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PUBLIC REVIEW DRAFT

CEQA INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

HUDEMAN SLOUGH BOAT LAUNCH IMPROVEMENT PROJECT

SONOMA COUNTY, CALIFORNIA

Prepared for:

Sonoma County Regional Parks Department
2300 County Center Drive, Suite 120A
Santa Rosa, California 95403

Prepared by:

LSA Associates, Inc.
157 Park Place
Pt. Richmond, California 94801
510.236.6810

Project No. SOG1401

LSA

January 2015

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MITIGATED NEGATIVE DECLARATION

Project Name. Hudeman Slough Boat Launch Improvement Project

Project Location. The boat launch facility is located on Hudeman Slough, a tributary of Sonoma Creek in Sonoma County, California. By land, the site is accessed from Highway 12 at Ramal Road, continuing 3.7 miles south and east to Skaggs Island Road, and then 1.4 miles south to the site. The facility is located on property owned by the California Department of Fish and Wildlife and the California Wildlife Conservation Board, but is maintained under agreement by Sonoma County Regional Parks.

Project Description. Sonoma County Regional Parks proposes to upgrade the existing boat launch facility on Hudeman Slough. The project would involve demolition and reconstruction of the existing facility, and other improvements, including: a reconstructed boat launching ramp; a reconstructed boarding dock; a new low freeboard dock for launching kayaks and other small craft; a repaved and expanded parking lot; a restroom facility; a camping area with park host site; and an Americans with Disabilities Act (ADA) accessible path between the campsite, parking lot, restroom facility, and the launching ramp.

Findings. It is hereby determined that, based on the information contained in the attached Initial Study, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid the potentially significant effects on the environment are included in the attached Initial Study, which is hereby incorporated and fully made part of this Mitigated Negative Declaration. Sonoma County Regional Parks has hereby agreed to implement each of the identified mitigation measures, which would be adopted as part of the Mitigation Monitoring and Reporting Program.

_____ _____

Steve Ehret, Park Planning Manager
Sonoma County Regional Parks

Date

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TABLE OF CONTENTS

FIGURES

TABLES

INITIAL STUDY

PROJECT INFORMATION

1. Project title:
Hudeman Slough Boat Launch Improvement Project

2. Lead agency name and address:
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, California 95403

3. Contact person and phone number:
Mr. Scott Wilkinson
Park Planner II
Sonoma County Regional Parks
(707) 565-2734

4. Project location:
The boat launch facility is located on Hudeman Slough, a tributary of Sonoma Creek in Sonoma County, California. By land, the site is accessed from Highway 12 at Ramal Road, continuing 3.7 miles south and east to Skaggs Island Road, and then 1.4 miles south to the site (Figures 1 and 2). The facility is located on property owned by the California Department of Fish and Wildlife and the California Wildlife Conservation Board, but is maintained under agreement by Sonoma County Regional Parks.

5. Project sponsor's name and address:
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, California 95403

6. General plan designation:
Land Extensive Agriculture

7. Zoning:
Land Extensive Agriculture District, 1 dwelling unit per 100 acres (LEA B6 100Z) with Biotic Resource Overlay (BRF2)

8. Description of project:
Sonoma County Regional Parks (SCRP) proposes to upgrade the boat launch facility at Hudeman Slough. The proposed project would involve demolition and reconstruction of the existing facility and other improvements. Project components are described below.

Demolition. Table A identifies the types and quantities of material to be removed and disposed.

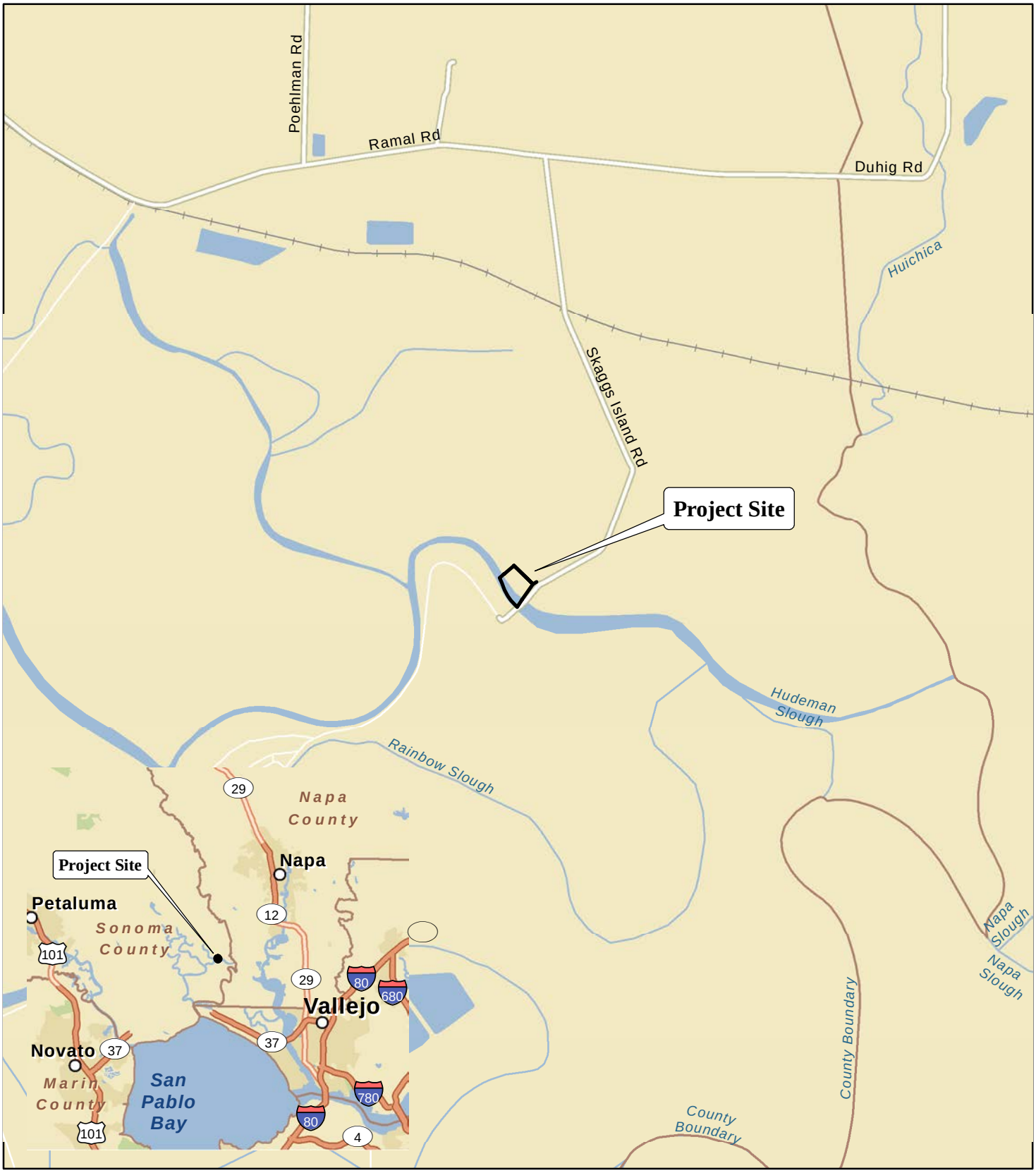

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FIGURE 1

N

0 1000 2000
FEET

SOURCE: ESRI StreetMap North America (2012).

I:\SOG1401\GIS\Maps\Cultural\Figure 1_Regional Location.mxd (10/23/2014)

Hudeman Slough Boat Launch
Facility Improvement Project
Sonoma County, California
Regional Location

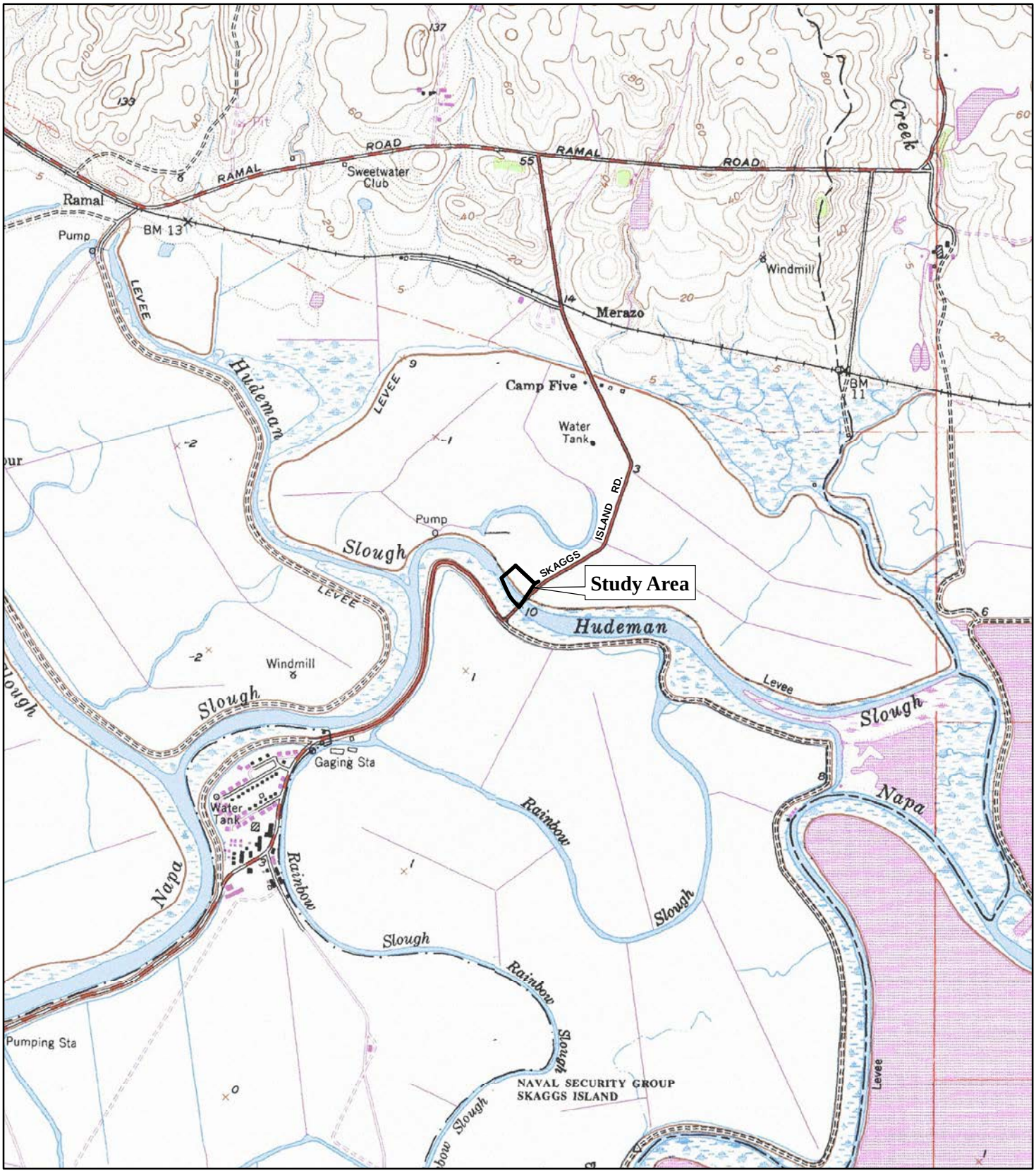

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FIGURE 2

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0 1000 2000
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Hudeman Slough Boat Launch
Facility Improvement Project
Sonoma County, California

Project Site

SOURCE: USGS 7.5-minute Topo Quads - *Cuttings Wharf, Calif.* (1981) and *Sears Point, Calif.* (1968).

I:\SOG1401\GIS\Maps\Cultural\Figure 2_Project Site.mxd (10/20/2014)

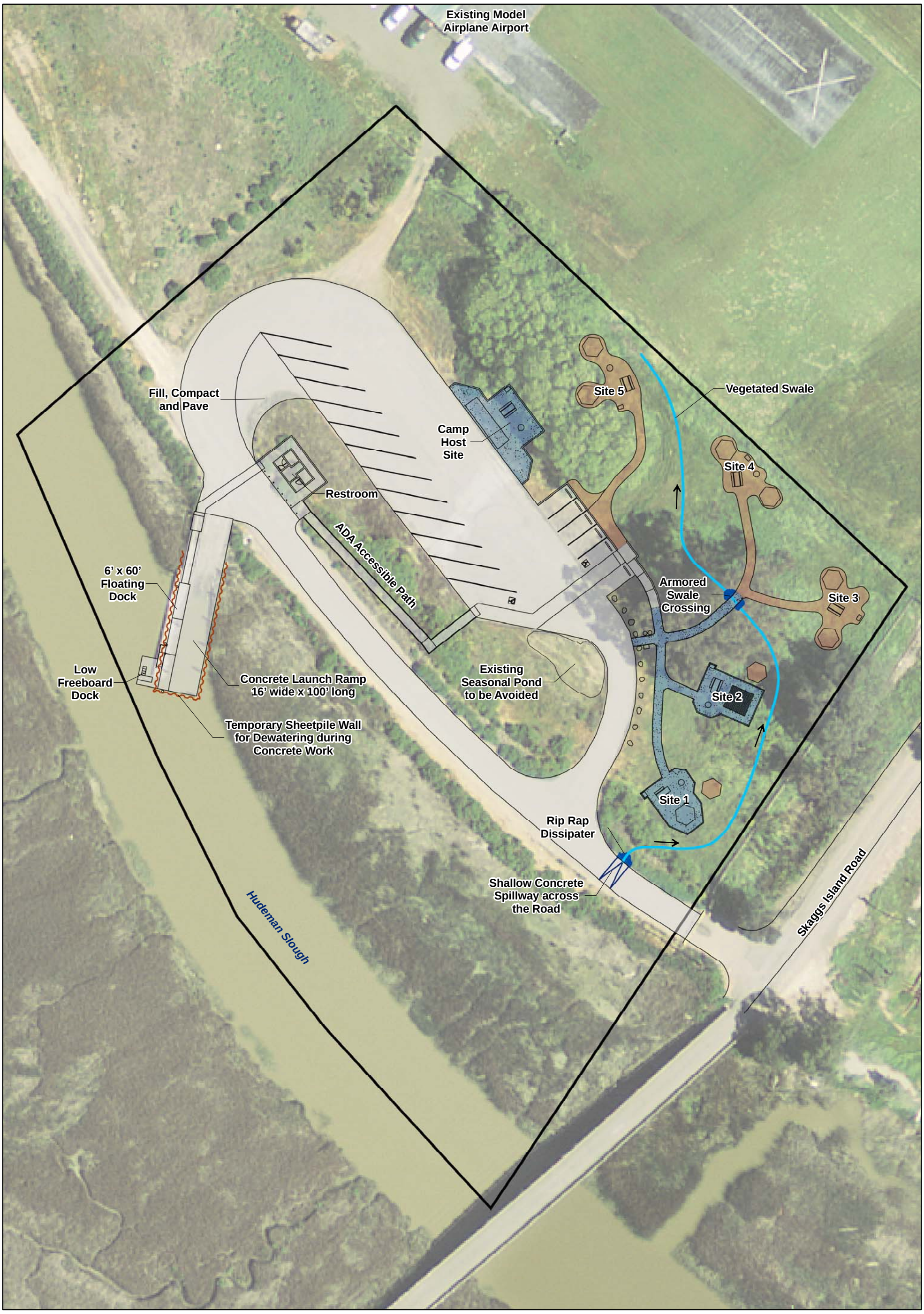
Table A: Demolition Items

Item	**Quantity**
Launch ramp, timber	1,300 square feet
Piles, timber	21 piles
Access pier, timber	45 square feet
Gangway, aluminum	80 square feet
Boarding dock, aluminum	240 square feet
Abandoned boarding dock, aluminum	120 square feet
Pavement, asphalt	4,100 square feet
Vegetation clearing (shrubs and herbaceous invasive species)	10,000 square feet
Ramp demolition and construction and accumulated sediment removal	300 cubic yards

Notes:

1. The launch ramp includes timber beams, joists and other framing members.
2. Based on the original design drawings and the 2013 topographic survey, it is estimated that there are a total of 21 timber piles; 4 piles are below water and not visible. Sixteen (16) piles support the launching ramp, 4 piles support the access pier (2 support both the launch ramp and the access pier), 2 piles anchor the boarding dock, and 1 pile is connected to the abandoned boarding dock. The elevation at the top of the dock anchor piles is approximately 11.5 feet NAVD. The demolition specifications would require that timber piles be extracted, but depending on their condition this might not be possible and the piles may have to be cut off at the ground line.
3. Three float sections would be removed, two of which make up the boarding dock. The third was abandoned because of the buildup of sediment. It is located under the gangway, but supports the end of the gangway.
4. The asphalt pavement quantity to be removed is the segment of the pavement that has failed and needs to be reconstructed, and the segment in the access road to reduce the width.
5. Vegetation clearing is for the ground area between the upper access road and the lower parking lot, and for the campsite area. Clearing and grubbing is required to construct the ADA path, the restroom foundation, and the campsite. The quantity listed above is approximate.
6. Sediment has accumulated on top of the ramp and would have to be removed to perform demolition. Additional excavation would be required to construct the new ramp. This material would be dried onsite and used as fill in the campground area as appropriate

Proposed Project. Table B contains a list of the proposed features with quantities to be constructed or installed. Comments on the project improvements follow the table. Proposed features are shown on Figure 3.



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LEGEND

- Study Area Boundary
- Compacted Aggregate Surfacing
- Earthen Path

N

0 25 50
FEET

SOURCE: Noble Engineering (09/2014); USGS Orthoimagery (04/2011).

I:\SOG1401\GIS\Maps\Draft IS-MND\Figure 3_Proposed Project.mxd (1/29/2015)

FIGURE 3

Hudeman Slough Boat Launch
Facility Improvement Project
Sonoma County, California

Proposed Project

Table B. Project Items

Item	Quantity
Launch ramp, concrete	2,200 square feet
Piles, 16-inch concrete	21 each
Boarding dock gangway	120 square feet
Boarding dock	360 square feet
Low freeboard dock and access ramp	240 square feet
Restroom foundation & concrete apron	820 square feet
ADA path between parking area and restroom, concrete	725 square feet
Pavement, asphalt resurfacing	23,900 square feet
Pavement, asphalt replacement	2,100 square feet
Pavement, asphalt new	1,700 square feet
Parking stalls, car and trailer	11 each
Parking stalls, ADA car and trailer	1 each
Parking stalls, car	5 each
Parking stalls, ADA van	1 each
Restroom, CMU building	1 each
Campsites, tent	5 each
Campsite, host	1 each

Notes:

1. The launch ramp foundation would consist of concrete piles and beams.
2. The ramp panels would be wide enough to provide a one lane launch ramp and to support the boarding access floats when they are on the ground.
3. The concrete piles would be either round, square or hexagonal.
4. Three to four sections of 6-foot wide boarding floats totaling 60 feet in length would be constructed. The design freeboard of the floats would be 14 to 18inches. Access to the boarding floats would be via a 30-foot long aluminum gangway that would be connected to a concrete abutment at the top of the concrete ramp.
5. The low freeboard dock (LFD) would have a freeboard of 6 to 8inches. A transition platform and ramp would provide access between the boarding dock and the LFD. The dock would be approximately 12 feet wide by 16 feet long (192 square feet), and the access platform and ramp would be about 48 square feet. The dock would include an ADA designed transfer platform to assist accessibility into and out of kayaks, and a ramp to improve launching kayaks.
6. The restroom foundation would consist of a cast-in-place (CIP) concrete retaining wall system with a cast-in-place floor. Septic tanks would be installed as part of the foundation work.
7. The complete ADA accessible path from the campsite to the launching ramp would consist of a 95-foot long asphalt section through the parking lot, a 130-foot long concrete section from the parking lot to the restroom, and a 42-foot long asphalt section from the restroom to the launching ramp. A small retaining wall and imported backfill would be used to construct the foundation for the path from the parking lot to the restroom.
8. The parking lot and drive aisles would be resurfaced and in part replaced. Approximately 2,100 square feet of the repaving would include removal and reconstruction of a section that has failed. The expansion would involve 1,300 square feet to create parking stalls near the campsite, and 400 square feet near the restroom to improve access to three (3) of the trailer stalls. Approximately 2,000 square feet of the access road would be reduced. The total asphalt area would be 27,700 square feet, approximately 300 square feet less than the existing asphalt paved area.

9. The restroom would be a concrete masonry unit building, approximately 270 square feet in size. No power would be available at the site. The restroom would be equipped with solar panels and shielded lighting with motion sensor and photocell.
10. Five (5) tent campsites and one (1) host trailer site would be constructed.

In addition to the facilities described above, SCRP would install a vegetated swale from the shallow concrete spillway across the access road near the eastern boundary of the project site behind and around the proposed campsites to the northern project boundary. The area of the proposed swale would be approximately 5,400 square feet. SCRP would also remove approximately 1,147 square feet of perennial pepperweed (*Lepidium latifolium*) on the project site. As described further in Section IV, Biological Resources, perennial pepperweed is a noxious weed and occurs in dense patches on the levee and in the adjacent marsh.

Construction Method. The main project construction components include the launch ramp and related structures, the restroom foundation, the ADA accessible path, and the parking lot. Construction of the launch ramp would be done from both the water and the land. Marine equipment would be required for installing piles (sheet piles, foundation piles and anchor piles) beyond the reach of land-based equipment because it is probably not cost effective to use equipment large enough to do the complete project from land. All equipment and materials would be delivered from land. Marine equipment would be placed in the water using the existing launch ramp and/or a land-based crane.

A crane would be placed on a portable barge to perform the marine work. A second barge would be used to stage materials. Prior to work beginning a silt curtain would be placed around the launch ramp and equipment to control sediment. It is estimated that up to 2 feet of sediment has accumulated on the lower end of the ramp. Sediment would need to be removed prior to performing demolition. The wet material would be dried onsite and graded into acceptable open areas. Marine equipment would be used to demolish the existing ramp, drive the outer portion (toward the slough) of the concrete foundation and anchor piles, and install the cofferdam.

A cofferdam is a temporary structure that allows excavation to be performed and new construction to be conducted under “dry conditions”. The cofferdam would also help to control sediment at the site. The structure would be a three-sided vertical wall that would surround the ramp construction area within the tide zone. The cofferdam would consist of steel sheet piles.

The remaining concrete foundation and anchor piles (the most landward) would be installed utilizing a crawler crane on land. Additional excavation of sediment would be required to construct the launch ramp foundation and prepare the final grade. The total ramp demolition and construction sediment excavation quantity is estimated at 300 cubic yards.

The new boarding floats would be delivered to the job site by flatbed truck, placed into the water by the land-side crane and connected in place.

In summary, the construction sequence for the launch ramp component of the project would be as follows:

- Launch barges and marine equipment.
- Install silt screen.
- Excavate sediment covering the existing ramp.
- Perform demolition with marine equipment.
- Drive portion of piles, including cofferdam, with marine equipment.
- Drive remaining piles, including cofferdam, with land-based equipment.
- Dewater the inside area of the cofferdam with pumps and maintain dry conditions by intermittent pumping, as necessary, throughout the duration of cofferdam use.
- Excavate remainder of sediment for construction of the launch ramp foundation.
- Cut off concrete piles, drill and dowel piles, and form and pour caps.
- Either set precast panels, or form and pour ramp in place.
- Upon completion of launch ramp work, remove the sheet piles.
- Use the new ramp to remove the marine equipment.

The restroom foundation and the ADA accessible path between the parking lot and the restroom would be constructed during or after the construction of the launch ramp. This work would require excavation and grading, and pouring cast-in-place concrete. Any excess excavated material would be used onsite. Imported soil may be necessary to complete the grading for the restroom and ADA path. Two (2) polyethylene septic tanks would be installed within the restroom foundation. A cast-in-place floor would be constructed.

The parking lot construction would involve replacement of a deteriorated section, construction of two (2) new sections, and repaving of the remaining portion of the parking lot. This work would also involve striping the parking stalls, and striping ADA paths in the parking lot and between the restroom area and the launching ramp. The pavement work would be performed after the launch ramp and the restroom foundation are completed.

Best Management Practices. Best Management Practices (BMP) would be required to control sediment during construction. At a minimum these would include the following:

- Install a silt screen in the slough around the marine work area.
- Install a temporary cofferdam.
- Install straw wattles along the top of the bank between the parking lot and the marsh, and along the lower edge of the site.
- Designate an equipment fueling, cleaning, and maintenance area away from the top of the bank in the lower part of the parking lot.

9. Surrounding land uses and setting:

The project study area encompasses the existing Hudeman Slough boat launch facility, which includes a boat launch that can accommodate boats up to 24 feet and a parking lot with 20 parking spaces. The project site is located in an isolated area with no existing services. The project site supports mostly ruderal or invasive species on the inboard side of the existing levee and brackish marsh on the outboard side of the existing levee. The area inboard of the levee has been disturbed by grading for the parking area and for levee construction. Surrounding land uses include undeveloped, agricultural land, and water. A remote control model airplane site is accessed through the launch ramp parking lot.

Vegetation on the project site consists of brackish marsh, ruderal land, coyote brush, coyote brush/French broom and non-native trees. Brackish marsh supports a variety of species including pickleweed (*Salicornia pacifica*), marsh gumplant (*Grindelia stricta* ssp. *angustifolia*), bulrush consisting of *Schoenoplectus* sp., lkali bulrush (*Bolboschoenus* sp.), and cord grass (*Spartina foliosa*). The ruderal vegetation consists of a dense growth of non-native species, including ripgut brome (*Bromus diandrus*), wild oats (*Avena* sp.), hare barley (*Hordeum murinum* ssp. *leporinum*), annual fescue (*Festuca* sp.), hairy cat's ear (*Hypochaeris radicata*), vetch (*Vicia sativa*), and bur clover (*Medicago polycarpa*). Other non-native ruderal species include fennel (*Foeniculum vulgare*), stinkwort (*Dittrichia graveolens*), yellow star-thistle (*Centaurea solstitialis*), and bull thistle (*Cirsium vulgare*). Coyote brush (*Baccharis pilularis*) grows on the levee and in patches within the ruderal area. French broom (*Cytisus monspeliensus*) grows in association with coyote brush in large patches on the inboard side of the levee. Blue gum (*Eucalyptus globulus*) and black locust (*Robinia pseudoacacia*) occur inboard of the levee.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- U.S. Army Corps of Engineers (Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act [application for both would be simultaneous with the Joint Aquatic Resources Permit Application {JARPA}])
- California Department of Fish and Wildlife (Streambed Alteration Agreement [part of JARPA]))
- Regional Water Quality Control Board (Water Quality Certification or Waste Discharge Requirements [part of JARPA])
- State Water Resources Control Board (National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity)
- Sonoma County Permit and Resource Management Department (Building Permit)
- Wildlife Conservation Board (funding authority)
- California State Lands Commission (State Lands Commission permit)
- San Francisco Bay Conservation and Development Commission (Bay Conservation and Development Commission Permit [part of JARPA])

- United States Fish and Wildlife Service (as part of the Corps permit, they will issue an incidental take permit for the listed terrestrial species that occur by the project under Section 7 of the Federal Endangered Species Act)
- National Marine Fisheries Service (as part of the Corps permit, they will issue an incidental take permit for the Salmonids and other listed aquatic species that occur by the project under Section 7 of the Federal Endangered Species Act)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

❑ Aesthetics	❑ Agricultural & Forest Resources	■ Air Quality
■ Biological Resources	■ Cultural Resources	❑ Geology/Soils
❑ Greenhouse Gas Emissions	❑ Hazards & Hazardous Materials	❑ Hydrology/Water Quality
❑ Land Use/Planning	❑ Mineral Resources	❑ Noise
❑ Population/Housing	❑ Public Services	■ Recreation
❑ Transportation/Traffic	❑ Utilities/Service Systems	■ Mandatory Findings of Significance

Determination. (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

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

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

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

❑ I find that the proposed project MAY have a "potentially significant 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.

_____ _____

Steve Ehret, Park Planning Manager — Date
Sonoma County Regional Parks

EVALUATION OF ENVIRONMENTAL IMPACTS

This section identifies the environmental impacts of this project by answering questions from Appendix G of the CEQA Guidelines, the Environmental Checklist Form. The environmental issues evaluated in this chapter include:

- Aesthetics
- Agricultural & Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Services Systems
- Mandatory Findings of Significance

All analyses take into account the entire action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts. Impacts are categorized as follows:

Potentially Significant Impact is appropriate if there is substantial evidence that an effect is significant, or where the established threshold has been exceeded. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) may be required.

Less Than Significant with Mitigation Incorporated applies where the incorporation of mitigation measures would reduce an effect from Potentially Significant Impact to a Less Than Significant Impact. Mitigation measures are prescribed to reduce the effect to a less than significant level.

Less Than Significant applies when the project will affect or is affected by the environment, but based on sources cited in the report, the impact will not have an adverse effect. For the purpose of this report, beneficial impacts are also identified as less than significant. The benefit is identified in the discussion of impacts, which follows each checklist category.

A No Impact answer is adequately supported if referenced information sources show that the impact simply does not apply to projects like the one involved. A No Impact Answer is explained where it is based on project-specific factors as well as general standards.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	❑	❑	■	❑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	❑	❑	❑	■
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	❑	❑	■	❑
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	❑	❑	■	❑

Affected Environment

The visual landscape in the project area is largely undeveloped. The project site consists of an existing boat launch facility and associated parking lot. The facility is located on property owned by the California Department of Fish & Wildlife (CDFW), but is maintained under agreement by Sonoma County Regional Parks (SCRP). A remote control model airplane site is accessed through the launch ramp parking lot. Surrounding land uses consist of undeveloped, rural/agricultural land, and the Skaggs Island former naval base property.

The project site supports mostly ruderal or invasive species in the upland areas with brackish marsh habitat located on the outboard side of the existing levee. The area inboard of the levee has been disturbed by grading for the parking area and for levee construction. Other vegetation types in the project area include coyote brush, coyote brush/French broom and non-native trees.

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. According to Figure OSRC-1, Scenic Resource Areas in the Sonoma County General Plan, the project site is not located within an area designated as a Scenic Landscape Unit or Scenic Corridor. Areas north of Ramal Road and west along Highway 121 are designated Scenic Landscape Units. The project site is relatively flat and the surrounding area is undeveloped allowing for unobstructed views of the surrounding landscape (e.g., fields and marshlands) and distant mountains.

Visible elements of the proposed project would include the new boat launch ramp, reconstructed boarding dock, new low freeboard dock, expanded parking lot, restroom facility, campground and paths. The majority of the project elements would be at-grade or low-standing and are not expected to impair surrounding views. Therefore, this impact would be less than significant.

Construction activities associated with demolition of the existing launch ramp and installation of proposed improvements would be visible from adjacent uses and public roadways. However, the equipment (e.g., crane, barge, pile driver) required for construction would only be visible temporarily. As described above, upon completion, project elements would be at grade or low-standing. Therefore, impacts to scenic vistas would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway?

No Impact. The project site is not located within the vicinity of a State Scenic Highway (Caltrans 2014) and, therefore, no impacts to scenic resources within a State Scenic Highway would occur with implementation of the proposed project.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Less Than Significant Impact. The Sonoma County General Plan (Sonoma County 2008) recognizes the importance of the County's rural landscape, including its "diverse and beautiful scenic resources." Goals and policies in the Sonoma County General Plan promote the preservation of the County's rural and natural character and the regulation of development in rural areas. The proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. Implementation of the proposed project would replace/upgrade existing facilities (e.g., launch ramp, parking lot) and construct new facilities (e.g., restroom, campsites, and paths). These features would be at-grade or low-standing and would be constructed with similar materials and at a similar scale to existing facilities. As described above, construction activities associated with the demolition and installation would be visible from adjacent uses and public roadways. However, construction equipment would only be visible temporarily. Therefore, impacts to the existing visual character or quality of the site would be less than significant.

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. The project site is located in an isolated, undeveloped area with little to no development. Vehicle head and tail lights on area roadways and lighting associated with private residences are the only existing sources of light and glare in the project area. The proposed project would replace the existing boat launch ramp and parking area, and install pads for six campsites. No light standards would be installed as part of the proposed project. Very limited nighttime lighting would result from use of the proposed campsites. However, this lighting would not be substantial and would not adversely affect nighttime views in the area. Therefore, the proposed project would not create a new source of light or glare, which would adversely affect day or nighttime views. This impact would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	❑	❑	❑	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	❑	❑	■	❑
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))?	❑	❑	❑	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	❑	❑	❑	■
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 forestland to non-forest use?	❑	❑	■	❑

Affected Environment

The project site is mapped as "Other Land" by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) (California Department of Conservation, Division of Land Resource Protection 2014). Other Land is not included in any other mapping category. Common examples include: low density, rural residential development; brush, timber, wetland and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines; borrow pits; and water bodies smaller than 40 acres.

The project site is zoned for Land Extensive Agriculture with a Biotic Resource Overlay (Sonoma County 2013). The purpose of the Land Extensive Agriculture zoning designation is to enhance and protect lands best suited for permanent agricultural use and capable of relatively low production per acre of land. The Biotic Resource Overlay is intended to protect biotic resource communities including critical habitat areas and riparian corridors for their habitat and environmental value.

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. The project site is not under a Williamson Act contract (Sonoma County 2013).

No forest land or timberland is identified on or near the project site, and the project site is not zoned for forest or timber uses.

Discussion

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 a non-agricultural use?

No Impact. No Farmland is mapped on or near the project site. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance to a non-agricultural use.

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

Less Than Significant Impact. As described above, the project site is zoned for Land Intensive Agriculture. However, implementation of the proposed project would not convert the site to a non-agricultural use nor would the proposed project interfere with surrounding agricultural activities after project completion or during construction. The proposed project would entail demolition of the existing boat launch ramp and construction of new improvements (e.g., launch ramp, campsites, paths, and restroom) within the site of the existing boat launch facility. This area is not currently in agricultural use. Therefore, the proposed project would not conflict with existing agricultural production or existing zoning for agricultural use. This impact would be less than significant.

The project site is not under a Williamson Act contract; therefore, the proposed would not conflict with a Williamson Act contract.

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. The project area contains no forest or timberland and is not zoned for forest land, timberland, or timberland production.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. See response II(c) above.

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?

Less Than Significant Impact. See responses II (a) and II(c) above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	❑	❑	■	❑
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	❑	■	❑	❑
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	❑	■	❑	❑
d) Expose sensitive receptors to substantial pollutant concentrations?	❑	■	❑	❑
e) Create objectionable odors affecting a substantial number of people?	❑	❑	■	❑

Affected Environment

The proposed project is located in southern Sonoma County within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates air quality in the San Francisco Bay Area. Air quality conditions in the San Francisco Bay Area have improved significantly since the BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen substantially. In Sonoma and the rest of the air basin, exceedances of air quality standards occur primarily during meteorological conditions conducive to high pollution levels, such as cold, windless winter nights or hot, sunny summer afternoons.

The Air Monitoring Program of the BAAQMD operates a 28-station monitoring network which provides the data required to determine whether the Bay Area is in compliance with State and federal air quality standards. Pollutant monitoring results for the years 2011 to 2013 at the Sonoma County ambient air quality monitoring station is described below.

Ozone levels, as measured by peak concentrations and the number of days over the State 1-hour standard, have declined substantially as a result of aggressive programs by the BAAQMD and other regional, State and federal agencies. The reduction of peak concentrations represents progress in improving public health; however the Bay Area still exceeds the State standard for 1-hour and 8-hour ozone levels. In addition, the Bay Area was designated as a nonattainment area for the federal 8-hour ozone level. Exceedances of the State's 1-hour standard have not been recorded at the Sonoma air

monitoring stations from 2011 to 2013. In addition, there have been no exceedances of the State standard over the 3-year period and no exceedances of the federal 8-hour standard during the 3-year period (California Air Resources Board 2014).

National and State standards have also been established for fine particulate matter (diameter 2.5 microns or less, $PM_{2.5}$), over 24-hour and yearly averaging periods. Fine particulate matter, because of the small size of individual particles, can be especially harmful to human health. Fine particulate matter is emitted by common combustion sources such as cars, trucks, buses and power plants, in addition to ground-disturbing activities. $PM_{2.5}$ levels did not exceed the federal 24-hour standards at any time between 2011 and 2013.

The Bay Area is an unclassified area for the federal PM_{10} standard and a nonattainment area at the State level. An "unclassified" designation signifies that data does not support either an attainment or nonattainment status. No exceedances of the federal or state PM_{10} standards have been recorded at the monitoring station from 2011 to 2013. Furthermore, no exceedances of the State or federal carbon monoxide (CO) standards have been recorded at the monitoring stations during the 3-year period. The Bay Area is currently considered an attainment area for State and federal CO standards (California Air Resources Board 2014).

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The air quality plan applicable to the project area is the Bay Area Air Quality Management District's (BAAQMD) Bay Area 2010 Clean Air Plan (Clean Air Plan), which was adopted on September 15, 2010 (BAAQMD 2010). The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest heath risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan. An evaluation of the project's consistency with each of these criteria is provided below. As described below, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan and this impact would be less than significant.

Southern Sonoma County and the project site are located in the San Francisco Bay air basin and are within the jurisdiction of the BAAQMD. The proposed project would replace and improve an existing boat launch facility. As such, the project would not conflict with the strategies outlined in the Clean Air Plan for bringing the area into compliance, therefore; this impact is considered less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Unless Mitigation Incorporated. Air pollutant emissions associated with the proposed project would occur over the short-term in association with construction

activities, such as vehicle and equipment use. The project would not generate long-term regional emissions as described below.

Short-Term (Construction) Emissions. Construction activities could generate exhaust emissions from utility engines, on-site heavy duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting construction crews. Exhaust emissions during construction would vary daily as construction activity levels change. The use of construction equipment would result in localized exhaust emissions.

The project would require the operation of approximately 2-3 pieces of equipment at any given time during the construction period. The BAAQMD screening size (the size for which additional emission analysis would be required to determine if a project would exceed the daily emission threshold) is 67 acres for City Park or for example, 6 acres for more intensive land uses such as offices space or retail space. The proposed project is approximately 3.5 acres, which is well below the screening size for any land use type and would therefore not approach or exceed the BAAQMD's screening criteria and would not have a significant impact related to construction emissions.

Fugitive dust emissions are associated with excavation, land clearing, exposure, and cut-and-fill operations. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. On a limited basis, sensitive receptors in the vicinity and on-site workers may be exposed to blowing dust, depending on the prevailing wind. BAAQMD specifies mitigation measures for dust control related to construction projects. These mitigation measures are intended to reduce PM_{10} emissions to less-than-significant levels during the construction period. Implementation of Mitigation Measure AIR-1, described below would reduce this short-term construction period air quality impact to a less than significant level.

> **Mitigation Measure AIR-1:** Consistent with guidance from the Bay Area Air Quality Management District, the following controls shall be implemented at the construction site to control construction emissions:
>
> - All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered to control dust and other particulate pollutants as needed to control construction emissions.
> - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
> - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping shall be prohibited.
> - All vehicle speeds on unpaved roads shall be limited to 15 mph.
> - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
> - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Code

of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points regarding maximum idling time.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- The contractor shall post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 48 hours. The SCRP phone number shall also be visible to ensure compliance with applicable regulations.

Long-Term (Operational) Emissions. Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicle trip emissions. No stationary sources of emissions are proposed as part of the project. Once completed, the proposed project would not generate significant vehicle or other emissions. Use of the Hudeman Slough boat launch facility is anticipated to be similar to existing conditions. Therefore, long-term operation of the proposed project would not contribute substantially to an existing or projected air quality violation.

c) *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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*

Potentially Significant Unless Mitigation Incorporated. As discussed in Section III.b, with implementation of Mitigation Measure AIR-1, construction of the proposed project would not be expected to result in significant levels of criteria air pollutants or pollutant precursors, while operation of the project would not generate air emissions. Therefore, construction and operation of the project would not significantly contribute cumulatively to pollution levels in the air basin. This impact is considered less than significant with mitigation incorporated.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Potentially Significant Unless Mitigation Incorporated. Construction of the proposed project may expose surrounding land uses to airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment). Implementation of Mitigation Measure AIR-1, described above, would reduce construction-related emissions to a less than significant level. As discussed in Section III.b, the proposed project would not result in any long-term air quality impacts. Therefore, nearby sensitive receptors would not be exposed to substantial pollutant concentrations.

e) *Create objectionable odors affecting a substantial number of people?*

Less Than Significant Impact. The *BAAQMD CEQA Guidelines* lists potential odor sources that could cause significant environmental impacts. The types of operations that would occur on the project site are not included in this list and would not generate objectionable odors. Some objectionable odors could be generated from the operation of diesel-powered construction equipment during the project construction period. However, these odors would be short-term in

nature and would not result in permanent impacts to surrounding land uses, including sensitive receptors in the vicinity of the project site. Implementation of the proposed project would not create objectionable odors affecting a substantial number of people or subject persons to objectionable odors.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	❑	■	❑	❑
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?	❑	■	❑	❑
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	❑	■	❑	❑
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?	❑	❑	■	❑
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	❑	■
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?	❑	❑	❑	■

LSA conducted a biological resources assessment of the project site that included background research, review of aerial photographs, and two field surveys. Prior to visiting the site, LSA searched the California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 204) for records of special-status species within the Benicia, Cordelia, Cuttings Wharf, Mare Island, Napa, Novato, Petaluma Point, Petaluma River, Sears Point, and Sonoma USGS quadrangles. LSA biologist Clint Kellner visited the site on April 2, 2013 and July 29, 2014 to assess

current habitat conditions and to evaluate the site's potential to support special-status plant and/or animal species. For the purpose of this IS/MND, special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (ESA)
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA)
- Plant species assigned to California Rare Plant Ranks 1A, 1B, and 2A and 2B
- Animal species designated as Species of Special Concern or Fully Protected by the California Department of Fish and Wildlife
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the CEQA guidelines
- Species considered to be a taxon of special concern by local agencies

Affected Environment

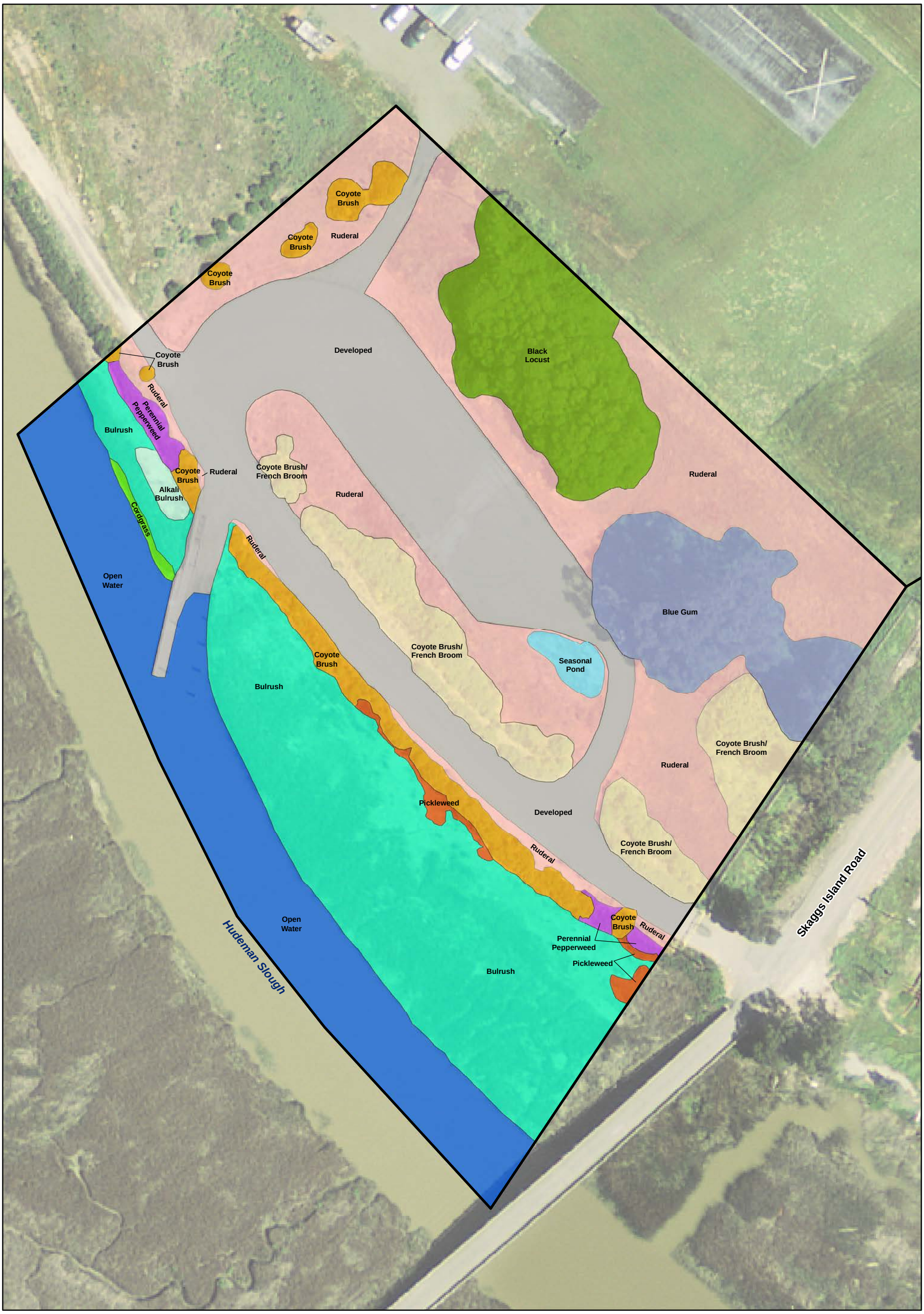
The project site consists of an existing boat launch facility with a parking lot. The area inboard of the levee has been disturbed in the past by grading for the parking area and levee construction and supports mostly ruderal or invasive species. Brackish marsh is located on the outboard side of the levee.

Vegetation. Vegetation on the site consists mostly of brackish marsh, ruderal, coyote brush, coyote brush/French broom, and non-native trees (Figure 4).

Brackish Marsh. The brackish marsh supports a variety of species including small patches of pickleweed (*Salicornia pacifica*) that grow at the upper edge of the marsh toward the levee. Marsh gumplant (*Grindelia stricta* ssp. *angustifolia*) also grows at the upper end of the marsh near the levee. Bulrush (*Schoenoplectus* sp.) dominates the brackish marsh and alkali bulrush (*Bolboschoenus* sp.) occurs in a small patch in the brackish marsh. Cord grass (*Spartina foliosa*) occurs in a small area at the outside edge of the bulrush. Brackish marsh habitat is extensive and occurs for miles upstream and downstream of the project site.

Seasonal Pond. A seasonal pond occurs at the edge of the asphalt parking lot. It was probably created by the grading for the road and earthmoving for the levee. The pond is likely to be considered a jurisdictional wetland based on the hydrophytic plant species present and indicators of wetland hydrology observed. Soils were not examined for hydric soil indicators. Hydrophytic plant species observed in the pond include curly dock (*Rumex crispus*), swamp Timothy (*Crypsis schoenoides*), nut sedge (*Cyperus eragrostis*), and bird's foot trefoil (*Lotus corniculatus*). This feature is seasonally inundated, containing water for several weeks to several months.

Ruderal. The ruderal vegetation consists of a dense growth of non-native species, including non-native grasses and forbs. Non-native grasses that grow in this area include ripgut brome (*Bromus diandrus*), wild oats (*Avena* sp.), hare barley (*Hordeum murinum* ssp. *leporinum*), and annual fescue (*Festuca* sp.). The non-native grass grows in patches with a few non-native forbs, including hairy cat's ear (*Hypochaeris radicata*), vetch (*Vicia sativa*), and bur clover (*Medicago polymorpha*). The



LSA

Legend

Study Area Boundary

Land Cover Types

Ruderal	Black Locust	Bulrush
Coyote Brush	Developed	Cordgrass
Coyote Brush/French Broom	Seasonal Pond	Open Water
Perennial Pepperweed	Pickleweed	
Blue Gum	Alkali Bulrush	

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SOURCE: USGS Orthoimagery (04/2011).

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FIGURE 4

Hudeman Slough Boat Launch Facility Improvement Project Sonoma County, California

Land Cover

non-native forbs also grow in large stands where the grass is less dense. Large stands of the non-native wild radish (*Raphanus* sp.) occur in the ruderal area. Other non-native ruderal species include fennel (*Foeniculum vulgare*), stinkwort (*Dittrichia graveolens*), yellow star-thistle (*Centaurea solstitialis*), and bull thistle (*Cirsium vulgare*). Two common native species that occur in this vegetation type include Spanish clover (*Acmispon americanus*) and dove weed (*Croton setigerus*).

Perennial pepperweed (*Lepidium latifolium*) is a noxious weed that occurs in dense patches on the levee and in the marsh.

Coyote Brush and *Coyote Brush/French Broom*. Coyote brush (*Baccharis pilularis*) grows on the levee and in patches within the ruderal area. It grows to 5 – 6 feet tall and at 50 percent or more cover. French broom (*Cytisus monspeliensus*) grows in association with coyote brush in large patches on the inboard side of the levee.

Non-native Trees. Blue gum (*Eucalyptus globulus*) and black locust (*Robinia pseudoacacia*) occur in the upland portion of the project site in the area proposed for campsites and restroom. The stand of blue gum consists of a large tree with five trunks, the largest of which is approximately five feet in diameter. The other trunks vary between 20 and 30 inches in diameter. Other eucalyptus trees within this stand average 10 inches in diameter. The understory consists of non-native grass. The black locust trees on the project site range from 3 to 6 inches in diameter, with one tree approaching 8 inches in diameter. The trees average 10 feet tall and the understory consists of non-native grass.

Wildlife. Wildlife that typically occur in brackish bulrush marshes and that typically occur in agricultural areas would be expected to occur on the project site. The brackish marsh of the project site extends downstream to the salt marshes of San Pablo Bay and upstream to other sloughs that are tributary to San Pablo Bay. Species observed in the marsh include: song sparrow (*Melospiza melodia*), marsh wren (*Cistothorus palustris*) and red-winged blackbird (*Agelaius phoeniceus*). Killdeer (*Charadrius vociferus*) that could forage on the bare mud at low tide, were observed on bare areas of the project site and long-billed curlew ((*Numenius americanus*) that could also forage in the bare mud at low tide were observed flying overhead.

Other species of birds observed on-site include American kestrel (*Falco sparverius*), loggerhead shrike (*Lanius ludovicianus*), house finch (*Haemorhous mexicanus*), California quail (*Callipepla californica*), American goldfinch (*Spinus tristis*), barn swallow (*Hirundo rustica*), and cliff swallow (*Petrochelidon pyrrhonota*). Cliff swallows are known to nest on the Skaggs Island Road Bridge spanning Hudeman Slough adjacent to the project site.

Mammals expected on the site include northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Dildelphis virginiana*).

Special-status Species. The special-status species that are likely to occur on the project site are those that occur in brackish marsh or the aquatic habitat on the outboard side of the levee. The habitat on the inboard side of the levee has been altered from its original brackish marsh condition and in general, does not provide habitat for special-status plants and most of the potentially-occurring special-status animals. Tables C and D list the species that could potentially occur in the project area and the status, habitat, and likelihood of occurrence for each of the species.

Table C: Special-status Animal Species Potentially Occurring in the Vicinity of the Hudeman Slough Project Site, Sonoma County, California

Species	Status* (Federal/ State/CDFG)	Habitat Requirements	Potential for Occurrence
Invertebrates			
Blennosperma andrenid bee *Andrena blennospermatis*	–/–/–[1]	Upland areas beside vernal pools supporting *Blennosperma* spp.	Would not occur because vernal pools and *Blennosperma* are absent.
Opler's longhorn moth *Adela oplerella*	–/–/–[1]	Occurs in grasslands (usually serpentine) with stands of cream cups (*Platystemon californicus*) its larval host plant.	Absent because larval host plant, cream cups are absent.
Marin blind harvestman *Calicina diminua*	–/–/–[1]	Beneath moist serpentine rocks in serpentine grassland	Serpentine soil habitat absent. Would not occur; only known from Mt. Burdell.
Ubick's gnaphosid spider *Talanites ubicki*	–/–/–[1]	Beneath moist serpentine rocks in serpentine grassland	Serpentine soil habitat absent. Would not occur; only known from Mt. Burdell.
Monarch butterfly winter aggregations *Danaus plexippus*	–/–/–[2]	Sheltered areas in groves of trees with openings within dense canopy cover and nearby water and nectar sources.	Not expected to occur because too far from coast and openings in tree canopy absent.
Callippe silverspot *Speyeria callippe callippe sonomensis*	FE/–/–	Grassland supporting Johnny jump-up (*Viola pedunculata*).	Absent because larval host plant, Johnny jump-up is absent.
Sonoma zerene fritillary *Speyeria zerene sonomensis*	–/–/–[1]	Grassland supporting Johnny jump-up (*Viola pedunculata*).	Absent because larval host plant, Johnny jump-up is absent.
California freshwater shrimp *Syncaris pacifica*	FE/SE/–	Low-gradient, freshwater streams with high riparian cover.	Would not occur because freshwater habitat absent.
Conservancy fairy shrimp *Branchinecta conservatio*	FE/–/–	Large vernal pools and vernal lakes.	Would not occur because large vernal pools and lakes absent.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/–/–	Vernal pools.	Vernal pools absent; not known from the 9 USGS quadrangle area surrounding Hudeman Slough.
Mimic tryonia *Tryonia imitator*	–/–/–[1]	Coastal lagoons, estuaries, salt marshes; permanently submerged areas with a wide range of salinity.	Could potentially be present in vegetation at the edge of Hudeman slough.
Marin hesperian *Vespericola marinensis*	–/–/–[1]	Moist areas of scrub, alder woods, and mixed evergreen forests, in leaf litter around seeps, and along streams.	Absent because moist scrub habitat absent. Only known from Marin County.
Fish			
Steelhead *Oncorhynchus mykiss irideus* a) Central California coast DPS[3] b) Central Valley DPS	a) FT/–/– b) FT/–/–	Sloughs, rivers, and streams with deep pools and runs; for spawning, requires clean, silt-free gravel beds, with clear flowing water and shaded stream reaches.	Could potentially occur as juvenile and migrating adults in Hudeman Slough.
Coho salmon (central California coast ESU[3]) *Oncorhynchus kisutch*	FE/SE/–	Coastal rivers and streams with cold water and deep pools and runs; for spawning, requires clean, silt-free gravel beds, with clear flowing water and shaded stream	Could potentially occur as juvenile and migrating adults in Hudeman Slough.

Species	Status* (Federal/ State/CDFG)	Habitat Requirements	Potential for Occurrence
		reaches. Spawning adults occur during winter high water.	
Chinook salmon *Oncorhynchus tshawytscha* a) Central Valley spring run ESU b) Sacramento River winter run ESU	 a) FT/ST/– b) FE/SE/–	Spawn in streams and rivers with moderate flow and cobble-large gravel substrate.	Could potentially occur as juvenile and migrating adults in Hudeman Slough.
Green Sturgeon *Acipenser medirostris*	FT/–/CSC	Streams, rivers, and estuarine and marine habitats. Cobble substrate required for spawning.	Could potentially occur in Hudeman Slough in an occasional or transitory manner.
Tidewater goby *Eucyclogobius newberryi*	FE/–/CSC	Lower reaches of coastal streams, typically in freshwater estuaries behind seasonal barrier beaches. The open estuaries of relatively large streams/ rivers (e.g., Napa River) do not generally provide suitable habitat. This California endemic may be extirpated from the San Francisco Estuary.	Would not occur within sloughs of the San Francisco Bay Delta.
Delta smelt *Hypomesis transpacificus*	FT/–/CSC	Estuarine areas with low salinities (< 2 gm/L) and sloughs and channels	Could potentially occur in Hudeman Slough; young life stages occur in the Napa River.[4]
Longfin Smelt *Spirinchus thaleichthys*	-/-/CSC	Open water of estuaries in middle and bottom of water column; also occurs in salt and fresh water; some are anadromous	Could potentially occur in Hudeman Slough.
Sacramento splittail *Pogonichthys macrolepidotus*	-/-/CSC	Slow moving water of rivers and sloughs. Flooded vegetation required for spawning and foraging of young.	Could potentially occur in Hudeman Slough. Project area supports spawning, rearing, and foraging habitat.
Amphibians and Reptiles			
California tiger salamander *Ambystoma californiense*	FT/CT/CSC	Seasonal ponds that remain until May or June within grassland where they estivate in rodent burrows or cracks in the soil	Would not be expected to occur in area that was former brackish marsh.
California red-legged frog *Rana draytonii*	FT/–/CSC	Ponds, streams, drainages and associated uplands; requires areas of deep, still, and/or slow-moving water for breeding.	Would not be expected to occur in area that was former brackish marsh.
Foothill yellow-legged frog *Rana boylii*	–/–/CSC	Partly shaded, shallow streams and riffles with a rocky substrate.	Would not be expected to occur in area that was former brackish marsh.
Western pond turtle *Emys marmorata*	–/–/CSC	Ponds, streams, drainages, and associated uplands.	Could potentially occur in Hudeman Slough.
Birds			
Great egret *Ardea albus* Great blue heron *Ardea herodias* Snowy egret	Nesting areas sensitive	Constructs nests in tall trees including eucalyptus	Roosts not observed and not known from the project site.

Species	Status* (Federal/ State/CDFG)	Habitat Requirements	Potential for Occurrence
Egretta thula Black-crowned night heron *Nycticorax nycticorax*			
White-tailed kite *Elanus leucurus*	–/–/CFP	Open grasslands, meadows, or marshes. Require trees or shrubs with a dense canopy for nesting and perching.	Could potentially nest on-site in the future; not known to currently nest on-site.
Swainson's hawk *Buteo swainsoni*	–/CT/–	Valley grasslands and agricultural fields. Tall trees required for nesting and perching.	Could potentially nest on-site in the future; not known to currently nest on-site.
California brown pelican *Pelecanus occidentalis californicus*	–/–/CFP	Nests on coastal islands of small to moderate size which afford immunity from attack by ground-dwelling predators.	May forage incidentally in Hudeman Slough, would not nest here.
California black rail *Laterallus jamaicensis coturniculus*	–/ST/CFP	Salt marshes bordering larger bays, also found in brackish and freshwater marshes.	Could potentially occur in the brackish marsh on the outboard side of the levee.
California clapper rail *Rallus longirostris obsoletus*	FE/SE/CFP	Tidal salt marshes with sloughs and substantial cordgrass (*Spartina* sp.) cover.	Could potentially occur in the brackish marsh on the outboard side of the levee.
Burrowing owl *Athene cunicularia*	–/–/CSC	Open habitats (e.g., grasslands, agricultural areas) with mammal burrows or other features (e.g., culverts, pipes, and debris piles) suitable for nesting and roosting.	Not observed and not expected to occur. Burrows not present.
Northern spotted owl *Strix occidentalis caurina*	FT/SCT/CSC	Mature conifer forest; mixed conifer and hardwood forests.	Would not occur. Forest habitat absent.
California least tern *Sternula antillarum browni*	FE/SE/CFP	Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas, at least 2 colonies occur on dikes or levees.	Not known to breed on levee at Hudeman Slough; breeding colonies distant, not likely to occur at Hudeman Slough.
Western snowy plover *Charadrius alexandrines nivosus*	FT/-/SSC	Sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting.	Habitat too vegetated on site. Could potentially nest on levee off site.
Salt marsh common yellowthroat *Geothlypis trichas sinuosa*	–/–/CSC	Salt, brackish, and freshwater marshes; and riparian woodlands. Nests on or near ground in low vegetation near water.	Could potentially occur in the bulrush of the brackish marsh.
Tricolored blackbird *Agelaius tricolor*	–/–/CSC	Protected nesting area consisting of cattails, tules, Himalayan blackberry, dense mustard, grain fields within a few kilometers of foraging area	Could potentially occur in the bulrush of the brackish marsh.
San Pablo song sparrow *Melospiza melodia samuelis*	–/–/CSC	Tidal and muted salt marshes on the fringes of San Pablo Bay, Tomales Bay, and Richardson Bay. Nests primarily in pickleweed and gumplant.	Could potentially occur because suitable marsh habitat absent.
Bank swallow *Riparia riparia*	–/–/CSC	Nests in vertical faces of stream or river banks or beach cliffs.	Nesting habitat absent, but could potentially forage over the project site.
Black swift *Cypseloides niger*	–/–/CSC	Nests on cliff faces behind waterfalls.	Could forage over the site but would not nest on site.

Species	Status* (Federal/ State/CDFG)	Habitat Requirements	Potential for Occurrence
Mammals			
Townsend's big-eared bat *Corynorhinus townsendii*	–/–/CSC	Roosts primarily in caves and abandoned mines, occasionally in buildings, bridges, rock crevices, and hollow trees; forages in open woodlands and along woodland edges.	Potentially occurs in large blue gum if cavities present.
Pallid bat *Antrozous pallidus*	–/–/CSC	Roosts in caves, tunnels, buildings, under bridges, and in tree hollows; forages over variety of habitats.	Potentially occurs in large blue gum if cavities present.
Salt marsh harvest mouse *Reithrodontomys raviventris*	FE/SE/CFP	Tidal salt marshes of San Francisco Bay and its tributaries. Requires tall, dense pickleweed for cover.	Could potentially occur in the brackish marsh on the outboard side of the levee.
Suisun shrew *Sorex ornatus sinuosus*	–/–/CSC	Dense low-lying cover and driftweed and other litter above the mean high tide line for nesting and foraging.	Could potentially occur in the brackish marsh on the outboard side of the levee.
American badger *Taxidea taxus*	–/–/CSC	Open, dry habitats (e.g., grasslands) with friable soils.	Burrows and other sign not observed; Not expected to occur.

*Status
FE = federally endangered
FT = federally threatened
SE = State endangered
ST = State threatened
SCT = State candidate threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species
Although not considered a California Species of Special Concern, monarch butterfly overwintering aggregations are rare and therefore considered sensitive

[1] Special-status invertebrates are often not considered California species of special concern, but are addressed here because of their restricted distribution and/or threats to their habitat.
[2] Although monarch butterfly is not a special-status species, overwintering aggregations are rare and therefore considered sensitive by the CDFW
[3] DPS = Dependent population segment; ESU = evolutionarily significant unit
[4] Merz, J. E., S. Hamilton, P. S. Bergman, and B. Cavallo. 2011. Spatial perspective for delta smelt: a summary of contemporary survey data. Calif. Fish and Game: 97(4):164-189.

Table D: Special-status Plant Species Potentially Occurring in the Vicinity of the Hudeman Slough Project Site, Sonoma County, California

Species	Status* (Federal/ State/RPR	Habitat Requirements	Blooming Period	Potential for Occurrence
Allium peninsulare var. *franciscanum* Franciscan onion	–/–/1B	Clay soils in grassland, often on serpentine. 100-300 meters.	May -June	Not expected to occur in disturbed former brackish marsh.
Amorpha californica var. *napensis* Napa false indigo	–/–/1B	Openings in broad-leafed upland forest, chaparral, cismontane woodland. 150–2,000 meters.	April–July	Not expected to occur in former brackish marsh. Not observed during surveys.
Amsinckia lunaris Bent-flowered fiddleneck	–/–/1B	Coastal bluff scrub, cismontane woodland, valley and foothill grassland. 50–500 meters.	March–June	Not expected to occur in former brackish marsh. Not observed during surveys.
Arctostaphylos canescens ssp. *sonomensis* Sonoma canescent manzanita	–/–/1B	Chaparral, often on serpentine. 180-1,700 meters.	February–April	Not expected to occur in former brackish marsh. Not observed during surveys.
Arctostaphylos montana ssp. *montana* Mt. Tamalpais manzanita	–/–/1B	Serpentine slopes in chaparral, valley and foothill grassland. 160–760 meters.	February–April	Not expected to occur in former brackish marsh. Not observed during surveys.
Astragalus tener var. *tener* Alkali milk-vetch	–/–/1B	Alkali playa, vernal pools, wet grasslands. 1–170 meters.	March–April	Not expected to occur in former brackish marsh area that was graded and disturbed. Suitable wet areas absent.
Balsamorhiza macrolepis Big-scale balsamroot	–/–/1B	Open, rocky slopes, shallow soils in grassland, sometimes on serpentine. 90–1,555 meters.	March - June	Rocky soil habitat absent. Not observed during surveys.
Blennosperma bakeri Sonoma sunshine	FE/SE/1B	Vernal pools and swales. 10-110 meters.	March-May	Not expected to occur because vernal pools are absent. Not observed during surveys.
Brodiaea leptandra Narrow-anthered brodiaea	–/–/1B	Clearings and open areas next to or within chaparral. 110-915 meters.	May–June	Not expected to occur in former brackish marsh, habitat absent.
California macrophylla Round-leaf filaree	–/–/1B	Sparse cover in grassland, clay soils. 15-1200 meters.	March - May	Not expected to occur in former brackish marsh.
Ceanothus sonomensis Sonoma ceanothus	–/–/1B	Shallow sandy, volcanic or serpentine soil, chaparral. 210-800 meters.	February - April	Not expected to occur in former brackish marsh. Not observed during surveys.
Centromadia parryi ssp. *parryi* Pappose tarplant	–/–/1B	Vernally mesic, often alkaline sites. 2-420 meters.	May– October	Not expected to occur in former brackish marsh. Not observed during surveys.
Chloropyron maritimum ssp. *palustre* Point Reyes bird's-beak	–/–/1B	Coastal salt marsh with *Salicornia, Distichlis, Jaumea,* and/or *Frankenia.* 0–10 meters.	June–October	Unlikely to occur, was not observed during surveys.
Chloropyron mole ssp. *molle* Soft bird's-beak	FE/SR/1B	Coastal salt marsh with *Salicornia, Distichlis, Jaumea,* and/or *Frankenia.* 0–10 meters.	June–November	Unlikely to occur, was not observed during surveys.
Ceanothus sonomensis Sonoma spineflower	FE/SE/1B	Sandy, serpentine or volcanic soils. 210-800 meters.	February - April	Not expected to occur in former brackish marsh. Not observed during surveys.

Species	Status* (Federal/ State/RPR	Habitat Requirements	Blooming Period	Potential for Occurrence
Delphinium luteum Yellow larkspur	FE/SR/1B	North-facing rocky slopes in grassland, scrub, and chaparral. 1-100 meters.	March – May	Not expected to occur in former brackish marsh. Habitat absent. Not observed during surveys.
Downingia pusilla Dwarf downingia	–/–/1B	Vernal lake and pool margins. 1–445 meters.	March–May	Could potentially occur in the seasonal pond.
Erigonum luteolum var. *caninum* Tiburon buckwheat	–/–/1B	Serpentine soils in chaparral, coastal prairie, valley and foothill grassland. 10–500 meters.	June–September	Not expected to occur in former brackish marsh. Habitat absent. Not observed during surveys.
Fritillaria liliacea Fragrant fritillary	–/–/1B	Grassland, usually with clay soils, often serpentine. 3–410 meters.	February–April	Not expected to occur in former brackish marsh.
Hemizonia congesta ssp. *congesta* Seaside tarplant	–/–/1B	Coastal scrub, valley and foothill grassland. 25–365 meters.	April–October	Not expected to occur in former brackish marsh. Not observed during surveys.
Hesperolinon congestum Marin western flax	FT/ST/1B	Serpentinite in chaparral, valley and foothill grassland. 30–365 meters.	April–July	Not expected to occur in former brackish marsh. Serpentine habitat absent.
Horkelia tenuiloba Thin-lobed horkelia	–/–/1B	Mesic, sandy openings in coastal scrub, chaparral. 45–500 meters.	May–July	Not expected to occur in former brackish marsh. Habitat absent. Not observed during surveys.
Lasthenia conjugens Contra Costa goldfields	FE/–/1B	Vernal pools, swales, low depressions, in wet grassy areas. 1-470 meters.	March–June	Not expected to occur because the vernal pool - wet grassland habitat is absent.
Lathyrus jepsonii var. *jepsonii* Delta tule pea	–/–/1B	Tidal areas of brackish marsh.	May–September	Unlikely to occur because not observed during surveys.
Limnanthes vinculans Sebastopol meadowfoam	FE/SE/1B	Vernal pools, swales, and wet grasslands.15–305 meters.	April– May	Not expected to occur because the vernal pool - wet grassland habitat is absent.
Lupinus sericatus Cobb Mountain lupine	–/–/1B	Open slopes of knobcone pine-oak woodland in gravelly soils, sometimes on serpentine.180-1500 meters.	March-June	Not expected to occur in former brackish marsh.
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	–/–/1B	Vernal pools, vernal lakes, swales with adobe or alkaline soils. 5–1,740 meters.	April–July	Not expected to occur in former brackish marsh. Habitat absent.
Plagiobothrys mollis var. *vestitus* Petaluma popcorn flower	–/–/1A	Wet sites in grassland, possibly margins of salt and brackish marshes. 10–50 meters.	June - July	Habitat absent inboard of levee. Not expected to occur outboard of levee because of dense vegetation and absence of grass.
Sidalcea calycosa ssp. *rhizomata* Point Reyes checkerbloom	–/–/1B	Marshes and swamps. 3–75 meters.	April–September	Unlikely to occur in brackish marsh. Not observed during survey.
Streptanthus glandulosus ssp. *pulchellus* Mount Tamalpais bristly jewel-flower	–/–/1B	Serpentine slopes in chaparral, valley and foothill grassland. 150–800 meters, usually in rocky areas with low plant cover.	May–July	Not expected to occur in former brackish marsh. Habitat absent.

Species	Status* (Federal/ State/RPR	Habitat Requirements	Blooming Period	Potential for Occurrence
Trifolium amoenum Showy Indian clover	FE/–/1B	Coastal bluff scrub, valley and foothill grassland (sometimes serpentinite). 5–560 meters.	April–June	Not expected to occur in former brackish marsh.
Trifolium hydrophyllum Saline clover	–/–/1B	Vernal pools, wet alkaline sites. 0-300 meters	April–June	Could potentially occur in the seasonal pond.
Viburnum ellipticum Oval-leaved viburnum	–/–/1B	Scrub and Chaparral. 215-1,400 meters.	March–June	Not expected to occur in former brackish marsh. Habitat absent.

* Status:
FE = federally endangered
FT = federally threatened
SE = State endangered
ST = State threatened
1A = Rare Plant Rank (RPR) 1A: plants presumed extinct.
1B = RPR 1B: plants considered rare, threatened, or endangered in California and elsewhere.
2A = RPR 2A: plants presumed extinct in California but more common elsewhere.
2B = RPR 2B: plants considered rare, threatened, or endangered in California but more common elsewhere.

Several species of fish [steelhead (*Oncorhynchus mykiss irideus*), Coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*), green sturgeon (*Acipenser medirostris*), Delta smelt (*Hypomesus transpacificus*), longfin smelt (*Spirinchus thaleichthys*), and Sacramento splittail (*Pogonichthys macrolepidotus*)], including adults and juveniles, could either migrate through, occur seasonally, or spawn in Hudeman Slough depending on the species. Other aquatic species potentially present include mimic tryonia (*Tryonia imitator*), an aquatic snail, and western pond turtle (*Emys marmorata*).

Two special-status raptors, Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*), as well as common raptors, could nest in the trees on the project site. A number of special-status birds could occur in the brackish marsh on the outboard side of the levee either year-round or during the breeding season. These species include: California clapper rail (now called Ridgeway's rail; *Rallus obsoletus*), California black rail (*Laterallus jamaicensis coturniculus*), salt marsh common yellowthroat (*Geothlypis trichas sinuosa*), tricolored blackbird (*Agelaius tricolor*), and San Pablo song sparrow (*Melospiza melodia samuelis*).

Two mammals, that are restricted to salt or brackish marshes and could potentially occur on site, include salt marsh harvest mouse (*Reithrodontomys raviventris*) and Suisun shrew (*Sorex ornatus sinuosus*).

A few special-status species of plants could also occur on the project site. However, a number of these species were not observed during surveys conducted at the project site and are not expected to be present on the project site, as shown in Table D. Two species that could occur in the project area include dwarf downingia (*Downingia pusilla*) and saline clover (*Trifolium hydrophyllum*), which could potentially occur in the seasonal pond in the middle of the parking lot.

Jurisdictional Waters. The brackish marsh on the outboard side of the levee is considered a jurisdictional wetland according to the criteria established by the U.S. Army Corps of Engineers (Corps). The seasonal pond is also likely a jurisdictional wetland. These areas have not been formally delineated or confirmed by the Corps.

Sensitive Natural Communities. CDFW tracks the occurrences of plant communities that are either known or believed to be of high priority for inventory in the CNDDB. Coastal brackish marsh, one such sensitive plant community, occurs on the project site. No other sensitive natural communities are present on the project site.

Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Potentially Significant Unless Mitigation Incorporated. The proposed project could have a potentially significant impact on several special-status species through habitat loss, disturbance associated with construction activities and habitat degradation. Aquatic species (e.g., special-status fish and the mimic tryonia) could be adversely affected by construction of the proposed boat ramp, including noise and vibration from installing piles and sediment entering Hudeman Slough. Impacts to juvenile Chinook salmon and Coho salmon could include direct habitat loss or

degradation, water quality degradation, interference with foraging, reduction in food availability, and dredge-induced entrainment (the direct uptake of aquatic organisms by the suction field generated by the dredging equipment). Impacts to steelhead could include interference with migration, degradation of water quality, direct habitat loss or degradation, interference with foraging, and reduction in food availability. Sacramento splittail, Delta smelt, and longfin smelt could also be impacted due to dredge-induced entrainment. In addition, the clearing of vegetation beside the boat ramp, prior to demolition and replacement, could potentially affect other special-status species.

The new boat ramp and associated dock would be approximately 1.5 feet wider than the existing boat ramp and dock, resulting in the loss of approximately 72 square feet of brackish marsh vegetation. This vegetation type provides habitat for special-status birds and mammals that potentially occur on-site, including the salt marsh harvest mouse. The mimic tryonia could potentially occur in the small amount of vegetation (less than 20 square feet) that remains inundated.

As outlined in the project description, SCRP would install a vegetated swale from the shallow concrete spillway across the access road near the eastern boundary of the project site behind and around the proposed campsites to the northern project boundary, creating approximately 5,400 square feet of freshwater wetland habitat on the project site. The regulatory agencies would need to approve the mitigation strategy of using freshwater marsh species to replace impacts to approximately 72 square feet of brackish marsh during the permitting stages of this project. As part of the proposed project, SCRP would also remove approximately 1,147 square feet of perennial pepperweed from the project site.

Swainson's hawk and white-tailed kite may nest in the blue gum eucalyptus trees on the project site. Construction activity could potentially disrupt their nesting.

Implementation of the following mitigation measures would reduce potential impacts to special status species to less than significant:

> **Mitigation Measure BIO-1:** Demolition and construction (including construction outboard of the levee [in the slough] for the boat ramp and dock and inboard of the levee for the campground, parking lot, and restroom) shall be timed to avoid the nesting period of the California clapper rail that extends from February 1 through the end of August. Construction between September 1 and January 31would prevent disruption of the breeding of California clapper rails and California black rails.
>
> Construction within the slough shall not be conducted between December 1 and May 31 to avoid impacts to juvenile salmon and steelhead (Long-Term Management Strategy, 2014). Avoiding work during these times would largely protect Delta smelt, longfin smelt, and Sacramento splittail. Vegetation clearing and installation of the piles and dewatering for boat ramp construction shall only occur between September 1 and November 30 to avoid impacts to special-status fish (impacts could occur for construction beginning December 1). Once the construction area for the boat ramp has been dewatered, construction can continue on the boat ramp because effects to special-status fish would not occur. Construction would cease on January 31 for the nesting of California clapper rails.

Mitigation Measure BIO-2: A biologist familiar with the natural history and identification of salt marsh harvest mice, Suisun shrews, California clapper rails, and California black rails shall conduct a preconstruction survey immediately prior to the clearing of vegetation beside the boat ramp. The biologist shall also monitor vegetation removal activities. Vegetation shall be removed by cutting the above ground stems. Excavation solely to remove vegetation would not be necessary; vegetation removal would only occur as needed to facilitate construction of the boat ramp. If any special-status animals are observed during the preconstruction survey or monitoring of vegetation removal, vegetation clearing activities shall cease and the biologist shall watch the animal(s) until they leave the work area. Vegetation clearing can continue once the animals have safely left the work area and are out of harm's way. A construction fence shall be installed to prevent any salt marsh harvest mice and Suisun shrews from entering the work area. The bottom of the fence shall be buried to prevent passage beneath the fence. The biologist shall monitor the installation of the construction fence.

Mitigation Measure BIO-3: A qualified professional biologist shall monitor construction activities associated with demolition of the boat launch and dock, installation of the piles, construction of the new boat launch and dock, and installation/maintenance of the construction fence. Monitoring shall occur on a daily basis but need not entail the entire day.

Mitigation Measure BIO-4: All construction personnel shall receive environmental training regarding the sensitive nature of the special-status species in the project area. This training will include a description of the species, comparison of the species to other similar species, life history, and a description of all project measures in place to protect the species. Crews shall also be informed to stop all work and notify their supervisor or the monitoring biologist if special-status species are observed within the project site.

Mitigation Measure BIO-5: Treated wood shall not be used for new dock pilings. The two guide piles will be made of pre-cast concrete.

Mitigation Measure BIO-6: If logistically feasible, a vibratory hammer shall be used to install the pilings to avoid unnecessary elevated noise levels in the project area.

Mitigation Measure BIO-7: Dredging and demolition of the boat ramp and associated dock shall be conducted at low tide to minimize project-related increases in turbidity.

Mitigation Measure BIO-8: To replace the loss of approximately 72 square feet of brackish marsh habitat for special-status species, perennial pepperweed (approximately 1,147 square feet) shall be removed from the project site. This removal may entail repeated application of an EPA-approved herbicide according to the manufacturer's specifications to avoid water quality and other impacts. In addition a "spot-spray" technique will be used to minimize drift to adjacent non-targeted species. The removal shall be monitored for 5 years to ensure adequate control of the pepperweed. If the native brackish marsh species are not reestablishing after one year, selected brackish marsh species shall either be planted or seeded into the area where perennial pepperweed was removed. Plugs may be harvested from adjacent areas of brackish marsh for the planting.

Mitigation Measure BIO-9: A temporary construction fence shall be installed around the seasonal pond during construction. Such fencing shall be positioned to prevent the entry of construction vehicles and the dumping of any debris or parking of any equipment on the seasonal pond. Implementation of this measure will protect both the saline clover and dwarf downingia (if they are present) from any potential impacts.

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

Potentially Significant Unless Mitigation Incorporated. The proposed project would remove approximately 72 square feet of brackish marsh, a sensitive natural community identified by CDFW. Mitigation Measure BIO-8 requires the removal of non-native perennial pepperweed (approximately 1,147 square feet), which would allow for the return of native brackish marsh species outboard of the levee. Implementation of Mitigation Measure BIO-8 would reduce impacts to brackish marsh habitat to less than significant.

Stinkwort, perennial pepperweed, and French broom, all non-native invasive species, occur on the project site. Grading has the potential to spread these invasive plant species beyond their current locations. These invasive species could potentially spread into sensitive brackish marsh, seasonal wetland, and other special status species habitat. These invasive species could potentially out-compete the native species present, resulting in a decline in the value/viability of sensitive vegetation or habitat of special-status species. Implementation of the mitigation measures below would reduce impacts associated with the spread of invasive species to less than significant.

Mitigation Measure BIO-10: SCRP shall remove non-native invasive species from areas disturbed by construction for 5 years. Invasive weed removal shall be conducted prior to seed set to minimize the spread of invasive weed seeds throughout the project site. Removal shall be by hand, herbicide or mechanical treatments.

Mitigation Measure BIO-11: If hay bale installation is necessary for erosion-control in the project area, only certified weed-free hay bales shall be used.

c) *Would the project have a substantial adverse effect on federally-protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

Less Than Significant Impact. The proposed project would remove approximately 72 square feet of wetland vegetation. SCRP will mitigate this impact by establishing a vegetated swale in the northeastern portion of the project site, creating approximately 5,400 square feet of new wetland habitat on the project site. SCRP would also remove approximately 1,147 square feet of perennial pepperweed from the project site, thereby enhancing the salt marsh vegetation. Therefore, impacts to wetlands would be less than significant.

d) *Would the project 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. The proposed project would not substantially interfere with wildlife movement or corridors. Construction activities would result in a temporary barrier to movement up and down Hudeman Slough of small animals, such as salt marsh harvest mice. However, this barrier would be temporary and these species would be able to move through Hudeman Slough along the opposite shoreline. Upon completion of construction, movement along Hudeman Slough would not be impeded. Implementation of Mitigation Measure BIO-1 would restrict the timing of the demolition and construction of the boat ramp to minimize effects on breeding birds and migrating fish. Therefore, the movements of these species would not be affected. This impact is less than significant.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Protected trees in Sonoma County are subject to the County's Tree Protection Ordinance (Section 26-88-010(m) of the Sonoma County Code). Protected trees include: big leaf maple (*Acer macrophyllum)*, black oak (*Quercus kelloggii)*, blue oak (*Quercus douglasii)*, coast live oak (*Quercus agrifolia)*, interior live oak (*Quercus wislizenii)*, madrone (*Arbutus menziesii)*, oracle oak (*Quercus morehus)*, Oregon oak *Quercus garryana*, redwood (*Sequoia sempervirens)*, Valley oak (*Quercus lobata)*, California bay (*Umbellularia California)* and their hybrids. No protected trees are located within the project site. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

f) Would the project 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. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	❑	■	❑	❑
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	❑	■	❑	❑
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	❑	■	❑	❑
d) Disturb any human remains, including those interred outside of formal cemeteries?	❑	■	❑	❑

Affected Environment

A Cultural and Paleontological Resources Study (LSA Associates, Inc. 2014) was conducted for the proposed project site. The study consisted of background research and a field review. The paleontological resources study consisted of a fossil locality search and a review of relevant geologic maps and literature.

Cultural Resources. LSA's study did not identify any cultural resources in or adjacent to the project site. Review of the U.S. Geological Survey's *Sears Point, Calif.*, topographic quadrangle dated 1951 (photorevised 1968) did not identify a boat launch in the project area. The boat launch facility constructed after 1968, is less than 50 years old, and is too recently constructed to be a historical resource for the purposes of CEQA.

The project site is mapped as sensitive for buried prehistoric archaeological deposits as it is situated in a geologic setting that has been shown to contain buried archaeological cultural resources. The eastern half of the project site is situated on native soils that may contain archaeological cultural resources. The western half of the project would be constructed on a man-made levee adjacent to Hudeman Slough and is therefore not archaeologically sensitive.

Paleontological Resources. The paleontological sensitivity of the project site was assessed by reviewing the State of California Geological Map (California Geological Survey 2010) and *Flatland Deposits – Their Geology and Engineering Properties and Their Importance to Comprehensive Planning* (Helley, E.J., K.R. LaJoie, W.E. Spangle, and M.L. Blair 1979). The geological map identifies the project site as consisting of Quaternary Epoch (2 million years ago to 11,800 years ago) sedimentary deposits. *Flatlands* identifies the project site as consisting of Holocene Epoch (11,800 years ago to present) Bay Mud. Holocene-aged deposits are too young to contain fossil resources and the project site is therefore not sensitive for fossil resources.

Discussion

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Potentially Significant Unless Mitigation Incorporated. As described above, no cultural resources were identified in or adjacent to the project site. The western half of the project would be constructed on a man-made levee adjacent to Hudeman Slough and is therefore not archaeologically sensitive. Excavation in this area has a low likelihood of impacting previously intact archaeological deposits due to prior disturbance. However, the eastern half of the project site is situated on native soils that have a higher likelihood of containing previously undisturbed archaeological deposits. Such archaeological deposits, if intact, may qualify as historical resources under Public Resources Code (PRC) §21084.1 due to potential eligibility for inclusion in the California Register of Historical Resources (CRHR). If project construction encounters and disturbs archaeological deposits that qualify as historical resources, this would result in a material impairment of the deposits' ability to convey their significance (i.e., diminish their scientific data value) and result in a significant impact under *CEQA Guidelines* §15064.5(b).

Implementation of Mitigation Measure CULT-1, described below, would mitigate this potential impact to less than significant.

> **Mitigation Measure CULT-1:** A qualified professional archaeologist shall monitor ground disturbing construction associated with work in native soils. The monitoring shall continue until work in native soils is complete or the monitoring archaeologist, based on field observations, is satisfied that there is no likelihood of encountering intact archaeological deposits.
>
> If prehistoric or historic-period archaeological deposits are identified during the monitoring, or during construction in portions of the project site *not* being monitored, project-related impacts to such resources shall be avoided, if feasible. An attempt at impact avoidance shall be undertaken in consultation with the monitoring archaeologist, or an archaeologist shall be retained to provide recommendations if the discovery is made in the non-monitored portions of the project site. If avoidance is not feasible, the deposits shall be evaluated for their CRHR eligibility. If the deposits are not eligible, a determination shall be made as to whether they qualify as a "unique archaeological resource" under requirements and definitions of *CEQA Guidelines* §15064.5 (c) and PRC §21083.2.
>
> If the evaluation determines that the deposit is neither a historical nor unique archaeological resource, the avoidance of potential impacts to the deposit is not necessary. If the deposit is eligible, impacts to the resource shall be mitigated. Mitigation may consist of excavating the archaeological deposit in accordance with a data recovery plan (see *CEQA Guidelines* §15126.4(b)(3)(C)) developed in consultation with descendant community representatives; recording the resource; preparing a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate. Upon completion of the evaluation and, if necessary, mitigation, the archaeologist shall prepare a draft report to document the methods and results of the investigation(s). The draft report shall be

submitted to the SCRP, the descendant community involved in the investigation(s), and the Northwest Information Center.

Mitigation Measure CULT-1 would mitigate this potential impact to a less-than-significant level by pursuing impact avoidance through monitoring to identify archaeological deposits prior to their disturbance or destruction. In the event that avoidance is not feasible, the actions described above would mitigate the impact to a sensitive resource by recovering, through documentation and excavation, the scientifically consequential data contained in the deposit that would otherwise be lost due to construction-related disturbance. Mitigation would be done in consultation with descendant communities that attach religious or cultural significance to the deposits. The utilization of the approach described in Mitigation Measure CULT-1 would offset the damage to the resource by the realization of its data potential, which justifies its CRHR eligibility, through scientific excavation and analysis.

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

Potentially Significant Unless Mitigation Incorporated. As described above, the eastern half of the project site is mapped as sensitive for buried prehistoric archaeological deposits as it is situated in a geologic setting that has been shown to contain buried archaeological cultural resources. Such deposits, if intact, may qualify as historical resources under PRC §21084.1 due to potential eligibility for inclusion in the CRHR. If they so qualify, they shall be treated as historical resources consistent with *CEQA Guidelines* §15064.5(c)(1-2). If the deposits do not so qualify but do qualify as unique archaeological resources as defined in PRC §21083.2, then their disturbance by project construction would result in a material impairment of the deposits' ability to convey their significance (i.e., diminish their scientific data value) and result in a significant impact under *CEQA Guidelines* §15064.5(b). Implementation of Mitigation Measure CULT-1, described previously, would mitigate this potential impact to a less than significant level.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Unless Mitigation Incorporated. As described above, no paleontological resources were identified in the project area and the geological deposits underlying the project area are not sensitive for paleontological resources. In the event that paleontological resources are encountered, implementation of Mitigation Measure CULT-2, described below, would mitigate this potential impact to a less than significant level.

> **Mitigation Measure CULT-2:** Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet shall be redirected and a qualified paleontologist contacted to assess the situation, consult with SCRP representatives, and make recommendations for the treatment of the discovery. If the find is determined to be significant, and project activities cannot avoid impacting the resource, the impact to the resource shall be mitigated in accordance with the recommendations of the consulting paleontologist. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment,

a report documenting methods, findings, and recommendations of the investigation shall be prepared and submitted to the SCRP, and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

Mitigation Measure CULT-2 would mitigate this potential impact to a less-than-significant level by incorporating impact avoidance through on-site evaluation by a qualified paleontologist. In the event that avoidance is not possible, the mitigation would treat the potential loss of a sensitive resource by recovering, through documentation and excavation, the scientifically consequential data represented by the fossil discovery that would otherwise be lost due to construction-related disturbance. In this way, the damage to the resource would be offset by the realization of its data potential

d) Disturb any human remains, including those interred outside of formal cemeteries?

Potentially Significant Unless Mitigation Incorporated. Due to the project site's sensitivity for buried archaeological cultural resources, the project site is considered sensitive for the potential occurrence of Native American burials. For descendant communities, such burials represent a physical, tangible connection to their ancestors and are, therefore, imbued with a traditional cultural significance. Accordingly should such burials be present in the project site and be discovered after project construction commences, such an encounter could disturb the sanctity and physical integrity of graves and any potential items of cultural patrimony resulting in a significant impact under CEQA. Implementation of the following mitigation measure would ensure that potential impacts to human remains, should they be encountered, would be reduced to a less than significant level.

Mitigation Measure CULT-3: If human remains are encountered during project construction, work within 25 feet of the discovery shall be redirected and the Sonoma County Coroner notified immediately. At the same time, the archaeologist who served as monitor or consulting archaeologist shall be contacted to assess the situation, in consultation with the descendant community also involved with the pre-construction testing, as well as the Coroner's representative. Project personnel shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the Coroner shall notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD), which will likely be the representative of the descendant community already involved, to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Upon completion of the assessment, the archaeologist shall prepare a report documenting the investigation's methods and results, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The draft report shall be submitted to the SCRP, the descendant community involved in the treatment of the resources, and the Northwest Information Center.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to 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.	❑	❑	❑	■
ii) Strong seismic ground shaking?	❑	❑	■	❑
iii) Seismic-related ground failure, including liquefaction?	❑	❑	■	❑
iv) Landslides?	❑	❑	■	❑
b) Result in substantial soil erosion or the loss of topsoil?	❑	❑	■	❑
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?	❑	❑	■	❑
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	❑	❑	■	❑
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?	❑	❑	■	❑

Affected Environment

The project site is located in southern Sonoma County in the Sonoma Valley. The Sonoma Valley runs north-south between the Sonoma Mountains on the west and the taller Mayacamas Mountains to the east. The San Pablo Bay and associated wetlands bound the County to the south. The Pacific Ocean forms the western county boundary, including an interesting assemblage of steep hills, marine terraces, beaches, and offshore sea stacks.

The San Andreas Fault trends along the western margin of the County. In addition to the San Andreas Fault, the Healdsburg, Rodgers Creek, and Mayacamas faults are located within the County and are all considered active faults. The project site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 1983).

Soil types in the project area include Reyes silty clay, 0 to 2 percent slopes (RmA) and Water (National Resources Conservation Service 2013). The Reyes series consists of poorly drained silty clays that have formed in mixed bay and stream alluvium. These soils are located in salt water marshes adjacent to bodies of seawater, mainly in the southeastern part of the County near San Pablo Bay. Reyes soils are used mainly for oat hay and dry land pasture. Permeability is slow and runoff is very slow to ponded and the erosion hazard is negligible to slight (United States Department of Agriculture, Forest Service and Soil Conservation Service, 1972).

Discussion

a) Expose people or structures to 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.

No Impact. Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The site is not located within a currently designated Alquist-Priolo Earthquake Fault Zone; the potential for fault rupture at the site is low. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project site and the entire San Francisco Bay Area is in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake, and is normally the major cause of damage in seismic events. The extent of ground-shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions. As described above, the major active faults in the County that could cause ground shaking at the project site include the San Andreas Fault, Healdsburg, Rodgers Creek, and Mayacamas faults.

The most significant adverse impact associated with strong seismic shaking is potential damage to structures and improvements. No habitable structures would be constructed as part of the proposed project; however, implementation of proposed improvements could increase the use of the project site. The proposed project would be designed and constructed consistent with the most current earthquake resistance standards for Seismic Zone 4 in the California Building Code (CBC), which includes specifications for site preparation, such as compaction requirements for foundations. Compliance with these provisions would reduce impacts associated with groundshaking to a less than significant level.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. The project site is located in an area with liquefaction potential considered to be high (Sonoma County 2008). As described above, no habitable structures would be constructed as part of the proposed project; however, proposed improvements (e.g., boat launch ramp, restrooms) could be at risk from seismic-related ground failure. The proposed project would be designed and constructed consistent with the most current earthquake resistance standards for Seismic Zone 4 in the California Building Code (CBC), which includes specifications for site preparation, such as compaction requirements for foundations. Compliance with these provisions would reduce impacts associated with liquefaction to a less than significant level.

iv) Landslides?

Less Than Significant Impact. The proposed project is located on gently sloping terrain and the potential for landslide is low. The project would not result in any new habitable structures and therefore would not expose people or structures to potential substantial adverse effects from landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. As described above, the erosion potential of the soils at the project site is low. However, construction activities have the potential to disrupt soil and cause erosion. Construction specifications require the preparation of a Stormwater Pollution and Prevention Plan (SWPPP) prior to any ground disturbance activities as required by the National Pollutant Discharge Elimination System (NPDES) General Permit (GP) for Construction (Order 2009-009-DWQ). The SWPPP will provide the details of the erosion control measures to be applied on the project site during the construction period, including Best Management Practices (BMPs) for erosion control that are recognized by the Regional Water Quality Control Board (RWQCB). Implementation of a SWPPP would reduce potential impacts to soil erosion or the loss of topsoil to a less than significant level.

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 Impact. As described above, the potential for hazard from landslide is low, but the potential for liquefaction is high. Therefore, the potential for liquefaction induced lateral spreading is also high. The project site is not located on Karst formations and has not been subjected to mining activities; thus, the risk of subsidence or collapse is expected to be low. The proposed project would be designed and constructed with adequate foundations and bedding in accordance with the CBC and standard engineering practices to address the possible effects of unstable soils. No significant geologic hazards to the proposed project from landslide, lateral

spreading, subsidence, liquefaction, or collapse would occur. This impact would be less than significant.

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

Less Than Significant Impact. Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage to foundations and slabs unless properly treated during construction. Reyes silty clay is highly expansive. Standard construction methods would be employed including appropriate selection of backfill materials that do not exhibit expansive behavior. Therefore, impacts associated with expansive soils would be less than significant.

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. A new restroom facility would be constructed as part of the proposed project. The restroom foundation would consist of a cast-in-place concrete retaining wall system with a cast-in-place floor. Septic tanks would be installed as part of the foundation work. However, the proposed restroom would consist of a pump-out unit with holding tanks. Therefore, implementation of the proposed project would not result in impacts to soils associated with the use of such wastewater treatment systems. This impact would be less than significant.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	❑	❑	■	❑
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	❑	❑	❑	■

Affected Environment

Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of greenhouse gases (GHGs) that contribute to global climate change have a broader global impact. Global climate change is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the earth's atmosphere. The principal GHGs contributing to global climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global climate change are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria and toxic air pollutants, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree by improved coordination of land use and transportation planning on the city, county and subregional level, and other measures to reduce automobile use. Energy conservation measures can also contribute to reductions in GHG emissions.

The *BAAQMD CEQA Guidelines*, recommend that all GHG emissions from a project be estimated, including a project's direct and indirect GHG emissions from operations. Because the proposed project is a public utility project and would not generate any vehicle trips, the proposed project is not expected to generate GHG emissions and would not conflict with any plan related to the reduction of greenhouse gas emissions.

The BAAQMD does not have an adopted Threshold of Significance for construction-related GHG emissions. However, BAAQMD recommends that the Lead Agency quantify and disclose GHG emissions that would occur during construction, and make a determination on the significance of these construction generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. The Lead Agency is encouraged to incorporate best management practices, such as recycling at least 50 percent of construction waste or demolition materials, to reduce GHG emissions during construction, as applicable.

GHG emissions associated with implementation of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust. The proposed project would not result in significant, long-term, GHG emissions, as the proposed project consists of a path for pedestrians and bicyclists that would not generate vehicle trips and/or source emissions.

The primary existing sources of human-caused GHGs in the project area are vehicle emissions.

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?

Less Than Significant Impact. GHG emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust.

Short-Term GHG Emissions. Construction would produce combustion emissions from various sources. During demolition, site preparation and construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. As described in Section IIb., the proposed project would require the operation of approximately 2-3 pieces of equipment at any given time during the construction period. At approximately 3.5 acres, the proposed project is well below the screening criteria for any land use type and would therefore, not exceed the BAAQMD's screening criteria and would not have a significant impact related to construction emissions.

Long-Term GHG Emissions. The proposed project would involve replacement and improvement of an existing boat launch facility. Once completed, the proposed project would generate limited new vehicle trips that would contribute to an increase in GHG emissions. Therefore, the proposed project would not cause a long-term increase in GHG emissions.

b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. As indicated above, the project would not generate operational GHG emissions and would not generate significant construction greenhouse gas emissions. Therefore, the proposed project would be consistent with all the applicable local plans, policies and regulations and would not conflict with the provisions of AB 32, the applicable air quality plan, or any other State or regional plan, policy or regulation of an agency adopted for the purpose of reducing greenhouse gas emissions.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	❑	❑	■	❑
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?	❑	❑	■	❑
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?	❑	❑	❑	■
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?	❑	❑	❑	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	❑	❑	❑	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	❑	❑	❑	■
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	❑	❑	❑	■

Affected Environment

Land uses in the project area include undeveloped, rural land, a model airplane facility and the existing boat launch facility.

The project site is not on a state-listed hazardous materials clean-up site. According to the California State Water Resources Control Board (SWRCB) Geotracker website (State Water Resources Control Board 2014), no state-listed hazardous materials clean-up sites are located within 1,000 feet of the project site. According to the California Department of Toxic Substances Control (DTSC) EnviroStor website (Department of Toxic Substances Control 2007), there are no listed hazardous sites within 1,000 feet of the project site.

Discussion

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. The proposed project would replace and improve an existing boat launch facility. After project construction, no routine transport or disposal of hazardous materials would be associated with the proposed project.

While gas and diesel fuel would typically be used by construction vehicles, Best Management Practices (BMPs) would be utilized to ensure that no construction-related fuel hazards occur. Use, storage, transport and disposal of hazardous materials (including any hazardous wastes) during construction activities would be performed in accordance with existing local, state, and federal hazardous materials regulations. Therefore, implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact is considered less than significant.

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. As described in Section VII(a) above, operation of the project would not require routine use of hazardous materials; therefore, no hazards or hazardous materials impacts related to long term operation of the project are anticipated. Construction activities would include the use of limited quantities of ordinary equipment fuels and fluids. However, these materials would not be used in sufficient quantities to pose a threat to human or environmental health. Such materials would be kept at construction staging areas, and would be secured when not in use. In the unlikely event of a spill, fuels would be controlled and disposed of in accordance with applicable regulations. Therefore, development of the proposed project would not create a significant hazard to the public or environment. This impact is considered less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school?

No Impact. The project site is not located within ¼ mile of an existing or proposed school. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.

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. The project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airports to the project site are the Sonoma Valley Airport, approximately 5 miles northwest and Sonoma Skypark, approximately 6 miles north. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project site is not in the vicinity of a private airstrip. Therefore, implementation of the proposed project would not expose persons to airport-related hazards.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project would replace/improve an existing recreational facility, located in an isolated, rural area. It is not located along an identified evacuation route, nor would it affect local roadways. The proposed project would not interfere with an adopted emergency response plan or emergency evacuation plan.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The project site is located in an area of low wildland fire threat (Sonoma County 2008). Implementation of the proposed project would not change the degree of exposure to wildfires, because no new housing or businesses would be constructed. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	❑	❑	■	❑
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	❑	❑	■	❑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	❑	❑	■	❑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	❑	❑	■	❑
e) 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?	❑	❑	■	❑
f) Otherwise substantially degrade water quality?	❑	❑	■	❑
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	❑	❑	■	❑
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	❑	❑	■	❑
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?	❑	❑	■	❑
j) Inundation by seiche, tsunami, or mudflow?	❑	❑	■	❑

Affected Environment

The project site is located in southern Sonoma County within the Sonoma Creek watershed, which covers 170 square miles. This watershed is tidally influenced with headwaters in the foothills of the Sonoma Mountains and coast range and flow to wide marshlands that interact with the San Pablo Bay. Major creeks and tributaries in the Sonoma Creek watershed include: Tolay Creek, Schell Creek, Fowler Creek, Arroyo Seco, Yulupa Creek, Graham Creek, Mill Creek, Wilson Creek, Agua Caliente Creek, Calabazas Creek, Nathanson Creek, Dowdall Creek, Carriger Creek, Felder Creek, Asbury Creek, and Bear Creek. The project site is located on Hudeman Slough, part of a large complex of marshes and sloughs that straddles the southernmost area of Sonoma and Napa Counties.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (Federal Emergency Management Agency 2008), a portion of the project site is located within the 100-year floodplain (i.e., an area in which there is a one percent change per annum of a one hundred-year storm event). This area is designated as Zone AE, areas for which the base flood elevation (water surface elevation of 1 percent annual chance flood) has been determined. The remainder of the project site is located in an area for which a Flood Insurance Rate Map has not been printed (Federal Emergency Management Agency Flood Map Service Center website). Areas of Sonoma County would be subject to flooding associated with potential failure of dams located throughout the County. However, the project site is located outside the dam inundation area for all three of these dams (Sonoma County 2003).

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has classified Sonoma Creek watershed as an impaired water body due to sedimentation, nutrients, and pathogens. Other watershed management issues include flooding, stream bank erosion, riparian and fisheries habitat enhancement, and the effect of water diversions and groundwater pumping for vineyard irrigation on summer flow in creeks.

Water quality is regulated by the US Environmental Protection Agency's National Pollution Discharge Elimination System (NPDES), which controls the discharge of pollutants to water bodies from point and non-point sources. In the Bay Area, this federal regulatory program is administered by RWQCB, which was expanded in 1990 to include permitting of stormwater discharges from storm sewer systems, industrial activities and construction sites that disturb more than 1 acre. The RWQCB permit for local construction sites like the project requires that individual landowners bear the responsibility for compliance.

The general NPDES stormwater permits for general industrial and construction activities require an applicant to file a public notice of intent (NOI) with the applicable RWQCB to discharge stormwater and prepare and implement a storm water pollution and prevention plan (SWPPP). The SWPPP includes a site map, description of stormwater discharge activities, and best management practices that would be employed to prevent water pollution. The SWPPP for general construction activity permits must describe Best Management Practices (BMPs) that would be used to control soil erosion and discharges of other construction-related pollutants that could contaminate nearby water resources.

The Sonoma Valley Groundwater Subbasin is located in the southeastern corner of Sonoma County. The subbasin, extending over an area of 70 square miles, is composed of late Tertiary to Quaternary age volcanic rocks and continental sedimentary deposits. Water-bearing units in the subbasin include Sonoma Volcanics, the Glen Ellen Formation, the Huichica Formation, and alluvium. The heart of the subbasin, along the alluvial plain of Sonoma Creek and the lower mud flats, is classified as a Class I

groundwater area. The SCWA and the USGS are conducting a four-year study to characterize groundwater conditions within this subbasin.

Discussion

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact. Construction of the proposed project would result in a small net increase in the amount of impervious surface area and an associated increase in the rate and volume of stormwater runoff. The proposed project would be required to comply with Sonoma County regulations related to stormwater runoff, including implementation of post-construction stormwater management and the requirements of the Phase II General Municipal Separate Storm Sewer System (MS4) permit (Order No. 2013-0001), which covers the unincorporated areas near the cities of Petaluma and Sonoma. Compliance with these regulations would ensure that long-term operation of the proposed project would have a less than significant impact on water quality.

Disturbance during construction would result in erosion and associated discharge of additional sediment and/or other pollutants. The National Pollutant Discharge Elimination System General Permit (GP) for Construction (Order 2009-009-DWQ) requires construction sites over one acre that do not qualify for a waiver to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall incorporate Best Management Practices (BMPs) to control sedimentation and runoff. These measures would be consistent with the application for a stormwater permit from the RWQCB. Compliance with the NPDES Permit is mandated by State and federal laws and new construction projects are required to comply with storm water general permits. Consistent with the GP, the SWPPP shall adhere to the following requirements:

- The SWPPP shall include measures to avoid creating contaminants, minimize the release of contaminants, and water quality control measures to minimize contaminants from entering surface water or percolating into the ground during and following the completion of construction.
- Fluvial erosion and water pollution related to construction shall be controlled by the SWPPP and kept current throughout all site development phases.
- The SWPPP shall include BMPs, as appropriate, given the specific circumstances of the site and project.
- The SWPPP shall be submitted to the RWQCB in compliance with the requirements of the GP.
- A spill prevention and countermeasure plan shall be incorporated into the SWPPP.

Dewatering, as required to install the new boat launching ramp, shall be conducted consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less Than Significant Impact. The proposed project would not result in the construction of large areas of impervious surfaces that would prevent water from infiltrating into the groundwater nor would it result in direct additions or withdrawals to existing groundwater. Dewatering would be required for installation of the new launch ramp. However, no groundwater would be extracted per se. Dewatering would be conducted in compliance with requirements of the Regional Water Quality Control Board (RWQCB). This impact is considered less than significant.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less Than Significant Impact. No significant change in either drainage patterns or on-site or off-site effects from erosion and siltation would occur. Topography in the project area is mostly flat and the existing grade would not substantially change. Existing surface runoff sheet flows into adjacent vegetated areas. Implementation of the proposed project would result in a small increase in impervious surfaces and an associated increase in stormwater runoff. However, minimal alteration to the existing drainage system would result from the proposed project. Surface runoff would continue to sheet flow into adjacent vegetated areas and the increase in stormwater runoff would be minimal. As described above in Response IX(a), during construction BMPs would be implemented so that on-site and off-site erosion and sedimentation would be controlled to the extent practicable. Therefore, this impact would be less than significant.

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

Less Than Significant Impact. No significant change in either drainage patterns or on-site or off-site effects from erosion and siltation would occur. The proposed project would replace and improve an existing boat launch ramp, including construction of new paths, campsites and a restroom facility. Installation of the proposed project would result in a small net increase in impervious surfaces and an associated increase in stormwater runoff. However, proposed improvements would not substantially alter the existing drainage pattern of the site or area and the resulting increase in stormwater runoff associated with implementation of the proposed project would be minimal. As described above, the proposed project would be required to comply with Sonoma County regulations and the requirements of the Phase II General Municipal Separate Storm Sewer System (MS4) permit for managing stormwater runoff. Compliance with these regulations would ensure that operation of the proposed project would not substantially increase the rate or manner of surface runoff, which would result in flooding on- or off-site. During construction, BMPs would be implemented, consistent with the GP, so that surface runoff would be controlled to the extent practicable. Therefore, this impact would be less than significant.

e) *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?*

Less Than Significant Impact. See Response IX(d).

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. See Response IX(a).

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Less Than Significant Impact. No housing units are proposed as part of the project. Therefore, the proposed project would have a less than significant impact related to the placement of housing within a 100-year flood hazard area.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact. As described above, a portion of the project site is located within the 100-year floodplain. The remainder of the project site is located in an area that has not been mapped by FEMA. The proposed boat launch facility and other improvements would be built to tolerate this condition and proposed improvements would not redirect or impede flood flows.

The Sonoma County Code, Chapter 7B, Flood Damage Protection (Sonoma County 2014), prohibits encroachments, including fill, new construction, substantial improvements, and other development within the adopted floodway unless proposed encroachments would not result in any increase in flood levels. The proposed project would result in the replacement of the existing boat launch facility and construction of other improvements. As part of construction activities, dredge materials would be placed on the upland portion of the project site to accommodate proposed improvements. Potential fill in the floodplain area would be minimal – only enough to provide pads for the campsites. The drainage pattern on site would be maintained and enhanced through construction of the vegetated swale. Therefore, the proposed project would not place within a 100-year flood hazard area structures which would impede or redirect flows. This impact would be less than significant.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?

Less Than Significant Impact. The proposed project site is not located in the inundation area for any levee or dam in the project vicinity (Sonoma County 2003). As described above, portions of the project site are located within the 100-year floodplain. The elevation of the proposed boat launch or other facilities would not be altered or constructed in a way that would change the vulnerability of the structures or people using them to flooding. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. This impact would be less than significant.

j) Inundation by seiche, tsunami, or mudflow?

Less Than Significant Impact. Seiches are caused when earthquake ground motions cause water to oscillate from one side to the other of a closed or partially closed body of water such as a lake, bay or reservoir. Such waves can result in damage to structures along the edges of these water

bodies. Shoreline areas along Bodega Harbor, Lake Sonoma and similar enclosed bodies of water in Sonoma County are subject to impacts from seiches. As the proposed project is not located along one of these enclosed bodies of water; the proposed project would not be subject to inundation by seiche.

Tsunamis, or seismic tidal waves, are caused by off-shore earthquakes that can trigger large, destructive sea waves. The project site is not located within the tsunami inundation area (California Emergency Management Agency, University of Southern California and the California Geological Survey 2009). Therefore, there is no risk of inundation by tsunami.

Mudflows typically occur in mountainous or hilly terrain. The topography of the project area is generally flat and there are not active landslides in the project area. Therefore, the potential for inundation by mudflow is less than significant.

	Potentially Significant Impact	P Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	❑	❑	❑	■
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	❑	❑	■	❑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	❑	❑	❑	■

Affected Environment

The project site consists of an existing boat launch facility owned by CDFW, but maintained and operated by SCRP. A remote control model airplane site is accessed through the launch ramp parking lot. Surrounding land uses consist of undeveloped, rural land.

The project site is located within unincorporated Solano County and is subject to the land use and zoning designations of the Sonoma County General Plan 2020 (Sonoma County 2003) and relevant portions of the Sonoma County Code Zoning Regulations Chapter 26 (Sonoma County 2014) Sonoma County designates the site as Land Intensive Agriculture. The Land Extensive Agriculture designation is intended to enhance and protect lands capable of and generally used for animal husbandry and the production of food, fiber, and plant materials. Soil and climate conditions typically result in relatively low production per acre of land. The objective in land extensive agricultural areas shall be to establish densities and parcel sizes that are conducive to continued agricultural production.

The Sonoma County Zoning Code specifies that the parcel is zoned Land Extensive Agriculture, one dwelling unit per 100 acres (LEA B6 100Z) with a Biotic Resource Overlay (BRF2). Uses in the LEA district include: animal husbandry, beekeeping, agricultural cultivation, agricultural support services, farm retail, dwelling units, accessory buildings, minor timberland conversion, vacation rentals, bed and breakfast inns, agricultural farmstays, non-commercial composting, and small-scale agricultural processing facility. Recreational facilities, including campgrounds are permitted in the LEA district with a Use Permit. The purpose of the Biotic Resources Overlay District is to protect biotic resource communities including critical habitat areas and riparian corridors for their habitat and environmental value.

Discussion

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing

community, or between a community and outlying areas. The proposed project would replace and improve an existing recreational facility. The proposed project would not physically divide an established community.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. According to the Sonoma County General Plan (2003), the project site has a land use designation of Land Extensive Agriculture. The Sonoma County Zoning Code (2014) specifies that the parcel is zoned Land Extensive Agriculture with a Biotic Resources Overlay. The proposed project would replace and improve an existing boat launch facility. The project site is not currently used for agricultural purposes and the proposed project would not result in the conversion of adjacent land uses or conflict with applicable Sonoma County land use designations or zoning standards. The proposed project would not conflict with any applicable land use plan, policy or regulation with jurisdiction over the project.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	❑	❑	❑	■
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?	❑	❑	❑	■

Affected Environment

Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat and oil bearing rock, but excluding geothermal resources, natural gas and petroleum. Rock, sand, gravel and earth are also considered minerals by the Department of Conservation when extracted by surface mining operations. The project site is not located in a designated mineral resource area (Sonoma County Permit and Resources Management Department).

Discussion

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. No known mineral resources are located on or near the project site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource.

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. See XI(a), above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	❑	❑	■	❑
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	❑	❑	■	❑
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	❑	■
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	❑	❑	■	❑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	❑	❑	❑	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	❑	❑	❑	■

Affected Environment

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep. Several noise measurement scales exist that are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the *A-weighted sound level* (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive.

The primary existing noise source in the project area is vehicle traffic on roadways in the project area. The level of vehicular noise generally varies with the volume of traffic, the number of trucks or buses, the speed of traffic, and the distance from the roadway. The road to the project site is located in a rural area, is not well-traveled, and does not continue past the project site. Therefore, vehicular noise in the project area is minimal. According to the Sonoma County General Plan (Figure NE-1, Location of Significant Noise Sources and Noise Monitoring Sites), the project site is not located near a noise-impacted road segment. No significant sources of industrial or stationary noise are present in the project area.

The proposed project would replace and improve an existing boat ramp launch facility and make other improvements within the project site.. As outlined in the project description, the project site is located in an undeveloped, rural area. No sensitive receptors (e.g., residential uses) are located in proximity to the project site.

Discussion

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less Than Significant Impact. The long-term operational and short-term construction noise impacts of the proposed project are described below.

Long-Term Operational Impacts. Operation of the proposed project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, since no significant vehicular traffic or other operational noise would be generated. Recreationists using the facility may be talking and thus generate noise, however, at 100 feet from the source, this noise level would not be significant. Therefore, no significant long-term noise impacts would occur after construction is completed.

Short-Term (Construction) Impacts. Construction of the proposed project would add short-term and intermittent noise from use of equipment and vehicles. Noise impacts from construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. However, no sensitive receptors are located in proximity to the project site. Therefore, traffic associated with worker commute and equipment transport to the project site would be less than significant.

The proposed project would require the use of earthmoving equipment including excavators, loaders, and dump trucks. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise typically associated with the use of construction equipment is estimated between 79 and 89 dBA L_{max} at a distance of 50 feet from the operating construction equipment. Noise associated with the use of pavers, pumps and haul trucks would be up to 90 dBA L_{max} at a distance of 100 feet. At a distance of 1,000 feet from the construction area, construction noise levels would be expected to attenuate by 26 dBA resulting in maximum noise levels at sensitive receptors of 64 dBA. This level would be consistent with ambient noise conditions from traffic and other existing sources of noise in the project vicinity. Therefore, construction period noise is not expected to be significant, given that construction noise would be short-term and intermittent and no residents are located in the immediate vicinity of the project site.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant Impact. Development of the proposed project would not result in excessive ground borne vibration or noise levels. There may be relatively minor vibrations from the use of trucks, torque down piles, or other equipment during construction activities such as excavation and installation of the new launch ramp. However, this ground borne condition from such equipment would be relatively minor, intermittent, short-term, and restricted to daytime hours. Additionally, noise sensitive receptors are not located in the immediate vicinity of the construction areas. Therefore, this impact would be less than significant.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The long-term use of the project is for a recreational facility. As described above, recreationists using the facility may be talking and thus generate noise; however, this land use would not generate increased ambient noise levels. No substantial long-term increase in ambient noise levels is expected as a result of project implementation.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Temporary intermittent noise from short-term construction activities associated with the development of the project would occur. The level would be elevated compared to existing ambient noise. However, it would be a short-term source and therefore would not be considered significant. No substantial increase in existing ambient noise levels would result from long-term operation of the project. Compliance with applicable noise ordinances would reduce potential construction-related noise impacts to a level below significance.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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. The project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. The closest airports to the project site are the Sonoma Valley Airport, approximately 5 miles northwest and Sonoma Skypark, approximately 6 miles north. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed project is not located within the vicinity of a private airstrip.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial 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)?	❑	❑	❑	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■

Affected Environment

The project site consists of an existing boat launch facility owned by CDFW, but maintained and operated by SCRP. A remote control model airplane site is accessed through the launch ramp parking lot. Surrounding land uses consist of undeveloped, rural land.

Discussion

a) Induce substantial 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)?

No Impact. The proposed project would replace and improve an existing boat launch facility. The proposed project would not include any new housing, commercial or industrial space, result in the conversion of adjacent land uses, or provide access to previously inaccessible areas. It would not provide additional major infrastructure or increase the capacity of the existing water system. Therefore, the proposed project would not directly or indirectly induce substantial population growth.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would be located within the area of the existing boat launch facility, which does not contain housing. Therefore, the proposed project would not displace existing housing.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. See XIII(b), above.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIVI. PUBLIC SERVICES.				
a) 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 government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	❑	❑	❑	■
Police protection?	❑	❑	❑	■
Schools?	❑	❑	❑	■
Parks?	❑	❑	❑	■
Other public facilities?	❑	❑	❑	■

Affected Environment

The project site is located in unincorporated Sonoma County served by the following existing public services.

Police Protection. Police protection is provided by the Sonoma County Sheriff's Office, which has over 275 Deputy Sheriffs in the Patrol Bureau, Investigations Bureau, Court Security, and Transportation Bureau (Sonoma County Sherriff's Office 2014). The Sonoma Valley Substation is located at 810 Grove Street in Sonoma.

Fire Protection. Fire protection and emergency response services in Sonoma County is provided by a number of different agencies, including 15 Volunteer Fire Companies (Community Service Area 40), 17 Fire Protection Districts, and independent municipal fire departments (e.g., cities of Cloverdale, Healdsburg, Petaluma, Santa Rosa, Sebastopol, and Sonoma). Additional fire protection services in the unincorporated parts of the county are provided by the California Department of Forestry and Fire Protection (CDF) (Sonoma County Permit and Resource Management Department 2006).

Schools. There are 40 school districts in Sonoma County governing 169 public schools, including 92 elementary schools, 20 middle/junior high schools, 15 high schools, 29 alternative schools, and 20 charter schools.

Parks. For a discussion of parks, see Section XV. Recreation.

Discussion

a) 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 public services: Fire protection, police protection, schools, parks, other public facilities?

Fire Protection. **Less Than Significant Impact.** The proposed project would result in a small increase in the demand for fire protection and emergency services due to increased use and development at the project site. However, because proposed improvements would be for recreation, and would not include housing units or other structures, the incremental increase in demand for fire protection services would not be significant and would not exceed the physical and financial capabilities of the Fire Department, resulting in the need for new or expanded fire services. In addition, proposed improvement would be located within an existing recreational facility, which is clearly marked and signed to aid in access and timely response in medical emergencies. Therefore, impacts to fire protection would be less than significant.

Police Protection. **Less Than Significant Impact.** Public use of the boat launch facility would result in a small increase in the demand for police services due to the increased use and development at the project site, particularly overnight use by campers at the proposed campground. However, due to the limited campsites proposed, the incremental increase in calls is not anticipated to generate the need for additional officers or equipment. Therefore, impacts to police protection would be less than significant.

Parks. **No Impact.** Section XV. Recreation

Schools and Other Public Facilities. **No Impact.** The proposed project does not include housing units or other development that would increase the population or the number of students enrolled in schools within the project area. Therefore, the proposed project would not result in an increase in demand for school services or other public facilities or result in the need for additional or altered facilities.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
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?	❑	❑	■	❑
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?	❑	■	❑	❑

Affected Environment

Within Sonoma County there are two State Park Districts, the United States Army Corps of Engineers (Corps) Lake Sonoma Recreation Area, Sonoma County Regional Parks, park and recreation departments of five cities, and three special park districts that provide a variety of parklands within the County (Sonoma County Permit and Resource Management Department). The project site is an existing recreational facility owned by CDFW, but maintained and operated by SCRP. A remote control model airplane site is located adjacent to the existing boat launch facility.

Discussion

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. The proposed project would replace and improve the existing boat launch ramp facility. Proposed improvements include: a reconstructed boat launch ramp, a reconstructed boarding dock, a new low freeboard dock, a repaved and expanded parking lot, restroom facility, campground, and ADA-accessible path. Implementation of the proposed project would likely increase the use of the site. However, it is not anticipated that such an increase in use would result in a physical deterioration of the facility. Implementation of the proposed project is not anticipated to increase the use of other existing neighborhood and regional parks or other recreational facilities. Therefore, this impact is considered less than significant.

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?

Potentially Significant Unless Mitigation Incorporated. The proposed project would replace and improve an existing recreational facility. Implementation of the mitigation measures contained in this Initial Study would ensure that proposed improvements would not have an adverse physical effect on the environment.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	❑	❑	■	❑
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	❑	❑	■	❑
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	❑	❑	❑	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	❑	❑	❑	■
e) Result in inadequate emergency access?	❑	❑	■	❑
f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	❑	❑	■	❑

Affected Environment

The boat launch facility is located on Hudeman Slough, a tributary of Sonoma Creek. By land it is accessed from Highway 12 at Ramal Road, continuing 3.7 miles south and east to Skaggs Island Road, and then 1.4 miles south to the site. The facility is located on property owned by the California Department of Fish & Wildlife, but is maintained under agreement by SCRP.

Discussion

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation

system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less Than Significant Impact. The proposed project consists of replacement and improvement of an existing boat launch facility operated by SCRP. Operation of the proposed project would have negligible impacts on the area's transportation system as continued operation of the recreational facility would generate minimal additional vehicular traffic. Implementation of the proposed project would improve circulation in the parking lot.

A small increase in traffic would occur in the project area during the construction phase of the proposed project from construction vehicles and construction workers accessing the site. However, these impacts would be short-term, occurring only during the construction period and are not expected to exceed a level of service standard for roads or highways in Sonoma County. Use of the boat launch would not be permitted during construction of upgrades to the ramp and other proposed improvements, but closures would not affect through traffic continuing past the facility or accessing the model airplane facility. As outlined in the contract specifications, traffic barricades and signage would be placed at appropriate locations adjacent to the work area prior to and during construction to alert visitors that the facility is not accessible. This impact would be less than significant.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. As described above, continued operation of the boat launch facility would have negligible impacts on the area's transportation system as it would generate minimal vehicular traffic. Use of construction vehicles and equipment during project construction would result in a minor, temporary increase in vehicle traffic in the area around the project site. However, construction activities would be temporary and are not expected to conflict with an applicable congestion management program. This impact would be less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?

No Impact. The proposed project is a recreation project and would not result in any changes in air traffic patterns or levels of air traffic.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project entails replacement of and improvements to an existing boat launch facility. Implementation of these repairs would increase the safety of the existing boat launch facility, and make other needed improvements with campsites, a restroom and ADA accessibility. No impacts related to safety hazards would occur as a result of the proposed project.

e) Result in inadequate emergency access?

Less Than Significant Impact. The proposed project consists of replacement and improvement of an existing boat launch facility within the existing site. Once completed, the proposed project would not result in inadequate emergency access. During construction activities, there could be slight delays to emergency access due to construction vehicles accessing the project site. However, construction activities would be short-term and temporary. The project's effects on emergency access would be limited to construction of the project and would be temporary in nature. Therefore, the proposed project would not result in inadequate emergency access.

f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The proposed project does not include any activities or construction of structures that would affect alternative transportation facilities or use, so there would be no impacts on alternative transportation. Implementation of the proposed project would improve access for boating in Hudeman Slough. The project would not conflict with adopted policies or programs supporting alternative transportation.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	❑	❑	■	❑
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	■	❑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	❑	❑	■	❑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	❑	❑	■	❑
e) 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?	❑	❑	■	❑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	❑	❑	■	❑
g) Comply with federal, State, and local statutes and regulations related to solid waste?	❑	❑	❑	■

Affected Environment

A variety of local and regional purveyors provide and maintain utility and service system facilities associated with electricity, water, stormwater, wastewater, solid waste, communications and natural gas in Sonoma County. There are no known underground utilities at the site.

Discussion

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. As described in Section IX(a), implementation of the proposed project would not lead to an exceedance of wastewater treatment requirements of the applicable Regional Water Quality Control Board. The proposed project would entail construction of a boat launch facility and associated improvements.. Project construction would result in the discharge

of potable and non-potable water. Discharge of potable and non-potable water will be in compliance with National Pollution Discharge Elimination System (NPDES) Municipal Regional Permit requirements. Dewatering of the work area, as needed, shall be consistent with RWQCB requirements and as such would not result in a violation of water quality standards or waste discharge requirements. This impact would be less than significant.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. As outlined in the project description, the proposed project would include construction of a restroom facility. Septic tanks would be installed as part of the foundation work for the restroom. As described in Response VI(e), the proposed restroom would consist of a pump out unit with holding tanks. The amount of wastewater generated by the proposed project would be minimal. Therefore, no wastewater treatment facilities or expansion of existing facilities would be required. No potable water would be provided at the site; therefore, no new water facilities would be constructed. This impact would be less than significant.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. The proposed project would entail construction of a replacement boat launch ramp and associated improvements (e.g., restroom, paths, campsites) within the area of the existing facility. Implementation of the proposed project would result in a small increase in impervious surfaces and an associated increase in stormwater runoff. However, minimal alteration to the existing drainage system would result from the proposed project. Surface runoff would continue to sheet flow into adjacent vegetated areas and the increase in stormwater runoff would be minimal. Therefore, the proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. This impact would be less than significant.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. See XVII(b), above.

e) 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. See XVII(b), above.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Project construction would generate solid wastes including construction materials, vegetative matter, surplus soil, demolition debris (e.g., broken or removed concrete, masonry, paving), wood, scrap metal, and general refuse, and these wastes would need to be disposed of in local or regional facilities. Non-hazardous metal and non-metal waste would

be hauled to local disposal centers for recycling or taken to landfills. Surplus soils would be reused to the maximum extent possible. The disposal demand is reasonable relative to the solid waste disposal capacities of area landfills. Solid waste disposal off-site would comply with all local, State, and federal requirements. The project would generate limited solid waste once completed. Impacts related to solid waste disposal are considered less than significant.

g) Comply with federal, State, and local statutes and regulations related to solid waste?

No Impact. The project would comply with all federal, State, and local statutes and regulations related to solid waste.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to 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, 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?	❑	■	❑	❑
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.)	❑	❑	■	❑
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	❑	■	❑	❑

a) Does the project have the potential to 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, 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?

Potentially Significant Unless Mitigation Incorporated. As described in this Initial Study, implementation of the proposed project would have the potential to adversely impact special-status animal species, wetlands, native grassland and previously undiscovered cultural and paleontological resources and/or human remains. Implementation of the mitigation measures recommended in this Initial Study would ensure that construction and operation of the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory.

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. The impacts of the proposed project would be individually limited and not cumulatively considerable. The proposed project would entail replacement of and improvements to an existing boat launch facility, including a new boat launch ramp, new low freeboard dock, restroom, paths, and campsite. As described in this Initial Study, impacts associated with the proposed project would be temporary, construction-related and would be reduced to a less than significant level with implementation of the mitigation measures contained herein. No other projects would be under construction at the same time as the proposed project. Therefore, the proposed project would not make a considerable contribution toward a cumulative impact related to construction.. Additionally, the proposed project would not generate a significant amount of greenhouse gas emissions and would therefore not result in a cumulatively considerable impact to global climate change.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Unless Mitigation Incorporated. As described in this Initial Study, any potential environmental impacts from the proposed project would be reduced to a less than significant level with the implementation of the recommended mitigation measures. With implementation of measures both incorporated into the project design and recommended as mitigations to reduce the impacts associated with air quality, biological resources, and cultural resources, the proposed project would not result in substantial adverse effects on human beings.

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