited the lower reaches of the Mokelumne and Cosumnes River and both banks of the Sacramento River from Rio Vista to Freeport (Levy *1978*: 398). The proposed project search area is situated in the Sacramento Valley about 0.2 miles south of the Sacramento River. Given the extent of known cultural resources and the environmental setting, there is **moderate potential** for locating indigenous-period/ethnographic-period cultural resources in the immediate vicinity of the proposed project area.

Within the search area, the 1910 Isleton 7.5' USGS topographical map shows no evidence of historical activity at the project location. The town of Isleton is shown in the vicinity. The 1952 Isleton 7.5' USGS topographical map shows evidence of a railroad spur crossing through the subject parcel. This unrecorded railroad spur is a segment of P-34-5111 (Southern Pacific Company Railroad). P-34-5111, the mainline, ran along the southern boundary of the parcel which is now 6th Street. Given the extent of known cultural resources and patterns of local history, there is **moderate potential** for locating historic-period cultural resources in the immediate vicinity of the proposed project area.

LITERATURE REFERENCED DURING SEARCH:
In addition to the official records and maps for sites and studies in Sacramento County, the following inventories and references were also reviewed: National Register of Historic Places and California Register of Historical Resources - Listed properties; California Inventory of Historic Resources (*1976*); California State Historical Landmarks; California Points of Historical Interest; Office of Historic Preservation Built Environment Resources Directory (*2020*); Office of Historic Preservation Archaeological Determinations of Eligibility (*2012*); Caltrans State and Local Bridge Surveys; Gold Districts of California (Clark *1970*); California Gold Camps (Gudde *1975*); California Place Names (Gudde *1969*); Historic Spots in California (Hoover et al. *1966* [1990]); Trail of the First Wagons Over the Sierra Nevada (Graydon *1986*); California Archaeology (Moratto *1984*); and the Smithsonian Institution's Handbook of North American Indians, Volume 8, California (Levy *1978*).

SENSITIVITY STATEMENT:

1) With respect to cultural resources, it appears that the proposed project area **is potentially sensitive**.

2) Should the lead agency/authority require a cultural resources survey, a list of qualified local consultants can be found at http://chrisinfo.org. Please forward copies of any resulting reports and resource records from this project to the North Central Information Center (NCIC) as soon as possible. The lead agency/authority and cultural resources consultant should coordinate sending documentation to NCIC. Digital materials are preferred and can be sent to our office through our file transfer system or on a CD by mail via USPS to the address on the top of the first page.

3) If cultural resources are encountered during the project, avoid altering the materials and their context until a qualified cultural resources professional has evaluated the project area. Project personnel should not collect cultural resources. Indigenous-period/ethnographic-period resources include: chert or obsidian flakes, projectile points, and other flaked-stone artifacts; mortars, grinding slicks, pestles, and other groundstone tools; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include: stone or adobe foundations or walls; structures and remains with square nails; mine shafts, tailings, or ditches/flumes; and refuse deposits or bottle dumps, often located in old wells or privies.

4) Identified cultural resources should be recorded on DPR 523 (A-L) historic resource recordation forms, available at https://ohp.parks.ca.gov/?page_id=28351.

5) Review for possible historic-period cultural resources has included only those sources listed in the referenced literature and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. If the area of potential effect contains such properties not noted in our research, they should be assessed by an architectural historian before commencement of project activities.

   Due to processing delays and other factors, it is possible that 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 California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Thank you for using our services. Please contact North Central Information Center at ncic@csus.edu or (916) 278-6217 if you have any questions about this records search.

Sincerely,

Paul Rendes, Coordinator
North Central Information Center