ADMINISTRATIVE REVIEW DRAFT

INITIAL STUDY/ NEGATIVE DECLARATION

FOR THE

PLEASURE COVE MARINA II ADDITION PROJECT

Lake Berryessa, CA

August 2024

Prepared for:

Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240

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Attn: Jenna Yang

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
ARB	California Air Resources Board
BMP	Best Management Practice
Cal Fire	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
dBA	decibel, A-weighted
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
IS/ND	Initial Study/Negative Declaration
LOS	Level of Service
NEPA	National Environmental Policy Act
NO_x	nitrogen oxides
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter 10 microns or less in diameter
$PM_{2.5}$	particulate matter 2.5 microns or less in diameter
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
VMT	vehicle miles traveled
WDR	Waste Discharge Requirements

NEGATIVE DECLARATION

A. General Project Information

Project Title:	Pleasure Cove Marina II Addition
Lead Agency Name and Address:	Regional Water Quality Control Board Central Valley Region 11020 Sun Center Drive #200 Rancho Cordova, CA 95670
Contact Person and Phone Number:	Jenna Yang, WRCE (916) 464-4764
Project Location:	Pleasure Cove Marina, Lake Berryessa, CA.
Project Sponsor Name and Address:	Suntex Marinas 17330 Preston Road, Suite #100C Dallas, TX, 75252
General Plan Designation:	Not applicable
Zoning:	Not applicable
Project Description:	The project proposes to add five floating dock structures with a total of 158 boat slips to the existing marina; the new slips would accommodate boats of various sizes. The floating dock would be connected to the lakeshore via a pedestrian ramp. The slip structures and dock would be held in place by concrete anchors set on the bottom of Lake Berryessa, with stainless steel cables connecting the facilities to the anchors.
Surrounding Land Uses and Setting:	The project is within the existing Pleasure Cove resort in Lake Berryessa in eastern Napa County. The lake is surrounded by federal land managed by the U.S. Bureau of Reclamation. The existing resort includes a marina.

Other Public Agencies Whose Approval is Required:	U.S. Bureau of Reclamation for landside improvements (NEPA – separate process), U.S. Army Corps of Engineers (Section 404 permit).
Have California Native American tribes affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	The Bureau of Reclamation entered into consultation with the Yocha Dehe Wintun Nation and incorporated requested protective measures into the project. Tribal consultation is now concluded.

B. Environmental Factors Potentially Affected

The environmental factors checked below may be significantly affected by this project, involving at least one impact that is a "Potentially Significant Impact" prior to mitigation, as described in the checklist and narrative on the following pages, and in the Summary Table at the end of Chapter 1.0.

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

C. Lead Agency Determination

On the basis of this initial evaluation:

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

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project and/or mitigation measures that would reduce potential effects to a less than significant level 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.

REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

Patrick Pulupa, Executive Officer — Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Negative Declaration (IS/ND) for the Pleasure Cove Marina II Addition Project (project). The project site is located at the existing Pleasure Cove resort in Lake Berryessa, Napa County, California (Figures 1-1 through 1-4). Suntex Marinas is the project proponent. The IS/ND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of this CEQA analysis, the Lead Agency for this project is the Central Valley Regional Water Quality Control Board (RWQCB).

The project proposes to add five structures with a total of 158 boat slips accommodating boats of various sizes to the existing Pleasure Cove Marina. The slip structures would be attached to a floating dock, which in turn would be connected to the shore via a gangway ramp. The slip structures and dock would be held in place by concrete anchors set on the bottom of Lake Berryessa; stainless steel cables would connect the facilities to the anchors. This IS/ND is being prepared as part of the Clean Water Act Section 401 Water Quality Certification process of the Central Valley RWQCB.

1.2 Purpose of Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a project. Briefly summarized, a "project" is an action that may cause direct or indirect physical changes in the environment. A project includes the agency's direct activities and activities that involve public agency approvals or funding. The State CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3) provides guidance for an agency's implementation of CEQA.

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid identified significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency ordinarily prepares a Negative Declaration. If the Initial Study concludes that significant effects would occur but also identifies mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency may prepare a Mitigated Negative Declaration. If a project would involve significant effects that cannot be feasibly mitigated, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without first preparing an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The RWQCB has determined that the project may have potentially significant environmental effects and therefore requires preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would be required to eliminate any potentially significant environmental effects of the project or reduce them to a level that would be less than significant. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance (including Cumulative Impacts)

This Initial Study, however, concludes that the project would not have potentially significant environmental impacts, either by itself or with the application of other regulations, ordinances, and standards. No mitigation measures are required. As a result, the RWQCB has prepared a Negative Declaration and has issued a Notice of Intent to adopt the IS/ND for the project. The IS/MND has also been posted to the State Clearinghouse for review and comment by state agencies. The Notice of Intent, inside the cover of this document, shows the time available for public comment on the IS/ND.

1.3 Project Background

Lake Berryessa is in the Coast Range in eastern Napa County, approximately 60 miles northeast of San Francisco and 40 miles west of Sacramento. Lake Berryessa is a reservoir that was created in the late 1950s by the construction of Monticello Dam at the southeastern edge of the reservoir, thereby damming Putah Creek. The reservoir is 23 miles long by 3 miles wide and has 165 miles of shoreline. It has a storage capacity of approximately 1.6 million acre-feet, making Lake Berryessa one of the largest bodies of fresh water in California. The U.S. Bureau of Reclamation manages Lake Berryessa and Monticello Dam, including recreational uses of the water and adjacent lands.

Pleasure Cove is an arm of Lake Berryessa, which is a portion of Wragg Canyon in the southern portion of the reservoir. A marina was established decades ago on the west side of Wragg Canyon. A Bureau of Reclamation concession originally called "South Shore Resort", the marina was renamed Pleasure Cove Marina in the mid-1980s. Suntex Marinas

became the concessionaire for the marina in 2018 after purchasing the contract from Forever Resorts. Pleasure Cove Marina, which occupies an approximately 19-acre concession area, provides public access to Lake Berryessa and services and accommodations for recreational boaters and landside visitors.

The Bureau of Reclamation, Region 10: California-Great Basin proposes to issue a temporary construction permit to Suntex Marinas for construction of landside and marina improvements within the Pleasure Cove Marina concession area. The temporary construction permit would authorize expansion and improvements for public recreational opportunities by constructing new visitor cabins, improving recreational vehicle parking sites, constructing new vehicle and boat parking, constructing a new floating marina with a new pedestrian gangway, and constructing a new floating breakwater. Proposed concession improvements would include new potable water and sanitary sewer lines and new electrical service. The proposed improvements are currently undergoing environmental review under the National Environmental Policy Act (NEPA); the project would occur on federal land administered by the Bureau of Reclamation and would require a Bureau of Reclamation permit. The NEPA review is being conducted separately from the CEQA review for this project.

As part of the approval process, the marina improvements that would occur in the waters of Lake Berryessa are required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers. As part of the Section 404 permit process, a Clean Water Act Section 401 Water Quality Certification or a waiver to this certification must be issued. Section 401 Water Quality Certifications are issued to applicants for a federal license or permit for activities that may result in a discharge into Waters of the United States. The Central Valley RWQCB is responsible for the Section 401 procedure for projects within its jurisdictional boundaries, as this project is.

1.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist presented in Chapter 3.0 of this IS/ND. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the Lead Agency determines whether the project would involve 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact.

- A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e., the environmental effect may be significant, and feasible mitigation measures have not been defined that would reduce the impact to a level that would be less than significant. If there is a Potentially Significant Impact entry in the Initial Study, then an EIR is required. No Potentially Significant Impacts have been identified in this IS/ND.

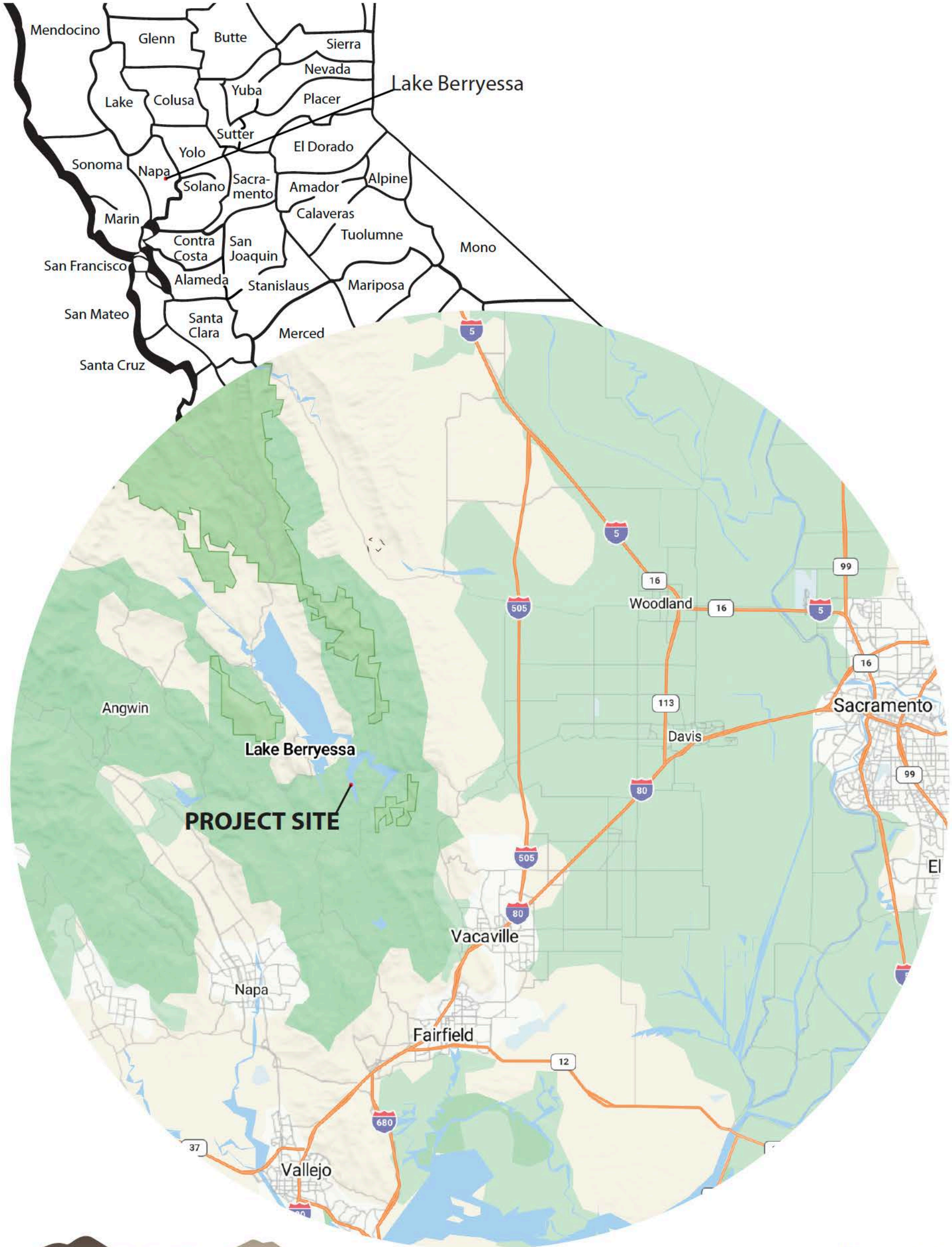
- An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced

to a level that is less than significant with the application of defined mitigation measures. This IS/ND does not identify any impacts that are Less than Significant with Mitigation Incorporated.

- A Less Than Significant Impact occurs when the project would involve an environmental impact, but the impact would not cause a substantial adverse change to the physical environment such that mitigation would be required. This IS/ND identifies several impacts that are considered Less Than Significant.

- A determination of No Impact is self-explanatory. This IS/ND identifies several areas of environmental concern in which the project would have No Impact on the physical environment.

This IS/ND identifies certain potential environmental effects that would be reduced or eliminated by implementation of existing provisions of law and standards of practice related to land use planning and environmental protection. Where appropriate, such provisions, considered part of the existing regulatory environment, are identified and considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed.



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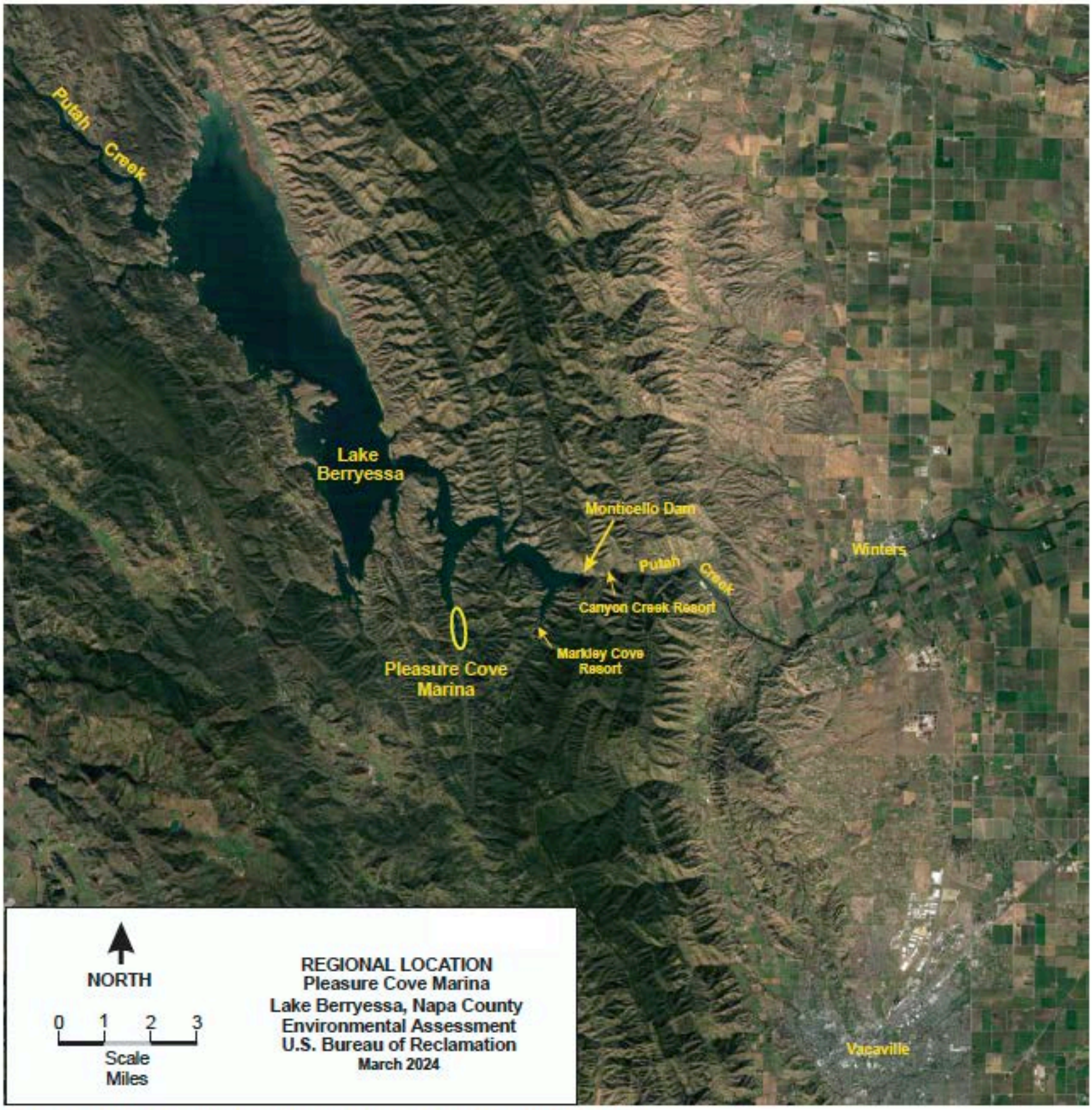
Figure 1-1
REGIONAL LOCATION MAP



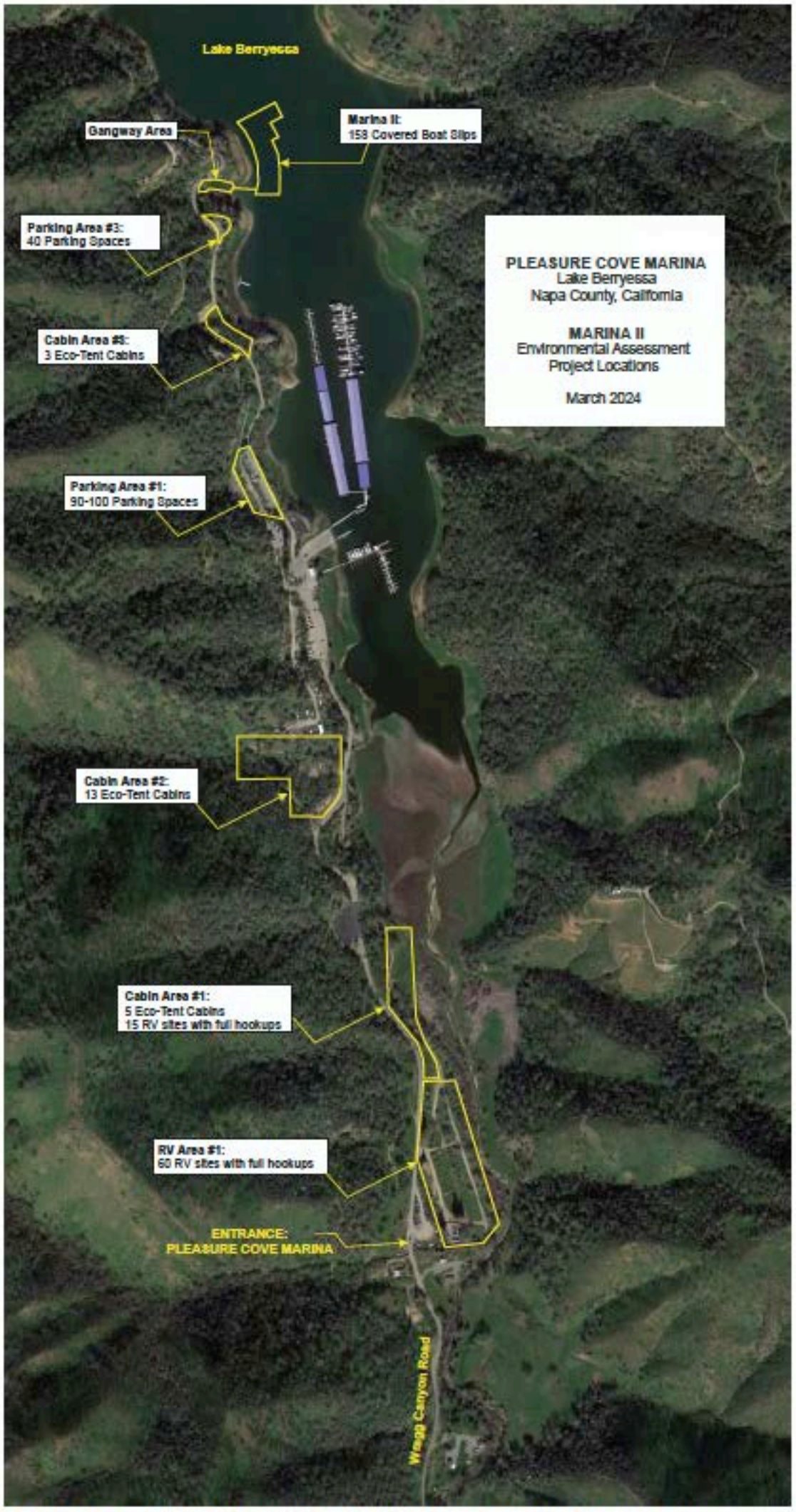
SOURCE: Google Maps

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Figure 1-2
STREET MAP



SOURCE: Wallace Environmental, NEPA Environmental Assessment



SOURCE: Wallace Environmental, NEPA Environmental Assessment

BaseCamp Environmental

Figure 1-4
PLEASURE COVE RESORT
PLANNED IMPROVEMENTS

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located within the existing Pleasure Cove resort in the southern portion of Lake Berryessa in eastern Napa County, California (see Figures 1-1 through 1-4). The project site is shown on the U.S. Geological Survey's Lake Berryessa 7.5-minute quadrangle map as being within Section 35, Township 8 North, Range 2 West, Mt. Diablo Base and Meridian. The latitude of the project site is approximately 38° 30′ 03″ North, and the longitude is approximately 122° 09′ 43″ West.

2.2 Project Details

The project proposes the installation of five floating structures within Lake Berryessa (Figure 2-1). These structures would contain boat slips in which recreational boats on Lake Berryessa can be moored. A total of 158 boat slips, accommodating various sizes of boats, would be made available. At the end of the southernmost structure (labeled A on Figure 2-2), a floating deck of approximately 15 feet by 20 feet (300 square feet) would be attached for boat slip customer use.

The boat slip structures would be attached to a common floating dock. At the end of this dock, adjacent to structure A, a pedestrian ramp would be attached, providing access to the shoreline and land-based marina facilities. The land end of the ramp would be secured above the ordinary high-water mark of Pleasure Cove. The ramp's lowest level would be attached to structure A and hinged to allow it to adjust to lake level fluctuations.

The boat slip structures and the floating docks would be held in place by anchors placed on the bottom of Lake Berryessa (Figure 2-3). The anchors would be concrete blocks weighing from 9,969 pounds to 14,500 pounds. Four steel spikes would be embedded in each block to keep it from sliding down any submerged embankment.

Each block would have one stainless steel loop bracket embedded within it, with approximately six inches of the bracket exposed above the block surface. An anchor block assembly with a shackle and thimble would be attached to the exposed loop. A stainless steel cable, approximately one-half inch in diameter, would at one end be threaded through the shackle and thimble, then looped back a minimum of 12 inches, with the resulting loop being held by three clamps. The other end would be connected to a winch attached to the slip structure or dock.

A sanitary pump-out facility located on the floating dock would provide boaters with access to a sanitary sewer. Boaters would connect their vessels' holding tanks to a pump-out that would pump wastewater to a lift station along Wragg Canyon Road. No trenching or excavation is associated with construction of the proposed marina. Trenching and

excavation would occur in nearby upland areas above Lake Berryessa high-water mark in conjunction with other resort improvements outside the jurisdiction of the Lead Agency.

2.3 Permits, Entitlements, and Approvals

This IS/ND is being prepared for the Central Valley RWQCB as part of the evaluation for a Clean Water Act Section 401 Water Quality Certification. The project would require approval of a Water Quality Certification or a waiver of this certification from the Central Valley RWQCB, which has jurisdiction over the Lake Berryessa area.

The Section 401 Water Quality Certification is required in conjunction with a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers. The Section 404 permitting process is being conducted separately and is not subject to the CEQA process as it involves a federal action by a federal agency.

As noted, the project, along with other improvements proposed for Pleasure Cove Marina, would be required to undergo NEPA environmental review. The NEPA review will be conducted separately from this CEQA environmental review.

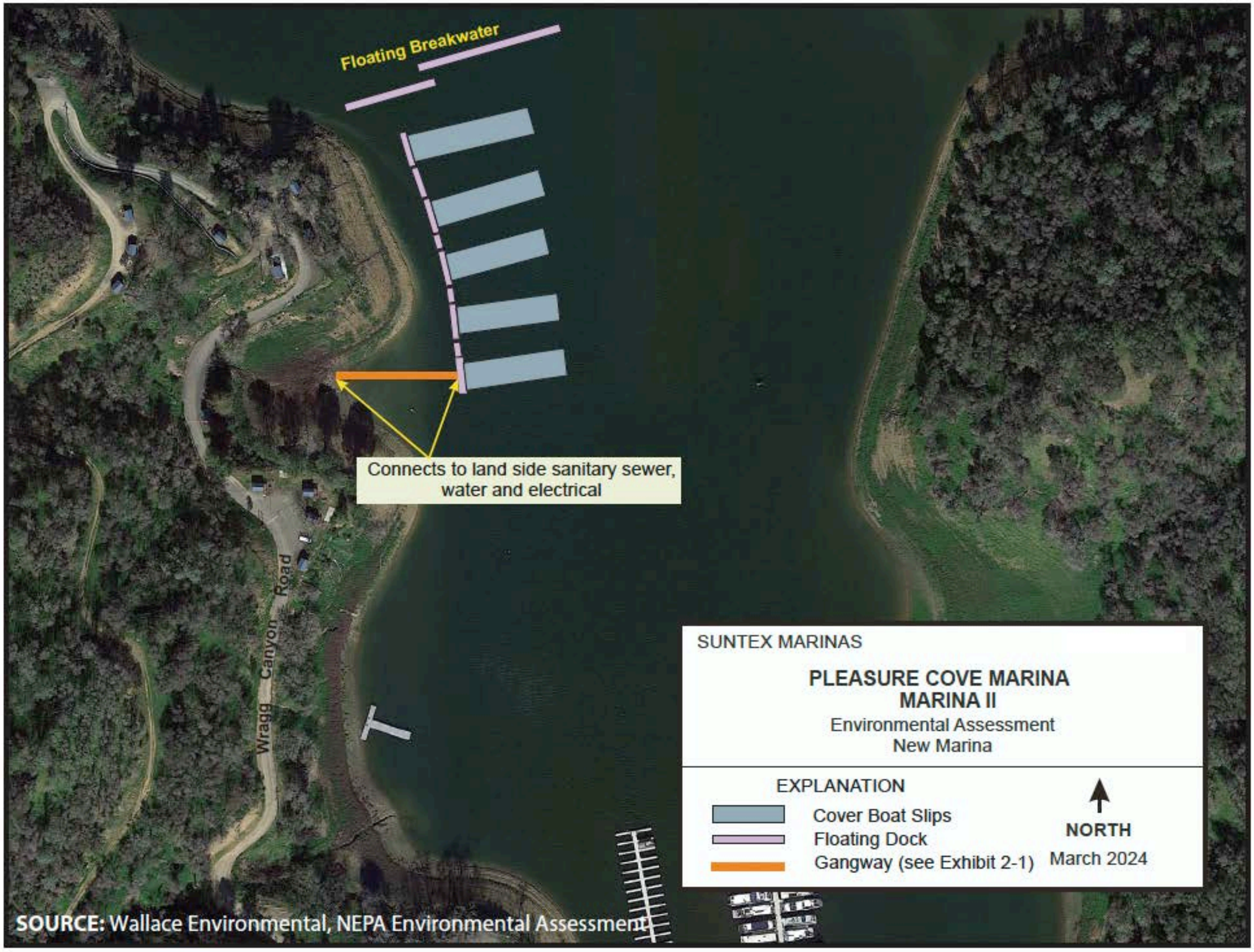
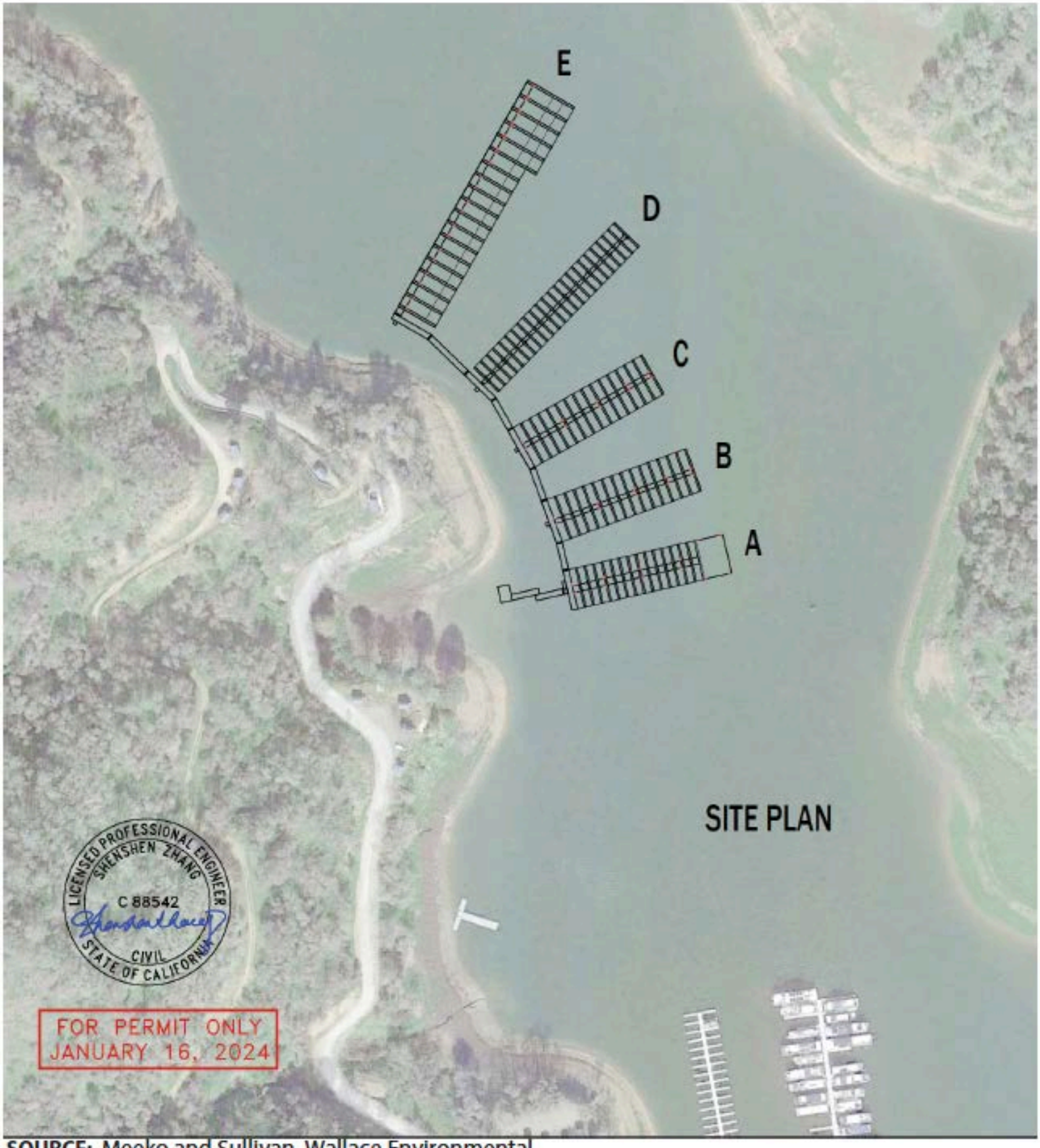


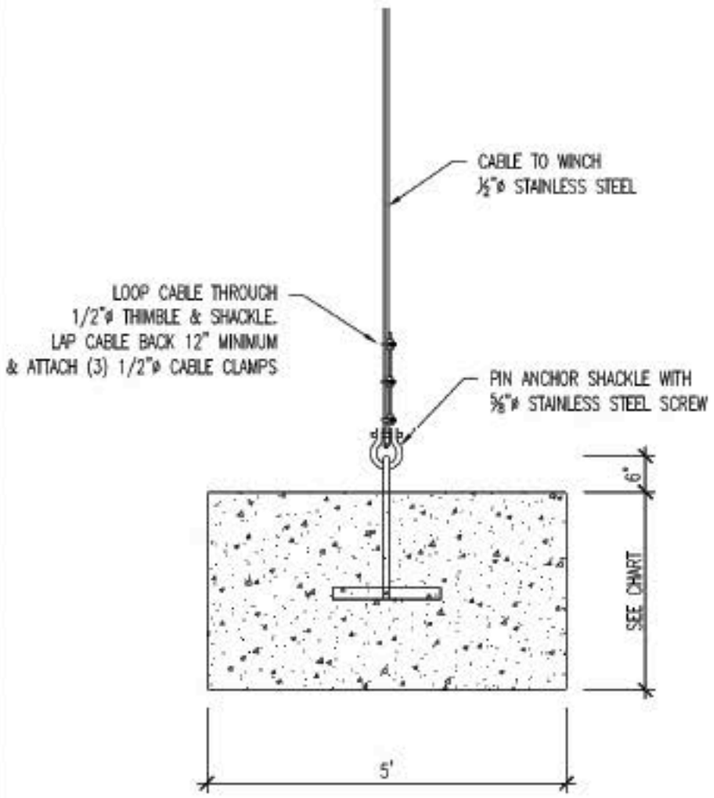
Figure 2-1
PROPOSED FLOATING DOCK BREAKWATER AND BOAT SLIPS



SOURCE: Meeko and Sullivan, Wallace Environmental

BaseCamp Environmental

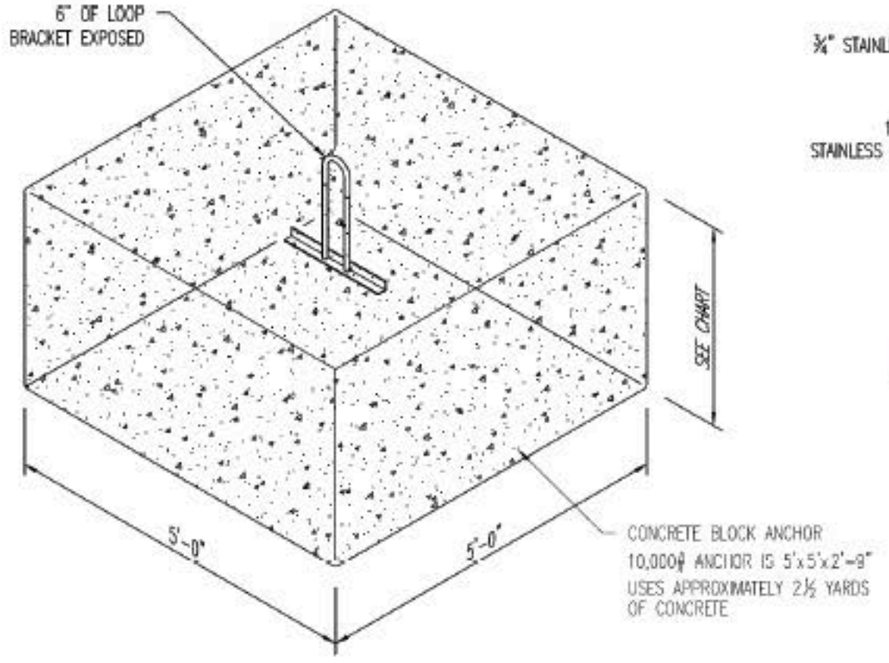
Figure 2-2
PROPOSED DOCK AND BOAT SLIP SITE PLAN



ANCHOR BLOCK ASSEMBLY

HARDWARE REQUIRED PER ANCHOR BLOCK:
(1) 5/8" GALV. SCREW PIN ANCHOR SHACKLES
(1) 5/8" GALV. CABLE THIMBLE
(3) 5/8" GALV. CABLE CLAMPS

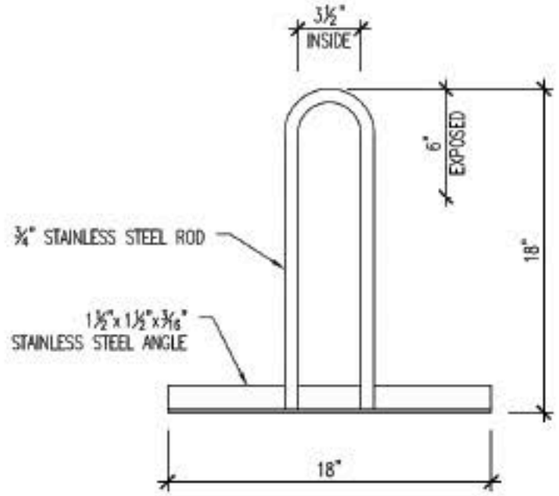
TYPICAL ANCHOR SIZE AND CAPACITY		
DEPTH	VOLUME (CU YD)	WEIGHT (LBS)
2'-9"	2.55	9,969
3'-0"	2.78	10,875
3'-3"	3.01	11,781
3'-6"	3.24	12,688
3'-9"	3.47	13,594
4'-0"	3.70	14,500



ISOMETRIC VIEW

DESIGN CRITERIA:
* SOIL CONDITIONS: SOFT TO MEDIUM CLAY
* ASSUMED CONCRETE DENSITY 145 P.C.F.
* 4,000 P.S.I. CONCRETE

NOTE:
NORMAL CURING TIME IS 3 DAYS MINIMUM.
OTHERWISE, USE HIGH EARLY STRENGTH CONCRETE
WITH FIBER MESH.



ANCHOR LOOP BRACKET

1 REQUIRED PER BLOCK

NO.	REVISION DESCRIPTION	BY	DATE

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DRAWN BY: TGJ	FILE NAME: 8518A-DTLS	
CHECKED BY:	JOB #	PLAN # 8518A
SCALE: 1/2" = 1'-0"	DATE: 1/16/24	SHEET 19

PLEASURE COVE MARINA
MARINA II
LAKE BERRYESSA, CA

SOURCE: Meeco Sullivan

Figure 2-3
PROPOSED ANCHOR BLOCKS

3.0 ENVIRONMENTAL CHECKLIST FORM

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			✓	
d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?				✓

Environmental Setting

Mountainous and sometimes rugged ridgelines frame the eastern and western boundaries of Napa County, also providing visually distinct valley regions within the area. Water is often a prominent feature in the landscape (County of Napa 2007). The project site is in Lake Berryessa, which is considered a scenic resource.

California Public Resources Code Section 21099 states that the aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a transit priority area shall not be considered significant. The project does not meet any of the criteria of Section 21099; therefore, aesthetic impacts will be analyzed in this document.

Environmental Impacts

a) Scenic Vistas.

Major ridgelines are prominent on a countywide level, generally above 2,000 feet in elevation and form the entirety of Napa County's eastern boundary. Blue Ridge and Rocky Ridge are the major ridgelines shaping the eastern edge of the county and are visible from Lake Berryessa (County of Napa 2007). The project would be on the lake surface; as such,

it would not obstruct views of the ridgelines. The project would have no impact on scenic vista.

b) Scenic Resources and Highways.

The most significant scenic resource in the project vicinity is Lake Berryessa. The project would place boat slips and docks on the lake itself. However, the project would occur within an existing marina, and the marina area is not visible due to its location in Wragg Canyon. Most of the lake area would remain unaffected.

According to the Caltrans list of designated scenic highways under the California Scenic Highway Program, there are no officially designated State Scenic Highways within Napa County. There are five highways considered eligible for State Scenic Highway designation, the closest of which to the project site is State Route (SR) 128, which crosses Napa County and crosses Monticello Dam (Caltrans 2019). However, the project site is approximately two miles from SR 128 at its closest, and there are hills between these two facilities.

The Napa County General Plan EIR identified several scenic corridors throughout Napa County. One of these is SR 128 near Lake Berryessa (County of Napa 2007). As noted, the project site is approximately two miles away from SR 128, and there are intervening hills. Project impacts on scenic resources, including scenic highways, would be less than significant.

c) Visual Character and Quality.

As discussed in a) and b) above, the project site is not visible from SR 128, the closest scenic highway in the area. The one public road in the area is Wragg Canyon Road, which provides access to Pleasure Cove. Views from this road are mainly limited to the canyon sides. As noted, the project would be placed on the surface of Lake Berryessa. However, the project would occur within an existing marina, and the project would be consistent with the existing marina landscape. The project would not be visible from most areas near Lake Berryessa, particularly since it would be within Wragg Canyon. Project impacts on visual character and quality would be less than significant.

d) Light and Glare.

The project is the addition of boat slips and docks. No lighting is proposed for the project; therefore, the project would not contribute any lighting that may affect nighttime views. The project would not involve the use of any materials that may produce glare. The project would have no impact on light and glare.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to 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 that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?				✓

Environmental Setting

The project site is within an existing developed marina. Although agriculture is a significant activity in Napa County, very little agricultural activity occurs in the project vicinity. The Important Farmland Maps, prepared by the California Department of Conservation as part of the Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils. The maps categorize farmland, in decreasing order of soil quality, as "Prime Farmland," "Farmland of Statewide Importance," "Unique Farmland," and "Farmland of Local Importance." The 2018 Important Farmland Map of Napa County designates the marina and vicinity as Grazing Land and Other Lands (FMMP 2020).

Environmental Impacts

a) Agricultural Land Conversion.

The project site is on water. As noted, the marina and vicinity are classified as Grazing Land and Other Lands. There is no Farmland as defined in CEQA Guidelines Appendix G in the vicinity. The project would not convert Farmland and would therefore have no impact on this issue.

b) Conflict with Agricultural Zoning or Williamson Act Contract.

The marina area is zoned for recreational uses, not for agricultural uses. The Williamson Act preserves agricultural land by means of a contract between the landowner and local government that keeps the contracted land in agricultural use in exchange for a lower property tax assessment. As there is no agricultural land in the vicinity, there are no lands under a Williamson Act contract. The project would have no impact on agricultural zoning or Williamson Act contracts.

c, d) Forest Lands.

The project is on water; the marina is in a developed recreational area. There are no forest lands on the project site. No land in the project vicinity is zoned as forest land or timberland. The project would have no impact on forest lands.

e) Indirect Conversion of Farmland or Forest Land.

As noted, the marina and vicinity are classified as Grazing Land and Other Lands. There is no Farmland in the vicinity, nor are there any forest lands. The project would have no impact on indirect conversion of Farmland or forest lands.

3.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollutant control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?	☐	☐	✓	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	✓	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✓	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	✓	☐

Environmental Setting

Napa County is in the San Francisco Bay Air Basin. Air quality in the Air Basin is influenced by variable weather conditions, particularly localized climate and wind patterns. Summers in the Air Basin are hot and dry in the inland areas, and winters are typically cool and wet. Ozone and fine particle pollution, or $PM_{2.5}$, are the regional air pollutants of concern. Ozone is primarily an issue in the summer and $PM_{2.5}$ in the winter. In Napa County, ozone rarely

exceeds health standards, but $PM_{2.5}$, usually caused by smoke, occasionally reaches unhealthy concentrations (Bureau of Reclamation 2024).

Lake Berryessa is a rural area with residential communities and recreational facilities around the lake. Typical sources of emissions around the lake are attributed to the use and operation of recreation facilities and include vehicle traffic, boating activities, barbeques, fire pits, and maintenance activities. The main source of emissions in the residential areas is typically vehicle traffic using Berryessa Knoxville Road (Bureau of Reclamation 2024).

Environmental Impacts

a) Air Quality Plan Consistency.

Construction emissions would be the primary contributor to air quality impacts from the proposed project. Construction activities would involve the placement and anchoring of the boat slips and docks in Lake Berryessa and securing of the gangway ramp to the shoreline.

The Bay Area Air Quality Management District (BAAQMD), which has jurisdiction over Napa County, has established thresholds of significance for criteria pollutant emissions that are used to determine the significance of project air quality impacts under CEQA. The BAAQMD has also developed screening criteria that indicate whether a project's construction and operational emissions would exceed these thresholds of significance. In general, recreational facilities that are less than 452,000 square feet would not have construction emissions that exceed BAAQMD significance thresholds. While BAAQMD does not provide screening criteria for marinas, the lowest established screening threshold for a recreational use (fast-food restaurant) indicates that a project of less than 21,000 square feet would not exceed BAAQMD significance thresholds (BAAQMD 2022).

The project would be smaller than both screening criteria presented above. The floating deck attached to the docks would be 300 square feet, and the associated boat slips would not add substantially to this square footage. Once construction work is completed, construction emissions would cease. Project operations are expected to generate no emissions, outside of recreational boat use and project maintenance. In addition, as noted, the project would be placed on the lake; very little soil disturbance that could generate dust would occur. The project would be required to comply with applicable BAAQMD rules and regulations, which would further reduce potential air quality impacts. Therefore, the project would not generate emissions such that they could conflict with or obstruct implementation of applicable air quality plans of BAAQMD. Project impacts would be less than significant.

b) Cumulative Emissions.

Future attainment of federal and State ambient air quality standards is a function of successful implementation of the BAAQMD's attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. As noted in a) above, neither project construction nor operational emissions are expected to exceed BAAQMD significance thresholds. Because of this, the project would not contribute

to cumulative increases in air pollutant emissions. Project impacts would be less than significant.

c) Exposure of Sensitive Receptors.

Certain community members are more susceptible to poor air quality. These individuals, referred to as sensitive receptors, are typically children, the elderly, and those with preexisting serious health problems. Land uses where sensitive receptors are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers and preschools, hospices, dormitories, nursing homes, hospitals, and residential communities (BAAQMD 2022). Emissions of pollutants, including toxic air contaminants, in sufficient concentrations could have adverse health impacts on nearby sensitive receptors.

As noted, Lake Berryessa is a rural area with residential communities and recreational facilities around the lake. The residential areas represent the primary group of sensitive receptors around the lake. Recreational visitors are also considered sensitive receptors, but they are not permanent residents and their exposure to pollutants would be limited. As noted in a) above, the main source of project emissions would be from construction activities, which would not exceed BAAQMD significance thresholds and would cease once construction work is completed. There are no residences in the vicinity of the project, and the exposure of marina visitors to project emissions would be limited. Project impacts related to exposure of sensitive receptors would be less than significant.

d) Odors and Other Emissions.

The project is not expected to generate significant odors, other than from construction activities. Such emissions would be localized and would dissipate rapidly outside the project site. As noted above, there are no sensitive receptors in the project vicinity except for recreational visitors, whose exposure to construction emissions would only be temporary.

Potential health effects on sensitive receptors occur with long-term exposure to pollutants. This includes diesel particulate matter, a toxic air contaminant generated by diesel construction equipment. However, as noted, construction impacts would cease with the completion of project work, which is expected to take 45 to 60 days. Project impacts related to odors and other emissions are considered less than significant.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	✓
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	✓
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 Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✓

Environmental Setting

A majority of the project vicinity is oak woodland that occupies the steep slopes above the open water and the primary access road. Human activity has altered the natural woodland habitat near the water and in the marina area, between the lake edge and the steep slopes to the west. As a result, the oak woodland in this area was thin and disturbed (Bureau of Reclamation 2024).

Lake Berryessa provides lacustrine (lake) habitat which is typically considered the area beyond where the shoreline zone transitions into the deep-water zone. Open water occurs at depths that preclude the establishment of emergent vegetation. Some emergent vegetation persists along the shorelines of Lake Berryessa, primarily consisting of non-native Eurasian watermilfoil. More diverse or extensive aquatic plant communities are not likely to develop along the shallow shores of the lake as a result of annually fluctuating water levels (Bureau of Reclamation 2024).

A biological assessment of the marina area, available in Appendix A of this IS/ND, states that the exposed shoreline supports opportunistic wetland vegetation, including common horsetail, poison hemlock, mayweed, Western goldenrod, pennyroyal, hyssop loosestrife, and common monkeyflower. The shoreline can also support a number of trees (Salix Consulting 2023). However, no trees appear to be in the shoreline area that would be affected by the project.

The project vicinity provides habitat for a variety of wildlife species because of its vegetative cover and access to water. Undisturbed natural ground was generally very steep, and

therefore limiting to ground-dwelling species. Due to suitable nesting opportunities in the oak woodland, the most abundant species within the project area were birds. Other animal species observed included northwestern fence lizard, mule deer, western gray squirrel, and black-tailed jackrabbit.

Environmental Impacts

a) Special-Status Species.

Special-status species include plant and/or wildlife species that are legally protected under the federal Endangered Species Act, the California Endangered Species Act, or other laws and regulations, or are considered rare enough by the scientific community and trustee agencies to warrant special consideration. The biological assessment conducted a search of databases maintained by the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service, and the California Native Plant Society. While four special-status plant species and five special-status wildlife species were identified as potentially occurring in the project vicinity, none were identified as having habitat within Lake Berryessa (Salix Consulting 2023). Project work or operations would not affect any special-status species potentially occurring in the area. The project would have no impact on special-status species.

b) Riparian and Sensitive Habitats.

Riparian habitat is located along streams. As the project is on a lake, it is not in an area of riparian habitat. No biologically sensitive habitats were identified in the biological assessment of the marina area (Salix Consulting 2023). The project would have no impact on riparian or sensitive habitats.

c) State and Federally Protected Wetlands.

The biological assessment of the marina area did not identify any wetlands on the project site (Salix Consulting 2023). The project would have no impact on state or federally protected wetlands.

d) Fish and Wildlife Movement.

The project is on Lake Berryessa, and fish are known to inhabit the lake. However, given its method of construction, the project would not impede any movement of fish. With its lake location, the project would not impede any land-based wildlife corridors, nor would the project disrupt any wildlife nesting sites, including trees. The project would have no impact on fish or wildlife movement or nesting.

e) Local Biological Resource Requirements.

There are no local biological resource requirements that apply to the project site. The project would have no impact on local biological resource requirements.

f) Conflict with Habitat Conservation Plans.

No habitat conservation plans or similar plans apply to the project site. The project would have no impact related to habitat conservation plans.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	✓
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	☐	☐	✓
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	✓	☐

Environmental Setting

The project vicinity is within the ethnographic territory of the Patwin tribe. Section 3.18, Tribal Cultural Resources, discusses the Patwin in more detail.

A cultural resource report prepared for Pleasure Cove Marina, available in Appendix B of this IS/ND, notes that the earliest recorded European expedition into Napa County occurred in 1823, where Don Francisco Castro and Franciscan Friar Jose Altimira searched for a suitable site for a new mission, eventually settling on Sonoma (Natural Investigations Company 2023). The first land grant in Berryessa Valley occurred with the 1843 granting of the Rancho Las Putas to Jose and Sisto Berrelleza. This nearly 36,000-acre rancho covered most of Berryessa Valley (Bureau of Reclamation 2024). "Berryessa" is the Anglicized version of Berrelleza (Natural Investigations Company 2023).

Monticello Dam at Devil's Gate on Putah Creek was completed in 1957 to create Lake Berryessa. The lake was created as part of the Solano Project to supply water for agricultural uses in the area and to supply local communities with a source of water. In 1958, the Bureau of Reclamation and Napa County agreed to terms for development and management of recreation areas by Napa County (Bureau of Reclamation 2024). By 1968, the original Pleasure Cove Resort was constructed, with campsites delineated and trails leading to them. Two large structures were built on the south end of the facility, and the entire property was cleared of vegetation (Natural Investigations Company 2023).

The 1859 General Land Office land plat map shows the marina area to be undeveloped and covered with dense shrubs, except for a road from Berryessa to Suisun known today as Wragg Canyon Road. This road continued northward to Putah Creek, now inundated by Lake Berryessa. Wragg Canyon Road was the primary route for mail and commerce into Berryessa Valley; today, it terminates at the northern end of Pleasure Cove Marina (Natural Investigations Company 2023).

Environmental Impacts

a, b) Historical and Archaeological Resources.

An estimated 50 archaeological sites, such as prehistoric mounds, lithic scatters, and bedrock mortars, had been documented in the Berryessa Valley before the creation of Lake Berryessa (Bureau of Reclamation 2024). However, the cultural resource report of the marina area did not identify any archaeological resources or significant historic properties in the marina area. One historic-era resource – an unnamed two-track road - was identified and recorded but was determined to be ineligible for listing on the National Register of Historic Places (Natural Investigations Company 2023). Given that the project would be located mostly on Lake Berryessa and that there would be very little ground disturbance associated with the project, the project is unlikely to disturb any historical or archaeological resources that may exist in the area. The project would have a less than significant impact on historical or archaeological resources.

The Lead Agency has communicated with the Yocha Dehe Wintun Nation during the CEQA review process. The Tribe requested inclusion of pre-construction cultural sensitivity training, use of cultural monitors during project construction and the inclusion of the Tribe's Treatment Protocol in project mitigation measures; a copy of the protocol is shown in Appendix B. With the inclusion of these provisions, the project's potential for cultural resource impact would be further reduced. Tribal consultation is now concluded.

c) Human Burials.

The discovery of human remains is unlikely but is a possibility during Project ground disturbing activities. If human remains are inadvertently discovered the policies in the Napa County General Plan should be implemented. These policies include stopping work near the find and following the State of California Health and Safety Code Section 7050.5. This code section states that the County Coroner must be immediately notified of the discovery of any human remains and no further disturbance may occur near the discovery until the County Coroner has made a determination of origin and disposition of the remains pursuant to PRC Section 5097.98. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The MLD must complete an inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with these measures would reduce impacts on any encountered human burials to a level that would be less than significant. These requirements are consistent with the Yocha Dehe Wintun Nation Treatment Protocol, which will be applied to the project.

Worker Cultural Awareness Training

Prior to initiation of ground-disturbing activities, qualified archaeologists will conduct a short awareness training session for all construction workers and supervisory personnel. The course would explain the importance of, and legal basis for, the protection of significant archaeological resources. Each worker would also learn the proper procedures to follow in the event cultural resources or human remains/burials are uncovered during construction

activities, including work curtailment or redirection and to immediately contact their supervisor and the archaeological monitor. It is recommended that this worker education session include visuals of artifacts (prehistoric and historic) that might be found in the project vicinity, and that it take place on the construction site immediately prior to the start of construction. Worker training requirements will be included in the project, consistent with the Yocha Dehe Wintun Nation Treatment Protocol.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?			✓	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				✓

Environmental Setting

Electricity and natural gas services in Napa County are provided primarily by Pacific Gas and Electric Company (PG&E). However, Pleasure Cove Marina is relatively self-contained and only avails itself of electricity from PG&E (Bureau of Reclamation 2024). Vehicle traffic to and from the marina, along with recreational boats, consume mostly gasoline.

Environmental Impacts

a) Project Energy Consumption.

Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. Construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

Electricity may be used for equipment operation during construction activities. It is expected that more electrical construction equipment would be used in the future, since it generates no air pollutants. Electrical consumption by this equipment would be consistent with construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient, or unnecessary, especially since fossil fuel consumption would be reduced.

The project, consisting of boat slips and docks, would use no energy. Boats that consume gasoline would use the project facilities, and motor vehicles would bring people to these facilities. While the project may encourage an incremental increase in energy consumption, mainly due to increased boat traffic, this energy consumption would be consistent with other recreational facilities in the area. Project operations would not involve the wasteful, inefficient, or unnecessary consumption of energy resources. Project impacts related to energy consumption are considered less than significant.

b) Consistency with Energy Plans.

Neither the Bureau of Reclamation nor Napa County has adopted plans for renewable energy or energy efficiency. As discussed in a) above, project operations would not consume energy. The project would have no impact related to energy plans.

3.7 GEOLOGY AND SOILS

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 direct or indirect risks to life or property?				✓
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal				✓

systems where sewers are not available for the disposal of wastewater?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				✓

Environmental Setting

Lake Berryessa is in the Coast Ranges Geomorphic Province, which is bounded on the west by the Pacific Ocean and on the east by the Great Valley Geomorphic Province. The Coast Ranges are characterized by northwest-trending ranges and valleys that generally parallel the San Andreas Fault. Lake Berryessa occupies the Berryessa Valley, through which Putah Creek flowed before it was dammed by Monticello Dam. The geologic features are predominantly made up of sandstone and shale of the Great Valley Complex. The Great Valley Complex geologic unit may contain fossils from the Early Cretaceous and Late Jurassic periods, such as fossils of marine fauna. Ultramafic rocks occur along the western shore of the lake. These features contain sheared serpentinite matrix with blocks of pyroxenite, gabbro, basalt, and high- grade metamorphic rocks up to several kilometers in length (Bureau of Reclamation 2024).

Topographically, most of the project vicinity is located on steep, generally east facing slopes along the northeastern portion of the Wragg Canyon arm of Lake Berryessa. The geologic unit underlying PCM is sandstone and shale, consisting of pebbly gritstone with green shale chips and glauconite from the Great Valley Complex. Locally, the interbedded sedimentary deposit dips steeply to the east; regionally it is highly faulted. Three soil units have been mapped within the marina area: 1) Bressa-Dibble complex, 5 to 15 percent slopes; 2) Perkins gravelly loam, 1 to 10% slope and 3) “water”. The substrate in the open water (Lake Berryessa) is referred to by the Natural Resource Conservation Service (NRCS) as a “miscellaneous area” (Bureau of Reclamation 2024).

The proximity of Lake Berryessa to several active faults makes it a seismically active region. The fault nearest to the project site is the Berryessa Fault, which generally follows the western shore of the lake. This fault is part of the larger Green Valley Fault and is considered active within the past 10,000 years. The Lake Berryessa area has a moderate potential for ground shaking as a result of seismic activity (Bureau pf Reclamation 2024).

Environmental Impacts

a-i) Fault Rupture Hazards.

As noted, the Berryessa Fault generally follows the western shore of the lake. The project site is not on this fault, and it is not within or near a designated Alquist-Priolo Earthquake Fault Zone (California Geological Survey 2023). The project would have no impact related to fault rupture.

a-ii) Seismic Ground Shaking.

The project site is potentially subject to seismic shaking from active faults within and outside of Napa County. However, given the project and its method of construction, it is unlikely to

experience any ground shaking that would cause damage or threat to life of users. Seismic ground shaking impacts would be less than significant.

a-iii) Seismic-Related Ground Failure.

The project would be located on open water. The only portion of the project that would be on land would be one end of the gangway plank. This portion of the project would not likely experience any type of seismic-related ground failure that would cause substantial damage. Project impacts related to seismic-related ground failure would be less than significant.

a-iv) Landslides.

The project is on open water, and the shoreline is mostly flat. The steep slopes around Lake Berryessa pose a moderate potential for landslides, which can result from combined slump earthflows or very rapid failures such as debris flows, mud flows, rock falls, and toppling (Bureau of Reclamation 2024). However, the project is set back from the shoreline; as such, it is unlikely to experience any impact from landslides. Project impacts related to landslides would be less than significant.

b) Soil Erosion.

The project would be located on mostly open water, with limited effect on soils either in the lake bed or on the shoreline. As such, the project would not lead to substantial soil erosion or loss of topsoil. The project would have no impact related to soil erosion.

c, d) Geologic Instability.

The project would occur on mostly open water, with minimal involvement on soils. Therefore, the project would not be exposed to substantial geologic instability or expansive soils. Project work would comply with applicable laws and building codes for facility design in seismically active regions, including the California Building Code adopted by Napa County. The project would have no impact related to geologic instability or expansive soils.

e) Adequacy of Soils for Sewage Disposal.

The project does not propose an onsite sewage disposal system. Therefore, the project would have no impact related to soil adequacy for sewage disposal.

f) Paleontological Resources.

As noted, the Great Valley Complex geologic unit may contain fossils from the Early Cretaceous and Late Jurassic periods, such as fossils of marine fauna. However, no vertebrate or significant invertebrate fossils are on record for rocks of the Great Valley Sequence in Napa County. No unique geologic features, fossil-bearing strata, or paleontological sites have been mapped within the marina area. The cultural resource report of the marina area estimated that the paleontological resource sensitivity of the area is low (Natural Investigations Company 2023). Given that the project would be located mostly on Lake Berryessa and that there would be very little ground disturbance associated with the project,

the project is unlikely to disturb any paleontological resources that may exist in the area. The project would have no impact on paleontological resources.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				✓
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

Environmental Setting

Increased atmospheric concentrations of greenhouse gases (GHGs) are considered a primary contributor to global climate change, which is a subject of concern for the State of California. GHG emissions in California in 2021, the most recent year for which data are available, were estimated at approximately 381.3 million metric tons carbon dioxide equivalent (CO_2e) – a decrease of approximately 21.5% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with 39% of total emissions (ARB 2023).

The State of California has implemented GHG emission reduction strategies through Assembly Bill (AB) 32, which required total statewide GHG emissions to reach 1990 levels by 2020, and through Senate Bill (SB) 32, which mandates statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. The State has adopted an updated Scoping Plan that sets forth strategies for achieving the SB 32 targets (ARB 2022). Napa County currently has no GHG reduction plan, although it has formed a committee to prepare such a plan.

Environmental Impacts

a, b) Project GHG Emissions and Consistency with GHG Reduction Plans.

The BAAQMD CEQA Guidelines established significance thresholds for projects regarding GHG emissions. If a project would contribute its "fair share" of what is needed to achieve the State's long-term GHG reduction goals, then the lead agency can find that the project is adequately contributing to solving the problem of global climate change and that project's impact is not significant. Using this approach, the Air District has identified the necessary design elements required of new land use projects and plans being built today to achieve

California's long-term climate goal of carbon neutrality by 2045. If these design elements are incorporated into the design and construction of a project, then the project would contribute its portion of what is necessary to achieve California's long-term climate goals—its "fair share"—and a lead agency reviewing the project under CEQA can conclude that the project would not make a cumulatively considerable contribution to global climate change. For structures, these design elements include the following (BAAQMD 2022):

- For both residential and nonresidential development, the project will not include natural gas appliances or natural gas plumbing.
- The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

The project does not propose to install any natural gas natural gas appliances or natural gas plumbing. As discussed in Section 3.5, Energy, the project will not result in any wasteful, inefficient, or unnecessary energy use. Therefore, the project would meet the BAAQMD criteria for no significant GHG impacts and for consistency with State GHG reduction plans. As noted, the project by itself would not generate any air pollutant emissions, and that would include GHG emissions. The project would have no impact related to GHG emissions and reduction plans.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 one-quarter 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 two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				✓

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			✓	

Environmental Setting

Hazardous materials can be introduced into the environment (e.g., through gas spills) or may occur naturally (e.g., asbestos) and can pose a concern for public health and safety. Routine activities associated with construction and everyday operation of Pleasure Cove Marina would involve the use of various hazardous materials that could accidentally be spilled and contaminate soils and water.

Environmental Impacts

a, b) Hazardous Material Use and Storage and Upset and Accident Conditions.

Construction activities associated with the developments at Pleasure Cove Marina, including the project, could entail the use of various hazardous materials, such as fuel, propane, cleaners, and other chemicals, that could be spilled and create a hazard to the environment and public. The effects of such hazards would depend on the nature of the hazardous material, extent of the spill, proximity to water and public use areas, and other factors. Standard construction practices, such as a spill prevention and cleanup plan, would be implemented during all construction phases and would reduce the potential for hazardous materials spills and contamination of the environment (Bureau of Reclamation 2024). Once project construction work is completed, the project would not require the use of hazardous materials. Project impacts related to hazardous material use would be less than significant.

c) Release of Hazardous Materials near Schools.

There are no schools in the project vicinity; the nearest school is in Winters in Yolo County approximately 10 miles to the east. As noted above, the project would not use or store hazardous materials when completed. The project would have no impact related to releases of hazardous materials near schools.

d) Hazardous Material Sites.

Searches of the EnviroStor and GeoTracker databases of hazardous material sites found no record of such sites on or in the vicinity of Pleasure Cove Marina (DTSC 2024, SWRCB 2024). Therefore, the project would not affect any hazardous material sites. The project would have no impact on this issue.

e) Public Airports.

The nearest public airport is Parrett Field in the community of Angwin, approximately 16 miles northwest of the project site. The project site is not within any of the safety zones

established for Parrett Field, and it is outside the Airport Influence Area, as indicated in the Land Use Compatibility Plan for the airport (Napa County ALUC 1999). The project would not place residents or businesses in an area potentially subject to hazards from airport operations. The project would have no impact related to public airports.

f) Emergency Response and Evacuations.

The project construction area would be limited to the northernmost portion of the marina. The main access road to the marina is Wragg Canyon Road, which would remain open and unobstructed by project construction. Wragg Canyon Road would remain unobstructed by the project after work is completed. Therefore, access for emergency vehicles would remain available, and the project would not hinder evacuations that may occur on Wragg Canyon Road. The project would have no impact on emergency vehicle access or evacuation routes.

g) Wildland Fire Hazards.

The project is the construction of boat slips and docks on Lake Berryessa. While wildfires may potentially occur in the project vicinity, it is unlikely that any such fires would cause damage to the project, given its location on the lake. Project impacts related to wildland fire hazards would be less than significant. Section 3.20, Wildfire, discusses this issue in more detail.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			✓	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river runoff or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?				✓
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				✓
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater				✓

drainage systems or provide substantial additional sources of polluted runoff?				
iv) Impede or redirect flood flows?				✓
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

Environmental Setting

Lake Berryessa is the main water feature in the project area. A reservoir created by Monticello Dam, the lake has a storage capacity of 1.6 million acre-feet. Lake Berryessa collects surface flow from the Upper Putah Creek watershed, a 568-square-mile drainage basin above Monticello Dam. Lake levels can fluctuate from a maximum elevation of 455 feet to a minimum elevation of 253 feet, depending on hydrological conditions, water demands, flood control, hydropower needs, and operation of Monticello Dam (Bureau of Reclamation 2024).

The Regional Water Board designated several beneficial uses for Lake Berryessa in the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Central Valley RWQCB 2018). These uses include municipal and domestic supply, agricultural supply, hydropower generation (potential use), water contact recreation, non-contact water recreation, warm freshwater habitat, cold freshwater habitat, warm water fish spawning, and wildlife habitat. For each beneficial use, the Regional Water Board identified water quality objectives to protect the lake. Water quality conditions in Lake Berryessa are generally consistent with the water quality objectives identified in the Basin Plan to protect beneficial uses; however, mercury and fecal coliform bacteria have been identified as water quality problems (Bureau of Reclamation 2024).

Potential flooding hazards are designated on maps prepared by the Federal Emergency Management Agency (FEMA). FEMA maps focus on areas potentially subject to inundation by a 100-year flood (i.e., a flood of such magnitude that occurs on average once every 100 years). According to FEMA Map Panel 06055C0435E, the project site is in Zone A, which indicates the project site is in a Special Flood Hazard Area, defined as the 100-year floodplain (FEMA 2008).

Environmental Impacts

a) Water Quality.

Pleasure Cove Marina is regulated by the RWQCB pursuant to Waste Discharge Requirements (WDR) Order No. 98-086. WDR's are subject to periodic reviews to ensure that the requirements implement the most current State laws, regulations, and Water Quality Control Plans. The marina is currently in compliance with its WDR.

The project would not use any water; as such, it would not generate any wastewater that would enter Lake Berryessa. The project proposes a sanitary sewer facility, the operation of which would be consistent with the WDR. The project would also comply with the conditions of the Section 404 permit issued by the U.S. Army Corps of Engineers, along with the accompanying Section 401 Water Quality Certification. Therefore, the project would not affect the ability of the marina to remain compliant with its WDR. Project impacts regarding water quality would be less than significant.

b) Groundwater Supplies and Recharge.

Pleasure Cove Marina uses the lake as its potable water source; no groundwater resources are used. The project would not require the use of water, including groundwater. Therefore, it would not place any demands on groundwater supplies. The project is situated mainly on Lake Berryessa with only limited contact with land. The project does not propose the introduction of impervious surface that would interfere with groundwater recharge. The project would have no impact on groundwater supplies or recharge.

c-i,-ii,-iii) Drainage Patterns and Runoff.

As noted, most of the project would be situated on Lake Berryessa, with only limited contact with land. Therefore, the project would not alter existing drainage patterns on the marina. Since the project would have limited contact with land and would not introduce impervious surfaces, it would not change runoff volumes that are currently generated in the area. The project would have no impact on drainage patterns or runoff.

c-iv) Flooding Hazards.

As noted, the FEMA map for the project site designates the site within Zone A, which indicates the project site is within a 100-year floodplain. However, the flooding would be associated with lake level rises, rather than with increases in stream volumes. Also, the project is a floating structure; as such, the project would rise and fall with any lake level changes and not impede or redirect such changes. The project would have no impact related to flooding hazards.

d) Release of Pollutants in Flood, Tsunami, or Seiche Zones.

As described in c-iv) above, the project site is within a 100-year floodplain. Also, the project is on Lake Berryessa, so it could be subject to any seiches that may occur on the lake. However, as discussed in Section 3.9, Hazards and Hazardous Materials, the project would not introduce any hazardous materials. Also, as noted, the project is a floating structure, so it would rise and fall with changes in lake levels. It is possible that a seiche could cause waves to flow over the structure, but as noted, no hazardous materials would be located there. The project would have no impact related to the release of pollutants in flood, tsunami, or seiche zones.

e) Conflicts with Water Quality or Groundwater Management Plans.

As noted in a) above, the project would not affect the ability of the marina to meet its WDR, as the project would not use water nor contribute wastewater. Since the project would not

use any groundwater, it would not affect implementation of any Groundwater Sustainability Plans in the area. The project would have no impacts related to conflicts with water quality or groundwater management plans.

3.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?				✓
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			✓	

Environmental Setting

Lake Berryessa is in a predominately rural, natural open space area surrounded by mountains. Land uses around the lake include agriculture (grazing), recreation, residential, open space, and some commercial uses. Federal lands around Lake Berryessa total approximately 28,916 acres, including 19,250 acres of open water and 9,666 acres of the lakeshore and adjacent upland areas. The Bureau of Reclamation manages and operates the lake in coordination with other federal, state, and county agencies and private entities (Bureau of Reclamation 2024).

Under the Lake Berryessa Reservoir Area Management Plan, prepared by the Bureau of Reclamation, Pleasure Cove Marina is considered a Class I – High Density Recreational Area that is intensely developed and managed for mass public use. The marina accommodates floating slips, marina fuel facilities; guest cabins; tent camping site and RV spaces. There is also an office, a store, and a boat ramp.

The State of California has enacted legislation that seeks to address the adverse environmental impacts of projects that disproportionately affect minority and/or lower income communities, particularly those already burdened with environmental problems. The California Office of Environmental Health Hazard Assessment has developed the California Communities Environmental Health Screening Tool (CalEnviroScreen) to identify "environmental justice" or "disadvantaged" communities by measuring pollution and population characteristics, then developing a score for each U.S. Census tract in California. A census tract that scores in the top 25% is considered a disadvantaged community. According to CalEnviroScreen, the score for the U.S. Census tract within which the project site is located is 26, which is not within the top 25% (OEHHA 2024). Therefore, the project site is not within a disadvantaged community, and environmental justice issues will not be further discussed in this IS/ND.

Environmental Impacts

a) Division of Established Community.

The project is an addition of boat slips and docks to an existing marina. Pleasure Cove Marina does not have permanent residents. Moreover, the project is mostly located on Lake Berryessa. Therefore, the project would have no impact on division of established communities.

b) Conflicts with Land Use Plans, Policies, and Regulations.

As noted, the project is an addition to an existing marina. The project would be consistent with the existing recreational uses that are allowed under the Lake Berryessa Reservoir Area Management Plan. This IS/ND discusses potential impacts on the environment. No significant impacts have been identified that require mitigation measures or are significant and unavoidable. This IS/ND has identified existing land use plans, policies, and ordinances potentially applicable to the project, as appropriate. These plans, policies, and ordinances either do not apply to the project, or the project would comply with them, thereby eliminating potential conflict. Project impacts related to land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

Environmental Setting

Mining has been a prominent activity historically in Napa County. The minerals produced have included quicksilver (mercury), mineral water, pumice, sandstone, and miscellaneous stone. More recently, building stone and aggregate produced from hard-rock quarries have been the most valuable mineral commodity in the County (County of Napa 2007).

No mining activities have occurred in the project vicinity; the nearest such activity is the Pope Valley Quarry in Pope Valley, approximately 16 miles northwest of the project site. No mineral resource areas have been designated by the County General Plan (County of Napa 2008). The project site does not contain oil or natural gas fields and has no oil or gas wells, either active or abandoned (DOGGR 2024).

Environmental Impacts

a, b) Availability of Mineral Resources.

As described above, there are no identified mineral resources areas nor active mining operations on or near the project site. Therefore, the project would not affect the availability of, or access to, any known or locally designated mineral resources. The project would have no impact on mineral resources.

3.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			✓	
b) Generation of excessive groundborne vibration or groundborne noise levels?				✓
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓

Environmental Setting

Lake Berryessa is in a relatively remote rural setting with relatively low existing noise levels. Higher-use recreational areas along the western shore generate the most noise, particularly during peak visitation periods in the summer and on holiday weekends. The primary noise sources at Pleasure Cove Marina are boat motors at the boat launch, distant boats and personal watercraft on the lake, people talking, and music coming from boats, cabins, and vehicles in the parking areas (Bureau of Reclamation 2024).

Napa County Code Section 8.16.070 sets maximum exterior noise limits that are allowed to be generated by projects based on the land use receiving the project noise. For commercial uses, such as the marina, the maximum noise level allowed is 60 A-weighted decibels (dBA) during the hours from 10:00 p.m. to 7:00 a.m., and 65 dBA during the hours from 7:00 a.m.

to 10:00 p.m. The County Code also sets maximum noise limits for construction activities. For commercial areas, the maximum noise level allowed is 65 dBA during the hours from 7:00 p.m. to 7:00 a.m., and 80 dBA during the hours from 7:00 a.m. to 7:00 p.m. The County's noise ordinance further prohibits the use of any tools or equipment used in construction, drilling, repair, alteration, or demolition work between the hours of 7:00 p.m. and 7:00 a.m., to prevent construction activity-related noise from creating a noise disturbance across a residential or commercial real property line.

Environmental Impacts

a) Generation of Noise Exceeding Local Standards.

During project construction, an increase in noise levels would be associated with operating construction equipment and construction traffic. Noise levels would fluctuate depending on the time of day, duration, and location of the construction activities. Noise would be more noticeable during daylight hours, particularly in the early morning when ambient noise is low. Construction noise sources would vary during the day based on their usage, the total number of noise sources, and their specific locations within the project area. These noise sources would be short-term term and would cease after construction activities have ended.

It is expected that the construction equipment used and the amount of vehicle traffic for this project would be limited, as no significant ground-disturbing activities would occur. The project would comply with the applicable Napa County Code provisions for noise reduction and control during construction activities. To minimize construction noise impacts, all construction activities would be scheduled between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. This measure is being applied to all planned marina improvements described in Chapter 1.0, Introduction (Bureau of Reclamation 2024).

Once construction work is completed, the only significant noise that would be generated by the project would be from boats docking and leaving the boat slips, along with vehicle traffic associated with facility use. An Environmental Assessment identified these potential noise sources, but it concluded that noise from these sources are not expected to be significant. In part, this is due to the lack of presence of sensitive receptors, such as residents or other recreation facilities, within approximately two miles of the project site (Bureau of Reclamation 2024).

In summary, the project would likely generate noise from construction activities and from its use by boaters after its completion. Construction noise would be reduced by adherence to applicable County noise regulations, and noise associated with project operations is considered not significant. Therefore, project impacts associated with noise potentially exceeding local standards is considered less than significant.

b) Exposure to Groundborne Vibrations.

Groundborne vibration is typically associated with transportation facilities, although it is unusual for vibrations from sources such as buses and trucks to be perceptible, even in locations close to major roads. Construction equipment is another potential source. The project may generate groundborne vibrations from construction equipment use. However,

groundborne vibrations from project construction would cease once work is completed in 45 to 60 days. After construction work is completed, no groundborne vibrations would be generated by project operations. Project impacts related to groundborne vibration would be less than significant.

c) Public Airport and Private Airstrip Noise.

As noted in Section 3.9, Hazards and Hazardous Materials, the nearest public airport is Parrett Field, approximately 16 miles to the northwest. The project site is outside the noise contours delineated in the Airport Land Use Compatibility Plan for the airport (Napa County ALUC 1999). The nearest private airstrip to the project site is Capell Valley Airport near Moskowite Corner, approximately three miles southwest of the project site. Given the distance and the intervening topography, it is unlikely that noise from Capell Valley Airport operations would affect any people at the project site. The project would have no impact related to airport or airstrip noise.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				✓
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

Environmental Setting

Pleasure Cove Marina is a recreational facility that does not have permanent residents. Housing in the marina is limited to rental cabins for visitors, who stay on a limited basis.

Environmental Impacts

a) Unplanned Population Growth.

The project proposes the addition of boat slips and docks. While this may encourage additional visitors to the marina, it would not lead to an increase in the permanent population of the area. The Napa County General Plan has designated the marina area as Agriculture, Watershed, and Open Space, and the project is consistent with this designation. The project would have no impact related to unplanned population growth.

b) Displacement of Housing or People.

The project is the construction of a structure on Lake Berryessa. It would not require the removal of any existing housing in the area, nor would any people be displaced by the project. The project would have no impact related to displacement of housing or people.

3.15 PUBLIC SERVICES

Would the project:

a) Result in substantial adverse physical impacts associated with the provision of, or the 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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?	☐	☐	✓	☐
ii) Police protection?	☐	☐	✓	☐
iii) Schools?	☐	☐	☐	✓
iv) Parks?	☐	☐	☐	✓
v) Other public facilities?	☐	☐	☐	✓

Environmental Setting

Basic responsibility for the health and safety of visitors is shared among the State of California, Napa County, the Bureau of Reclamation, and marina managers. Fire protection and suppression activities around Lake Berryessa are provided primarily by the California Department of Forestry and Fire Protection (Cal Fire), with local support from volunteer and Napa County fire departments. The Napa County Sheriff's Office provides police protection services for the marina, and it has an office/station at Lake Berryessa to help respond to incidents (Bureau of Reclamation 2024).

As noted in Section 3.9, Hazards and Hazardous Materials, the nearest school to the project site is in Winters in Yolo County, approximately 10 miles to the east. There are no park areas in the project vicinity. Section 3.16, Recreation, discusses recreational facilities in more detail.

Environmental Impacts

a-i) Fire Protection.

Construction activities could involve welding for installation of some facilities, which may result in accidental fire. These activities would comply with regulations of California Public

Resources Code Sections 4428–4442 during dry periods to reduce the potential for fire (Bureau of Reclamation 2024).

Project construction would increase the number of visitors, which could increase the number of people potentially exposed to fire hazards. In addition, increased recreational use associated with the project would increase the potential for accidental fires. The Bureau of Reclamation would take the necessary precautions in the event of a nearby wildfire to inform visitors of the risk and evacuate them if needed. These measures could reduce the potential for structures to be damaged by fire and for visitors to be exposed to fire hazards. The marina also has fire hydrants that are available to fight fires (Bureau of Reclamation 2024).

It is expected that the project would not increase fire risk such that new or expanded fire protection facilities that could have environmental impacts would be required. Therefore, project impacts on fire protection facilities and services would be less than significant.

a-ii) Police Protection.

Law enforcement would be provided to regulate activities, ensure compliance with federal and state laws and policies, and maintain a safe environment for visitors in compliance with the land and water safety program implemented jointly by the Bureau of Reclamation and Napa County, which involves educating the public about safe activities while recreating on the water. In the event of an accident or other emergency, local emergency providers would respond to calls for service as they have in the past. Response times vary, depending on the service needed, but the local public providers from Napa and Solano Counties would be expected to continue servicing the marina.

It is expected that the project would not increase calls for police protection services such that new or expanded police protection facilities that could have environmental impacts would be required. Therefore, project impacts on police protection facilities and services would be less than significant.

a-iii) Schools.

As noted in Section 3.14, Population and Housing, the marina does not have a permanent population. The project would not create additional demand for school services. No new or expanded school facilities that could have environmental impacts would be required. The project would have no impact on this issue.

a-iv) Parks.

There are no parks in the project vicinity, and the project would not create additional demand for parks. No new or expanded facilities that could have environmental impacts would be required. The project would have no impact on this issue.

a-v) Other Public Facilities.

There are no other public services that are offered to the project vicinity, and the project would not create additional demand for other public facilities. No new or expanded facilities

that could have environmental impacts would be required. The project would have no impact on this issue.

3.16 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	☐	☐	✓	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	✓	☐

Environmental Setting

The project is proposed to be constructed at Pleasure Cove Marina, a privately-owned boating facility operated under a concession granted by the Bureau of Reclamation. The marina provides year-around public recreation opportunities. It currently offers a full-serves marina with 220 boat slips, transient berths and tie-ups, a fuel dock, a store, individual guest cabins, and tent camping sites, among other facilities (Bureau of Reclamation 2024).

The marina is located on one of the arms of Lake Berryessa, which is the largest reservoir in the eastern foothills of the northern Coast Ranges, and except for the Sacramento-San Joaquin Delta, it is the largest public freshwater recreational resource in close proximity to the San Francisco Bay Area. The lake offers a variety of recreational activities at designated recreational areas and on surrounding public lands. Lake visitors enjoy many types of water-related activities, including various kinds of boating, fishing, skiing, swimming, and sightseeing. There are some land-based recreational activities, such as picnicking, camping, walking, hiking, riding, all-terrain vehicle use, and cycling, also occur on public lands surrounding the lake (Bureau of Reclamation 2024).

Environmental Impacts

a, b) Recreational Facilities.

The project proposes the addition of boat slips to Pleasure Cove Marina. The construction of recreational facilities and infrastructure at the marina would provide diverse recreational opportunities in response to visitor and market demands and would enable the Bureau of Reclamation to meet its goals and objectives for recreation opportunities at Lake Berryessa (Bureau of Reclamation 2024). Since the project is proposed in response to anticipated demand, it would prevent substantial deterioration of existing facilities at this marina that may otherwise occur with the increased demand.

The environmental impacts of the proposed project have been evaluated in this IS/ND. It has been determined that the project would have no significant impacts on the local environment and would require no mitigation measures. Therefore, project impacts related to recreational facilities are considered less than significant.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?				✓
b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?				✓
c) Substantially increase hazards to a geometric design feature (e g., sharp curves or dangerous intersections) or incompatible uses (e g, farm equipment)?				✓
d) Result in inadequate emergency access?				✓

Environmental Setting

Pleasure Cove Marina is accessed by only one road. Wragg Canyon Road is a two-lane County road that extend approximately 3.25 miles from its intersection with SR 128 to it end at the marina. SR 128 is the main regional roadway in the project vicinity. This State highway is a two-lane road through the Lake Berryessa area and the eastern foothills of Napa County. No public transit routes serve the project site, and there are no designated bicycle routes in the vicinity.

Environmental Impacts

a) Conflicts with Transportation Programs and Plans.

The project is the construction of boat slips and docks on a lake. The project would not affect public roads nor conflict with the applicable transportation plans involving these roads. The project would not affect either existing or planned public transit routes or services, and it would not affect existing or planned bicycle routes. The project would have no impact related to conflicts with transportation programs or plans.

b) Conflict with CEQA Guidelines Section 15064.3(b).

The State of California has recently added Section 15064.3 to the CEQA Guidelines. Section 15064.3(b) states that "vehicle miles traveled" (VMT) is the preferred method for evaluating transportation impacts. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric.

The project is an addition to an existing recreational facility. Of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT (OPR 2018). As a recreational use, the project would generate traffic that varies by day of the week and by season. Moreover, as noted in Section 3.14, Population and Housing, there are no permanent residents at Pleasure Cove Marina. As such, there is no consistent vehicle traffic in the area, unlike urban areas that the VMT metric seeks to address. Therefore, the project would have no impact on this issue.

c) Traffic Hazards.

The project would not alter in any way existing roads in the project vicinity such that traffic hazards would be created. Project construction would involve construction equipment and vehicles using Wragg Canyon Road, which is not part of the usual vehicle traffic mix. However, once construction work is completed, the equipment and vehicle would not use this road. The project would have no impact on traffic hazards.

d) Emergency Access.

As noted in c) above, the project would not alter existing roads. As such, existing emergency access to the marina would not be restricted. The project would have no impact on emergency access.

3.18 TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☐	✓
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	✓

Environmental Setting

As noted in Section 3.5, Cultural Resources, the project site is generally considered to be in the ethnographic territory of the Patwin. The Patwin occupied lands in the southern portion of the Sacramento River Valley to the west of the Sacramento River, from the town of Princeton southward to San Pablo and Suisun Bays. Patwin villages, often located on low natural rises along streams and rivers, typically had bedrock mortars, dance houses, sweathouses, and acorn granaries. Many villages had cemeteries. Like most native Californian groups, the Patwin relied heavily on the acorn, and used a wide variety of tools, implements and enclosures to collect and process food resources. They also traded with neighboring groups for shell ornaments, monetary beads, steatite, and obsidian (Natural Investigations Company 2023).

The remote nature of much of Patwin lands served to buffer local populations from many of the disrupting activities that were taking place elsewhere in California during its early history. Most written accounts indicate that traditional life continued for many Patwin groups until the 1870's. However, gradually from the mid-19th century, enslavement and mistreatment by Spanish soldiers and missionaries, Mexican land barons, European settlers, and gold diggers, combined with a lack of natural immunity to European diseases, decimated approximately 75% of the Patwin population, wiping out entire villages and forcing the survivors to retreat into the hills. Today, Wintun descendants, including the Patwin, as well as the Nomlaki and Wintu proper, total about 2,500 people, and three federally recognized Patwin rancherias remain (Natural Investigations Company 2023).

In 2014, the California Legislature enacted AB 52. AB 52 modifies CEQA procedures regarding consultation with Native American tribes on cultural resource issues. AB 52 established a category called "tribal cultural resources," which not only includes physical resources but also site features, places, cultural landscapes, and sacred places and objects of value to a tribe, and which are on or eligible for a State or local historic register. AB 52 establishes notification requirements and consultation procedures between a CEQA lead agency and a tribe when a tribal cultural resource is involved.

Environmental Impacts

a, b) Tribal Cultural Resources.

A cultural resource report prepared for Pleasure Cove Marina improvements found no cultural resources, including Native American resources, have been recorded within the marina area. However, a search of the Sacred Lands File conducted by the Native American Heritage Commission yielded a positive result. It was concluded that the Sacred Lands File search returned positive results because of the general archaeological sensitivity of the Berryessa Valley as discovered before its inundation (Natural Investigations Company 2023).

The NAHC provided a list of eleven tribal individuals and organizations affiliated with the marina area and recommended that they be contacted for more information on the potential for indigenous recourses in the vicinity. Letters were sent to each of tribes in November 2022, with follow-up telephone calls. Only one response was received, from the Yocha Dehe

Wintun Nation, requesting consultation. The Lead Agency provided information to, and continued communication with, the Yocha Dehe Wintun Nation to address its concerns (Natural Investigations Company 2023). During consultation, the Tribe requested inclusion of pre-construction cultural sensitivity training, use of cultural monitors during project construction and the inclusion of the Tribe's Treatment Protocol in project mitigation measures; a copy of the protocol is shown in Appendix B. Tribal consultation is now concluded.

The project is the construction of boat slips and docks on Lake Berryessa. As noted, the project would involve very little ground disturbance. Given that the project would be located mostly on Lake Berryessa and that there would be very little ground disturbance associated with the project. With the inclusion of the provisions recommended by the Tribe, the project's potential for cultural resource impact would be further reduced. As a result, the project is unlikely to disturb any tribal cultural resources that may exist in the area. The project would have no impact on tribal cultural resources.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				✓
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?				✓
c) Result in a determination by the wastewater treatment provider that would serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				✓
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				✓
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				✓

Environmental Setting

As has been noted, Pleasure Cove Marina is a mostly self-contained facility regarding utilities. The marina operates and maintains its own potable water and wastewater treatment systems. Potable water is drawn from a well system and treated in an on-site water treatment facility. The water is distributed to the marina's cabins and other facilities, including the docks and fire hydrants, via a series of buried lines. A wastewater pumping station collects wastewater from throughout the marina and pumps it into a holding pond in the northern portion of the marina. Wastewater is collected from the cabins and other facilities via buried pipelines. The marina does not have a stormwater drainage collection system.

Berryessa Garbage Service collects commercial waste from the marina and disposes of it at Clover Flat Landfill east of Calistoga in Napa County. As noted in Section 3.6, Energy, electricity is provided by PG&E. Electricity is supplied through overhead electrical lines.

Environmental Impacts

a) Relocation or Construction of Utility Facilities.

The project is the installation of boat slips and docks on Lake Berryessa. It would not involve any ground disturbance other than the installation of one end of the gangway ramp. Other on-shore improvements associated with the gangway ramp are a separate project; all trenching and excavation associated with this project would occur above the Lake Berryessa high-water mark. No trenching or excavation is included in Pleasure Cove Marina Project. The project would not involve the relocation of existing utility lines in the vicinity, nor would it involve the installation of new utility lines. The project would have no impact related to relocation or construction of utility facilities.

b) Water Supplies.

The project would not require water for its operations, nor are any water line extensions proposed. Therefore, the project would not place demands on the marina's water supplies, and no new supplies would need to be obtained. The project would have no impact on water supplies.

c) Wastewater Treatment Capacity.

The project would not generate wastewater; therefore, it would not create a demand for additional wastewater collection or treatment. The project would not place demands on the marina's wastewater collection or treatment capacity. The project would have no impact on this issue.

d, e) Solid Waste Services.

The project would not generate solid waste; therefore, it would not generate a demand for solid waste collection or disposal. The project would not place demands on the capacity of landfills where the City's solid waste is disposed. The project would observe all applicable solid waste regulations, including those on commercial waste and recycling. The project would have no impact on solid waste services or regulations pertaining to solid waste.

3.20 WILDFIRE

If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✓
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			✓	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				✓
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			✓	

Environmental Setting

The primary fire hazard in rural developed areas, such as around Lake Berryessa, is wildfire that destroys homes and built structures and may burn many acres of land. From August 17 to October 2, 2020, the LNU Lightning Complex fire was a 363,220-acre complex of wildfires that burned across much of Lake, Napa, Sonoma, Solano, and Yolo Counties. The fire destroyed 1,491 structures, including nearly all landside structures and some floating docks and boat slips at the Markley Cove Resort east of the project site (Bureau of Reclamation 2024). Much of the vegetation on the slopes above Pleasure Cove Marina burned in the LNU Lightning Complex fire. However, the marina facilities, landscaping, and areas with natural vegetation largely avoided impacts from the fire (Salix Consulting 2023).

The California Department of Forestry and Fire Protection (Cal Fire) has a Fire and Resource Assessment Program that identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very High, Extreme. These zones apply to areas designated as State Responsibility Areas – areas in which the State has primary firefighting responsibility. The project site is within a State Responsibility Area and has been placed in a Very High Fire Hazard Severity Zone (Cal Fire 2022).

Fire protection and suppression is managed under a Bureau of Reclamation Fire Management Plan that provides policies and management actions for wildfire and fuels management on federal lands at Lake Berryessa. The Bureau of Reclamation has a wildland fire suppression cost reimbursement agreement with Cal Fire; this agreement authorizes Cal Fire to provide

fire prevention services on lands under the administration of the Bureau at Lake Berryessa (Bureau of Reclamation 2024).

Environmental Impacts

a) Emergency Response Plans and Emergency Evacuation Plans.

As discussed in Sections 3.9, Hazards and Hazardous Materials, and in Section 3.17, Transportation, the project would not affect any roads in the area. Therefore, the project would not affect any plans regarding emergency response or emergency evacuations of the marina. The project would have no impact related to wildfire emergency response plans or emergency evacuation plans.

b) Exposure of Project Occupants to Wildfire Hazards.

The marina is within a Very High Fire Hazard Severity Zone, and as noted, the LNU Lightning Complex burned some vegetation near the marina. The Bureau of Reclamation would take the necessary precautions in the event of a nearby wildfire to inform visitors of the risk and evacuate the marina if needed. These measures would likely reduce the potential for structures to be damaged by fire and for visitors to be exposed to fire hazards (Bureau of Reclamation 2024). With implementation of these measures, project impacts related to exposure of project occupants to wildfire hazards are considered less than significant.

c) Installation and Maintenance of Infrastructure.

The project would not require the installation of infrastructure, such as utility lines, that would require ongoing maintenance that may exacerbate the wildfire risk on the project site. The project would have no impact related to exacerbation of wildfire hazards by infrastructure.

d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes.

The project site is in an area of steep slopes that are prone to wildfire. However, as noted, the marina was largely untouched by the LNU fire. A biological assessment of the marina did not indicate the presence of hazards associated with runoff or slope instability (Salix Consulting 2023). In addition, the project is located on the water of Lake Berryessa. As such, it is expected that this structure would not be exposed to significant risks from changes resulting from fires in steeper areas, including downslope or downstream flooding or landslides. Project impacts related to risks from runoff, post-fire slope instability, or drainage changes are considered less than significant.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially	☐	☐	✓	☐

reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
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 would cause substantial adverse effects on human beings, either directly or indirectly?			✓	

a) Findings on Biological and Cultural Resources.

The biological resource impacts of the revised project were described in Section 3.4, Biological Resources. Cultural resource impacts were described in Section 3.5, Cultural Resources, and Section 3.18, Tribal Cultural Resources. For all issue areas, project impacts were either considered less than significant or no impacts were identified.

b) Findings on Cumulatively Considerable Impacts.

A cumulative impact is an environmental impact that may result from the combination of two or more environmental impacts associated with the proposed project with each other, or the combination of one or more project impacts with related environmental impacts caused by other projects. The project is part of an overall program of improvements proposed at Pleasure Cove Marina. As described in this IS/ND, the project would have no impact on environmental issues, or would have impacts that are less than significant. Therefore, the project would not make a considerable contribution to potential cumulative impacts associated with Pleasure Cove Marina improvements.

c) Findings on Adverse Effects on Human Beings.

Potential adverse project effects on human beings were discussed in Section 3.3, Air Quality; Section 3.7, Geology and Soils (seismic hazards); Section 3.9, Hazards and Hazardous Materials; Section 3.10, Hydrology and Water Quality (flooding); Section 3.17, Transportation (traffic hazards); and Section 3.20, Wildfire. Potential adverse effects identified in those sections either would be less than significant or would be reduced to levels considered less than significant through compliance with applicable laws, regulations, and codes.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/ND was prepared by BaseCamp Environmental, Inc. for use by and under the supervision of the Central Valley Regional Water Quality Control Board. The following persons were involved in preparation of the IS/ND:

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Substantial technical support to preparation of the IS/MND was provided by Wallace Environmental, including technical studies prepared by Salix, Inc. and Natural Investigations Company.

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4.3 PERSONS CONSULTED

Jim Wallace. Wallace Environmental Consulting, Inc.

Jenna Yang. Central Valley Regional Water Quality Control Board.

5.0 NOTES RELATED TO EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

4) "Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. Mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced.

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

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

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

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

specific conditions for the project.

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

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

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

9) The explanation of each issue should identify:

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

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

APPENDIX A
BIOLOGICAL RESOURCE REPORT

BIOLOGICAL AND WETLANDS RESOURCES ASSESSMENT
FOR THE

±74-ACRE PLEASURE COVE MARINA STUDY AREA
Project Areas, ±10 Acre Embedded Within the Study Area

LAKE BERRYESSA, NAPA COUNTY, CALIFORNIA

Prepared for:
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OCTOBER 2023

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Biological and Wetlands Resources Assessment for the ±74-ACRE PLEASURE COVE MARINA STUDY AREA; Project Areas, ±10 Acre Embedded Within the Study Area

INTRODUCTION

Introduction

Suntex Marinas, (Suntex) the owner of Pleasure Cove Marina (PCM) and the U.S. Bureau of Reclamation (Reclamation) concessionaire, proposes to improve upland recreational camp sites and add a new marina to meet its goal of providing public access to Lake Berryessa. As part of Reclamation's requirements to evaluate potential project effects and to satisfy the U.S. Endangered Species Act, and U.S. Clean Water Act a project-wide assessment was conducted for special status plant and animal species and for potential wetlands. This assessment supports an Environmental Assessment (National Environmental Policy Act) prepared for the project.

Project Location

Salix Consulting, Inc. (Salix) conducted a Biological and Wetlands Resources Assessment for the ±74-acre Pleasure Cove Marina (PCM) Study Area located in an arm of Lake Berryessa (Lake) formed by Wragg Canyon (Figures 1 and 2). The Study Area is located at the northern terminus of Wragg Canyon Road in eastern Napa County, California. The approximate coordinates for the center of the property are: 38°29'35.04" North and 122° 09'38.03" West. It is located in Section 35, Township 18 North, Range 2 West and Section 2 Township 7 North, Range 3 west. It is bisected by the Capell Valley and Lake Berryessa California 7.5-minute USGS topographic quadrangles (Figure 1). The project area, about 10-acre at seven upland locations (Figure 2), is embedded within the larger study area.

Project Setting

The study area is located along an east-facing slope of the Wragg Canyon arm of Lake Berryessa, approximately 3.25 miles north of the intersection of Wragg Canyon Road and State Route 128 (SR 128). The study area begins at the southern end of PCM and includes individual sites that extend northerly along Wragg Canyon Road for 1.05 miles. The study area slopes steeply toward the east; elevations within the study area range from approximately 430 feet at the shore of the lake along the eastern boundary, to approximately 500 feet in the central portion of PCM. The eastern edge of the study area is bounded by the lake, and upland areas to the west.

Field evaluations were conducted on October 11, 2022 and May 10, 2023 to assess the study area and gather enough information to assess sensitive resources. Much of the vegetation on the slopes above the marina burned in the Hennessy Fire, part of the LNU Lightning Complex fire that burned through the area on August 18-19, 2020. The PCM facilities, landscaping and areas with natural vegetation largely avoided impacts from the fire.

Most of the proposed project improvements are located in already developed camp sites and parking areas.

Project Description

At PCM, Suntex proposes to improve upland recreational camp sites and add a new marina to meet its concessionaire requirement to provide public access to Lake Berryessa in Napa County. As part of Reclamation's requirements to evaluate potential project effects and to satisfy the U.S. Endangered Species Act, a survey was conducted for special status plant and animal species.

This special status species survey supports an Environmental Assessment (National Environmental Policy Act) prepared for the project. A database search and literature review identified potentially occurring special status species within the PCM project areas (Figures 1 and 2), found only one suspected federally listed plant likely to occur - the Keck's checkerbloom (*Sidalcea keckii*). Historically, one occurrence of Keck's checkerbloom has been recorded on the northern shore of Lake Berryessa about 2.25-miles north of PCM.

Proposed project locations as shown in Figure 2 includes seven upland development areas and construction of one floating marina:

Pedestrian Gangway Ramp

A pedestrian gangway ramp to provide access to Marina II would be constructed from Wragg Canyon Road to Dock A (Marina II). The ramp would be about 400-feet in total length and would "zig-zag" down a steep slope to maintain an accessible slope. The ramp would be secured in the ground at key points to maintain stability. The ramp's lowest level would be attached to Dock A and allowed to adjust to lake level fluctuations.

New underground electrical and water and sewer service would be constructed within the gangway area to service Marina ll. The water, sewer and electrical service lines would be buried in separate, but roughly parallel trenches, and would connect to existing infrastructure in and along Wragg Canyon Road. Electrical service would connect to existing overhead service on the west side of Wragg Canyon Road; the sanitary sewer would connect to an existing pump station on the west side of Wragg Canyon Road, sewage from boats would be pumped to the lift station by a pump out facility located on the dock. The water line would connect to an existing water line in the northwestern corner of Parking Area #2.

Parking Area #2

Parking for Marina II includes 40 parking spacing, about 13,500 square feet. Five existing cabins would be removed. The area is paved, no new paving is required. Existing underground services which serve the existing cabins would be terminated (capped off) and abandoned in place.

Cabin Area #3

Three new Eco-tent cabins would be constructed to replace five existing cabins. The low impact tent cabins would each have an unimproved parking for one vehicle. Each cabin would be connected to water, a sanitary sewer system and electricity. Water would be connected to an existing water line along Wragg Canyon Road; a sewer line with laterals to each proposed cabin site would connect to an existing sewer line in Wragg Canyon Road. Existing overhead electrical service along Wragg Canyon Road would be transitioned to an underground service to serve the new cabin sites.

Parking Area #1

Parking area #1 would consist of 90 to 100 new parking spaces; about 20,000 square feet total; some existing pavement would be reconstructed. A new laundry room facility would be constructed adjacent to the parking area. The proposed laundry room (30-feet x 30-feet) would be connected to existing water and sewer lines. Electrical service would be provided by an underground line originating from overhead service north of the proposed laundry room.

Cabin Area #2

Cabin Area #2 would be constructed with 15 new Eco Tent Cabins in an area of about 4-acres. Each cabin would be connected to existing water pipeline within the cabin area; a sanitary sewer system would collect wastewater from the cabin area and connect to existing lines in Wragg Canyon Road Underground electrical service would be brought in from a source northwest of the cabin area.

Cabin Area #1

Cabin Area #1 includes 5 Eco Tent cabins and 15 existing RV spaces on about 1.25-acres. Each new cabin and existing RV space would be connected to existing underground water lines and electrical service pipelines from Wragg Canyon Road. New sanitary sewer lines would be constructed to connect to proposed sanitary sewer pipes in RV Area #1.

RV Area #1

Recreational Vehicle Area #1 (about 5.5-acres) includes connecting 60 RV spaces to new underground electrical service and water and sewer hookups. The underground electrical service and water pipelines would be continued from Cabin Area #1. The underground sanitary sewer pipeline terminates at an existing sanitary lift station.

Marina II Boat Slips and Breakwater

Construction and operation of a new marina includes:

- 158 covered boat slips of varying sizes;
- Dock A will have a floating deck attached to the end of it for boat slip customer use. The proposed floating deck is connected to the proposed floating dock as part of the ramp to provide a transition between the landside ramp (described in Section 2.2.2) and the floating dock. The deck, which is about 15-feet by 20-feet (300 sq. ft.) would be connected to the floating dock.

  The floating marina would have an affixed floating walkway that would be capable of landing on the ground in the event of a low water event. Floating docks are anchored on the lake bottom by means of 10,000-pound concrete block with an imbedded "u" shaped hook. It will require 8 to 10 anchors for the proposed floating dock and 4 to 6 more for the breakwater. The concrete block (anchor) is lowered into place and connected (tethered) through the "u" shaped hook to the floating structure. Each anchor has a footprint of about 36-inches x 36-inches, and if necessary, the anchors can be moved to another location or removed from the lake. This method is a standard anchoring system for floating docks and marinas and is used at marinas throughout Lake Berryessa.
- Sanitary pump-out facility located on the floating dock would provide boaters access to a sanitary sewer. Boaters would connect their vessels' holding tanks to a pump-out which would pump waste water to a lift station along Wragg Canyon Road.

- Stand-alone breakwater to reduce boat wakes and wind damage to vessels and marina would be constructed north of the marina. The breakwater is a floating structure similar to the walkways on a floating dock. Its purpose is to reduce or dampen wakes created by boats and would provide some protection from wind-generated waves blowing into PCM. It is anchored to the lake bottom in the same manner as the floating docks.

Eco-Cabins

Suntex proposes to construct eco-cabins[1] at campground locations throughout the upland portions of the marina. The cabins are constructed on pier-type foundations with wooden or composite floors, wooden or fabric walls and a metal or fabric roof (Image 1). Each cabin is constructed with a restroom. Foundation piers are set on 18-inch x 18-inch x 4-inch concrete pads. This foundation systems limits surface disturbance and allows the cabin to be constructed without mass grading. The cabins range in size from about 400-square feet (sf) to about 600 sf and would be connected to community water and sanitary sewer systems and to electrical service.



Image 1: Typical Eco-Cabin[2]

Recreational Vehicle Space

Existing Recreational Vehicle camping spaces are located throughout the southern upland portion of PCM. Typically, existing RV spaces have a 15-foot x 40-foot concrete parking apron and connection for water and electricity. The proposed project would provide upgraded water and electrical service and sanitary sewer connections to each RV space.

Construction Components

Underground Utilities: The Marina II includes constructing underground utilities – water, sanitary sewer and electrical service. Buried utility construction would meet requirements in Napa County Code, Title 13, Waters, Sewers and Public Services (April 2023). Typically, water and sewer trenches would be 24-inches wide and between 36 and 48-inches deep. Buried electrical lines would be 12-inches wide (or less) and 36 to 48-inches deep. The reclaimed surface over the buried utilities would be marked with warning signs. Wherever possible, buried utilities would be located

[1] Worldwide, the name "eco-cabins" describes small environmentally sustainable vacation or residential structures. PCM has provided typical specifications and an illustration n for use in this environmental assessment.
[2] Typical: Eco Structures, WABi Industries, Western Australia

in the shoulders of Wragg Canyon Road.

The total linear footage of trenches include:

- Water and laterals to each cabin or RV site: 8,310-linear feet
- Sanitary sewer and laterals: 9,150-linear feet,
- Buried electrical: 6,000-linear feet
- Total Estimated Utility Trenching: 22,620-linear feet; total surface disturbance, approximately 2.6-acres (113,100 sf).

Construction Staging Area: The staging area would be located in the southern portion of the PCM. This area provides approximately 30,000 square feet (0.7-acres) of secured storage and parking.

Construction Trailer: A trailer would be used as the construction office. The trailer would be parked in PCM's existing public parking area along Wragg Canyon Road. The trailer would connect to exiting electrical service provided by PG&E; portable sanitary facilities would be provided next to the trailer and would be regularly serviced.

Access: State Route 128 (SR 128) is the only road serving PCM. SR 128 connects PCM, via Wragg Canyon Road, with the City of Winters and I-505 on the east, a distance of about 12-miles; and with the City of Napa on the west via State Routes 128 and 221, a distance of about 22-miles.

Heavy equipment, such as rubber-tired backhoes/frontend loaders, small graders and miscellaneous equipment would arrive via SR 128 on flatbed trailers pulled by commercial diesel-powered tractors. No road detours are necessary, or available; construction traffic is short-term and is not expected to significantly impact traffic on SR 128. During construction, it is estimated that less than 8 to 10 daily truck trips (round trips) per 5-day work week would be required during the construction period which is expected to last 6 to 9 months.

Construction workers would access the project area via SR 128. Construction workers would park personal vehicles at an existing PCM parking areas or could drive their personal or company vehicles (typically full-sized pickup trucks) directly to their designated work area where they could park on one of the many turnouts along PCM's main road and location for most of the construction activities. The total number of construction workers would vary depending on tasks; it is estimated that between 10 to 25 construction workers could be on the project area at any one time.

Schedule and Timing: Construction scheduling depends on the required tasks. It is estimated the project would be executed in continuous phases with early tasks concentrating on site preparation and later phases focused on PCM buildings and eco-cabins. Construction could require 6 to 9 months and would be conducted primarily between the months of April and November. Construction hours would be 7 a.m. to 7 p.m.; five days per week, except holidays.

Objectives of Biological Resources Assessment

- Identify and describe the biological communities present in the study area;
- Evaluate and identify if any potential sensitive habitats or special-status plant and animal species exist or could exist on the site;
- Conduct an analysis to determine if any aquatic resources are present on the site, and
- Provide conclusions and recommendations.

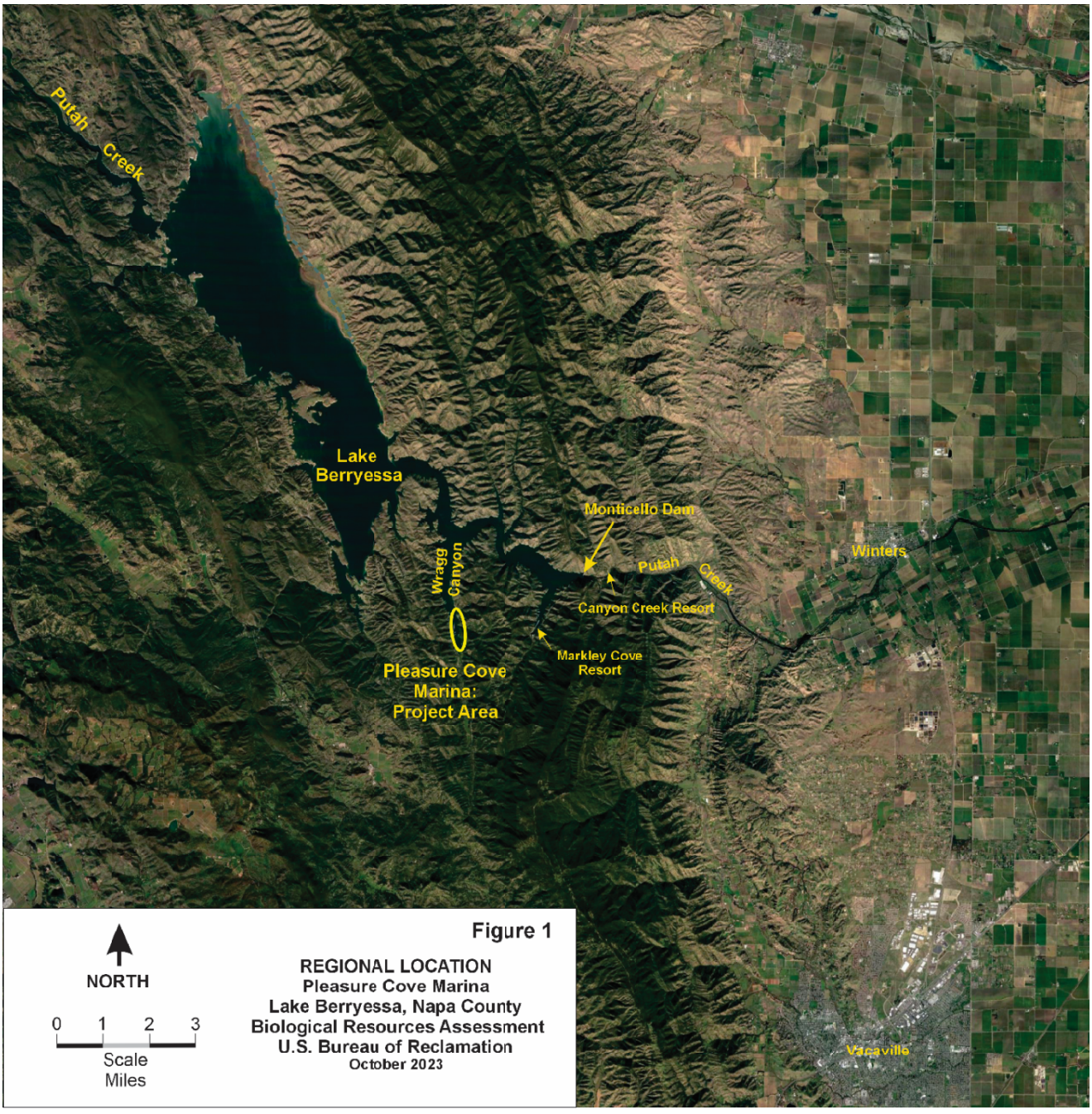


Figure 1. Regional Map, Pleasure Cove Marina, Napa County, CA



Figure 2. Project Locations, Pleasure Cove Marina, Napa County, CA

Literature Review

Salix biologists reviewed historic aerial photographs, topographic maps, and conceptual drawings of potential development in the study area. In addition, the site was flown with a UAV to acquire aerial photographs. Standard publications were reviewed to provide information on life history, habitat requirements, and distribution of regionally-occurring animal species. Information on soils of the study area was obtained from the U.S. Department of Agriculture – National Resource Conservation Service's online Web Soil Survey (NRCS 2023).

Special-Status Species Reports

To assist with the determination of which special-status species could occur within or near the study area, Salix biologists queried the California Natural Diversity Data Base (CDFW 2023), the California Native Plant Society Rare Plant Inventory (CNPS 2023), and the USFWS Information for Planning and Consultation database (USFWS IPaC 2023) for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area. The five-quadrangle search area included the Capell Valley, Lake Berryessa, Monticello Dam, Mt. Vaca, and Chiles Valley USGS quadrangles. In addition, Salix biologists reviewed the California Department of Fish and Wildlife list of Species of Special Concern for the project vicinity.

For the purposes of this report, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species, or formally proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1, 2, or 3 on lists maintained by the California Native Plant Society.

Field Assessment

A field assessment of the study area was conducted by Salix Principal Biologist Jeff Glazner on October 11, 2022 and May 10, 2023. The study area was evaluated to characterize existing conditions, to assess the potential for sensitive plant and wildlife resources to occur, and to determine if aquatic resources are present onsite. During the field assessment, plants and animals observed were documented, and ground photos were taken in addition to the UAV photography.

Plants observed are listed in Appendix A; animals observed are noted in the *Wildlife Occurrence and Use* section below. Plant names are according to The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et. al. 2012) and updated literature that supersedes the Jepson Manual.

Soils

Four soil units have been mapped and are described on the property: Bressa-Dibble complex (113), 15 to 30 percent slopes, Bressa-Dibble complex (114), 30 to 50 percent slopes, Perkins gravelly loam (168) and "water" (183) (NRCS 2023). The components of the Bressa-Dibble complex are described below. The water (Lake Berryessa) is referred to by the NRCS as a "miscellaneous area." (Figure 3)

Bressa

The Bressa component, which makes up 70 percent of the map unit, is found on hills and foothills. Its parent material consists of residuum weathered from sandstone and shale, and its natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. This soil is not flooded, is not ponded, and does not meet hydric criteria. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Dibble

The Dibble component, which makes up 15 percent of the map unit, is found on hills and foothills. Its parent material consists of residuum weathered from sandstone and shale and its natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. This soil is not flooded, is not ponded, and does not meet hydric criteria. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Perkins

Perkins soils are formed in alluvium derived from mixed rock sources. They typically occur on terraces and have slopes of 0 to 30 percent but usually occur on slopes less than 9 percent. The soil is well drained; slow to rapid runoff; with moderately slow permeability. The depth to a restrictive layer is more than 80 inches. This soil is not flooded, is not ponded, and does not meet hydric criteria. The soil does not meet hydric criteria. When irrigated, this soil is considered Prime Farmland.

Climate

The study area has a Mediterranean climate with cool, wet winters and hot, mostly dry summers. The warm season in the region lasts from May to October, with average daily high temperatures remaining above 78°. The hottest months are July and August, with high temperatures each month averaging 94° and 93°, and low temperatures averaging 57° and 56°, respectively. The cool season lasts from November to March, with average daily high temperatures remaining below 65°. The coolest months are December and January, each averaging 56° in high temperature and 36° in low temperature. Annual precipitation averages 27.94 inches, nearly all of which occurs as rainfall between October and April.

The wettest months are December, January, and February, each averaging more than 5.1 inches of rainfall (Western Regional Climate Center Markley Cove Station).

Hydrology

The site occurs in the Wragg Canyon-Putah Creek HUC 12 (180201620403) part of the greater Upper Putah HUC 8 watershed (18020162). The study area is located on an east-facing slope along the shore of Lake Berryessa, and surface water on the site drains directly into the lake. Water in Lake Berryessa overflows via the Morning Glory Spillway or "glory hole" when the water level rises above and elevation of 440 feet. Water that flows out of the reservoir drains into Putah Creek, which flows east and into the Yolo bypass.; water flows south in the bypass and into the Sacramento River.

Biological Communities

Six biological communities are identified within the study area: ruderal, ruderal landscape, asphaltic pavement, oak woodland, disturbed oak woodland and shoreline/open water, as summarized in Table 1 and illustrated in Figures 4a and 4b. Figures 5a through 5j provide aerial photos. Figures 5k to 5m provide ground site photos.

Burned areas from the Hennessy fire mostly occurred upslope of the study area boundary so the vegetative communities described below were largely intact at the time they were assessed.

Table 1. Biological Communities Present within the Pleasure Cove Marina Study Area

Biological Community	Approximate Acreage
Ruderal	3.6
Ruderal/Landscaped	9.0
Pavement	10.1
Oak woodland	18.0
Disturbed Oak Woodland	5.3
Shoreline/Open Water	28.0
Total	**74**

Ruderal

The ruderal land cover type is found on approximately 3.6 acres of the study area. This land cover type is characterized by weedy species that colonize areas disturbed by human activity. These disturbed areas include circulation and parking areas, storage areas, trails and pathways, and graded areas. Vegetation is primarily herbaceous and includes Italian thistle (*Carduus pycnocephalus*), yellow star thistle (*Centaurea solstitialis*), stinkwort (*Dittrichia graveolens*), bindweed (*Convolvulus arvensis*), turkey mullein (*Croton setiger*), common knotweed (*Polygonum aviculare*), ripgut grass (*Bromus diandrus*), and foxtail brome (*Bromus madritensis*).

Ruderal Landscaped

The ruderal landscaped land cover type found on approximately 9.0 acres of the study area. This land cover type is distinguished from the ruderal areas described above by the presence of mature, woody, ornamental vegetation. Common species include coast redwood (*Sequoia sempervirens*), mulberry (*Morus alba*), oleander (*Nerium oleander*),

California burclover (*Medicago polymorpha*), and white horehound (*Marrubium vulgare*).

Asphaltic Pavement

The study area includes several paved and gravel roads, driveways, parking, and other circulation areas (10.1 acres). These areas are mostly impervious surfaces comprised of asphaltic concrete, gravel road base or compacted earth. There is no vegetation present other than the weedy edges where the roadway surface transitions into ruderal conditions. Vegetation in these areas is consistent with the ruderal land cover type described above.

Oak Woodland

Most of the study area (18 acres) is oak woodland that occupies the steep slopes above the open water and the road. During the October assessment, the upper slopes were relatively unaltered and supported a fairly dense stand of interior live oak (*Quercus wislizeni)*, blue oak (*Quercus douglasii),* and gray pine (*Pinus sabiniana)*. Other oak species found in this land cover type include valley oak (*Quercus lobata*) and black oak (*Quercus kelloggii*). California buckeye (*Aesculus californica*) is associated with the canyons and slopes in the study area. Shrubs were also abundant and included whiteleaf manzanita (*Arctostaphylos viscida)*, poison oak (*Toxicodendron diversilobum)*, and toyon (*Heteromeles arbutifolia)*. Common herbaceous plants include field hedgeparsley (*Torilis arvensis*), woolly sunflower (*Eriophyllum lanatum*), common miner's lettuce (*Claytonia perfoliata*), hedgehog dogtail (*Cynosurus echinatus*), wall barley (*Hordeum marinum*), Twining brodiaea (*Dichelostemma volubile*), and Ithureil's spear (*Triteleia laxa*).

Disturbed Oak Woodland

A portion of the study area (5.3 acres) is oak woodland with a significant degree of disturbance due to high levels of human activity that are occurring near the water and in the marina area. The area contains extensive paved and dirt roads, parking areas, numerous small dwellings, and other structures. Most of the human activity occurs in a narrow band between the lake edge and the steep slopes to the west. The oak woodland in this area was thin, patchy, and disturbed. Oak trees were scattered throughout this area including blue oak (*Quercus douglasii*), California black oak (*Quercus kelloggii*), valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizeni*). Other trees and shrubs in this area include Western redbud (*Cercis occidentalis*), French broom (*Genista monspessulana*), California buckeye (*Aesculus californicus*), and toyon (*Heteromeles arbutifoli*a). Many ornamental trees were present including tree of heaven (*Ailanthus altissima)*, deodar cedar (*Cedrus deodara),* white mulberry (*Morus alba)*, and oleander (*Nerium oleander)*. Common herbaceous species include narrowleaf cottonrose (*Logfia gallica*) and milk thistle (*Silybum marianum*).

Shoreline/Open Water

For purposes of this assessment, the upper limit of the shoreline is located at the 440-foot contour. The reservoir surface fluctuates seasonally and annually and rarely reaches the 440-foot elevation. Lands below the high-water mark are vegetated with mostly herbaceous opportunistic species. In a typical year, the lake fluctuates 10 to 20 feet between the high and low levels, but the Lake has exceeded 45 feet of Lake elevation gain in a single year (Solano County Water Agency 2023).

The eastern boundary of the study area is the open water of Lake Berryessa. Based upon the historical fluctuation in lake levels with its seasonal gains and losses, the

shoreline/open water edge can shift by as much as 78 feet in elevation. Consequently, the location of the open water boundary with the shoreline land cover type cannot be fixed in place.

The exposed shoreline supports opportunistic wetland vegetation including common horsetail (*Equisetum arvense*), poison hemlock (*Conium maculatum*), mayweed (*Anthemis cotula*), Western goldenrod (*Euthamia occidentalis*), pennyroyal (*Mentha pulegium*), hyssop loosestrife (*Lythrum hyssopifolia*), and common monkeyflower (*Erythranthe guttata*). The shoreline can also support a number of woody plants including Fremont cottonwood (*Populus fremontii*), Goodding's black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*).

Aquatic Resources

Two ephemeral drainage features were identified in the October 2022 and May 2023 field reviews. The northernmost drainage is located at the northern end of the study area within the pedestrian ramp area. The second is located within Cabin Area #2.

The northernmost ephemeral drainage feature is in a ravine upstream of the road that bisects this area. This drainage feature requires further evaluation to determine if it is an aquatic resource. A culvert has been placed under the road to control erosion and the drainage feature is located on the upslope side of that culvert. The downstream area below the culvert does not have characteristics of an aquatic resource. Downstream of the culvert, Lake Berryessa receives the flows from this drainage area stream as it passes over areas that are considered shoreline/open water. The drainage feature is in the area that is identified in the project description as a driveway turnaround area for the new marina and will likely be impacted by the project.

A second ephemeral drainage is located south of the drainage described above. It occurs in a ravine that is bisected by an access road. Bed and bank morphology is distinctly present in this drainage so it is likely to be a regulated aquatic resource. Detailed boundary mapping has not occurred. A culvert has been placed under the road. Improvements around Cabin Area #2 may impact this resource. When site plans/improvement plans are prepared for construction in this area, the potential impacts to this resource should be further assessed.

The only other aquatic resource within the study area is Lake Berryessa. There are four principal creeks that flow into Lake Berryessa: Capell Creek, Pope Creek, Eticuera Creek, and Putah Creek, the main drainage of the basin. The study area is within Wragg Canyon where Wragg Creek enters the lake. Wragg Creek is a smaller creek that has a watershed that extends south of the lake.

At high water, the lake spills into the 'Morning Glory Spillway' near the dam. The feature is a unique spillway for Monticello Dam. When water levels rise above an elevation of 440 feet, water starts spilling down the glory hole and into Putah Creek where it eventually flows into the Yolo Bypass. Prior to dam construction, Putah Creek was known to dry out in summer. The ordinary high-water mark of the lake is assumed to be slightly below the 440-foot elevation of the glory hole.

Project Area Photographs (October 2022)



From the southern end of the RV area #1 looking north through the ruderal/landscaped land cover.



From the edge of the shoreline land cover type looking northeast towards the existing boat ramp.



Looking northeast at the location of the cabin demolitions for Parking Area #2.



The northernmost ephemeral drainage area looking east in the pedestrian ramp area.



The northernmost ephemeral drainage area looking southeast in the pedestrian ramp area.



The ephemeral drainage feature near Cabin Area #2.

Wildlife Occurrence and Use

The study area provides habitat for many wildlife species because of the variable vegetative cover and access to water. Undisturbed natural ground is generally very steep which is a limitation to ground dwelling species. The most abundant species within the study area were birds. Opportunistic urban species utilized the flatter areas near the water's edge or the terraced area where Wragg Creek enters Lake Berryessa.

Wildlife along the shoreline and in high human use areas is generally transient and not resident.

Birds observed during the field evaluations included mourning dove (*Zenaida macroura),* black phoebe (*Sayornis nigricans),* lesser goldfinch (*Spinus psaltria),* turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis)*, American robin (*Turdus Falco sparveriusmigratorius)*, European starling (*Sturnus vulgaris*), California towhee (*Melozone crissalis*), brewer's blackbird (*Euphagus cyanocephalus*), American goldfinch (*Carduelis tristis*), mallard (*Anas platyrhynchos*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), Anna's hummingbird (*Calypte anna*), and northern flicker (*Colaptes auratus*).

Other animal species species observed included western gray squirrel (*Sciurus griseus*), California ground squirrel (*Otospermophilus beecheyi*) and black-tailed jackrabbit (*Lepus californicus).*

Special-Status Species

To determine potentially-occurring special-status species, the standard databases from the USFWS, CDFW, and CNPS (as described in *Special-Status Species Reports*, above) were queried and reviewed. These searches provided a list of regionally-occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix B lists potentially-occurring special-status plants, and Appendix C lists special-status animals compiled from the queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices B and C.

The CNPS Rare Plant Inventory query identified several CNPS Rank 4 species. Rank 4 species are of limited distribution or infrequent throughout a broader area in California. CNPS Rank 4 species that could be present would not typically meet the CEQA Guidelines §15380 as either "endangered" "threatened" or "rare". Therefore, CNPS Rank 4 plant species are not considered further in the document.

Figure 6a shows the locations of reported occurrences of CNDDB special-status plants within a five-mile radius of the study area.

Plants

Of the 18 potentially-occurring plant species identified in the CNDDB, USFWS and CNPS queries (Appendix B), 6 were reported as occurring within or near a five-mile radius of the study area (Figure 6a) and are marked with an asterisk (*) in the lists below. Four of the species were determined to have some potential to occur within the study area. The remaining 14 species were determined to have no potential to occur within the study area due to the lack of suitable habitats or substrates including the lack of volcanic or serpentine soils, vernal pools, riparian woodland or wetlands; these 14 plants were eliminated from further consideration. (See Appendix B for more information on these plants).

The 14 plants with no potential to occur include:

- Serpentine cryptantha (*Cryptantha dissita*)
- Dwarf downingia (*Downingia pusilla*)
- Clara Hunt's milkvetch (*Astragalus claranus*)

- Jepson's milkvetch (*Astragalus rattanii jepsonianus)*
- Northern California black walnut (*Juglans hindsii*)
- Adobe-lily (*Fritillaria pluriflora*)
- Brewer's dwarf flax (*Hesperolinon breweri*)*
- Sharsmith's western flax (*Hesperolinon sharsmithiae*)*
- Heller's bush-mallow (*Malacothamnus helleri*)
- Mead's owl-clover (*Castilleja ambigua meadii*)
- Wooly-headed gilia (*Gilia capitata tomentosa*)
- Marin County navarretia (*Navarretia rosulata*)
- Holly-leaf ceanothus (*Ceanothus purpureus*)
- Sonoma ceanothus (*Ceanothus sonomensis*)

Four plant species from Appendix B, listed in Table 2 below, were determined to have some potential to occur within the study area and are described below. Three of these species are reported to occur within a 5-mile radius of the study area (Figure 6a) and are marked with an asterisk (*) in Table 2.

Table 2. Special-Status Plant Species Determined to Have Some Potential to Occur Within the Pleasure Cove Marina Study Area

Species	Status*			Habitat	Potential for Occurrence Within Study Area**
	Federal	State	CNPS		
Napa bluecurls *Trichostema ruygtii*	-	-	1B.2	Chaparral. Cismontane woodland. Lower montane coniferous forest. Valley and foothill grassland. Vernal pools.	Unlikely. Site contains marginal habitat in open dry areas.
Keck's checkerbloom* *Sidalcea keckii*	FE	-	1B.1	Cismontane woodland; valley and foothill grassland; [serpentinite].	Unlikely. Species occurs on grassy slopes, often on serpentine soils.
Jepson's leptosiphon* *Leptosiphon jepsonii*	-	-	1B.2	Chaparral; cismontane woodland (usually volcanic).	Unlikely. Site contains marginal habitat in chaparral areas.
Narrow-flowered California brodiaea* *Brodiaea leptandra*	-	-	1B.2	Broadleaved upland forest; chaparral; lower montane coniferous forest. Volcanic.	Unlikely. Site contains marginal habitat on hillsides.

***Status Codes:**

CNPS

Rank 1 Rare, Threatened, or Endangered in California
Rank 2 R, T, or E in California, more common elsewhere
1- Seriously threatened in California
2- Fairly threatened in California

Federal

FE Federal Endangered

****Definitions for the Potential to Occur:**

Unlikely. Some habitat may occur, but disturbance may restrict/eliminate the possibility of occurrence. Habitat may be very marginal, or study area is outside range of species.
Possible. Suitable habitat occurs within the study area. Study area within range of species.

Napa bluecurls (*Trichostema ruygtii*) is an annual herb that is native to and endemic to California. It has no federal or state status but is ranked 1B.2 by CNPS. The plant is endemic to California in the northern San Francisco Bay Area, where it is known from the southern Mayacamas Mountains in Napa County and into western Solano County. It grows in chaparral and openings and adjacent grassland areas. Napa bluecurls typically grows about a foot tall, sometimes up to two feet. The plant is highly aromatic from glandular hairs growing on the stems and leaves. The flowers are a pale lavender in color. Its bloom period is June to October, peaking in late July and August.

The CNNDB documents the nearest reported occurrence of Napa bluecurls from a September 2004 observation approximately 6.7 miles southwest of the study area near the small unincorporated community of Circle Oaks. Because only marginal quality habitat is present within open, dry areas onsite, it is unlikely that Napa bluecurls occurs within the study area.

Keck's checkerbloom (*Sidalcea keckii),* a dicot, is an annual herb that is native and endemic to California. It is federally-listed as endangered and has a CNPS rank of 1B.1. Keck's checkerbloom grows up to 35 cm tall and is bristly from top to base. The leaves have blades shallowly edged or deeply divided into lobes; the upper blades with toothed edges. The inflorescence is a dense cluster of a few flowers with deep pink petals, measuring 1-2 cm long. Each flower has a calyx of pointed green sepals, which may be streaked with pink. The bloom period is April and May. This species grows on grassy slopes, sometimes on serpentine. It is known primarily from northern California but also has been detected in Merced, Tulare, and Fresno counties.

The CNNDB documents the nearest reported occurrence of Keck's checkerbloom from an April 2001 observation approximately 0.4 miles east of the study area on a north-facing slope above the eastern shoreline of Lake Berryessa. Because only marginal quality habitat is present in grassy areas on upper hillsides within the study area, it is unlikely that Keck's checkerbloom occurs onsite.

Jepson's leptosiphon (*Leptosiphon jepsonii*) is an annual member of the phlox family (Polemoniaceae) that occurs north of the San Francisco Bay Area. It has no federal or state status but is ranked 1B.2 by CNPS. It grows up to 12cm tall and has dense hairs on the calyx lobes that are 6-9mm long. Its leaves are narrow lobes up to 13mm long and the inflorescence includes white or pink petals measuring 4-6mm long. The species grows around chaparral and in grasslands and woodlands below approximately 1600 feet, usually on volcanic soils. It is found in Lake, Napa, and Sonoma Counties and blooms from March through May.

The CNNDB documents the nearest reported occurrence of Jepson's leptosiphon from a 2007 observation approximately 5.2 miles southwest of the study area on a ridge between Foss Valley and Capell Valley. Because only marginal quality habitat is present in chaparral areas onsite, it is unlikely that Jepson's leptosiphon occurs within the study area.

Narrow-flowered California brodiaea (*Brodiaea leptandra)* is a perennial herb of the Themidaceae family that is native and endemic to California. It is ranked by CNPS as 1B.2. It is known from Napa, Lake, and Sonoma Counties. It occurs in open mixed-evergreen forest, chaparral, and on gravelly soil below 4000 feet. Between one and six

narrow leaves are produced from the corm. The bare flowering stem (scape) carries an umbel of flowers with six blue to purple tepals. It blooms from May to July.

The CNNDB documents the nearest reported occurrence of narrow-flowered California brodiaea from a June 1987 observation approximately 4.7 miles west of the study area along Highway 128, near its intersection with Berryessa Knoxville Road. Because only marginal quality habitat is present on hillsides within the study area, it is unlikely that narrow-flowered California brodiaea occurs onsite.

Animals

Of the 16 animal species identified in the CNDDB and USFWS queries (Appendix C), five were reported as occurring within or near the five-mile radius of the study area, as shown on Figure 6b. Five of the species were determined to have some potential to occur within the study area and are further discussed in Table 3 and Appendix C.

Five species were determined to have no potential to occur within the study area and were eliminated from further consideration. These five species were eliminated due to the absence of suitable habitat within the study area. Raptors such as bald eagle, golden eagle and the American peregrine falcon may forage within the area but the study area does not provide suitable nesting trees. Therefore, the following five species were eliminated from further consideration:

- Golden eagle (*Aquila chrysaetos*)
- Bald eagle (*Hallaeetus leucocephalus*)
- American peregrine falcon (*Falco peregrinus anatum*)
- Western pond turtle (*Emys marmorata*)
- California red-legged frog (*Rana draytonii*)

In addition to the five species eliminated due to the absence of suitable habitat within the study area, six additional species were eliminated because the study area is outside the known range of the species. These species include:

- Tricolored blackbird (*Agelalus tricolor*)
- Swainson's hawk (*Buteo swainsoni*)
- Conservancy fairy shrimp (*Branchinecta conservatio)*
- California freshwater shrimp (*Syncaris pacifica)*
- Delta smelt (*Hypomesus transpacificus*)
- California tiger salamander (*Ambystoma californiense*)

Table 3. Special-Status Animal Species Determined to Have Some Potential to Occur Within the Pleasure Cove Marina Study Area

Species	Status*		Habitat	Potential for Occurrence Within Study Area**
	Federal	State		
Insects				
Valley elderberry longhorn beetle* *Desmocerus californicus dimorphus*	FT	-	Requires host plant, elderberry (*Sambucus nigra*) for its life cycle. Shrubs must have live stem diameters at ground level of 1.0 inch or greater. Occurs in Great Valley and lower foothills.	Unlikely. No shrubs observed but thorough survey was not conducted.
Amphibians				
Foothill yellow-legged frog *Rana boylii*	-	SSC	Streams within valley-foothill hardwood, valley-foothill hardwood-conifer, and valley-foothill riparian land cover. The frog is rarely observed far from the water's edge.	Unlikely. Wragg Creek is seasonally inundated with the rise and fall of the elevation of the water in Lake Berryessa. There are no known occurrences of the frog occurring around the Lake under similar circumstances.
Reptiles				
Birds				
Yellow-breasted chat *Icteria virens*	-	SSC	Nesting habitat is usually restricted to the narrow border of streams and creeks. Blackberry (*Rubus* spp.) (including Himalayan blackberry), wild grape (*Vitis* spp.), willow (Salix spp.), and other plants that form dense thickets and tangles are frequently selected as nesting strata	Unlikely. Marginally suitable nesting habitat may be found in the small riparian patches adjacent to Wragg Creek. The nearest reported occurrence is over 6.5 miles and no other occurrences are found within 25 miles.
Mammals				
Western red bat *Lasiurus blossevillii*	-	SSC	Forests and woodlands up to conifer forests. Roosts primarily in trees and occasionally shrubs.	Unlikely. Site contains marginal habitat in some densely foliated broad-leaf trees within the study area but is disturbed by frequent human activity.
Pallid bat *Antrozous pallidus*	-	SSC	Occurs in grasslands, woodlands, deserts & urban habitats; open habitat required for foraging. Common in dry habitats with rocky outcrops, cliffs, and crevices for roosting. Roosts include caves, mines, bridges & occasionally hollow trees, buildings.	Unlikely. Site contains marginal habitat in open oak woodland and small rocky outcrops but is disturbed by frequent human activity.

***Status Codes:**
Federal
FT Federal Threatened
State
CE California Endangered
CFP California Fully-protected
SSC California Species of Concern

****Definitions for the Potential to Occur:**
Unlikely Minimal or marginal quality habitat in the study area.
Possible Suitable habitat occurs within the study area.

Valley Elderberry Longhorn Beetle (VELB) (*Desmocerus californicus dimorphus*) is a federally-listed threatened species. VELB is a medium-sized woodboring beetle, about 0.8 inches long. VELB is endemic to California's Central Valley and watersheds that drain into the Central Valley (Barr 1991). Its presence is entirely dependent on the presence of its host plant, the elderberry shrub (*Sambucus nigra*). VELB feeds exclusively on elderberry shrubs, the adults feeding on leaves and flowers, and the larvae on the stem pith. Habitat for VELB consists of elderberry shrubs with stems greater than 1 inch in basal diameter. Elderberry grows in many habitats including riparian, oak woodlands, and in more open savannas.

No large elderberry shrubs were observed during the preliminary site evaluation. However, a few small elderberry shrubs with stem diameter of less than one inch were observed in the northern study area. Although the range for VELB distribution does not extend into Napa County, the CNDDB documents the nearest occurrence of VELB as a 1982 observation, approximately 3.3 miles east of the study area just below Monticello Dam on Putah Creek, approximately 200 feet lower in elevation from the study area. Another observation was made in the same area in 2006 along Putah Creek (approximately 6 miles east of the study area). While occurrence within the study area is unlikely, VELB appears on the list of species that could occur due to the 1982 and 2006 observations.

Foothill yellow-legged frog (*Rana boylii*) is designated as a state species of special concern. The frog lives in foothill and mountain streams up to approximately 5,000 feet in elevation. The frog occurs in a wide variety of vegetation types common to the region including valley-foothill hardwood, valley-foothill hardwood-conifer, and valley-foothill riparian. The frog is closely associated with streams and is rarely observed far from the water's edge. Breeding stream habitat is typically shallow, rocky, and at least partially exposed to direct sunlight. The CNDDB documents the nearest occurrence of the foothill yellow-legged frog in 2016 within a tributary of Putah Creek southwest of Monticello Dam. For the study area, suitable habitat is limited to Wragg Creek below the RV site improvement area when the Lake is drawn down enough for Wragg Creek to flow. The proposed project does not impact Wragg Creek and should have no effect on the species.

Yellow-breasted chat (*Icteria virens*) is designated as a state species of special concern. The chat occupies early successional riparian habitats with a well-developed shrub layer and an open canopy. Nesting habitat is usually restricted to the narrow border of streams and creeks. Himalayan blackberry (*Rubus armineacus*), wild grape (*Vitis californica*), willow (*Salix spp.*), and other plants that form dense thickets and tangles are frequently selected as nesting strata. For the study area, suitable habitat is marginal along Wragg Creek. There is only one known occurrence of the yellow-breasted chat about 6.6 miles east of the study area.

Western red bat (*Lasiurus blossevillii*) is designated as a state species of special concern. It is a migratory bat known to occur west of the Sierra Nevada/Cascade crest from Shasta County to the Mexican border. In California, most individuals are believed to make short migrations between summer and winter ranges. The western red bat utilizes grasslands, shrublands, open woodlands or forests, and croplands for feeding. Roosting habitat for the species includes forests and woodlands from sea level up to mixed

conifer forests. The species roosts in trees and sometimes shrubs, usually in edge habitats adjacent to streams, fields, or urban areas. They prefer riparian areas with trees that have dense upper foliage but are open below.

The CNDDB documents the nearest occurrence of the western red bat as an August 2005 observation approximately 5.9 miles southwest of the study area above Monticello (SR 121/128). Some densely foliated broad-leaf trees within the study area provide only marginal habitat for the western red bat. However, the site is frequently disturbed by human activity, and the species is unlikely to occur.

Pallid bat (*Antrozous pallidus*) is designated as a state species of special concern. It is known to occur throughout California (except for the high Sierra Nevada from Shasta County to Kern County and the northwestern corner of the state) and is a yearlong resident in most of its range. The species occurs from sea level up to mixed conifer forests, primarily in shrublands, woodlands, forested habitats, and grasslands. It is most common in arid or semi-arid habitats that include rocky areas for roosting. During the day, the pallid bat roosts in caves, crevices, mines and occasionally in hollow trees or buildings. At night, they roost in more open sites such as porches or open buildings.

The CNDDB documents the nearest occurrence of the pallid bat as the same August 2005 observation as the Western red bat described above. This site is approximately 5.9 miles southwest of the study area near Monticello Road (SR 121). There are no occurrences around the canyons that form the watershed of Lake Berryessa. Open oak woodland areas and small rocky outcrops within the study area provide only marginal habitat for the pallid bat. However, the site is frequently disturbed by human activity, and the species is unlikely to occur.

RECOMMENDATION

Aquatic Resources

There are two ephemeral drainages features at the northern end of the study area. This drainage feature is located on the east edge of the access road. A formal aquatic resources delineation has not been prepared to determine the metrics of this potential aquatic resource.

The second ephemeral drainage is located south of the drainage referenced above near Cabin Area #2. It is recommended that this area be avoided when site improvements are designed for Cabin Area #2. If impacts cannot be avoided, a formal aquatic resources delineation should be prepared so impacts can be quantified.

If either of these ephemeral drainage features are a water of the United States, it would be necessary to obtain a permit from the U.S. Army Corps of Engineers in order to fill the resource. An aquatic resources delineation of these features is recommended to determine what regulatory requirements, if any, are required to make improvements that could impact these features.

Wragg Creek passes along the eastern edge of the study area. Wragg Creek is seasonally inundated with the rise and fall of the elevation of Lake Berryessa. When the lake elevations are low, the stream flows for about 0.3 mile. When the lake is full, the stream is not present. There are no proposed project improvements within Wragg Creek and it is not impacted by improvements associated with study area. No further studies are

recommended.

The only other aquatic resource within the study area is Lake Berryessa. The lake is regulated by the U.S. Bureau of Reclamation and impacts below the ordinary high-water mark would require an authorization from that agency. The ordinary high water mark elevation is presumed to be slightly below the elevation of the glory hole spillway, which is 440 feet.

Streams, Pond, and Riparian Habitat

Impacts to the bed, bank, or channel of streams or ponds may require a Lake & Streambed Alteration Agreement (LSAA) from the California Department of Fish and Wildlife (CDFW). There is minimal riparian vegetation along the lake edge, but modifications to the lakeshore may trigger the need for an LSAA. When project plans are confirmed, CDFW should be consulted to determine if an LSAA application should be filed.

Tree Conservation

Any tree removal shall be conducted consistent with the requirements of Concession Contract No. 10-LC-20-0113 between the U.S. Bureau of Reclamation and the Suntex Marinas, the marina concessionaire. This contract addresses the removal of trees and approvals by the area manager. This contract also addresses requirements for site restoration and landscaping approvals prior to implementation of site improvements.

Special-Status Plants

The study area contains marginal habitat for 4 special-status plant species that may occur in the region, as listed in Table 2. All 4 plants are ranked 1B by CNPS, and one species (Keck's checkerbloom) is a federally endangered species. It is recommended that special-status plant surveys be conducted during the appropriate bloom periods (April-May) to determine if any of these species are present onsite.

Should any special-status plant species be detected within the study area, appropriate mitigation measures shall be developed in coordination with the U.S. Bureau of Reclamation.

Special-Status Animals

Of the 18 special-status animal species identified through the IPaC and CNDDB database searches as occurring within the 5-quadrangle region surrounding the site, 5 species were determined to have at least some potential to occur: valley elderberry longhorn beetle, foothill yellow-legged frog, yellow-breasted chat, western red bat and pallid bat.

Bats - Habitat for the two special status bats is marginal and they are not likely to occur within the study area. However, pallid bat and western red bat are noted for consideration and after final design plans are complete, a habitat assessment should be conducted to determine if proposed impacts could in any way affect these species. At this time, a formal bat survey is not recommended.

Raptors - The bald eagle is known to nest in other areas surrounding Lake Berryessa, but the study area itself does not contain quality nesting habitat. Other common raptors

and other birds protected by the Migratory Bird Treaty Act occurred in association with trees and shrubs located in the study area. Take of any active raptor nest is prohibited under California Fish and Game Code sections 3503, 3503.5, and 3513. If removal of surviving trees or other ground disturbance takes place during the breeding/nesting season (February 1 through August 31), disturbance of nesting activities could occur. If disturbance occurs at any time during the nesting season, a pre-construction survey should be conducted by a qualified biologist within two weeks prior to initiation of proposed development activities. If active nests are found during the pre-construction survey, buffer zones should be established around any identified nests, and the nests should be monitored by a qualified biologist until the offspring have fledged. Consultation with the California Department of Fish and Wildlife is recommended if nests are found. If no nesting is found to occur, necessary vegetation removal could then proceed.

Nesting Birds - The site may provide suitable nesting habitat for bird species protected by the Migratory Bird Treaty Act. Take of any nest or eggs is prohibited under California Fish and Game Code sections 3503, 3503.5, and 3513. If tree removal or other ground disturbance takes place during the breeding/nesting season (March through August 31), disturbance of nesting activities could occur. To avoid impacts to nesting birds, disturbance should occur outside of the typical nesting season. If disturbance occurs at any time during the nesting season, a pre-construction survey should be conducted by a qualified biologist within two weeks prior to initiation of proposed development activities. If active nests are found during the pre-construction survey, buffer zones will be established around any identified nests, and the nests will be monitored by a qualified biologist until the offspring have fledged. Consultation with the California Department of Fish and Wildlife (CDFW) may be warranted. Once the birds have fledged, there is no longer a need for the buffer, and project activities could then proceed. If no nesting is found to occur, necessary tree and shrub removal can proceed.

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Appendix A.
Plant Species Observed Within the Pleasure Cove Marina Study Area

Appendix B.
Potentially-Occurring Special-Status Plants in the Region of the Pleasure Cove Marina Study Area

Appendix C.
Potentially-Occurring Special-Status Animals in the Region of the Pleasure Cove Marina Study Area

APPENDIX B
CULTURAL RESOURCE REPORT

CULTURAL AND PALEONTOLOGICAL RESOURCES INVENTORY FOR THE PLEASURE COVE MARINA II IMPROVEMENTS PROJECT, LAKE BERRYESSA, NAPA COUNTY, CALIFORNIA

Prepared for:
Bureau of Reclamation
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Napa, CA 94558

On behalf of:
Wallace Environmental Consulting, Inc.
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3104 O Street, #221
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USGS 7.5-Minute Quadrangles: Capell Valley and Lake Berryessa

Keywords: Positive Cultural Resources Survey; Historical Unnamed Road Segments; NIC- 2022-Cove-01; Compromised Integrity; Ineligible Resource; Low Buried Site Sensitivity; Low Paleontological Sensitivity; Patwin Tribe; Lake Berryessa, Napa County

December 2022 – Revised January 2023

Confidential: Archaeological and traditional property locations are considered confidential and should not be disclosed to the general public or unauthorized persons. This document contains sensitive information regarding the nature and location of archaeological sites. Public access to information regarding the location, character, or ownership of a cultural or heritage resource is restricted by law per Section 304 of the National historic Preservation Act; Section 9(a) of the Archaeological Resources Protection Act; Executive Order 13007; and is exempt from the California Public Records Act under Government Code Section 6254.10.

ABSTRACT

Purpose and Scope: Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resource services in support of the Pleasure Cove Marina II Improvements Project (Project) at Lake Berryessa, Napa County, California. The services provided include a cultural resources literature search, Sacred Lands File (SLF) search, geoarchaeological and paleontological sensitivity analyses, intensive pedestrian survey of the Area of Potential Effects (APE), and the present inventory report. This Project constitutes a federal undertaking, so this report complies with Section 106 of the National Historic Preservation Act (NHPA). The Bureau of Reclamation (BOR) is serving as lead federal agency.

Dates of Investigation: The results of the California Historical Resources Information System (CHRIS) records search were received from the Northwest Information Center (NWIC) on October 5, 2022. Natural Investigations contacted the Native American Heritage Commission (NAHC) requesting a search of their SLF for traditional cultural resources within or near the APE on September 13, 2022. The NAHC returned the results of the SLF search on November 6, 2022. Natural Investigations sent Project information letters to the tribes listed by the NAHC on November 7, 2022. The University of California Museum of Paleontology (UCMP) records search was conducted on November 7, 2022. The fieldwork authorization letter (22-CCAO-213) was received from the BOR on September 29, 2022. Finally, Natural Investigations conducted an intensive pedestrian survey of the APE on November 1, 2022.

Investigation Constraints: Visibility at the time of survey varied from excellent (75-100%) within the gravel roads and picnic areas and campgrounds present within the APE and poor (1-25%) due to tall brush along the undeveloped portions.

Findings of the Investigation: The CHRIS records search indicates that five prior cultural resource studies have been completed within the 0.5-mile record search radius, which included portions of the APE. The CHRIS search also indicates that two prehistoric cultural resources have been previously recorded within the 0.5-mile record search radius. The SLF search returned *positive* results for Native American resources in the vicinity of the Project. Natural Investigations sent Project information letters to all tribes affiliated with the APE, requesting information on the potential for Native American resources in the vicinity. To date, one response has been received from the Yocha Dehe Wintu Nation. Coordination with the tribe is ongoing.

The UCMP records search was negative for unique geological features and paleontological resources within the APE. One historic-era resource (NIC-2022-Cove-01), unnamed two tracks were identified and recorded during the field survey. Geoarchaeological sensitivity analysis finds that based on the age of the landform underlying the APE, extent of prior disturbance, and the negative results of the field survey for evidence of subgrade cultural material, the potential for the discovery of intact archaeological deposits during implementation of the Project is very low.

Recommendations:

Cultural Resources: The cultural resource (NIC-2022-Cove-01) within the APE is recommended not eligible for listing in the National Register of Historic Places (NRHP), and does not appear to constitute a historic property as defined under NHPA Section 300308. No further cultural resources work is recommended at this time.

In the event that a cultural resource is inadvertently discovered during Project activities, work must be halted within 30 feet of the find and a qualified archaeologist (36 CFR Part 61) notified immediately so that an assessment of its potential significance can be undertaken.

Paleontological Resources: The APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) sandstone and shale of the Great Valley Sequence (Kjgv). The unit contains Late Jurassic to Early Cretaceous molluscan fossils west of the Maacama Fault, while east of the Maacama Fault the strata have also yielded Early Cretaceous invertebrate fossils. However, no vertebrate or significant invertebrate fossils are on record for rocks of the Great Valley Sequence in Napa County.

No unique geologic features, fossil-bearing strata, or paleontological sites have been mapped within the APE. Two sites in Napa County, the Blancan-aged Ritchie Creek and Scott Ranch localities, have yielded significant vertebrate fossils, but they were recovered from geologic units that are nearly 100 million years younger than the Late Jurassic to Early Cretaceous-aged rocks underlying the APE. Additionally, these units have not been mapped in the vicinity of the Project. Finally, no paleontological resources of any kind were observed during the field survey. For these reasons, the paleontological resource sensitivity of the APE is estimated to be low and no further paleontological resources work is recommended at this time.

In the event that a paleontological resource is inadvertently discovered during Project-related work, regardless of the depth of work or location, work must be halted within 30 feet of the find and a qualified paleontologist notified immediately so that an assessment of its potential significance can be undertaken.

Disposition of Data: This report will be filed with Wallace Environmental Consulting, Inc., in Courtland; the BOR in Napa; the NWIC in Rohnert Park; and Natural Investigations in Sacramento. All field notes and other documentation related to the study are on file at the Sacramento office of Natural Investigations.

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INTRODUCTION

Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resource services in support of the Pleasure Cove Marina II Improvements Project (Project) at Lake Berryessa, Napa County, California. The services provided include a cultural resources literature search, Sacred Lands File (SLF) search, geoarchaeological and paleontological sensitivity analyses, intensive pedestrian survey of the Area of Potential Effects (APE), and the present inventory report. This Project constitutes a federal undertaking, so this report complies with Section 106 of the National Historic Preservation Act (NHPA). The Bureau of Reclamation (BOR) is serving as lead federal agency.

PROJECT DESCRIPTION AND LOCATION

The Project is located on BOR lands at Lake Berryessa in Napa County, California. The combined property encompasses an area of approximately 19-acres. The APE can be found on the United States Geological Survey (USGS) Capell Valley and Lake Berressa 7.5-minute topographic quadrangle maps, in Section 2, T. 7 N., R. 3 W. and Section 35, T. 8 N., R. 3 W (Figure 1).

Suntex Marinas, the project proponent and marina concessionaire, proposes to construct recreational infrastructure improvements in accordance with the Pleasure Cove Marina (PCM) concessionaire lease agreement guidelines. The project, referred to as Marina II, consists of land side and lake side improvements. Lake side project design elements follow the *Layout and Design Guidelines for Marina Berthing Facilities* (California Department of Boating and Waterways,).

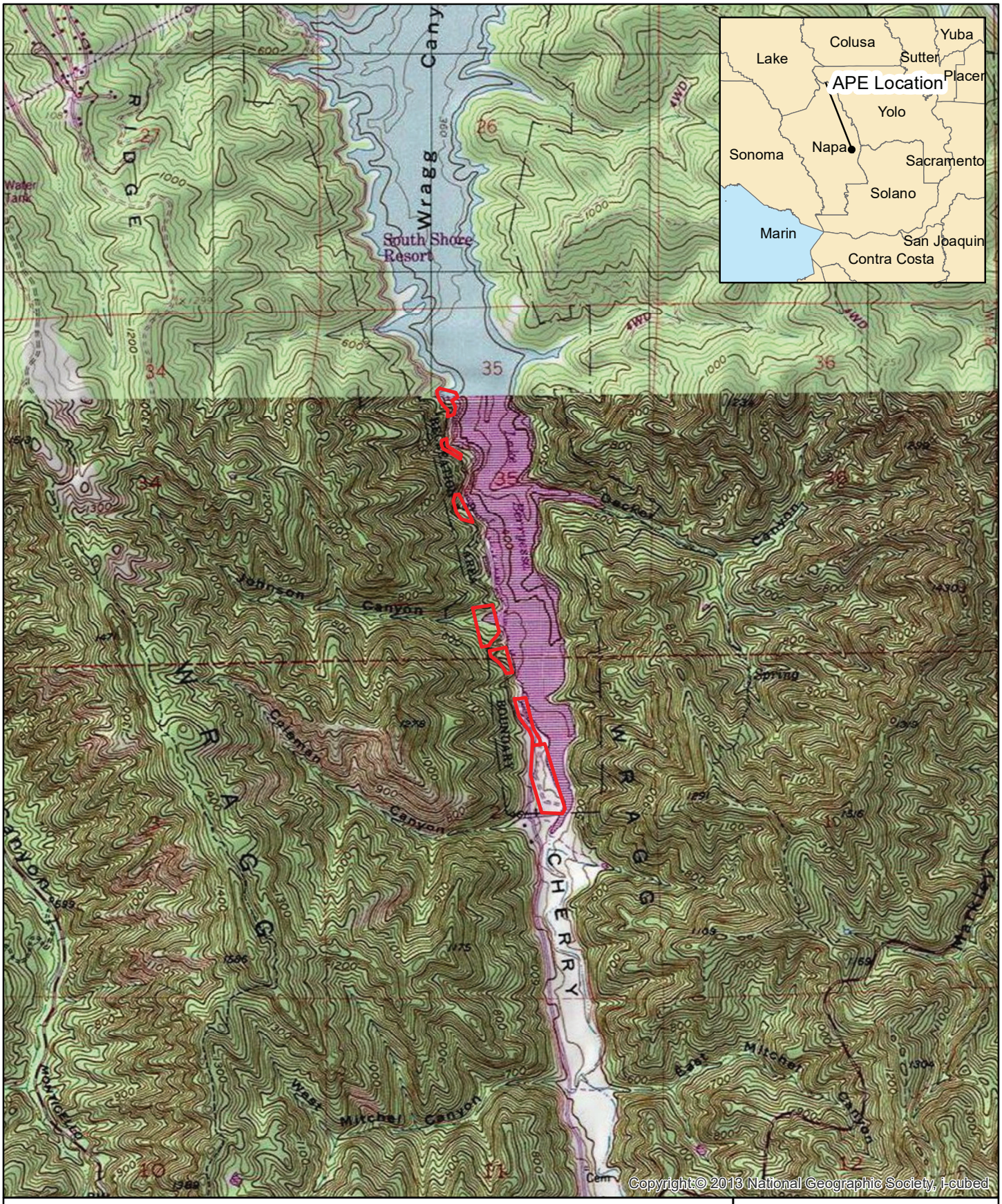
As shown on Figure 2, there are eight landside project areas and one lake side area within the PCM concession. The projects are related to improving visitor experiences at PCM. They are not necessarily physically connected because PCM has discrete improvement areas generally connected by an existing paved road. The eight individual project area locations were chosen based on available and suitable (flat or relatively flat) building space. The new lake side improvements - floating boat slips -are the exception since they are placed on the lake. However, the slips are connected to a new land side ramp which provides pedestrian access.

The project consists of nine elements and are shown on the attached exhibit. Each project element is numbered and corresponds to the narrative below:

1. Marina II Slips and Breakwater
   - 158 covered boat slips of varying sizes;
   - Dock A will have a floating deck attached to the end of it for slip customer use.
     - The proposed floating deck is connected to the proposed floating dock as part of the ramp to provide a transition between the landside ramp and the floating dock. The deck, which is about 15-feet by 20-feet (300 sq. ft.) would be connected to the floating dock.
   - The floating marina would have an affixed floating walkway, that would be capable of landing on the ground in the event of a low water event.
     - Floating docks are anchored on the lake bottom by means of 10,000-pound concrete block with an imbedded “u” shaped hook. It will require 8 to 10 anchors for the proposed floating dock and 4 to 6 more for the breakwater. The concrete block (anchor) is lowered into place and connected (tethered) through the “u” shaped hook to the floating structure. Each anchor has a footprint of about 36-inches x 36-inches, and if necessary, the anchors can be moved to another location or removed from the lake. This method is a standard anchoring system for floating docks and marinas and is used at marinas throughout Lake Berryessa.

- Stand-alone breakwater to reduce boat wakes and wind damage to vessels and marina.
    - The breakwater is a floating structure similar to the walkways on a floating dock. Its purpose is to reduce or dampen wakes created by boats and would provide some protection from wind-generated waves blowing into PCM. It is anchored to the lake bottom in the same manner as the floating docks.

2. Pedestrian Gangway Ramp
    - A pedestrian gangway ramp would be constructed from the parking area (4) to Dock A. The ramp would be about 400-feet in total length. The ramp would "zig-zag" down a steep slope to maintain an accessible slope angle. The ramp would be secured in the ground at key points to maintain stability. The lowest level would be attached to Dock A and allowed to float to adjust to rising or falling lake levels.
3. Turn Around
    - A paved vehicle turn around would be constructed on the west side of the existing paved road. The area is about 1,900 square feet of new pavement.
4. Parking Area
    - New paved parking for access to Marina II; 40 parking spacing, about 13,500 square feet.
5. Cabin Area #3
    - Construct three new Eco-tent cabins. Low impact tent cabins with unimproved parking for one vehicle at each site.
6. Parking Area #1
    - 90 to 100 parking spaces; about 20,000 square feet total in three parking area, some are paved, but will be reconstructed.
7. Cabin Area #2
    - 20 new Eco tent cabins in an area of about 4-acres. Includes improving a drainageway crossing.
8. Cabin Area #1
    - 5 Eco Tent cabins and 15 RV spaces with water and sewer hookup; about 1.25-acres
9. RV Area #1
    - 60 RV spaces with water and sewer hookup; about 5.5-acres.



APE

0 0.5 1 Kilometers

0 0.5 1 Miles

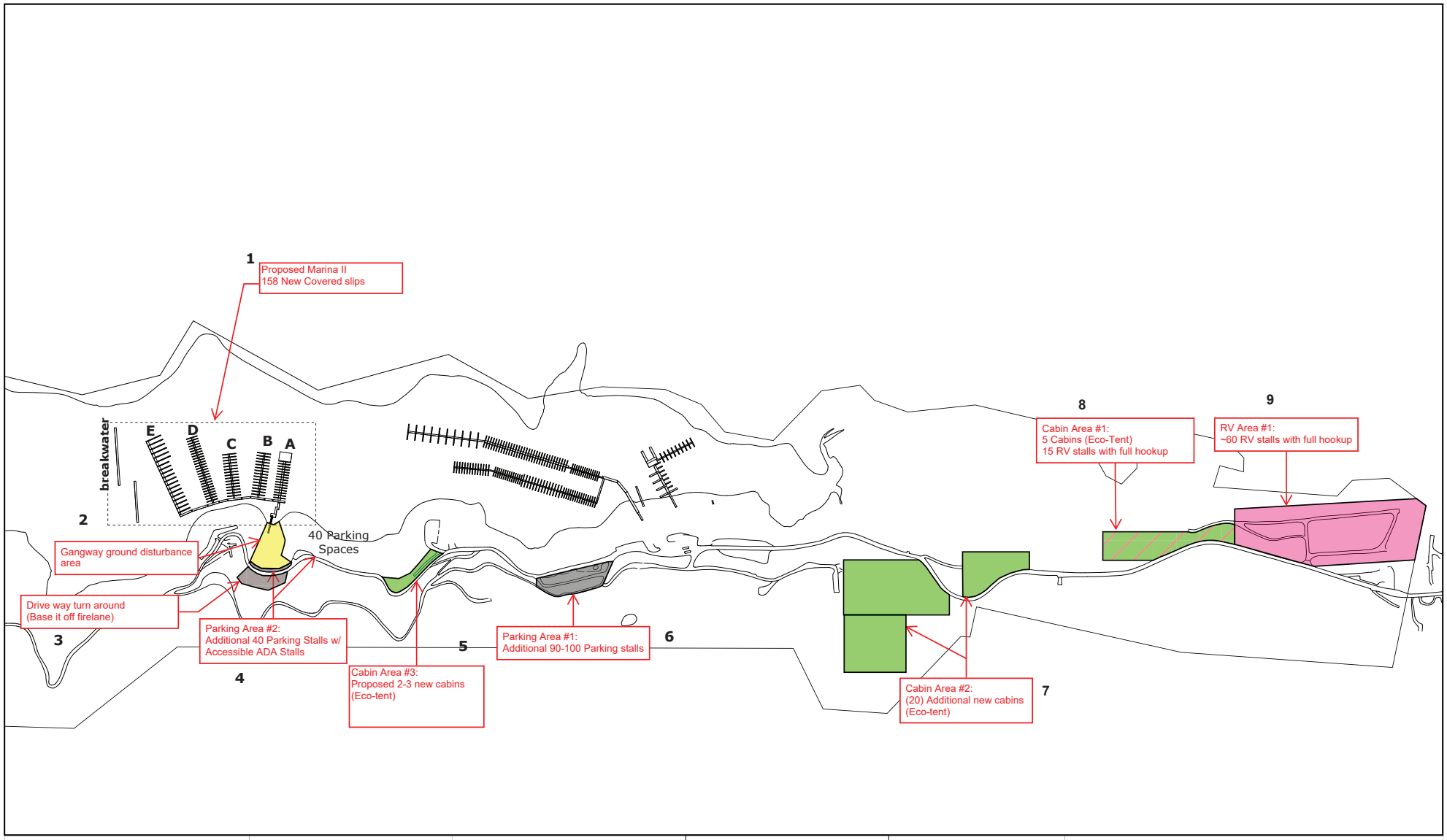
Map Date 9/13/2022

1:24,000

Pleasure Cove Marina
Figure 1 - APE Location

Natural Investigations Company

Capell Valley 1951 Quadrangle Photorevised 1968:Township 8N, Range 3W, Section 35 Township 7N Range 3W, Section 2
Lake Berryessa 1998 Quadrangle:Township 8N, Range 3W, Section 35



PCM_Phase 3_V1.1

SUNTEX MARINAS
YOUR PLACE IN THE SUN

Date: August 11, 2022	Modified:
Project: CapEx Dock Project	Modified:
Prepared For:	Modified:
	Modified:

David Collum
Sr. Project Engineer
(972) 822-5090
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Suntex Marinas
17330 Preston Rd. Suite 220 A
Dallas, TX 75252
972) 789-1400

Figure 2: Overview Map

AREA OF POTENTIAL EFFECTS

The APE is defined as the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE for the Project encompasses approximately 19-acres, and includes a gravel parking lot with a modular office building, a dock, small water craft storage, RV camping areas, rental cabins, a public pit toilet bathroom building, a single room gate house with tire spikes and a traffic control arm and other miscellaneous support structures and gravel/dirt parking lot areas/storage areas. (Figure 1). The vertical APE includes the maximum depth of anticipated ground-disturbance, which may be up to two feet below the surface for utility installation.

REGULATORY SETTING

"Cultural resources" is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. Title 54 U.S.C. 300101 et seq., formerly and commonly known as the National Historic Preservation Act (NHPA), is the primary legislation for Federal historic preservation. Section 106 of the NHPA (54 U.S.C. 306108) requires Federal agencies to take into consideration the effects of their undertakings on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment. Historic properties are those cultural resources that are listed on or eligible for inclusion in the National Register of Historic Places (National Register). The implementing regulations at 36 CFR Section 800 for Section 106 describe the process that the Federal agency takes to identify historic properties within the area of potential effects and to assess the effects that the Federal agency takes to identify historic properties within the area of potential effects and to assess the effects that the proposed undertaking would have on those historic properties, through consultations with the State Historic Preservation Officer (SHPO), Indian Tribes, and other identified consulting and interested parties.

National Register of Historic Places Criteria

The National Register criteria for evaluation of eligibility for listing on the National Register of Historic Places are outlined at 36 CFR Part 60.4. A district, site, building, structure, or object must generally be at least 50 years old to be eligible for consideration as a historic property. That district, site, building, structure, or object must retain integrity of location, design, setting, materials, workmanship, feelings, and association as well as meet one of the following criteria to demonstrate its significance in American history, architecture, archeology, engineering, and culture. A district, site, building, structure, or object must:

(A) be associated with events that have made a significant contribution to the broad patterns of history; or

(B) be associated with the lives of people significant in our past; or

(C) embody the distinct characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) have yielded, or may be likely to yield, information important in prehistory or history.

A site must have integrity and meet one of the four criteria of eligibility to demonstrate its historic associations in order to convey its significance. A property must be associated with one or more events important in the history or prehistory in order to be considered for listing under Criterion A. Additionally, the specific association of the property, itself, must also be considered significant. Criterion B applies to properties associated with individuals whose specific contributions to the history can be identified and documented. Properties significant for their physical design or construction under Criterion C must have features with characteristics that exemplify such elements as architecture, landscape architecture, engineering, and artwork. Criterion D most commonly applies to properties that have the potential to answer, in whole or in part, important research questions about human history that can only be answered

by the actual physical materials of cultural resources. A property eligible under Criterion D must demonstrate the potential to contain information relevant to the prehistory and history of the Putah Creek region and/or Napa County (National Register Bulletin 15).

A district, site, building, structure, or object may also be eligible for consideration as a historic property if that property meets the Criteria Considerations for properties generally less than 50 years old, in addition to possessing integrity and meeting the criteria for evaluation.

Criteria of Adverse Effects

The NHPA Section 106 regulations state that if there are historic properties in the APE that may be affected by a federal undertaking, the agency official shall assess adverse effects, if any, in accordance with the Criteria of Adverse Effects defined in 36 CFR Part 800.5. These regulations state an "adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association." Application of the Criteria of Adverse Effects assesses how an undertaking will affect those features of a historic property that contribute to its eligibility for listing in the National Register. Effects can be direct, indirect, and cumulative. Direct effects include physical destruction or damage. Indirect effects include the introduction of visual, auditory, or vibration impacts as well as neglect to a historic property, and cumulative effects are the impacts of this project taken into account with known past or present projects as well as foreseeable future projects.

REPORT PREPARATION

Cindy Arrington, MS was the Principal Investigator for this cultural resources inventory and authored this report. Ms. Arrington is a Registered Professional Archaeologist (RPA) with more than 27 years of experience in California archaeology and exceeds all requirements of the *Secretary of the Interior's Qualification Standard*s (36 CFR Part 61; National Park Service 1983). Dylan Stapleton, MA, RPA, performed the pedestrian survey for the Project and drafted the field portion of this report. Mr. Stapleton is cross-trained in paleontology and has more than 12 years of experience in California archaeology. He meets the same qualification standards as Ms. Arrington. The format of this report follows the Archaeological Resource Management Reports: Recommended Contents and Format prepared by the Office of Historic Preservation (1990).

ENVIRONMENTAL SETTING

GEOLOGY, HYDROLOGY, AND SOILS

The Project is located at an elevation of roughly between 450 and 510 feet above mean sea level (msl) in the Coast Ranges geomorphic province (CGS 2002; USGS 2019). Northwestern California has been shaped by the forces of plate tectonics. Until plate tectonics were discovered in the 1970s, the varied assemblages of rock types in the Coast Range was a puzzle to geologists but it has now been recognized that the rocks are remnants of vast areas of the sea floor and fragments of the continental margin (Harden 1998). This complex conglomeration was broadly categorized as the Franciscan formation but several distinct terrains are now recognized. It appears that Franciscan rocks represent not one but several, accreted terrains. These separate Franciscan blocks represent the remnants of several oceanic plates that subducted beneath the edge of the North American Plate. So far, at least nine different blocks or terrains have been identified (Harden 1998). During the Jurassic Period, the west coast of North America was shaped much differently than today. The ocean shoreline was further east, at what are now the foothills of the Sierra Nevada. The boundary between the North American Plate and the other plates to the west is called the Coast Range Fault. To the west of this fault is a group of rock formations called the Franciscan Complex. To the east of the fault are the Coast Range Ophiolite and Great Valley Group.

With the collision of the North American, Farallon-Pacific Plates (both westerly moving plates), differences

in the rates and directions of plate motion gave rise to a transform plate boundary. The development of the transform boundary between the North America and Pacific plate initiated the San Andreas fault system. The passage of the leading edge of the San Andreas Fault had a profound effect on the geology of the northwest California area. First, with the cessation of subduction, the Coast Ranges began to rise. Accompanying the uplift of the mountains was the general spreading and tearing apart of basins in the landscape, creating structural basins. Second, the creation of volcanic fields tied into the northern progression of the leading edge of the San Andreas Fault. The Northern Coast Ranges consist of two main parallel belts of mountains, the Outer Northern Coast Ranges lying along the coast, and the Inner Northern Coast Ranges running inland to the east. They are separated by a long system of valleys. The northern valley portion is drained by the Eel River and its tributaries, and the southern by the Russian River. A series of short rivers, including the Mattole, Gualala, and Navarro rivers, drain the western slopes of the ranges. The eastern slopes of the ranges drain into the Sacramento Valley (Norris and Webb 1990; Palmer 2012).

Review of recent geologic mapping published by the California Geological Survey (CGS; Wiegers et al. 2007; Jennings et al. 2010) indicates that the APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) sandstone and shale of the Great Valley Sequence (Kjgv). These basement rocks consist of sandstone, siltstone and shale with thick beds of pebble to cobble conglomerate. Clasts in the conglomerate are metavolcanic rocks, black chert, and minor granitic rocks. The unit contains Late Jurassic to Early Cretaceous molluscan fossils west of the Maacama Fault, while east of the Maacama Fault the strata have also yielded Early Cretaceous (Hauterivian-Barremian) invertebrate fossils (Blake et al.). Recent geoarchaeological analysis of the nine Bay Area counties, including Napa, finds that due to the age of the underlying pre-Holocene (>11,800 years) landform, the potential for buried archaeological deposits in the Project vicinity is very low (Meyer and Rosenthal 2007, Figures 6 and 7).

The APE is located in Wragg Canyon on the south side of Lake Berryessa within the Putah Creek Watershed. The watershed encompasses portions of the four counties of Napa, Lake, Solano, and Yolo, draining a total area of 433 square miles. Putah Creek begins in Lake County, and empties into the Sacramento River.

It is the principal stream of the watershed, with all other creeks being direct or indirect tributaries of it. The Putah Creek Watershed is bounded by Howell Mountain and Atlas Peak to the west and the Blue Ridge and Vaca Mountains to the east. Lake Berryessa is the dominant feature in the watershed and was formed when Monticello Dam was built on Putah Creek in 1957. Major land uses in the watershed are recreation and rangeland (Palmer 2012).

The Soil Survey Geographic Database (SSURGO) maintained by the United States Department of Agriculture (USDA) and National Resource Conservation Service (NRCS) indicates that the APE is underlain by soils of the Perkins Series. Perkins Series soils consist of very deep, well drained loam formed in alluvium from mixed rock sources. They occur on terraces with slopes of 0 to 30 percent. Typical A-horizons extend from 0 to 5 inches below the surface and range in color from brown (7.5YR 5/4) to dark brown (7.5YR 3/4). B-horizons are deep, extending from 5 to 66 inches below the surface. They range in color more broadly from strong brown (7.5YR 5/6) or dark brown (7.5YR 3/4), to reddish brown (5YR 4/4) or yellowish red (5YR 5/6) at deeper levels. Parent material is reached from 66 to 72 inches below the surface and consists of yellowish red (5YR 4/6) to dark reddish brown (5YR 3/4) cobbly loam. Perkins Series soils are used for growing field crops, citrus, olives, pasture, small grain, hay, as well as home site development. Adjacent to lakes they are used for recreation. They have been dated to the Early Pleistocene (1.9 million to 25,000 years ago; Meyer et al. 2011; USDA-NRCS 2018).

CURRENT LAND USES

The Project vicinity is used primarily for recreation, both in water (boating) and camping, while surrounding areas are used for growing field crops, citrus, olives, pasture, small grain, hay, as well as for home site development. The APE is located in Pleasure Cove, part of Wragg Canyon on the south shore of Lake Berryessa, approximately 12.5 miles northwest of Vacaville. It is bounded by Lake Berryessa to the north and east, Coleman Canyon Creek to the south, and portions of Wragg Canyon Road to the west.

CLIMATE, FLORA, AND FAUNA

The Project vicinity is typically Mediterranean, characterized by warm, dry summers and cool, wet winters. The majority of the rainfall occurs between December and March, and decreases from north to south. Winter temperatures average between 49 and 53 degrees Fahrenheit, while summer temperatures range from 58 to 64 degrees Fahrenheit. The climate is modified greatly by marine influence, with summer fog occurring in some areas. Average total mean annual precipitation is 10 inches (NCEI 2021).

A thorough survey of the flora and fauna of the prehistoric Bay Area is offered by Lightfoot and Parrish (2009). In the bay and coastal marine environments seaweed (*Porphyra spp.*) was used to produce salt and also made-up part of the indigenous diet of itself. An impressive variety of herbaceous plants were utilized for diverse purposes. Native tribes used dogbane (*Apocynum cannabinum*) for rigging, and rushes (*Juncus spp*.) for fashioning baskets, aprons, and structure coverings. Tule (*Schoenoplectus acutus*) was gathered to produce a wide range of crafts such as basketry and balsas. Local mule ears (*Wyethia* spp.) and strawberries (*Fragaria spp*.) were eaten by many Bay Area tribes, while mariposa lilies (*Calochortus* spp.), peppergrasses (*Lepidium* spp.), chia (*Salvia columbariae*), and onions (*Alliums* spp.) were consumed in the Bay region by the Ohlone exclusively. Some tribes also used irises (*Iris* spp.) to form bolas for hunting, while others used them along with yerba buena (*Satureja douglasii*) for tea. Camasses (*Camassia* spp.) was put to medicinal use to treat minor injuries.

An abundance of native trees and shrubs facilitated indigenous life, California hazel (*Corylus cornuta var. californica*) and Buckeye (*Aesculus californica*), huckleberries (*Vaccinium* spp.) and elderberries (*Sambucus* spp.) all contributing to a robust Bay Area diet. A medicinal tea was produced from alders (*Alnus* spp.) and a pain-relieving dressing was made from the California bay laurel (*Umbellularia californica*). Local tribes exploited the laurel differently, consuming laurel nuts and fashioning clappers from its bark. Tea was made from wormwood (*Artemisia* spp.) leaves which also offered medicinal benefits. Coast redwood (*Sequoia sempervirens*) formed structural components at indigenous sites and manzanitas

(*Arctostaphylos* spp.) were used to manufacture arrowheads. Oak was utilized for their acorns which were a primary food source, and as a dye base and as wood for drums. Foothill pine (*Pinus sabiniana*) nuts were used as an analogous food source (Lightfoot and Parrish 2009).

Olympia oyster (*Ostrea lurida*) was a dietary staple of many Bay Area tribes, and with the changing Bay environment was later largely substituted by California mussel (*Mytilus californianus*) and clams (*Macoma* spp.). Bat rays (Myliobatis californica) were eaten as well, while their barbs may have also served as instrumentation for tattooing (Spillane 2005). Pacific lamprey (*Lampetra tridentate*) was fished and incorporated as a primary ingredient in stew, and salmon (*Oncorhynchus* spp.) along with sturgeon (*Acipenser*) were fished as well. Cormorants (*Phalacrocorax* spp.), ducks and geese (family *Anatidae*), as well as gulls (*Larus* spp.) were all used for meat and eggs, while terrestrial fowl like the golden eagle (*Aquila chrysaetos*) were used for ornamental feathering, and hummingbirds (*Trochilidae*) were mythologized in folk tradition. Stranded grey whales (*Eschrichtius robustus*) were eaten when opportunity allowed and Pacific harbor seals (*Phoca vitulina richardsi*) were regularly hunted, along with Columbian black-tailed deer (*Odocoileus hemionus columbianus*), hare (*Leporidae*), and other species (Lightfoot and Parrish 2009).

As Michael Moratto puts it, "in sum, the environment of the Bay region must have been nearly ideal from the Indian perspective. Local topography presented no barriers to overland travel and few places unsuited for habitation, and there was an abundance of game, fowl, fish, shellfish, vegetal foods, and lithic materials of value to the domestic economy and for trade" (Moratto 2004:223).

POTENTIAL FOR BURIED ARCHAEOLOGICAL DEPOSITS

Recent geoarchaeological analysis of the nine Bay Area counties, including Napa County, finds that due to the age of the underlying landform, the potential for buried archaeological deposits in the Project vicinity

is very low (Meyer and Rosenthal 2007, Figures 6 and 7). As noted above, the APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) sandstone and shale of the Great Valley Sequence (Kjgv), with soils of the Perkins Series formed on their surface. Perkins soils have been dated to the Early Pleistocene (1.9 million to 25,000 years ago; Meyer et al. 2011).

Because these materials formed thousands of years or more before the first human occupation of the area, they are very unlikely to contain or to have buried archaeological resources. The CHRIS records search shows no prehistoric culture resources within 0.5 miles of the APE. While the SLF search was positive for tribal resources, this is likely due to the general sensitivity of the Lake Berryessa area. Additionally, modern ground-disturbances related to the construction of Wragg Canyon Road, the existing gate house, and related marina facilities reduce this potential even further, as they overlap the proposed disturbance footprint of the present Project. Finally, no evidence of subsurface archaeological remains was found in areas of exposed ground surface during the field survey conducted as part of this inventory, despite high ground visibility across much of the APE.

Based on these site-specific variables – age of the landform underlying the APE, extent of prior disturbance, and the negative results of the field survey for evidence of subgrade cultural remains – the potential for discovery of intact archaeological deposits, including buried archaeological deposits, materials, or features, by implementation of the Project is estimated to be very low.

CULTURAL SETTING

PREHISTORIC OVERVIEW

During the first half of the 20th century an assumption prevailed, in large part due to the views of local authority Alfred Kroeber at the University of California Berkeley, that little or no significant cultural change was evident in the material remains left by prehistoric Bay Area populations (Breschini 1983).

This assumption would be challenged by more careful artifact analysis beginning in the 1930's and the establishment of broad chronological sequences revealing the patterns of cultural transformation and development. Several sequences of this kind would come to structure our understanding of Bay Area prehistory- prominent among them are the Central California Taxonomic System, the Fredrickson Periodization Model, and the taxonomies forwarded by T.F. King and P.P. Hickman. Together these give temporal, cultural, and geographic order to data amassed over decades of ethnographic and archaeological research.

Taxonomies in the San Francisco Bay Area

Central California Taxonomic System (CCTS)

The CCTS was developed by the Department of Anthropology at Sacramento Junior College based on early excavations carried out in the Central California Delta region. It breaks up indigenous prehistory into three taxonomic phases, the *Early*, *Middle*, and *Late Horizons* (Lillard et al. 1939). The main material evidence to support the taxonomy came from human burials excavated in the Sacramento Valley. The Early Horizon is characterized by an elaborate ritualization of the burial process, which involved the incorporation of large quantities of grave goods such as charmstones and quartz crystals, lithic tools and bone implements, ochre deposits and other ceremonial artifacts. Olivella and Haliotis shell beads were common and settlement patterns tended to be farther away from water sources than during later phases of indigenous occupation.

The Middle (originally Transitional) Horizon demonstrates less concern with the ceremonialization of human burial as is evidenced by a reduction in quantity of grave goods and the irregular orientation of persons buried. The habit of cremation emerges during this phase and a number of distinctive artifacts types are for the first time in use- mammal bone whistles, various earplugs and pendants, charmstones in a unique fishtail style and Olivella beads with attributes distinguishable from earlier types. The Late Horizon shows a preoccupation with domestic crafts and a refinement of obsidian points, which become significantly

smaller in size. Settlements move closer to water sources and midden at these locations becomes darker. Beads and other ornamentation are further refined, with the charmstone being supplanted by the stone discoidal. Clay objects are increasingly common and some ritualization of human burial is reintroduced (Breschini 1983).

A major weakness of the CCTS as it was applied during much of the 20th century was that it assessed cultures by the degree to which they conformed to patterns of a small number of social hubs, or "climaxes," and in particular, to the patterns common to the Lower Sacramento Valley region. This diffusionist tendency came at the expense of the recognition that Bay Area cultures may represent a largely independent development. Proponents of the CCTS instead insist that the Bay and other divergent cultures simply failed to advance along the lines of the dominant tradition (Breschini 1983). This tendency was corrected to some degree when archaeological data from the Bay Area was integrated into the system by Richard K. Beardsley of UC Berkeley in the mid-1950's (Beardsley 1954). It would not be until the 1970's however that the limitations inherent in the system would be systematically addressed.

Fredrickson's Periodization Model

Fredrickson's Periodization Model introduced a more descriptive chronology divided into four temporal periods, the *Early Lithic* (before 10,000 BC), *Paleo-Indian* (10,000 - 6000 BC), *Archaic* (6000 BC – AD 500), and *Emergent* (AD 500 – 1800). The Paleo-Indian Period is the first to be sufficiently defined and is marked by the earliest material evidence available of human occupation in California, short-term settlement patterns, and the absence of either developed milling technologies or elaborate mechanisms of exchange. The following period is divided into the Lower, Middle, and Upper Archaic, the Lower being earliest in time (6000 – 3000 BC) and witnessing the introduction of milling technology, continued geographic mobility and only limited sedentism, as well as an exchange economy similar to that of the preceding period (Fredrickson 1974).

The Middle Archaic (3000 – 550 BC) sees a further development of milling technology with the introduction of the mortar and pestle, greater sedentism, a more diversified economy, and the possible entry of a distinct tribal group. The Upper Archaic (1000 BC – AD 500) is distinguished by significant cultural complexity, both in terms of its social economy and religious traditions. Status distinctions are evident, shell beads come into prominence, and more elaborate forms of social exchange become the norm. Small villages sites are established and sophisticated adaptations to a sedentary culture is now in evidence (Fredrickson 1974).

The Emergent Period is divided in two, Lower (AD 500 – 1500) and Upper (AD 1500 – 1800), the former seeing the bow and arrow introduced as the primary hunting weapon and the establishment of local tribal territories and large village sites administered by tribal leaders; and the latter seeing the introduction of clam disk currency and the specialized production of goods, as well as the expansion of trade ranges (Fredrickson 1974).

Table 1. Cultural Periods for the San Francisco Bay Area

Period	Regional Pattern	Dates*
Early Lithic	Undefined	before 10,000 BC
Paleoindian	Undefined	10,000 – 6,000 cal BC
Lower Archaic	Lower Berkeley Pattern, Blood Alley (CA-SCL-64)	6,000 – 3,000 cal BC
Middle Archaic	Upper Berkeley Pattern, University Village (CA-SMA-77)	3,000 – 550 cal BC
Upper Archaic	Ellis Landing Aspect/ Berkeley Aspect	550 cal BC – cal AD 1000
Emergent Period	Emeryville Aspect	cal AD 1000 – Historic Contact

** Timeframes are adjusted for modern calibration curves for radiocarbon dates (cal=calibrated).*

Fredrickson's Model also reached beyond this four-part chronology, standardizing the use of several terms which demarcated cultural and spatial units. While some were adaptations of terminology already in use, others were introduced to the field by Fredrickson for the first time. Among the terms widely adopted are *pattern*, *phase*, and *aspect*, on the one hand, which are descriptive of cultural phenomena, and *locality*, *district*, and *region*, on the other, which denote geographic boundaries. Of the cultural units defined, the pattern is the broadest, representing a generalized constellation of cultural adaptations to the challenges of a given environment. The pattern is not temporally exclusive per se, but could be shared by groups separated by time or tribal affiliation if each is subject to the same environmental pressures. The aspect along with the phase can be understood as regional inflections of a cultural pattern, the latter being the smallest cultural unit, restricted to a particular time and space; the former, broader, not necessarily restricted to either. The locality is a geographic space which maps the extent of particular cultural phenomena, its boundaries being readjusted as new material evidence of their presence becomes available (Fredrickson 1973; Fredrickson 1974). Taken together these terms facilitate the recognition of parallel cultural development in the Sacramento Valley, the Bay Area, and elsewhere, while refining explanations of cultural diffusion. It separates the categories of time, culture, and space so that greater detail in the analysis of archaeological data becomes possible.

Increasing Complexity Model

The Increasing Complexity Model of King and Hickman identifies a general cultural progression toward sedentism once a stable resource base is located and social cooperation becomes sufficient to allow inter-village exchange. From sedentism it predicts population growth relative to the yield of the resource base and consequent territorial expansion or tribal fracturing which forces settlement in less desirable environments. New environmental stresses then lead either to conflict and competition from which develops social stratification and hierarchical organization; or to an elaboration of inter-village systems of resource exchange. In either case greater cultural complexity results. As adaptability to environmental pressure increases and the mechanisms of trade become more intricate, sedentism on land naturally ill-suited or less suited to human occupation becomes possible. The territory shared by cooperative groups expands and the resources exploited by the whole becomes increasingly diversified (Hickman and King 1973).

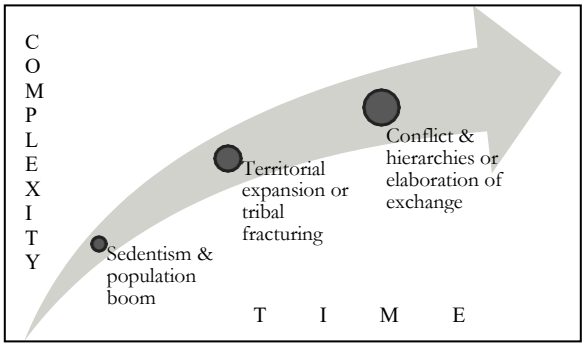


Figure 3. The Increasing Complexity Model of Kind and Hickman

Northward Movement Model

At root, this model theorizes that significant northward transmission of cultural traits occurred from centers in Southern California to the San Francisco Bay and Sacramento Delta regions. It divides this process into three temporal/cultural/geographic phases. First of all is the *Millingstone Horizon* (5000 – 2000 BC) which originates on the Southern California coast and is characterized by milling technologies which are adaptable to and present in the archaeological record of coastal sites in the north. The model forwards the explanation that population growth led to tribal fracturing and northward migration, settlement, and finally, to repetition. Three classes of settlement are distinguished- *pioneering*, *established*, and *overpopulated*. It is presumed that as further archaeological work is conducted a pattern of contemporaneity will emerge between pioneering sites in the north, and established ones to the south, and so on, so that analysis of the

temporal/spatial relationships between sites will provide a method to test the model (Hickman and King 1973).

The Middle Horizon (2000 BC – AD 500) is characterized by the growth of populations and the spread of ideas, more expansive trade networks and burgeoning regional specializations, increased social complexity and occasional inter-tribal conflict. As populations grew and fracturing occurred, northward moving pioneers would have come upon established village sites to face either conflict or inland paths of less resistance. When these paths to uninhabited interior lands were taken, new inland cultures developed. Distinctions between inland and coastal tribes would then arise, opening the door to ever diversified systems of resource exchange (Hickman and King 1973).

The Protohistoric Horizon (AD 500 – 1600) is ushered in with the institution of a clam disc based economy. A decline in the prominence of certain resources suggests a disintegration of intertribal organization and the ascendance of a more egalitarian social structure. The Northward Movement Model can be tested at sites of this period against evidence of more or less social stratification and uniformity of custom across tribal divides (Hickman and King 1973).

Radiocarbon Dating Schemes

Since the 1950's four schemes for temporal control of prehistoric sites in the Bay Area have been compiled using radiocarbon dates taken from shell beads. Distinguished as Schemes A-D (Milliken et al. 2007), each of the four collections of temporal data links cultural patterns to specific units in time. Scheme D, the most recent to be introduced, is based on dates taken from over one-hundred *Olivella* beads and has refined our temporal placement of major patterns considerably.

Early Investigations in the San Francisco Bay Area

The earliest serious study in the Bay Area was undertaken by Max Uhle in 1902 at the Emeryville Shellmound site of CA-ALA-309. We now know that evidence of cultural development in mortuary and other practices was identified during the excavation though at the time interpretation along these lines was little emphasized. The mound was enormous measuring 100 x 300 meters across, and nearly 10 meters deep and was divided by Uhle into two, multi-layered components. The investigation identified a number of trends seen elsewhere in the Bay Area- shifts in consumption patterns over time, changes in mortuary practice, as well as in resource exploitation and tool production. Later radiocarbon dated to 2310 ± 220 year BP, the Emeryville Shellmound well represents the Lower Emergent cultural sequence in the San Francisco Bay Area (Stewart 2003; Moratto 2004).

Nels Nelson undertook to survey a huge number of shellmounds and other archaeological sites around the Bay Area between 1906 and 1908, identifying over 400 distinct properties. He discovered important parallels in the material culture of East Bay settlements like the Emeryville Shellmound and ones situated along the western bayshores and Pacific coast (Nelson 1909). He was, as Michael Moratto notes, "the first to recognize the Bay Area as a discrete archaeological entity" (Moratto 2004). This allowed indigenous prehistory in the Bay region to be assessed not by the degree to which it conformed to major patterns elsewhere in California, but in terms of its own unique developments. In 1910 he directed excavations at the Bayshore Shellmound, CA-SFR-7, located in southeastern San Francisco where Candlestick Park would eventually be constructed. There he recovered 23 human burials and about 60 associated artifacts. About one quarter of the burials were accompanied by grave goods, withthe highest percentage of artifacts being associated with a single middle-aged male, possibly a shaman or other high-status tribal member. Recent dates from the site indicate occupation between AD 300 and 1300, associating it with the Upper Archaic and Lower Emergent Periods (Rudo 1982; Stewart 2003). A small metal crucifix was also found at the site, which may have been occupied or reoccupied by a group of *Awaswas* Ohlone during the Protohistoric Period as well (Kelly 1976).

Investigations in Napa County

The prehistory of Napa County is characterized by the Houx and Augustine Patterns (periods of expansion of tribal lands beginning approximately 2,500 years ago). Among the first people to document the prehistoric archaeological sites of Napa County was Nels Nelson in the first decade of the 20th century. Nelson noted that the shellmounds of Napa County often contained large concentrations of ash and earth, suggesting a broad subsistence base which was distinct from the shellmounds in the East Bay and on the coast where shellfish remains were predominant (Nelson 1909).

The first focused archaeological research in the area was undertaken in the 1930s and '40s by students of the University of California, Berkeley (UCB). Large habitation sites in Napa County were identified during extensive overview surveys like Nelson's and these were some of the first to be investigated by UCB archaeologists. Among the sites that they excavated are the Goddard site (CA-NAP-1), the Suscol Creek site (CA-NAP-16), the Las Trancas site (CA-NAP-14), the Tulukai site (CA-NAP-39), the Hultman site (CA-NAP-131), and the Merriam site (CA-NAP-129; Heizer 1953).

Field study of CA-NAP-1 located on the eastern bank of the Napa River near Oakville found that the most recent levels of the site contained soft ashy midden and several cremations with associated grave goods. Older components contained painted stone slabs, several burials, and a variety of obsidian artifacts. Artifact analysis indicates that the site was inhabited for 2,500 years, from the Middle Period (500 BC to AC 700) until the Late Period (AD 700 to Contact; Stewart 1981).

CA-NAP-16 along Suscol Creek in southern Napa County was excavated in 1945. It was found to contain human interments at all levels, a wide range of shellfish remains, obsidian projectiles, *Olivella* shell beads, charmstones, numerous bone tools such as serrated deer scapulae, and stone mortars. Cremations were also identified, and along with data collected from burials and midden content, indicate occupation of the site primarily in the Late Period (AD 1000 to Contact; Stewart 1981). Excavations at CA-NAP-14 two years later found that the site was constituted of dark ashy midden with sparsely distributed artifacts, including a relatively small number of obsidian flakes and mammal bone tools. A fixed bowl mortar, two burials, one cremation, and associated grave goods were also recovered (Stewart 1981).

More recent studies conducted in Napa County have been completed to meet regulatory compliance requirements in association with various development projects These efforts have generally been more focused and less extensive than earlier investigations and thus have contributed more specialized forms of information. For example, limited subsurface investigation at the burial site, CA-NAP-916, in the lower Napa Valley revealed that it was likely a special use or temporary encampment. Obsidian flakes were the most common artifact type present at the site, along with fire-cracked rocks, which suggests short-term occupation for the primary purpose of tool production. Among the other artifacts and ecofacts identified at the site are charcoal, baked clay, imported cobbles, and the remains of carbonized seeds. The site was determined eligible for listing in the NRHP under Criterion D for its potential to yield important information on the prehistory of the Napa Valley region (Martin and Meyer 2005).

Archaeology of Berryessa Valley

Past archaeological research finds that prehistoric settlements frequently occur along the stream valleys of the Napa region (Heizer 1953). A large percentage of artifact recoveries in the Berryessa Valley have been found along ridges, hills, and saddles between knolls (Holm et al. 2012). A Smithsonian Institution backed survey conducted in 1947 prior to the construction of Monticello Dam led to the discovery of about 50 archaeological sites in the valley. Among the sites identified were prehistoric mounds, middens, lithic scatters, and potential habitation sites. Early excavations were conducted at a number of them, including CA-NAP-52, -74, -75, -85, -93, and -113. Follow the construction of the dam in 1957 the valley floor was inundated and most of these sites were submerged (Holm et al. 2012).

Later surveys were carried out during periods of drought in the 1970s and 80s, and led to the identification of hundreds of artifacts in areas where lower water levels exposed formerly habitable land surfaces. Widely

dispersed artifacts at one site location were interpreted as indicative of a northern extension of the Milling Stone Horizon, while large quantities of milling stones and cobble scraping tools that appear to have been produced, used, and discarded all in the same place were interpreted as suggestive of an early Borax Lake pattern, or alternatively, an upland extension of either the Hultman Phase or the subsequent Bale Phase. Surveys with negative findings have been conducted along the western bank of Lake Berryessa. More recent surveys by the BOR have led to the identification of two previously unknown lithic scatters (ESB-02 and ESB-05) and three isolated prehistoric artifacts (ESB-01, ESB-02, and ESB-03; Holm et al. 2012).

ETHNOGRAPHIC OVERVIEW

The Project is located within the ethnographic territory of the Patwin tribe (Johnson 1978). The Patwin occupied lands in the southern portion of the Sacramento River Valley to the west of the Sacramento River, from the town of Princeton southward to San Pablo and Suisun Bays. The Patwin spoke a distinct dialect of Wintuan known as Southern Wintuan which belongs the Penutian language family (Merriam 1966; Johnson 1978).

Low natural rises along streams and rivers were the preferred location for Patwin villages, which typically had bedrock mortars, dance houses, sweathouses, and acorn granaries, and many had cemeteries. Typical communities included a central village with several smaller satellite villages. Groups constructed temporary brush shelters while hunting or gathering seasonal plant resources, frequently at higher elevations.

Among the major villages established and occupied by the Patwin at the time of European contact were *Aguasto*, *Bo´-do*, *Chemocu*, *Churup*, *Dok´–dok*, *Gapa*, *Imil*, *Katsil*, *Kisi*, *Koh´pah de´-he*, *Koru*, and *Kusêmpu*, (Johnson 1978). The Patwin usually buried their dead, though cremation was common in instances when a tribal member died away from the village (Kroeber 1925; Johnson 1978).

Natural resources were abundant in the area but varied seasonally, so the subsistence economy of the Patwin tribe was based on a combination of fishing, hunting, and the collection of plant foods. Like most native Californian groups, they relied heavily on the acorn, and used a wide variety of tools, implements and enclosures to collect and process food resources. These included bows and arrows, traps, harpoons, hooks, nets, portable stone mortars, bedrock mortars and pestles, various woven tools, and canoes made of tule balsa or logs. The Patwin also traded with neighboring groups for shell ornaments, monetary beads, steatite, and obsidian (Johnson 1978).

Europeans arrived in Patwin territory relatively late in the colonial history of North America. Though their first contact with Northern California Native peoples probably occurred as early as 1579 (Sir Francis Drake's expedition), there are no published accounts of European contact with the tribe until 1832-33 when a party of American trappers working for the Hudson's Bay Company passed through the area. This delay of European intrusions into Patwin lands is unique for California's contact period considering that Spanish missions were established around San Francisco Bay and up to the Sonoma Valley in the late 1700's and early 1800's. Historical records are clear that contact with the Spanish occurred in 1841 when Salvador Vallejo sent men into the area to round up Indians to work on his Sonoma Valley Ranch. Patwin groups are also known to have been forcibly taken by the Spanish to Mission Dolores in San Francisco (Johnson 1978).

The remote nature of much of Patwin lands served to buffer local populations from many of the disrupting activities that were taking place elsewhere in California during its early history. Most written accounts indicate that traditional life continued for many Patwin groups until the 1870's. However, gradually from the mid-19th century, enslavement and mistreatment by Spanish soldiers and missionaries, Mexican land barons, European settlers, and gold diggers, combined with a lack of natural immunity to European diseases, decimated approximately 75% of the Patwin population, wiping out entire villages and forcing the survivors to retreat into the hills (Cook 1976a).

By the mid-1850s, American pioneers and families were making their homes where the tribe had been well-established for millennia. The new settlers planted orchards and tended cattle ranches and farms. Mines

yielded quicksilver, gold, and borax. Privately owned toll roads were dug through valleys and into the mountains, bringing more people, who built stores, banks, churches, saloons, and other businesses, forming dozens of new communities. Today, Wintun descendants, including the Patwin, as well as the Nomlaki and Wintu proper, total about 2,500 people and three federally recognized Patwin rancherías remain (SDSU 2010).

HISTORIC OVERVIEW

California History

Post-contact California history is divided into three distinct periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the first significant settlement in California was established by the Spanish at San Diego in 1769. Between 1769 and 1823, 21 missions were built by the Spanish and the Franciscan Order along the coast between San Diego and San Francisco. The Spanish expeditions into the Central Valley in 1806 and 1808 led by Lieutenant Gabriel Moraga explored along the main rivers, including the American, Calaveras, Cosumnes, Feather, Merced, Mokelumne, Sacramento, San Joaquin, and Stanislaus. Moraga is said to have named the lower Sacramento River and the valley region "Sacramento" ("the Holy Sacrament"; Hoover et al. 2002).

In 1813, Moraga led another expedition in the lower portion of the Central Valley and gave the San Joaquin River its name (Hoover et al. 2002). The abundance of wildlife, such as waterfowl, fish, and fur-bearing animals, within or along the banks of the rivers attracted immigrants to this region. The last Spanish expedition into California's interior was led by Luis Arguello in 1817. He and his men traveled up the Sacramento River, past the future site of the City of Sacramento to the mouth of the Feather River, before returning to the coast (Beck and Haase 1974:18, 20; Gunsky 1989:3–4).

The first American trapper to enter California was Jedediah Smith, who explored along the Sierra Nevada in 1826 and in 1827, entering the Sacramento Valley and traveling along the American and Cosumnes Rivers. In 1827, Smith also traveled through the San Joaquin Valley. Other trappers soon followed, including employees of the Hudson's Bay Company in 1832 (Hoover et al. 1966). Between 1830 and 1833, and again in 1837, diseases were introduced by the non-indigenous explorers, trappers, and settlers. These along with relocation to the missions, military raids, and settlement by non-native groups, decimated native Californian populations, communities, and tribes in the Sacramento and San Joaquin valleys (Cook 1976a; 1976b).

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican–American War (1846–1848) and incorporated California as a territory of the United States. Gold was discovered at John Sutter's Mill on the American River in Coloma the same year, and by 1849, nearly 90,000 people had journeyed to the gold fields to share in the riches. In 1850, largely as a result of the Gold Rush, California became the thirty-first state. Four years later, the bustling boomtown of Sacramento became the state capital. In contrast to the economic boom and population growth that enabled statehood, the loss of land and territory (including traditional hunting and gathering locales), malnutrition, starvation, and violence contributed to the further decline of indigenous Californians from the Northern California coast to the Sierra Nevada foothills (Chartkoff and Chartkoff 1984; Gunsky 1989).

Napa County History

Napa County was one of the original 27 counties created at the time of California's incorporation into the Union in 1850. The City of Napa was designated the county seat 1850 and remains so today. The first known European explorers in the upper Napa Valley where Don Francisco Castro and Franciscan Friar Jose Altimira, who traveled through the area in 1823 in search of a suitable site for a new mission. They explored present-day Petaluma, Sonoma, and Napa before eventually settling on Sonoma as the new mission site (Hoover et al. 2002).

Among the earliest settlers in Napa County was Joseph Ballinger Chiles who made several journeys through the Sierra Nevada in the 1840s and 1850s. In 1844 Governor Manuel Micheltorena granted Chiles the 8,546-acre Rancho Catacula located in Chiles Valley, west of Lake Berryessa and Cedar Roughs. Two years after acquiring the property, Chiles constructed an adobe house and established a farm to raise Missouri mules and Durham cattle. He built one of the first gristmills in California on the land the same year. The mill operated for more than 30 years, producing nine barrels of flour per day to meet the demand of miners and other early settlers during the Gold Rush. Chiles diversified his business ventures by also producing whiskey until the late 1870s under the Catacula label. Appropriately, Chiles also served as a vice president of the Society of California Pioneers (Jones & Stokes 2005).

The prime farmlands of Napa County were recognized from its earliest history, and its historical and modern winemakers have become world renowned. European settles planted some of the first vineyards in the county using cuttings provided by Catholic priests from Sonoma and San Rafael. Riesling cuttings were introduced to the Napa Valley in 1861. Within a decade of the earliest winemaking ventures, the industry grew considerably. In the 1870s the number of active wineries between Calistoga and Oakville doubled from 15 to 30. Originally attracted to the area to help build the Napa Valley Railroad, many former Chinese and other railroad workers remained in Napa to work in viticulture, meeting the demand for farm labor and facilitating continued growth of the local wine business (Jones & Stokes 2005). Overproduction of wine, its diminishing quality due to disease and other factors, and excessive taxation threatened to destroy the industry by the 1880s. The replacement of infected vines with superior European varietals and relocation of many vineyards onto hills less susceptible to frost served to avert the crisis, and introduced new wine products to the region, including cabernet sauvignon, cabernet franc, and merlot. By 1888, Napa County produced 17 million gallons of wine per year, as much as the entire nation imported from other countries. The San Francisco earthquake in 1906 and the Prohibition introduced by the 18th Amendment in 1920 caused additional disruptions of the wine industry, but it has solidly rebounded since the 1950s, constituting a $9.5 billion dollar industry by 2005. Reports indicate that sales have been declining about one percent per year since 2017 however, a shift attributed once again to oversupply, as well as to the challenges of marketing fine wines to millennials (Jones & Stokes 2005; Garoogian 2013; Klearman 2020).

A prominent feature of Napa County is Lake Berryessa which was created by the construction of the Monticello Dam as part of the larger Solano Project. The lake was named after the first European settlers to the area, José Jesús and Sexto "Sisto" Berrelleza- *Berryessa* being an Anglicized version of the surname, *Berrelleza*. Construction of the dam led to the inundation of a number of historical Spanish adobes and the stage-stop town of Monticello which was founded in the Berryessa Valley by Ezra Peacock in 1867. Forty-eight of the 53 known indigenous archaeological sites in the area were inundated as a result of the project as well. The town of Monticello was abandoned in anticipation of the start of dam construction in 1953. The construction project was completed in 1957 and by 1963 the Lake Berryessa reservoir was filled, then constituting the second largest reservoir in California. Despite ardent protests from the roughly 250 Monticello residents, their homes were destroyed, the town cemetery was relocated, and the fertile agricultural lands worked from the time Ezra Peacock founded the community in 1867 and earlier were lost. A primary aim of the dam and reservoir construction project was to provide drinking water to the steadily rising population of neighboring Solano County (Redmond 2000).

Area of Potential Effects History

A review of USGS Mineral Resource Data System records shows no historical mines operating within one mile of the APE. The Built Environment Resources Directory (BERD) indicates that the Pleasure Cove Resort has been determined ineligible for listing in the NRHP by consensus through the Section 106 process (OHP 2022). No properties near the Project Area have been listed in the California Inventory of Historic Resources (DPR 1976).

The 1859 Bureau of Land Management (BLM) General Land Office (GLO) land plat map shows the APE to be undeveloped except for a road from Berryessa to Suisun, known today as Wragg Canyon Road. The ~~road continued northward to a ranch property and beyond along the western bank of Putah Creek (GLO~~

1859). Historical sources indicate that this road was the first long distance mail route through Napa County, extending from San Francisco via Suisun to Lower Lake (Bowen 2017). It also appears to have been used by early Spanish-speaking explorers, and was eventually named in honor of them, though the historical association is not obvious today. A 19th century resident named Frank (Jay Franklin) Owen describes the mail service and the history of the old road in a manuscript archived at the Napa County Historical Society:

> The mail was conveyed weekly on a tiny side-wheel steamer operated by Captain Jeremiah Wing. The mail was picked up at the Embarcadero at Suisun [Solano County] and carried in summer on a two-horse buckboard, in winter on horseback. The route was across the present site of Lake Curry, through Gordon Rancho and up Gordon Valley to the head of Cherry Valley – then called Rag [Wragg] Canyon because of the shreds of clothing left on the chaparral by the first explorers. The road continued on the west side of Putah Creek, to the Haines Ranch crossing at a point about halfway from the "Big Rock" at the mouth of Capell Creek .
>
> Monticello consisted of a few dwellings and a hotel-store. This was the overnight stopping place for the mail the first day.
>
> The route continued along the general lines of the present highway through Berryessa Valley to the Adams Ranch on Etiquerra Creek.
>
> From this point to its headwaters at Knoxville, the traveler crossed Etiquerra Creek 35 times in 10 miles. During occasional floods the carrier lay over either at Adams' or at Sulphur Springs Hotel. The next day he went seven miles to the present site of Knoxville, where the road ended and a carrier from Lower Lake met him, taking over and exchanging mails. In winter the Suisun carrier returned to Sulphur Springs [Zem Zem] at night, in summer continued on to Monticello. In 1867 a road was built connecting Berryessa with Napa, and the Suisun-Lake mail was transferred to Napa City, the Lake County mail was then routed through Calistoga (Owen , n.d.).

The GLO land plat of 1884 shows that the alternative Berryessa toll road was constructed by that time (GLO 1884), though earlier sources indicate that is was completed already by 1873 at a cost of $6,000 to local property owners (Menefee 1873; Bowen 2017). Prior to that time, Wragg Canyon Road was the primary route, not only for mail, but also for the rich agricultural produce grown in the Berryessa Valley, which reached the Sacramento market from the road via Gordon and Green Valleys (Menefee 1873). The 1876 Official Map of Napa County map shows that the APE is on property owned by J&S Coleman, though the land appears to be entirely vacant except for the road. Just west is property owned by A.P. Coleman (Lyman et al. 1876). The Coleman's retain the property at least until 1895 (Buckman 1895).

A review of later historical aerials and topographic maps shows that the APE has been subject to some subsequent development. The 1902 USGS Napa 30-minute quadrangle shows Wragg Canyon Road in place through the APE, with a small number of structures present along it, including one roughly 0.15 miles south of the APE. Additional ranches and residences line the roads in neighboring Steel Canyon and Capel Valley (USGS 1902). The 1951 USGS Mt. Vaca 7.5-minute topographic quadrangle shows that the APE has been scrubbed of vegetation and graded, and fencing is in place to delineate the property to the north. A small number of additional ranches are constructed in the surrounding area (USGS 1951). The 1959 version of the map shows that Lake Berryessa is filled by that time and Capell Valley Road/State Route 128 is constructed. No further development is shown on later topographic maps.

Historical aerial photographs show the ranch building and ancillary structure in place south of the APE by 1948, though the APE itself is entirely vacant, again, with the exception of the road. By 1968 the original Pleasure Cove Resort is constructed, with campsites delineated and trails leading to them. Two large structures are built on the south end of the facility, and the entire property is cleared of vegetation. Additional structures are in place by 1982, and vegetation is reintroduced. Between 1993 and 2002, the structure immediately north of the APE is constructed. By 2009 the two large buildings on the south end of the resort are removed. No further development of the APE is noted on later aerial photographs (NETR 2021).

RESEARCH METHODS AND FINDINGS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

A California Historical Resources Information System (CHRIS) records search was conducted by the Northwest Information Center (NWIC) on the campus of Sonoma State University to determine whether prehistoric or historic cultural resources have been previously recorded within the APE, the extent to which the APE has been previously surveyed, and the number and type of known cultural resources within a 0.5-mile radius of the Project limits. The results of the CHRIS search were returned on October 5, 2022. The archival search (No.: 22-0445) of the archaeological and historical records, national and state databases, and historic maps included the following sources:

- National Register of Historic Places: listed properties
- California Register of Historical Resources: listed resources
- Historic Property Data File for Napa County
- Archaeological Determinations of Eligibility
- California Inventory of Historical Resources
- California Historical Landmarks
- California Points of Historical Interest
- Historical GLO land plat maps
- Built Environment Resources Directory

Previous Studies

The CHRIS records search indicates that five prior cultural resource studies have been completed which included portions of the APE and within the 0.5-mile record search radius. The previous cultural resource studies conducted within 0.5 miles of the APE were completed between 2003 and 2013 (Table 2).

Table 2. Previous Studies within 0.5-Mile Radius of Area of Potential Effects

NWIC Report No. S-	Study	Author and Year	Proximity to APE
12735	Archaeological Surveys at Lake Berryessa, Napa County, California: South Shores	True and Baumhoff 2005	Within
35191	Cultural Resource Inspection of Proposed Mobile Home Removal at Lake Berryessa, Napa County, California, Project No.: 07-CCAO-214	Nickels 2007	Within
35199	Cultural Resources Report, Installation of Deadman Anchors at Lake Berryessa, Pleasure Cove Marina, Napa County, California Project No.: 06-CCAO-147	Leigh and Nickels 2006	Within
38405	Cultural Resources Investigation for a Well Installation Project at Pleasure Cove Marina, Lake Berryessa, Napa County, California	Barnes 2010	Within
46790	Cultural Resources Inventory for the Pleasure Cove, Putah Canyon, Spanish Flat, Monticello Shores, Berryessa Point, and Markley Cove Concession Sites, Lake Berryessa, Napa County, California	Holson and Ledebuhr 2013	Within

Previously Recorded Resources

The CHRIS search also indicates that no cultural resources of any kind have been previously recorded within the APE; however, two cultural resources (P-000103 and P-000104) or the 0.5-mile record search radius (Table 3).

Table 3. Previous Resources within 0.5-Mile Radius of Area of Potential Effects		
Primary No. (P-28-)	**Description**	**Author and Year**
000103	Prehistoric lithic scatter and habitation debris (Flooded by reservoir)	Smith and King 1947
000104	Prehistoric habitation debris (Flooded by reservoir)	Smith and King 1947

OTHER SOURCES

Natural Investigations staff reviewed the additional historical maps and aerial photographs listed below. The results of our review of these sources are incorporated in the APE History section above.

- USGS Napa 30-minute topographic quadrangle of 1902
- USGS Capay 15-minute topographic quadrangles of 1924, 1943, and 1945
- USGS Mt. Vaca 15-minute topographic quadrangles of 1921, 1942, and 1951
- USGS Mt. Vaca 7.5-minute topographic quadrangles of 1951, 2012, 2015, 2018, and 2021
- USGS Capell Valley 7.5-minute topographic quadrangles of 1951, 2012, 2015, 2018, and 2021
- USGS Monicello Dam 7.5-minute topographic quadrangles of 1959, 2012, 2015, and 2018
- General Land Office (GLO) Maps of T 7N, R 3W for 1858, 1877, 1884, 1936, 1978
- Aerial photographs of 1948, 1968, 1982, 1993, 2002, 2005, 2009, 2010, 2012, 2014, and 2016

SACRED LANDS FILE SEARCH

Natural Investigations contacted the Native American Heritage Commission (NAHC) requesting a search of their SLF for traditional cultural resources within or near the APE on September 13, 2022. The results of the search returned by the NAHC on November 6, 2022 were *positive* for Native American cultural resources in the Project vicinity. Past archaeological studies indicate that roughly 50 prehistoric archaeological sites were identified in the Berryessa Valley in the 1940s and were subsequently submerged with the construction of the Monticello Dam. It seems likely that the SLF search returned positive results because of the general archaeological sensitivity of the Berryessa Valley as discovered before its inundation. The NAHC provided a list of eleven tribal individuals and organizations affiliated with the APE and recommended that they be contacted for more information on the potential for indigenous recourses in the vicinity.

Natural Investigations sent Project information letters to each of the tribes listed by the NAHC on November 7, 2022 requesting additional information on the potential for tribal resources in the area. If no response was received, follow-up phone calls were made on November 21, 2022. To date, one response has been received:

- Ms. Yvonne Perkins, Tribal Historic Preservation Officer and Cultural Resources Chairman of the Yocha Dehe Wintun Nation, responded via letter and email on December 5, 2022, stating that the APE is within the aboriginal territory of the tribe. She requested information on the present cultural resources study, and detailed Project information, including plans. She additionally requested formal consultation with the lead agency to evaluate the potential for the Project to impact tribal resources.

Additional information on outreach efforts undertaken in support of the Project is included in Appendix A of this report.

PALEONTOLOGICAL RECORDS SEARCH AND SENSITIVITY

Natural Investigations conducted a search of the paleontological records maintained by the University of California Museum of Paleontology (UCMP) on November 7, 2022. The UCMP database indicates that 143 fossil localities have been recorded within Napa County (UCMP 2022). Of these, only two localities are known to contain vertebrate fossil remains. The first is the *Scott Ranch* locality which is contained within the Tehama Formation. It yielded a single tooth from a Blancan-aged (4.8 to 1.8 million years ago) mammal from the extinct family of proboscideans known as Mammutidae which includes mastodons.

The second is the *Ritchie Creek* locality which is contained within Sonoma volcanic rocks. The locality produced two fossils from an extinct Blancan-aged horse (*Equus* sp.). The fossil specimens included a metapodial and tooth. All of the other known localities in the UCMP database for Napa County contain only invertebrate, plant, and microfossil remains (UCMP 2022).

Paleontological resources occur in geologic units (e.g., formations or members). The probability of finding significant fossils at a given location can be estimated based on previous records of fossils recovered from

the geologic units present in and/or adjacent to it. The geological setting and the number of known fossil localities help to estimate a location's paleontological sensitivity.

As noted above, the treatment of paleontological resources on non-federal lands usually follows the SVP *Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Non-renewable Paleontological Resources guidance from the Society for Vertebrate Paleontology* (2010). Treatment typically consists of identification, assessment, and mitigation for potential impacts to significant paleontological resources.

The SVP defines four levels of paleontological sensitivity: *High*, *Low*, *Undetermined*, and *No Potential*. High Potential geologic units are those from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered. These are regarded as having high potential to contain additional significant paleontological resources. Low Potential geologic units are those that are poorly represented by fossil specimens in institutional collections, or that are known to preserve fossils only in rare circumstances. Undetermined Potential geologic units are those for which little or no information is available concerning their paleontological content, geologic age, and depositional history. No Potential geologic units such as high-grade metamorphic rocks (e.g., gneisses and schists) and plutonic igneous rocks (e.g. granites and diorites) are those that would not preserve fossil resources under any circumstances (SVP 2010).

The APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) sandstone and shale of the Great Valley Sequence (Kjgv). These basement rocks consist of sandstone, siltstone and shale with thick beds of pebble to cobble conglomerate. The unit contains Late Jurassic to Early Cretaceous molluscan fossils west of the Maacama Fault, while east of the Maacama Fault the strata have yielded Early Cretaceous (Hauterivian-Barremian) invertebrate fossils (Blake et al.). Among the localities within the Great Valley Sequence which have produced invertebrate fossils are the *Napa County* and *Zim Zim Creek* localities. However, no vertebrate or other significant fossils are on record for rocks of the Great Valley Sequence in Napa County (UCMP 2022).

No significant fossil-bearing strata or paleontological sites have been mapped within the APE. Two sites in Napa County, the Blancan-aged Ritchie Creek and Scott Ranch localities, have yielded significant vertebrate fossils, but they were recovered from geologic units that are nearly 100 million years younger than the Late Jurassic to Early Cretaceous-aged rocks underlying the APE. Additionally, these units have not been mapped in the vicinity of the Project. For these reasons, the paleontological resource sensitivity of the APE is estimated to be low based on SVP criteria.

FIELD METHODS AND FINDINGS

METHODS

Natural Investigation received a formal fieldwork authorization letter (22-CCAO-213) from the BOR on September 29, 2022. The letter granted permission to conduct survey and resource recording in support of the Project and is provided as Appendix B of this report. All fieldwork was conducted in conformance with the stipulations outlined in that document. The intensive pedestrian survey of the approximately 19-acre APE was conducted by Natural Investigations archaeologist, Dylan Stapleton, on November 1, 2022. All portions of the APE were surveyed intensively using transects spaced no greater than 15 meters apart.

During the survey, all visible ground surfaces were carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), historic-era debris (e.g., metal, glass, ceramics), and paleontological resources (unique geologic features, fossil-bearing strata, or paleontological sites). Ground disturbances (e.g., animal burrows, dirt roads, etc.) were also visually inspected.

A digital camera was used to take photographs of the APE, a Munsell® Soil Color Chart used to record soil color, and a handheld BE-3300-GPS global positioning system (GPS) unit with sub-meter accuracy was used to record locational data.

FINDINGS

No new prehistoric sites, features or ethnographic sites were recorded during the survey. One historic-era resource was recorded (NIC-2022-Cove-01) on California Department of Parks and Recreation (DPR) 523 Series forms and is provided as Appendix C of this report. No indication of subsurface archaeological remains was noted in areas of exposed ground surface, and no paleontological resources of any kind were observed.

The APE is within a canyon environment and is situated in a coastal foothill setting. The APE is located at the Pleasure Cove Marina in Wragg Canyon on the south side of Lake Berryessa, Napa County. It was accessed from Wragg Canyon Road via State Route 128. It is bordered by Lake Berryessa to the north and east, Coleman Canyon Creek to the south, and Wragg Canyon Road to the west. The environment is characterized by oak woodland vegetation, including Oleander bushes, annual grasses, and forbs. The APE is located within a small marina adjacent to Lake Berryessa. The marina consists of a gravel parking lot with a modular office building, a dock, small water craft storage, RV camping areas, rental cabins, a public pit toilet bathroom building, a single room gate house with tire spikes and a traffic control arm and other miscellaneous support structures and gravel/dirt parking lot areas/storage areas. Wragg Canyon Road, a 23-foot wide, paved asphalt road, runs north-south through the APE and serves as the primary access road into and through the marina

Visibility at the time of survey varied from excellent (75-100%) within the gravel roads and picnic areas and campgrounds present within the APE and poor (1-25%) due to tall brush along the undeveloped portions (Photographs 1-10). Slope within the APE was low at 2%. Soils on the property were a Munsell dark brown (7.5YR 3/4) moist loam with occasional subrounded pebbles, consistent with the Perkins series. The Perkins series consists of very deep, well drained soils that formed in alluvium derived from mixed rock sources. Perkins soils are on terraces and have slopes of 0 to 30 percent.

The built environment, including the cabins (established in 2007), roads, concrete block restroom (established in 2019), module office building (established in 2007) and all other built environment features, has been determined ineligible for listing in the NRHP by consensus through the Section 106 process (OHP 2022).



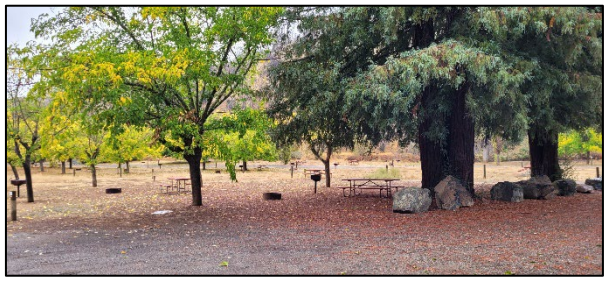
Photograph 1. Overview of southern APE. View northwest.



Photograph 2. Overview of southern APE. View north.



Photograph 3. Overview of storage area in southern APE. View southeast.



Photograph 4. Overview of day use area in southern APE. View northeast.



Photograph 5. Overview of undeveloped area in southern APE. View southeast.



Photograph 6. Overview of existing campground area. View west.



Photograph 7. Overview of existing campground area. View west.



Photograph 8. Overview of undeveloped area in northern APE. View north.



Photograph 9. Overview of cabins scheduled to be relocated. View south.



Photograph 10. Overview of existing RV/mobile home residential area in northern APE. View west.

CULTURAL RESOURCES IDENTIFIED IN STUDY AREA

NEW RESOURCES IN APE

NIC-2022-COVE-01

This resource is a system of unnamed two track gravel roads that serves as access to the hillside to the west of Wagg Canyon Road and the various campgrounds to the east of Wagg Canyon Road within the Pleasure Cove Marina that was previously determine not eligible for the NRHP (Photographs 11-13). Due to the nature of the APE, the system is recorded here as discontinuous portions of a single system. The segments recorded are approximately 150 feet (northern segment) and 2,573 feet (southern segment) in length and approximately 12-19 feet in width. The road system first appears on the 1968 historic aerial of the area. It is bounded by Wagg Canyon Road to the east and the walls of Wragg Canyon to the west.



Photograph 41. Overview of one of the two track roads along the western hills of the marina. View north.



Photograph 12. Overview of one of the two track access roads in the southern campground area. View north.



Photograph 13. Overview of one of the two track access roads in the southern campground area. View north

The resource is recommended not eligible for listing in the NRHP, and does not appear to constitute a historic property as defined under NHPA Section 300308. These types of dirt two track roads are ubiquitous throughout the region and site NIC-2022-COVE-01 is part of a road system connecting facilities in the Pleasure Cove Marina that was previously determined not eligible for the NRHP. Background research finds no evidence that the site is associated with any events (Criterion A) or people (Criterion B) significant in local, regional, or national history. Nor does it reflect the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possesses high artistic values (Criterion C). In order for a resource of this kind to be found significant under NRHP Criterion D, it needs to be, or to have been, the principal source of information. The site is of a type that is ubiquitous throughout the Vaca mountains. For these reasons, the site does not offer any research potential and any information related to the site appears to be captured in its formal recording.

CONCLUSIONS AND RECOMMENDATIONS

CULTURAL RESOURCES

One historic-era two-track (NIC-2022-Cove-01) was identified and recorded during the field survey. It does not appear to retain sufficient integrity to convey its significance due to the inundation of the Berryessa Valley. The data potential of the site appears to be captured in its formal recording. The resource is recommended not eligible for listing in the NRHP.

The SLF search was positive for Native American resources in the vicinity of the APE so an effort was made to reach the tribes included on the list provided by the NAHC. One response to outreach efforts was received from the Yocha Dehe Wintun Nation. The tribe requested Project-specific information and formal consultation with the lead agency. Coordination with the tribe is ongoing to ensure that their concerns are addressed.

Geoarchaeological analysis finds that due to the age of the underlying landform, the potential for buried archaeological deposits in the Project vicinity is very low. The APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) rocks (Kjgv) with Early Pleistocene-aged (1.9 million to 25,000 years ago) soils of the Perkins Series formed at their surface. These materials formed thousands of years or more before the first human occupation of the area. Additionally, modern ground-disturbances from historical grading, roadway improvements, and the construction of the original Pleasure Cove Resort facilities, reduce this possibility even further. For these reasons, the potential for discovery of intact archaeological deposits, including buried archaeological deposits, materials, or features, by implementation of the Project is estimated to be very low, and no further cultural resources work is recommended at this time.

In the event that a cultural resource is inadvertently discovered during Project activities, work must be halted within 30 feet of the find and a qualified archaeologist (36 CFR Part 61) notified immediately so that its potential significance can be assessed. Construction activities may continue in other areas, but may not resume in the area of the find until the BOR provides written permission. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the BOR, affiliated tribal organizations, and any other relevant regulatory agencies or invested parties, as appropriate.

Although unlikely, the discovery of human remains is always a possibility. Under the Native American Graves Protection and Repatriation Act (NAGPRA; 25 USC 3001) and implementing regulations 43 CFR Part 10, BOR is responsible for the protection of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony that are discovered on BOR lands. All human remains and potential human remains must be treated with respect and dignity at all times. In the event that suspected human remains are discovered during proposed project activity on BOR land, all activities in the immediate

area will cease, and appropriate precautions will be taken to protect the remains and any associated cultural items from further disturbance.

BOR will follow the procedures outlined in 43 CFR § 10.4 Inadvertent Discoveries. The BOR Region 10 Regional Environmental Officer (Anastasia Leigh, 916-978-5568) will be immediately notified by telephone and will take responsibly for the discovery by contacting the appropriate law enforcement and BOR officials. Within three (3) working days of confirmation of the discovery [see 43 CFR Part 10.4(d)(1)(iii)], the Regional Cultural Resources Officer (Scott Williams, 916-978-5042) will ensure that Indian tribes likely to be affiliated with the discovered human remains (e.g., lineal descendant, culturally affiliated Indian tribe, Indian tribe with other cultural relationship, and Indian tribe that aboriginally occupied area) are notified by telephone or in person, with written confirmation. Treatment and handling of the remains will be determined through consultation between BOR and consulting tribes.

PALEONTOLOGICAL RESOURCES

The APE is underlain by Late Jurassic to Early Cretaceous-aged (163 to 100 million years ago) sandstone and shale of the Great Valley Sequence (Kjgv). These basement rocks consist of sandstone, siltstone and shale with thick beds of pebble to cobble conglomerate. Clasts in the conglomerate are metavolcanic rocks, black chert, and minor granitic rocks. The unit contains Late Jurassic to Early Cretaceous molluscan fossils west of the Maacama Fault, while east of the Maacama Fault the strata have yielded Early Cretaceous (Hauterivian-Barremian) invertebrate fossils (Blake et al.). Among the localities within the Great Valley Sequence which have produced invertebrate fossils are the *Napa County* and *Zim Zim Creek* localities. However, no vertebrate or significant invertebrate fossils are on record for rocks of the Great Valley Sequence in Napa County (UCMP 2022).

No unique geologic features, fossil-bearing strata, or paleontological sites have been mapped within the APE. Two sites in Napa County, the Blancan-aged Ritchie Creek and Scott Ranch localities, have yielded significant vertebrate fossils, but they were recovered from geologic units that are nearly 100 million years younger than the Late Jurassic to Early Cretaceous-aged rocks underlying the APE. Additionally, these units have not been mapped in the vicinity of the Project. Finally, no paleontological resources of any kind were observed during the field survey. For these reasons, the paleontological resource sensitivity of the APE is estimated to be low based on SVP criteria (2010) and no further paleontological resources work is recommended at this time.

In the event that a paleontological resource is inadvertently discovered during Project-related work, regardless of the depth of work or location, work must be halted within 30 feet of the find and a qualified paleontologist (SVP 2010) notified immediately so that an assessment of its potential significance can be undertaken. If the find is determined to be significant, it should be salvaged following the standards of the SVP (2010) and curated at a certified repository such as the UCMP

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APPENDIX A:
Sacred Lands File Search Results

NATIVE AMERICAN HERITAGE COMMISSION

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NAHC HEADQUARTERS
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nahc@nahc.ca.gov
NAHC.ca.gov

November 6, 2022

Cindy Arrington
Natural Investigations Company

Via Email to: ***cindy@naturalinvestigations.com***

Re: Pleasure Cove Marina - Project 1169, Napa County

Dear Ms. Arrington:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Mishewal-Wappo Tribe of Alexander Valley on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Napa County
11/6/2022

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Clifford Mota, Tribal Preservation Liaison
3730 Highway 45 — Wintun
Colusa, CA, 95932
Phone: (530) 458 - 8231
cmota@colusa-nsn.gov

Cachil Dehe Band of Wintun Indians of the Colusa Indian Community
Daniel Gomez, Chairman
3730 Highway 45 — Wintun
Colusa, CA, 95932
Phone: (530) 458 - 8231
dgomez@colusa-nsn.gov

Cortina Rancheria - Kletsel Dehe Band of Wintun Indians
Charlie Wright, Chairperson
P.O. Box 1630 — Wintun
Williams, CA, 95987
Phone: (530) 473 - 3274
Fax: (530) 473-3301

Guidiville Indian Rancheria
Donald Duncan, Chairperson
P.O. Box 339 — Pomo
Talmage, CA, 95481
Phone: (707) 462 - 3682
Fax: (707) 462-9183
admin@guidiville.net

Middletown Rancheria of Pomo Indians
Jose Simon, Chairperson
P.O. Box 1035 — Lake Miwok
Middletown, CA, 95461 — Pomo
Phone: (707) 987 - 3670
Fax: (707) 987-9091
sshope@middletownrancheria.com

Middletown Rancheria
Sally Peterson, THPO
P.O. Box 1658 — Lake Miwok
Middletown, CA, 95461 — Pomo
Phone: (707) 987 - 3670
THPO@middletownrancheria.com

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor, CA, 95492
Phone: (707) 494 - 9159
scottg@mishewalwappotribe.com

Pinoleville Pomo Nation
Erica Carson, Tribal Historic Preservation Officer
500 B Pinoleville Drive — Pomo
Ukiah, CA, 95482
Phone: (707) 463 - 1454
Fax: (707) 463-6601

Pinoleville Pomo Nation
Leona Willams, Chairperson
500 B Pinoleville Drive — Pomo
Ukiah, CA, 95482
Phone: (707) 463 - 1454
Fax: (707) 463-6601

Yocha Dehe Wintun Nation
Anthony Roberts, Chairperson
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov

Yocha Dehe Wintun Nation
Laverne Bill, Director of Cultural Resources
P.O. Box 18 — Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Pleasure Cove Marina - Project 1169, Napa County.

Yocha Dehe Wintun Nation
Yvonne Perkins, THPO, Cultural Resources Chairman
P.O. Box 18 Patwin
Brooks, CA, 95606
Phone: (530) 796 - 3400
thpo@yochadehe-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Pleasure Cove Marina - Project 1169, Napa County.

Natural Investigations Company

November 7, 2022

PROJECT INFORMATION AND COMMENT REQUEST LETTER

TO: Daniel Gomez, Chairman, Cachil Dehe Band of Wintun Indians of the Colusa Indian Community;
Clifford Mota, Tribal Preservation Liaison, Cachil Dehe Band of Wintun Indians of Colusa;
Charlie Wright, Chairperson, Cortina Rancheria – Kletsel Dehe Band of Wintun Indians;
Sally Peterson, THPO, Middletown Rancheria;
Jose Simon, Chairperson, Middletown Rancheria of Pomo Indians;
Scott Gabaldon, Chairperson, Mishewal-Wappo Tribe of Alexander Valley;
Erica Carson, Tribal Historic Preservation Officer, Pinoleville Pomo Nation;
Leona Williams, Chairperson, Pinoleville Pomo Nation;
Anthony Roberts, Chairperson, Yocha Dehe Wintun Nation;
Donald Duncan, Chairperson, Guidiville Indian Rancheria;
Yvonne Perkins, THPO, Cultural Resources Chairman, Yocha Dehe Wintun Nation;
Laverne Bill, Director of Cultural Resources, Yocha Dehe Wintun Nation.

EMAIL: Cindy@naturalinvestigations.com

PHONE: (916) 765-9381

PROPOSED PROJECT: Pleasure Cove Marina Entrance Improvements Project, Lake Berryessa, Napa County, California

USGS QUAD: Capell Valley & Lake Berryessa Quadrangles: Section 2, 35 of Township 7 & 8 north, Range 3 west.

ACREAGE: 18.86

Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resources services in support of the Pleasure Cove Marina Improvements Project (Project) at Lake Berryessa in Napa County, California. The Area of Potential Effects (APE) can be found on the United States Geological Survey (USGS) Capell Valley and Lake Berryessa topographic quadrangles, as indicated above (Figure 1).

Project Description

Pleasure Cove Marina (Suntex) proposes to construct recreational infrastructure improvements in accordance with the concessionaire lease agreement guidelines. The project, referred to as Marina II, consists of the addition of 150 boat slips, subsequent required vehicle parking and landside improvements. There are 6 landside project areas along Pleasure Cove Marina (PCM) and one lakeside area within the Suntex concession.

Sacred Lands File Search

The Native American Heritage Commission (NAHC) returned the results of a Sacred Lands File search conducted for the Project stating that records were *positive* for the presence of Native American cultural resources in the APE. The NAHC recommended that we contact you for additional information on the potential for Native American cultural resources in the vicinity of the Project.

CHRIS File Search

The CHRIS search reported no previous cultural resources are recorded within the APE; however, two previously identified prehistoric resources recorded in 1947 are within a 0.50-mile radius and were flooded by creation of the reservoir. Four previous studies cover the entire APE with an additional two studies within a 0.50-mile radius.

We would greatly appreciate any comments that you may have on potential cultural resources in the area and invite you to raise any other concerns relating to the Project should you have them. All information provided regarding specific sites or Native American cultural resources will remain confidential. Please feel free to contact me by phone or email. We would greatly appreciate a response at your earliest convenience.

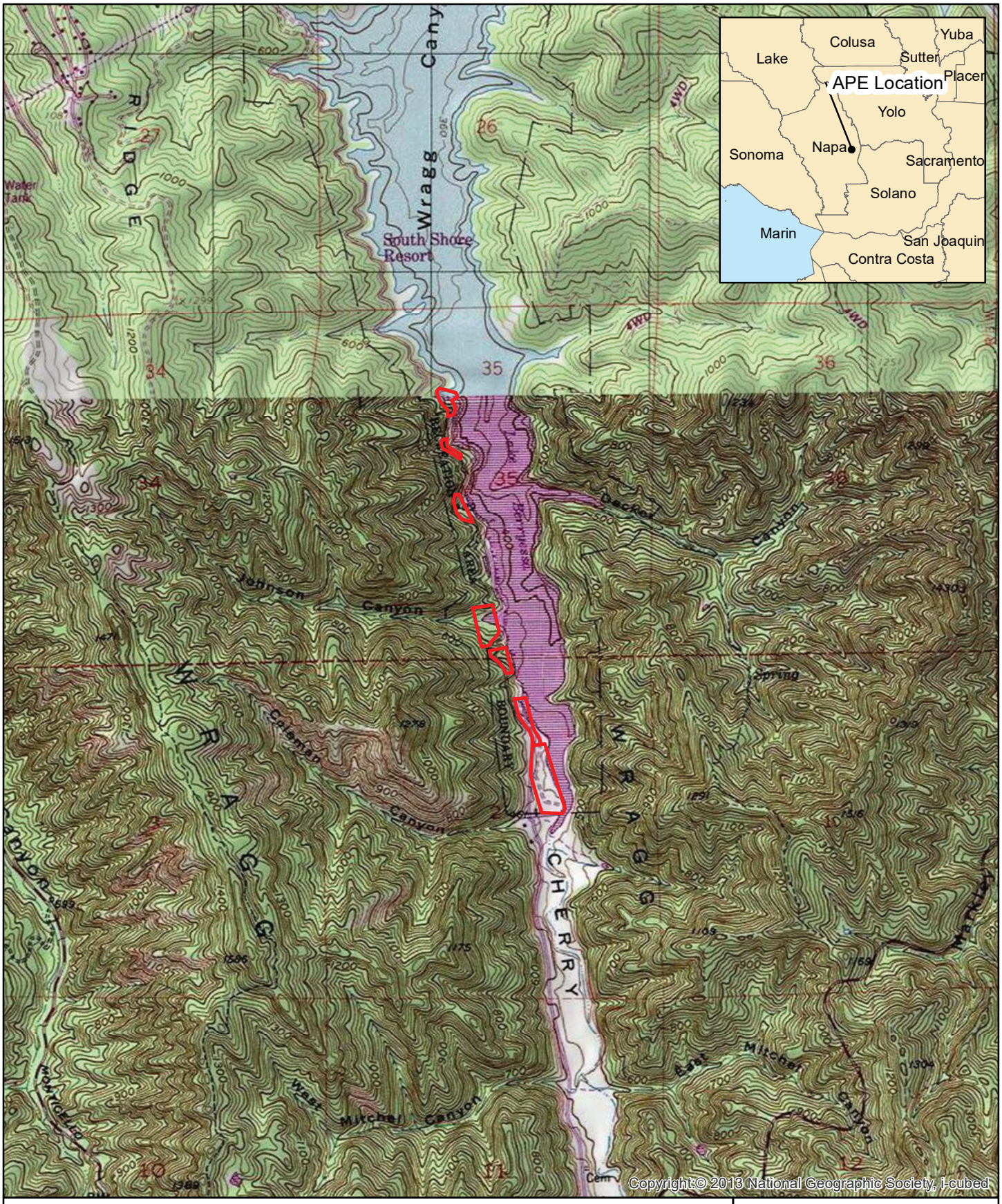
Thank you for your assistance.

Respectfully submitted,



Cindy J. Arrington, M.S., RPA
Principal
Natural Investigations Company, Inc

Attachments: Figure 1: Project Location Map



APE

0 0.5 1 Kilometers

0 0.5 1 Miles

Map Date 9/13/2022

1:24,000

Pleasure Cove Marina
Figure 1 - APE Location

Natural Investigations Company

Capell Valley 1951 Quadrangle Photorevised 1968:Township 8N, Range 3W, Section 35 Township 7N Range 3W, Section 2
Lake Berryessa 1998 Quadrangle:Township 8N, Range 3W, Section 35

Natural Investigations Company

Native American Contact Tracking Sheet
Pleasure Cove Marina Improvements Project,
Napa County, CA

Contact Name	Date Letter Sent	Date Follow Up	Responses
Daniel Gomez, Chairman Cachil Dehe Band of Wintun Indians of the Colusa Indian Community 3730 Highway 45 Colusa, CA, 95932 Phone: (530) 458 - 8231 dgomez@colusa-nsn.gov	11/07/2022	11/21/2022	Mr. Gomez was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Clifford Mota, Tribal Preservation Liaison Cachil Dehe Band of Wintun Indians of the Colusa Indian Community 3730 Highway 45 Colusa, CA, 95932 Phone: (530) 458 - 8231 cmota@colusa-nsn.gov	11/07/2022	11/21/2022	Mr. Mota was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Charlie Wright, Chairperson Cortina Rancheria - Kletsel Dehe Band of Wintun Indians P.O. Box 1630 Williams, CA, 95987 Phone: (530) 473 - 3274	11/07/2022	11/21/2022	Mr. Wright was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Donald Duncan, Chairperson Guidiville Indian Rancheria P.O. Box 339 Talmage, CA 95481 (707) 462-3682 admin@guidiville.net	11/07/2022	11/21/2022	Mr. Duncan was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Sally Peterson, THPO Middletown Rancheria P.O. Box 1658 Middletown, CA, 95461 Phone: (707) 987 - 3670 THPO@middletownrancheria.com	11/07/2022	11/21/2022	Ms. Peterson was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Jose Simon, Chairperson Middletown Rancheria of Pomo Indians P.O. Box 1035 Middletown, CA, 95461	11/07/2022	11/21/2022	Mr. Simon was not available. A voice message was left asking if the Tribe had any questions or concerns

Phone: (707) 987 - 3670 sshope@middletownrancheria.com			regarding the project and if so, to please contact Natural Investigations.
Scott Gabaldon, Chairperson Mishewal-Wappo Tribe of Alexander Valley 2275 Silk Road Windsor, CA, 95492 Phone: (707) 494 - 9159 scottg@mishewalwappotribe.com	11/07/2022	11/21/2022	Mr. Gabaldon was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Erica Carson, THPO Pinoleville Pomo Nation 500 B Pinoleville Drive Ukiah, CA, 95482 Phone: (707) 463 - 1454	11/07/2022	11/21/2022	Ms. Carson was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Leona Williams, Chairperson Pinoleville Pomo Nation 500 B Pinoleville Drive Ukiah, CA, 95482 Phone: (707) 463 - 1454	11/07/2022	11/21/2022	Ms. Williams was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Yvonne Perkins, THPO, Cultural Resources Chairman Yocha Dehe Wintun Nation P.O. Box 18 Brooks, CA, 95606 Phone: (530) 796 - 3400 thpo@yochadehe-nsn.gov	11/07/2022	11/21/2022 12-7-2022	Ms. Perkins was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations. A letter was received stating that the Yocha Dehe wish to initiate formal consultation with the lead agency (BOR).
Laverne Bill, Director of Cultural Resources Yocha Dehe Wintun Nation P.O. Box 18 Brooks, CA, 95606 Phone: (530) 796 - 3400 thpo@yochadehe-nsn.gov	11/07/2022	11/21/2022	Mr. Bill was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Anthony Roberts, Chairperson Yocha Dehe Wintun Nation P.O. Box 18 Brooks, CA, 95606 Phone: (530) 796 - 3400 aroberts@yochadehe-nsn.gov	11/07/2022	11/21/2022	Mr. Roberts was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.

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YOCHA DEHE
CULTURAL RESOURCES

December 5, 2022

Natural Investigations Company
Attn: Cindy Arrington
3104 O Street, Suite 221
Sacramento, CA 95816

RE: Please Cove Marina II Entrance Improvements YD-11072022-01

Dear Ms. Arrington:

Thank you for the project notification dated, November 7, 2022, regarding cultural information on or near the proposed Please Cove Marina II Entrance Improvements. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area and would like to initiate a formal consultation with the lead agency. At the time of consultation, please provide our Cultural Resources Department with a project timeline, detailed project information and the latest cultural study for the proposed project.

To coordinate a date and time for the consultation meeting, please contact:

CRD Administrative Staff
Yocha Dehe Wintun Nation
Office: (530) 796-3400
Email: THPO@yochadehe.gov

Please refer to identification number YD–11072022-01 in any correspondence concerning this project.

Thank you for providing us the opportunity to comment.

Sincerely,

DocuSigned by:
Yvonne Perkins
8DD0BD089ED6438...

Tribal Historic Preservation Officer

APPENDIX B:
Fieldwork Authorization Letter

United States Department of the Interior
BUREAU OF RECLAMATION
2800 Cottage Way
Sacramento, CA 95825-1898

IN REPLY REFER TO:

September 29, 2022

CGB-153
2.1.1.04

VIA ELECTRONIC MAIL ONLY
Mr. John Nadolski
Natural Investigations Company, Inc.
3104 O Street, #221,
Sacramento, CA 95816
John@naturalinvestigations.com
Cindy@naturalinvestigations.com

Subject: Permission to Conduct Survey and Recordation for Cultural Resources Investigations on Reclamation Lands in support of the Pleasure Cove Marina Redevelopment Project (22-CCAO-213)

Dear Mr. Nadolski:

The Bureau of Reclamation reviewed your request received on September 14, 2022, to conduct cultural resources surveys on Reclamation land on behalf of Suntex Marinas in support of their proposed project to construct recreational infrastructure improvements at Pleasure Cove Marina. Suntex Marinas proposes to install a floating marina with 150 boat slips with floating walkways; install a stand-alone breakwater; grade and pave three locations to create a minimum of 100 parking spaces for vehicles, trailers, and RVs; and develop three locations to accommodate up to 28 new eco-tent cabins. A survey will be conducted within Reclamation lands located in Section 2 of T. 7 N., R. 3 W. and Section 35 of T. 8 N., R. 3 W., on the Lake Berryessa and Mt. Capell Valley U.S. Geological Survey 7.5′ quadrangle maps, as shown on the map provided in the fieldwork authorization application.

This letter serves as a field authorization for Natural Investigations Company, Inc. and cultural resources personnel identified in your application to conduct a non-collection survey on Reclamation's easements. You are identified as the Principal Investigator. This authorization is only for access to lands administered by Reclamation. You will be responsible for obtaining permission from other appropriate landowners for access to non-Reclamation lands.

Permission is hereby granted to conduct cultural resources fieldwork with the following stipulations:

1. The work is conducted to Department of the Interior's *Standards and Guidelines for Archaeological and Historical Preservation* and Reclamation's *Directives and Standards for Cultural Resources Management* (LND 02-01).

2. All fieldwork is conducted by, or under the direct supervision of, personnel meeting the Secretary of the Interior's *Standards and Guidelines, Professional Qualifications Standards* (36 CFR Part 61) in the appropriate discipline.

3. All fieldwork is completed prior to November 31, 2022.

4. No excavation will occur, and no artifacts are to be collected from Reclamation lands.

5. A copy of the draft report will be provided to Reclamation for review. Reclamation will be provided an opportunity to review and approve all recommendations of National Register of Historic Places eligibility for any cultural resources on Reclamation land prior to submitting to the State Historic Preservation Officer. You and Natural Investigations Company, Inc. cultural resources staff will consider and respond to all Reclamation comments (reference our tracking number 22-CCAO-213 on all correspondence and reports).

6. Two hard copies and one electronic copy of the final report and any site records will be provided to Reclamation within 6 months of completing the fieldwork. In addition, one electronic copy of all reporting and Geographic Information System shape files for all cultural resources on, or partially on, Reclamation land will be provided.

7. In the event that human remains are discovered on Reclamation land, Mr. Scott Williams, California Great Basin, Regional Cultural Resources Officer, will be notified immediately at (916) 978-5028. In addition, Dr. Melanie Ryan, Reclamation Native American Graves Protection and Repatriation Act (NAGPRA) specialist, at (916) 978-5526 (work) or (916) 425-2348 (cell) will be notified immediately. Any discovery of human remains on Reclamation lands will be handled in accordance with the NAGPRA. If human remains are not skeletal, appear to be from a potentially modern context or the context cannot be determined, in addition to the above individuals, call the appropriate law enforcement officials. Do not touch or move the remains. You may be asked to stay with the remains.

8. The permittee hereby agrees to indemnify and hold harmless the United States, its employees, agents, and assigns from any loss or damage and from any liability because of personal injury, property damage, or claims for personal injury or death arising out of the permittee's activities under this agreement (43 CFR 429.9).

Please carry a copy of this authorization with you during fieldwork. Prior to conducting the survey on Reclamation lands, please notify Ms. Amy Barnes, Archaeologist, at (916) 978-5047 or abarnes@usbr.gov of the fieldwork dates. Should you have any questions regarding these requirements or if you require information regarding Reclamation's cultural resources policy, please contact Mr. Scott Williams at (916) 978-5042 or sawilliams@usbr.gov.

Sincerely,

Scott Williams
Regional Cultural Resources Officer

APPENDIX C:
DPR Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial #
NRHP Status Code_____ Other Listings _____ Review Code_____ Reviewer_____ Date _____

Page 1 **of** 2 ***Resource Name or #:** NIC-2022-Marina-01

P1. Other Identifier: Wragg Canyon Road

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Napa

***b. USGS 7.5' Quad** Capay Valley **Date** 2021 **T** 7N ; **R** 3W ; SW ¼ **of** NE ¼ **of Sec** 02 ; MD **B.M.**

c. Address City Zip

d. UTM: Zone 10S 573355 mE/ 4259697 mN
Zone mE/ mN

e. Other Locational Data:

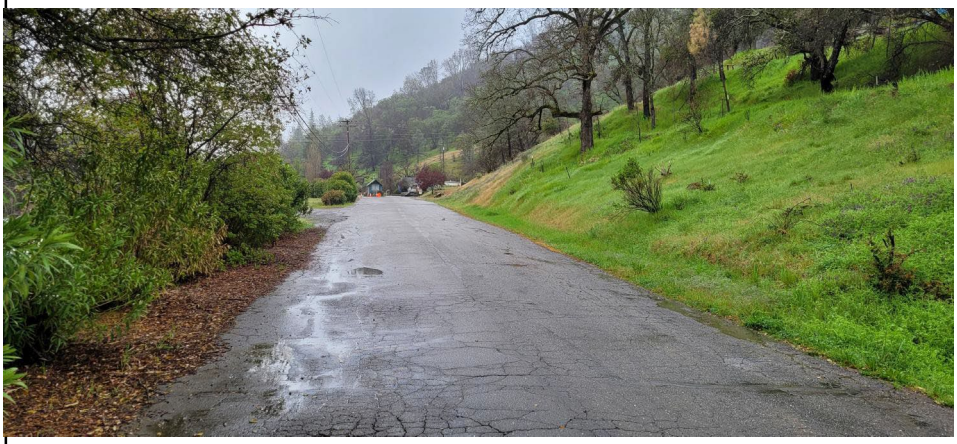
From the town of Winters, take CA-128 W for 15.9 miles. Turn right onto Wragg Canyon Road and continue north for 2.4 miles to the entrance to Pleasure Cove Marina.

***P3a. Description:**

This resource is Wragg Canyon Road. a narrow two-lane paved access road to one of the south shore areas of Lake Berryessa in Napa County from California State Highway 128. The segment recorded here is approximately 575 feet in length and approximately 23 feet in width. It is bounded by the current southern shoreline of Lake Berryessa to the east and the ridges of Wragg Canyon to the west. Wragg Canyon Road appears to be significant under Criterion A at the local level for its association with early exploration and travel in Napa County. The road is not only one if the earliest in county, it was also part of the first long distance mail route from San Francisco, via Suisun, to Lowe Lake, and the primary route to the Sacramento market for farmers of the Berryessa Valley prior to 1873. However, it does not appear to retain sufficent intergrity to convey its significance due to the inundation of the Berryessa Valley and other factors which have destroyed large segments of the road north of the APE, and dramatically changed the setting since its period of significance (1823 to 1873). Therefore, it is recommended as not eligible for listing in the NRHP due to a loss of integrity. The road currently serves as the primary access route to Pleasure Cove Marina region.

***P3b. Resource Attributes:** AH7:Roads/trails/railroad grades

***P4. Resources Present:** ☐ Building ☐ Structure ☐ Object ☒ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



***P5b. Description of Photo:**
Overview of road. View south

***P6. Date Constructed/Age and Source**
☒ Historic ☐ Prehistoric ☐ Both
Terminus ante quem 1859

***P7. Owner and Address:**
Bureau of Reclamation
5520 Knoxville Road
Napa, CA 94558

***P8. Recorded by:**
D. Stapleton
Natural Investigations Inc.
3104 O Street
Sacramento, CA 95816

***P9. Date Recorded:** 05/20/2022

***P10.Survey Type:**
Intensive pedestrian

***P11. Report Citation**:
2022, Spillane, T and Dylan Stapleton. Cultural and Paleontological Resource Inventory for the Pleasure Cove Marina Entrance Improvements Project, Lake Berryessa, Napa County, California.

***Attachments:** ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial #

*Resource Name or #: NIC-2022-Marina-01

*Map Name: Capell Valley *Scale: 1:24,000 *Date of Map: 2021



*Required information

YOCHA DEHE
CULTURAL RESOURCES

Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation

The purpose of this Protocol is to formalize procedures for the treatment of Native American human remains, grave goods, ceremonial items, and items of cultural patrimony, in the event that any are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity. This Protocol also formalizes procedures for Tribal monitoring during archaeological studies, grading, and ground-disturbing activities.

I. Cultural Affiliation

The Yocha Dehe Wintun Nation ("Tribe") traditionally occupied lands in Yolo, Solano, Lake, Colusa and Napa Counties. The Tribe has designated its Cultural Resources Committee ("Committee") to act on the Tribe's behalf with respect to the provisions of this Protocol. Any human remains which are found in conjunction with Projects on lands culturally-affiliated with the Tribe shall be treated in accordance with Section III of this Protocol. Any other cultural resources shall be treated in accordance with Section IV of this Protocol.

II. Inadvertent Discovery of Native American Human Remains

Whenever Native American human remains are found during the course of a Project, the determination of Most Likely Descendant ("MLD") under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission ("NAHC") upon notification to the NAHC of the discovery of said remains at a Project site. If the location of the site and the history and prehistory of the area is culturally-affiliated with the Tribe, the NAHC contacts the Tribe; a Tribal member will be designated by the Tribe to consult with the landowner and/or project proponents.

Should the NAHC determine that a member of an Indian tribe other than Yocha Dehe Wintun Nation is the MLD, and the Tribe is in agreement with this determination, the terms of this Protocol relating to the treatment of such Native American human remains shall not be applicable; however, that situation is very unlikely.

III. Treatment of Native American Remains

In the event that Native American human remains are found during development of a Project and the Tribe or a member of the Tribe is determined to be MLD pursuant to Section II of this Protocol, the following provisions shall apply. The Medical Examiner shall immediately be notified, ground disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site

of the discovery and (2) make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity.

The Tribe shall complete its inspection and make its MLD recommendation within forty-eight (48) hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future.

The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b).

The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods and animals. Ashes, soils and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact.

IV. Non-Disclosure of Location of Reburials

Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe will require that the location for reburial is recorded with the California Historic Resources Inventory System ("CHRIS") on a form that is acceptable to the CHRIS center. The Tribe may also suggest that the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property.

V. Treatment of Cultural Resources

Treatment of all cultural items, including ceremonial items and archeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archeological items, which may be found at a Project site should be turned over to the Tribe for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction. The Project Proponent should waive any and all claims to ownership of

Tribal ceremonial and cultural items, including archeological items, which may be found on a Project site in favor of the Tribe. If any intermediary, (for example, an archaeologist retained by the Project Proponent) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe.

VI. Inadvertent Discoveries

If additional significant sites or sites not identified as significant in a Project environmental review process, but later determined to be significant, are located within a Project impact area, such sites will be subjected to further archeological and cultural significance evaluation by the Project Proponent, the Lead Agency, and the Tribe to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.

VIII. Work Statement for Tribal Monitors

The description of work for Tribal monitors of the grading and ground disturbing operations at the development site is attached hereto as Addendum I and incorporated herein by reference.

YOCHA DEHE
CULTURAL RESOURCES

ADDENDUM I

Yocha Dehe Wintun Nation
Tribal Monitors
Description of Work and Treatment Protocol

I. Preferred Treatment

The preferred protocol upon the discovery of Native American human remains is to (1) secure the area, (2) cover any exposed human remains or other cultural items, and (3) avoid further disturbances in the area.

II. Comportment

All parties to the action are strongly advised to treat the remains with appropriate dignity, as provided in Public Resource Code Section 5097.98. We further recommend that all parties to the action treat tribal representatives and the event itself with appropriate respect. For example, jokes and antics pertaining to the remains or other inappropriate behavior are ill advised.

III. Excavation Methods

If, after the Yocha Dehe Tribal representative has been granted access to the site and it is determined that avoidance is not feasible, an examination of the human remains will be conducted to confirm they are human and to determine the position, posture, and orientation of the remains. At this point, we recommend the following procedures:

(A) Tools. All excavation in the vicinity of the human remains will be conducted using fine hand tools and fine brushes to sweep loose dirt free from the exposure.

(B) Extent of Exposure. In order to determine the nature and extent of the grave and its contents, controlled excavation should extend to a full buffer zone around the perimeter of the remains.

(C) Perimeter Balk. To initiate the exposure, a perimeter balk (especially, a shallow trench) should be excavated, representing a reasonable buffer a minimum of 10 cm around the maximum extent of the known skeletal remains, with attention to counter-intuitive discoveries or unanticipated finds relating to this or other remains. The dirt from the perimeter balk should be bucketed, distinctly labeled, and screened for cultural materials.

(D) Exposure Methods. Excavation should then proceed inward from the walls of the balk as well as downward from the surface of the exposure. Loose dirt should be scooped out and brushed off into a dustpan or other collective device. Considerable care should be

given to ensure that human remains are not further impacted by the process of excavation.

(E) Provenience. Buckets, collection bags, notes, and tags should be fully labeled per provenience, and a distinction should be made between samples collected from: (1) **Perimeter Balk** (described above), (2) **Exposure** (dirt removed in exposing the exterior/burial plan and associations, and (3) **Matrix** (dirt from the interstices between bones or associations). Thus, each burial may have three bags, "Burial 1 Perimeter Balk," "Burial 1 Exposure Balk," "Burial 1 Matrix."

Please note the provisions below with respect to handling and conveyance of records and samples.

(F) Records. The following records should be compiled in the field: (1) a detailed scale drawing of the burial, including the provenience of and full for all human remains, associated artifacts, and the configuration of all associated phenomena such as burial pits, evidence for preinterment grave pit burning, soil variability, and intrusive disturbance, (2) complete a formal burial record using the consultants proprietary form or other standard form providing information on site #, unit or other proveniences, level depth, depth and location of the burial from a fixed datum, workers, date(s), artifact list, skeletal inventory, and other pertinent observations, (3) crew chief and worker field notes that may supplement or supercede information contained in the burial recording form, and (4) photographs, including either or standard photography or high-quality (400-500 DPI or 10 MP recommended) digital imaging.

(G) Stipulations for Acquisition and Use of Imagery. Photographs and images may be used only for showing location or configuration of questionable formation or for the position of the skeleton. They are not to be duplicated for publication unless a written release is obtained from the Tribe.

(H) Association. Association between the remains and other cultural materials should be determined in the field in consultation with an authorized Tribal representative, and may be amended per laboratory findings. Records of provenience and sample labels should be adequate to determine association or degree of likelihood of association of human remains and other cultural materials.

(I) Samples. For each burial, all **Perimeter Balk** soil is to be 1/8"-screened. All **Exposure** soil is to be 1/8"-screened, and a minimum of one 5-gallon bucket of excavated but unscreened Exposure soil is to be collected, placed in a plastic garbage bag in the bucket. All **Matrix** soil is to be carefully excavated, screened as appropriate, and then collected in plastic bags placed in 5-gallon buckets.

(J) Human remains are not to be cleaned in the field.

(K) Blessings. Prior to any physical action related to human remains, a designated tribal representative will conduct prayers and blessings over the remains. The archaeological consultant will be responsible for insuring that individuals and tools involved in the action are available for traditional blessings and prayers, as necessary.

IV. Lab Procedures

No laboratory studies are permitted without consultation with the tribe. Lab methods are determined on a project-specific basis in consultation with Yocha Dehe Wintun Nation representatives. The following procedures are recommended:

(A) Responsibility. The primary archaeological consultant will be responsible for insuring that all lab procedures follow stipulations made by the Tribe.

(B) Blessings. Prior to any laboratory activities related to the remains, a designated tribal representative will conduct prayers and blessings over the remains. The archaeological consultant will be responsible for insuring that individuals and tools involved in the action are available for traditional blessings and prayers, as necessary.

(C) Physical Proximity of Associations. To the extent possible, all remains, associations, samples, and original records are to be kept together throughout the laboratory process. In particular, **Matrix** dirt is to be kept in buckets and will accompany the remains to the lab. The primary archaeological consultant will be responsible for copying all field records and images, and insuring that the original notes and records accompany the remains throughout the process.

(*E) Additional Lab Finds*. Laboratory study should be done making every effort to identify unanticipated finds or materials missed in the field, such as objects encased in dirt or human remains misidentified as faunal remains in the field. In the event of discovery of additional remains, materials, and other associations the tribal representatives are to be contacted immediately.

V. Re-internment without Further Disturbance

No laboratory studies are permitted on human remains and funerary objects. The preferred treatment preference for exhumed Native American human remains is reburial in an area not subject to further disturbance. Any objects associated with remains will be reinterred with the remains.

YOCHA DEHE
CULTURAL RESOURCES

VI. Curation of Recovered Materials

Should all, or a sample, of any archaeological materials collected during the data recovery activities – with the exception of Human Remains – need to be curated, an inventory and location information of the curation facility shall be given to tribe for our records.

Docusign Envelope ID: D529322C-B218-45D0-AD1F- 0014C4568205

YOCHA DEHE
CULTURAL RESOURCES

July 18, 2024

State Water Resources Control Board
Attn: Jenna Yang, Control Engineer
1001 I Street
Sacramento, CA 95814

RE: Pleasure Cove Marina II Entrance Improvements YD-11072022-01

Dear Ms. Yang:

Thank you for the project notification dated May 22, 2024, regarding cultural information on or near the proposed Pleasure Cove Marina II Entrance Improvements. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the study and concluded that the project is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, the Tribe has concerns that the project could impact known cultural resources. Yocha Dehe Wintun Nation highly recommends including cultural monitors during development and ground disturbance. In addition, we recommend cultural sensitivity training for any pre-project personnel to be added to the permit as a condition of approval. We also request that you incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for this project. Please submit the updated mitigation measures to the Cultural Resources Department once completed.

To setup a monitoring agreement, please contact:

Eric Hernandez, Site Protection Manager
Yocha Dehe Wintun Nation
Phone: (530) 723 - 3313
Email: ehernandez@yochadehe.gov

Please refer to identification number YD–11072022-01 in any correspondence concerning this project.

Thank you for providing us the opportunity to comment. Sincerely,

Signed by:
Yvonne Perkins
8DD0BD089ED6438...

Tribal Historic Preservation Officer

Yocha Dehe Wintun Nation
PO Box 18 Brooks, California 95606 p) 530.796.3400 f) 530.796.2143 www.yochadehe.org