NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

SONOMA COUNTY REGIONAL PARKS
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2300 COUNTY CENTER DRIVE, SUITE 120a
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February 26, 2007

An Initial Study of environmental impact has been prepared by the Sonoma County Regional Parks Department and considered by the Sonoma County Environmental Review Committee for the following project:

CHENEY CREEK BRIDGE & TRAIL PROJECT

PROJECT LOCATION: Cheney Creek is located between Bird Walk Coastal Access Park[1] and Doran Beach Regional Park,[2] on southeast of Bodega Harbor.

PROJECT DESCRIPTION: The Cheney Creek Bridge will be prefabricated metal, approximately 110-feet long by 8-feet wide, with a 54-inch high safety railing. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55-feet. The Bird Walk trail extension will be approximately 370 feet long and 8 feet wide multi-use trail between the existing Bird Walk Coastal Access Trail and the new bridge. The trail extension will require a 1-3 foot high retaining wall and a 42-inch high handrail for safety and to limit site disturbance. Re-alignment and widening of the existing paved service path at Bird Walk Coastal Access Trail parking lot may be necessary to enable construction equipment to reach the project site staging area. The new access path from the park entrance road to top of levee trail will be 130 feet long by 12 feet wide with a base rock surface. Staging Area 1 will be approximately 0.54 acre. Approximately 1,370 feet of the existing Doran Marsh Trail will be widened from the existing 3 to 6-foot width to a 8-foot width and surfaced with crushed rock. Staging Area 2 will be approximately 0.51 acre. The area of construction disturbance will be approximately 1.02 acres. Of that, approximately 0.43 acre will be annual grassland, 0.22 acre will be coyote brush scrub, and 0.39 will be existing trails. Estimated site grading will include approximately 100 cubic yards of cut and 400 cubic yards of fill, including about 300 cubic yards of imported material.

PROJECT PURPOSE: The purpose of the proposed project is to connect two existing County Regional Parks facilities, Bird Walk Coastal Access Trail and Doran Beach Regional Park, with a bridge and multi-use trail to improve public access and recreation opportunities.

FINDING: On the basis of the Initial Study, the Park Manager of the Sonoma County Regional Parks Department has determined that with the incorporation of the mitigation measures proposed in the Initial Study, the proposed project would not have a significant adverse effect on the environment.

COMMENT PERIOD: The proposed Negative Declaration is available for review and comment, along with the Master Plan and Initial Study, at the Sonoma County Regional Parks Department. The posting and review period for the Proposed Negative Declaration is:

February 26 – March 30, 2007

Written comments should be addressed to Michelle Julene, Environmental Specialist at Sonoma County Regional Parks. The address and phone number are listed above, or e-mail at: mjulene@sonoma-county.org

PUBLIC MEETING: The Sonoma County Park & Recreation Advisory Committee will conduct a public meeting on this project as follows:

Monday, March 19, 2007 beginning at 5:00 pm
Sonoma County Board of Supervisors Chambers
575 Administration Drive, Santa Rosa

PROJECT APPROVAL: The Sonoma County Board of Supervisors is the decision-making body responsible for adopting the proposed Negative Declaration and approving the proposed project. The environmental document and the comments received thereon will be referred to the Sonoma County Board of Supervisors at a meeting that will be scheduled. Notification of the meeting will be mailed to those on the project mailing list and will be posted on the Sonoma County Regional Parks Department website, listed above.

DOCUMENT AVAILABILITY: The Initial Study is available for review at the Regional Parks main office, the Occidental, Sebastopol, and Central libraries, and online at: www.sonoma-county.org/parks/park_planning.htm

[1] Situs Address: 355 Highway 1, Bodega Bay, California. APN: 100-130-006
[2] Situs Address: 201 Doran Park Road, Bodega Bay, California. APN: 100-130-006

Cheney Creek Bridge & Trail Project

Initial Study

February 2007

Prepared By:

Sonoma County Regional Parks Department
2300 County Center Drive, #120A
Santa Rosa, CA 95403
(707) 565-2041

Mary E. Burns, Director
Michelle Julene, Environmental Specialist
Pamela Higgins, Assistant Environmental Specialist
Joe Kase, Project Planner II

POSTING AND REVIEW PERIOD: February 26 – March 30, 2007

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The Proposed Project

Introduction

Sonoma County is the lead agency for the proposed Cheney Creek Bridge and Trail Project in accordance with the California Environmental Quality Act (CEQA). This document has been prepared by Sonoma County Regional Parks Department (Regional Parks) staff, and is intended to provide a clear understanding of the proposed project and of the potential environmental impacts associated with the construction, operation, and maintenance of the proposed project for decision-makers, responsible and trustee agencies under CEQA, and the public. If the analysis concludes that there is no substantial evidence that the proposed project may cause a significant effect on the environment, a Negative Declaration can be prepared. Otherwise, an Environmental Impact Report is required. The Sonoma County Environmental Review Committee makes this determination for Regional Parks' projects.

Project Purpose

The purpose of the proposed project is to connect two existing County Regional Parks facilities, Bird Walk Coastal Access Trail and Doran Beach Regional Park, with a bridge and multi-use trail. The proposed bridge will span Cheney Creek, connecting with trails on each bank. The Bird Walk Coastal Access Trail offers hikers an unobstructed view of Doran Marsh tidal flats, channels, and ponds that is ideal for bird watching. Doran Beach Regional Park offers a range of natural environments and recreational opportunities for visitors and local residents, facilitating public access to coastal environments. Connecting these two facilities would improve opportunities for public enjoyment of both existing parks, and provide improved pedestrian, bicycle, and equestrian use. Currently, visitors must travel by surface road and Highway1 between the two park facilities.

Project Location

Cheney Creek is located between Bird Walk Coastal Access Park[1] and Doran Beach Regional Park,[2] on southeast of Bodega Harbor. The Bodega Bay Public Utility District treatment facility is located northeast of the project area. Please refer to Figure 2, Location Map.

Property Background

Bird Walk Coastal Access Park is a 14-acre facility located at the dredge disposal ponds originally constructed in 1980 on approval from the California Coastal Commission as a disposal site for continued dredging maintenance activities of Bodega Harbor. The two disposal ponds are enclosed by levees that are 26 feet above mean low water and 10 feet wide on top.[3] The one-mile, multi-use loop-trail runs along the top of the levee. The all-weather, barrier-free trail offers views of Doran Marsh, Doran Beach Regional Park, Bodega Bay and Harbor, and Bodega Head. Bird Walk Coastal Access Park has a ten-space paved parking lot in the southeastern corner, with a screened portable restroom. There is a large, natural rock outcropping north of the parking lot that is visible from Highway 1. The rock outcropping is what

[1] Situs Address: 355 Highway 1, Bodega Bay, California. APN: 100-130-006
[2] Situs Address: 201 Doran Park Road, Bodega Bay, California. APN: 100-130-006
[3] Bodega Bay Disposal Site Access Plan – Initial Study. July 1, 1992

remains of a natural topographic feature, originally reaching the height of fifty feet above sea level, that was subject to on-going quarry activities until sometime prior to the construction of the old airport on the northwest side of Cheney Creek.

Doran Beach Regional Park is west of the project site, and is located on a sand-spit which extends from the mainland bordering the south end of Bodega Harbor. During the 1940's, extensive construction and modifications were made to stabilize the spit. The current form of Doran spit is a result of activities that include jetty and road construction, fill deposited from harbor dredge spoils, and introduction of vegetation to stabilize sand dune areas. Doran Beach Regional Park has ocean, bay and harbor frontage that includes salt marsh, tidal flats, and sand dune environments. The park offers recreation opportunities that include camping, fishing and boating, and beach activities. The Doran Marsh Trail traverses the salt marsh and tidal channels on a levee constructed in 1961 to support a water pipeline installation that has since been removed. The trail offers public access for bird watching, nature study and scenic viewing.

Cheney Creek runs between the levee embankment that borders Bird Walk Coastal Access Park and the Doran Marsh Trail. The creek is about 25 feet wide with near-vertical 3-4 foot high banks, and empties into the southern tidal flats of Bodega Harbor. The creek has been altered and re-aligned over the past through human activities. Fresh water wetlands persist along the southeastern marsh and coastal bluffs. The coastal location, mild climate, and diverse natural habitats support a wide variety of birds and wildlife in and adjacent to the project site. Vegetation in the project site vicinity consists of mixed native salt marsh species, upland native plants, and large areas of various exotic species.

The Bodega Bay Public Utility District treatment facility is located adjacent to the project site, and was constructed in 1973 to replace the previous facility that had become inadequate to provide service to the Bodega Bay area. The Bodega Bay Lodge and Spa and the Bodega Bay Harbour subdivision and golf course, are southeast of the project site. State Highway 1 and the North Harbour subdivision are directly east of the project site. Please refer to Figure 2, Site Map.

Project Description

The project includes installation of the Cheney Creek Bridge and associated trail work. Please refer to Figure 3, Site Plan.

Cheney Creek Bridge

Cheney Creek Bridge will connect the existing Bird Walk Coastal Access Trail and Doran Beach Regional Park via the Doran Marsh Trail. The bridge will be prefabricated metal, approximately 110-feet long by 8-feet wide, with a 54-inch high safety railing. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55-feet. Please refer to Figure 8, Bridge Cross Section.

Bird Walk Coastal Access Trail Extension

The proposed project will create a new 370-foot long, 8-foot wide multi-use trail extension from the existing Bird Walk Coastal Access Trail to the new bridge. The trail extension will require a 1-3 foot high retaining wall and a 42-inch high handrail for safety and to limit site disturbance. The multi-use trail

extension will be graded to a maximum slope of 5 percent and surfaced with 3/4-inch minus crushed rock over an aggregate base and native soil sub-base, to form a firm, stable, slip resistant surface in keeping with U.S. Department of Transportation Federal Highway Administration (FHWA) Chapter 14, Shared Use Path Design Standards. These standards are equal to California Department of Transportation Class I Bikeway (Bike Path) design criteria.[4] The thickness of the crushed rock will vary from 6 to 18 inches depending on soil compaction test results. A soil stabilizer may be used in combination with the crushed rock to create a firm and stable surface. Please refer to Figure 7, Levee Side Trail Cross Section.

Doran Beach Marsh Trail Improvement

Approximately 1,370 feet of the Doran Marsh Trail, on the south side of Cheney Creek, will be improved to a width of eight feet, and surfaced with crushed rock using the same specifications as Bird Walk Coastal Access Trail extension. The existing Doran Marsh Trail varies in width along the entire length from approximately 3 feet to 6 feet, depending on the width of the levee at different locations and on adjacent vegetation distribution changes. Please refer to Figure 7, Levee Top Trail Cross Section.

Construction

The area of construction disturbance identified will be approximately 1.02 acres. Of that, approximately 0.43 acre will be annual grassland, 0.22 acre will be coyote brush scrub, and 0.39 will be existing trails. Estimated site grading will include approximately 100 cubic yards of cut and 400 cubic yards of fill, including about 300 cubic yards of imported material. The bridge will be delivered to the project site in two 55-foot sections using a standard semi-truck trailer. Based on the overall size of the bridge, highway transportation permits or notification will not be required.[5] Two staging areas have been included in the project design to accommodate heavy equipment access and setup for construction that will include pouring concrete, driving piles for bridge abutments and foundations, bridge installation, and trail construction. Staging Area 1, on the Bird Walk Coastal Access levee, is approximately 23,500 square feet. Staging Area 2, at the south bridge landing on the Doran Marsh Trail side, is approximately 22,000 square feet. Please refer to Figure 4 and 5.

Equipment used for project construction will include pile driving and cement vehicles, large cranes on both sides of the creek for bridge installation, and semi-truck trailer for bridge delivery. Construction equipment will access the project site at Cheney Creek from Doran Park Road, via the Doran Marsh Trail entrance, and from the Bird Walk Coastal Access Park entrance road off of Coast Highway 1. The construction access paths will be prepared by scraping the existing trail surface to a width of 12 feet and adding base rock, as recommended by soils tests, to establish a firm surface for the heavy equipment. The actual improved Doran Marsh Trail surface width will be 8 feet wide.

Re-alignment and widening of the existing paved service path at Bird Walk Coastal Access Trail parking lot may be necessary to enable construction equipment to reach the project site staging area. The new access path from the park entrance road to top of levee trail will be 130 feet long by 12 feet wide with a

[4] Chapter 1000 Bikeway Planning and Design. February 2001.
[5] Confirmation from bridge manufacturer to Joe Kase, Planner II. December 20, 2005.

base rock surface. To protect existing culvert crossings, stabilize trails for equipment driving, and for stabilization of crane out-rigger footings in staging areas, placement of 12-foot by 8-foot steel plates will be implemented in appropriate locations. Project construction will employ Best Management Practices to reduce and prevent erosion and sediment problems, and storm water pollution that may result from construction activities and equipment access. Concrete work will be completed in compliance with the California Department of Transportation Construction Site Best Management Practices Manual guidelines.

On-Going Public Education and Restoration

Regional Parks will install interpretive signage along the Doran Marsh Trail to educate park users about sensitive marsh and creek habitat.

Regional Parks will remove non-native vegetation, such as iceplant, velvet grass, European beachgrass, and a variety of other non-native grasses and plant species and then restore those areas with appropriate native species. Restoration will involve the removal and eradication of non-native weedy plants and the seeding and planting of native plants known to occur within the project area. This project element will be carried out separate from the bridge and trail project, likely through the Regional Parks volunteer program.

Operation & Maintenance Standards

The Cheney Creek Bridge and Trail will be operated as a regional recreation area facility. It is in the Bodega Bay Maintenance Area and the Park Ranger's Bodega Bay Area. Existing operation and maintenance activities will extend to the proposed expansion area. Typical duties include:

- Opening and closing the park
- Emptying garbage cans
- Monitoring for general compliance with park rules
- Natural Resources protection and enhancement

Public Involvement

A Notice of Preparation (NOP) of an Initial Study was published on February 6, 2006. The NOP was filed at the County Clerks Office, mailed to the State of California Office of Planning and Research (State Clearinghouse), and to responsible and trustee agencies. The NOP was also posted on the County website. The comment period associated with the NOP was February 6 – March 10, 2006 and a public Scoping Meeting was scheduled for February 25, 2006.

A public scooping meeting was held in Bodega Bay at the Bodega Bay Grange Hall on February 25, 2006. The public was informed about the meeting by the Notice of Preparation, which was mailed on February 6, 2006 to a list of agencies, interested parties, and individual property owners within the vicinity of the proposed Cheney Creek Bridge and Trail project. The Regional Parks Department hosted the meeting and presented the proposed project outlining the status of the environmental assessment. Approximately 15 people attended the meeting.

The majority of the questions had to do specifically with:

- Future and on-going opportunities for public comment during the project development process
- Litter collection and site cleanup
- Removal of exotic vegetation, protection for native species
- Project impacts to sensitive habitat areas

Public notice and review of the Initial Study is required by CEQA. The review period for an Initial Study is 30-days, during which time interested parties can submit written comments regarding the proposed project and the environmental document. Notification regarding the public review period for the environmental document and information regarding the public meetings will be mailed to the property owners in the vicinity of the project and to interested parties on the project mailing list. The review period will also be posted on the Regional Parks web page.

Sonoma County Environmental Review Committee

The Sonoma County Environmental Review Committee (ERC) is a six-member committee that considers Initial Studies for capital improvement projects presented by Sonoma County departments and determines whether a Negative Declaration or an Environmental Impact Report is required pursuant to CEQA. Postcards will be mailed to those on the project mailing list as notification of the ERC meeting after it is scheduled. The ERC meeting is a public meeting and public comment is encouraged.

Sonoma County Board Of Supervisors

The Sonoma County Board of Supervisors (Board) is composed of five members, each representing a specific district in Sonoma County. The Board ultimately determines whether to adopt or approve an environmental document and whether to approve a given project. The Board would consider the environmental document and the public comments received during the comment period. Postcards will be mailed to those on the project mailing list as notification of the Board meeting after it is scheduled. The Board meeting is a public meeting and public comment is accepted.

Development Schedule and Funding

Funding for the project will be from a combination of local Park Mitigation Fees and a State Coastal Conservancy Grant. The Cheney Creek Bridge and Trail will be implemented following the successful completion of the CEQA process, project approval and receipt of applicable regulatory permits. It is expected that construction will occur in Fiscal Year 2007-2008 and in consideration of the following mitigation measures associated with construction timing.

Mitigation Measure 6: The Contractor shall be required to schedule driving the bridge footings between July 01 and September 30. If this is not feasible, the following shall occur prior to initiating the activity:

a. Regional Parks shall obtain concurrence from the United States Fish and Wildlife Service before starting work

b. The Contractor shall drive the bridge footings during low tide to the greatest degree feasible, to reduce daily disturbance to fish species when fewer individual fish are present in Cheney Creek.

Mitigation Measure 8: The Contractor will remove trees, shrubs and other vegetation between August 01 and March 15 to avoid bird-nesting season. General bird nesting season is between March 15 and July 31. If it is not feasible to remove vegetation outside of bird-nesting season, the Regional Parks Department will complete a bird nesting survey and associated actions.

Mitigation Measure 19: The Contractor shall be required to schedule driving the bridge footings between July 01 and September 30. If this is not feasible, the following shall occur prior to initiating the activity:

a. Regional Parks shall obtain concurrence from the United States Fish and Wildlife Service before starting work

b. The Contractor shall drive the bridge footings during low tide to the greatest degree feasible, to reduce daily disturbance to fish species when fewer individual fish are present in Cheney Creek. (*See* Mitigation Measure 6)

c. Regional Parks will schedule ground disturbing construction activities to the dry season, April 30 – October 15. Regional Parks must approve ground disturbing construction activities that must occur during the rainy season (October 16 – May 01) based on the Storm Water Pollution Prevention Plan (

Regulatory Setting

Several federal, state, and local agencies may have jurisdiction regarding the development of the proposed project. The Regional Parks Department would comply with all regulations applicable to the proposed project.

United States Army Corps of Engineers

The United States Army Corps of Engineers (Corps) regulates activities that have the potential to affect navigable waters under Section 10 of the Rivers and Harbors Act of 1899 (Section 10 permits) and under Section 404 of the Clean Water Act (Section 404 permit). Waters of the United States generally include surface waters such as navigable waters and their tributaries, all interstate waters and their tributaries, all wetlands adjacent to these waters, and all impoundments of these waters. Corps jurisdiction of Waters of the U.S. is the ordinary high water (OHW) and below, which is typically indicated by physical characteristics such as a clear, natural line impressed on the opposing channel banks, deposition of leaf litter and other debris, and the lower limit of moss growth on channel banks. Corps jurisdiction for tidal creeks and drainages is determined by identifying the mean high water (MHW) line, which can be

calculated by conducting visual observations of tidal flow or by using tidal information.

Section 404 permits are required prior to discharging dredged or fill material into wetlands. Wetlands generally include freshwater wetlands, saltwater wetlands, marshes, swamps, bogs, seeps, meadows, and other similar areas. The Corps uses a three-parameter test for delineating jurisdictional wetlands. The parameters include hydrology, hydric soils, and hydrophytic vegetation.

Construction activities within jurisdictional waters are regulated by the Corps and are subject to Corps permitting.

United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) oversees the analysis of the Corps regarding the issuance of permits for filling wetlands under Section 404 permits and issues permits for point source discharges to waterways.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) administers the Federal Endangered Species Act and the Marine Mammal Protection Act. The USFWS also advises the Corps on Section 7 and Section 404 permits for projects that could affect fish and wildlife. Generally, the USFWS is responsible for terrestrial and freshwater aquatic species.

National Oceanic and Atmospheric Administration Fisheries

The National Oceanic and Atmospheric Administration Fisheries (formerly the National Marine Fisheries Service and now referred to as NOAA Fisheries) administers the Federal Endangered Species Act and Marine Mammal Protection Act as they pertain to marine species. They also advise the Corps on Section 7 and Section 404 permits for projects that could affect fish spawning and fish habitat. Generally, NOAA Fisheries is responsible for marine mammals, anadromous fish, and other marine species.

State Lands Commission

The California State Lands Commission has broad mandates for protection of California's natural environment. The Commission follows a mandate when considering use of "Sovereign Lands" under its jurisdiction, and seeks cooperation of other agencies having authority over public trust resources. These "Sovereign Lands" include the beds of 120 rivers, streams and sloughs; nearly 40 non-tidal navigable lakes; tidal navigable bays and lagoons; and the tide and submerged lands adjacent to the entire coast and offshore islands from the mean high tide line to three nautical miles offshore. The State holds "sovereign lands" in Public Trust. They can only be used for public purposes consistent with provisions of the Public Trust such as fishing, water dependent commerce and navigation, ecological preservation and scientific study. The Commission often prepares or comments on Environmental Impact Report, reviews permit applications submitted to the California Coastal Commission and the U.S. Army Corps of Engineers.

California Coastal Commission

A Coastal Permit is required for all new access ways within the Coastal Zone and must be obtained prior to development. Coastal Permits are generally issued by the County Board of Zoning Adjustments or the

Coastal Commission itself. The Coastal Permit referral process provides a detailed analysis of sensitive resources, necessary improvements, area compatibility, and appropriate use levels. Coastal Permits for accessways are subject to revocation. The CDFG provides assistance as the primary wetland consultant to the State Coastal Commission and only requires the presence of one attribute, either hydric soils, hydrophytic vegetation, or hydrology to qualify an area as a wetland.

California Department of Fish And Game

The California Department of Fish and Game (CDFG) enters into an Agreement Regarding Proposed Stream or Lake Alteration (Streambed Alteration Agreements) pursuant to Section 1601 - 1603 of the California Fish and Game Code for projects that involve work in streams, creeks, or rivers. The CDFG is also responsible for the protection of plant and wildlife populations and for overseeing the California Endangered Species Act.

State Water Resources Control Board

A Notice of Intent to comply with the General Permit for Discharges of Storm Water Associated with Construction Activity must be filed with the State Water Resources Control Board for construction projects that could disturb one acre or more of land surface. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) which must list BMPs that will be implemented, and contain a visual monitoring program, chemical monitoring program, and a sediment monitoring plan.

Regional Water Quality Control Board

The California Regional Water Quality Control Board (RWQCB) is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. The Porter-Cologne Water Quality Control Act defines Waters of the State as any surface water or ground water, including saline waters, within the boundaries of the state. Waters of the U.S. are also Waters of the State. The RWQCB can issue a National Pollution Discharge Elimination System (NPDES) permit for applicable activities.

The RWQCB also has federal and state jurisdiction for activities that could result in a discharge of dredged or fill material to a water body, pursuant to Section of 401 of the Clean Water Act. Federal authority under Section 401 of the Clean Water Act is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the Corps. The RWQCB would then issue a Clean Water Act Section 401 Water Quality Certification. Whenever a proposed project is not subject to federal authority under Section 404 of the Clean Water Act, the RWQCB can exercise state authority. In these cases, the RWQCB would issue a Notice of Coverage, Waiver of Waste Discharge Requirements.

The RWQCB generally takes jurisdiction over isolated wetlands since the *Solid Waste Agency of Northwestern Cook County vs United States Army Corps of Engineers et al*. United States Supreme Court decision determined that the Corps did not have jurisdiction over these wetlands.

The proposed project is within the boundaries of the North Coast RWQCB.

Storm Water Management Plan

The purpose of a Storm Water Management Plan (SWMP) is to describe activities that will be undertaken to reduce the load of pollutants entering the storm water system from the permit area. They are required when a municipal area is within a National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer Systems (MS4) Permit boundary and are regulated by the Regional Water Quality Control Board. Sonoma County is regulated by two RWQCBs: the North Coast Region 1 and the San Francisco Bay Region 2 and has developed a Storm Water Management Plan for each of the two respective MS4 Permits.[6] The SWMPs identify Best Management Practices (BMPs) will be used to address specific program goals with the overall objective of reducing storm water pollution.

The proposed project it is not located within either of the two MS4 Permit jurisdictional boundary areas.

Marin/Sonoma Mosquito Abatement District

The Marin/Sonoma Mosquito Abatement District (MSMAD) is responsible for the prevention of vector growth associated with water bodies.

Northern Sonoma County Air Pollution Control District

The Northern Sonoma County Air Pollution Control District (NSCAPCD) operates under the jurisdiction of the California Air Resources Board. The NSCAPCD is responsible for monitoring air quality and has authority over activities that emit pollutants into the atmosphere.

Sonoma County Department of Transportation And Public Works

The Sonoma County Department of Transportation and Public Works issues encroachment permits for work in county roadways.

Sonoma County Permit and Resource Management Department

The Sonoma County Permit and Resource Management Department (PRMD) approves subdivision and building plans in the unincorporated areas of Sonoma County; issues grading, drainage, and building permits; building removal permits, and issues Sonoma County Ordinance 3836R permits for work in streams and rivers. The PRMD also makes consistency determinations in regards to the Sonoma County General Plan. The project is in compliance with the Sonoma County Tree Protection and Replacement Ordinance No. 4014.The replanting standards included in Ordinance No. 4014 have been incorporated into the mitigation measures to mitigate the aesthetic and biological effects of tree removal.

[6] SWMP, Phase I, Term II (North Coast Region 1). NPDES No. CA0025054 issued to the City of Santa Rosa, the County of Sonoma, and the Sonoma County Water Agency. June 26, 2003.
SWMP, Phase II, Term I (San Francisco Bay Region 2). General Permit No. CAS00000X issued April 30, 2003.

Figures

Photo 1. Bird Walk Coastal Access (Trail, Disposal Ponds, and Rock Outcropping)

Photo 2. Doran Beach Regional Park and Doran Marsh

Photo 3. Doran Marsh Trail (Looking southwest towards Doran Beach Regional Park)

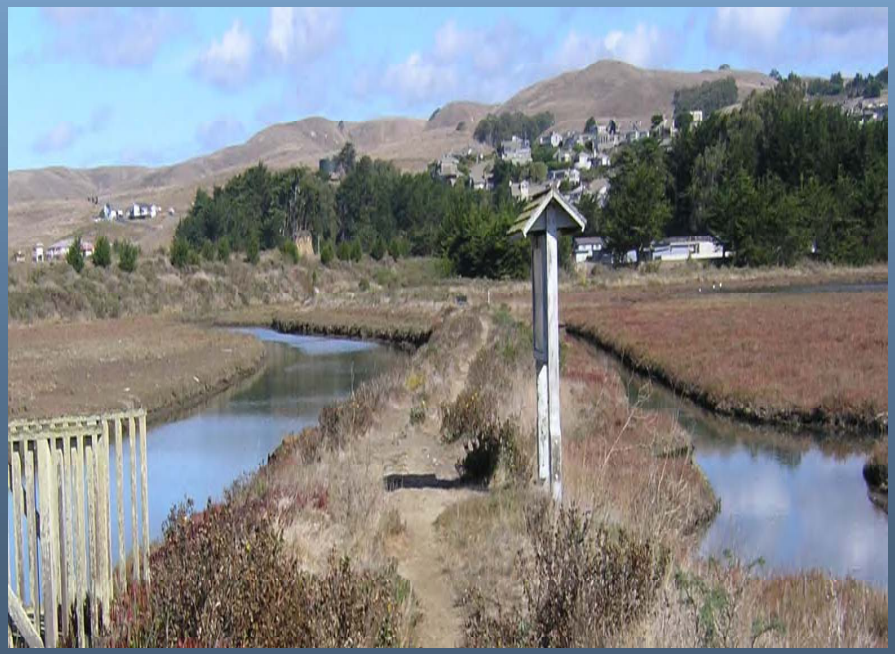


Photo 4. Doran Marsh Trail (looking east towards Bird Walk Coastal Access)

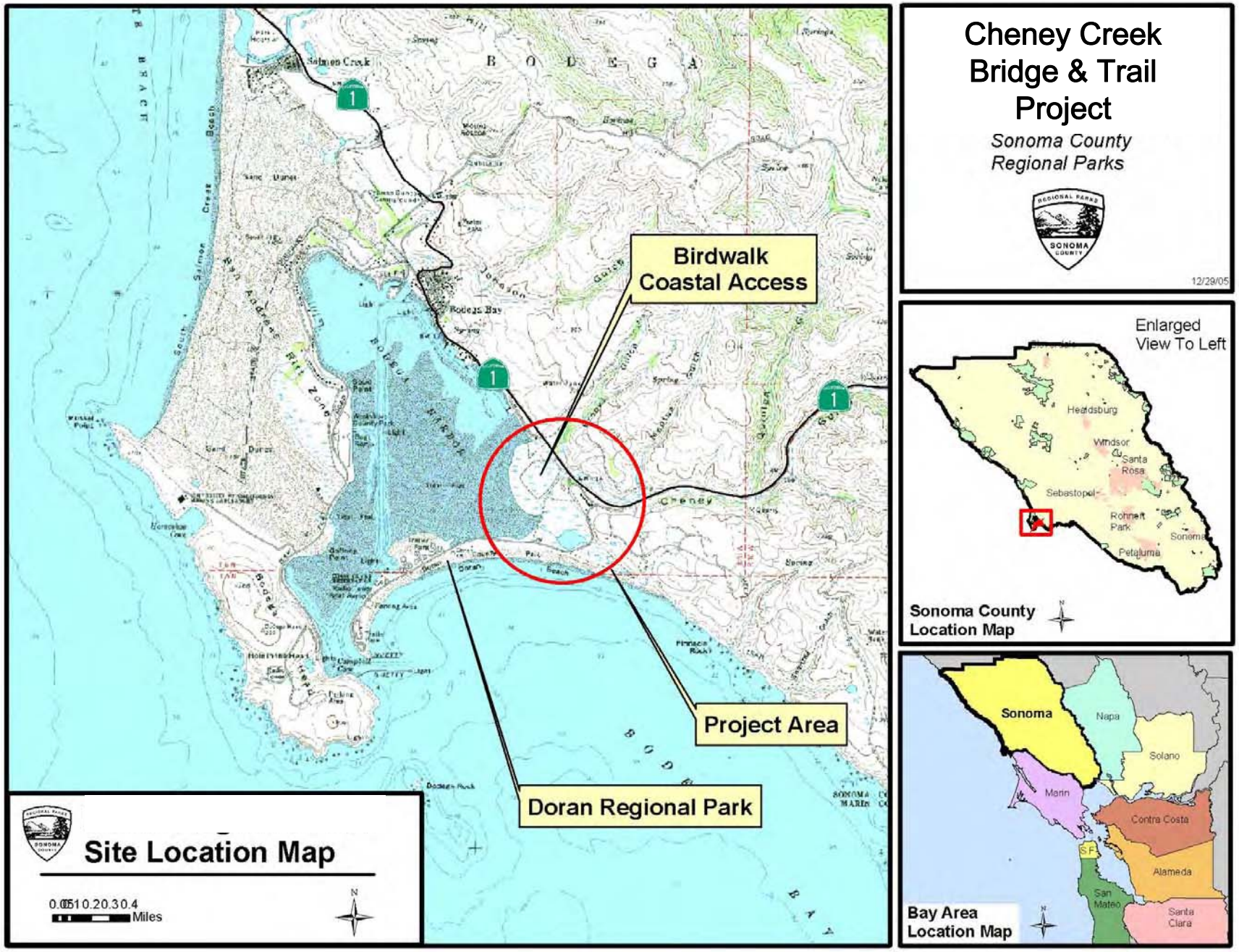
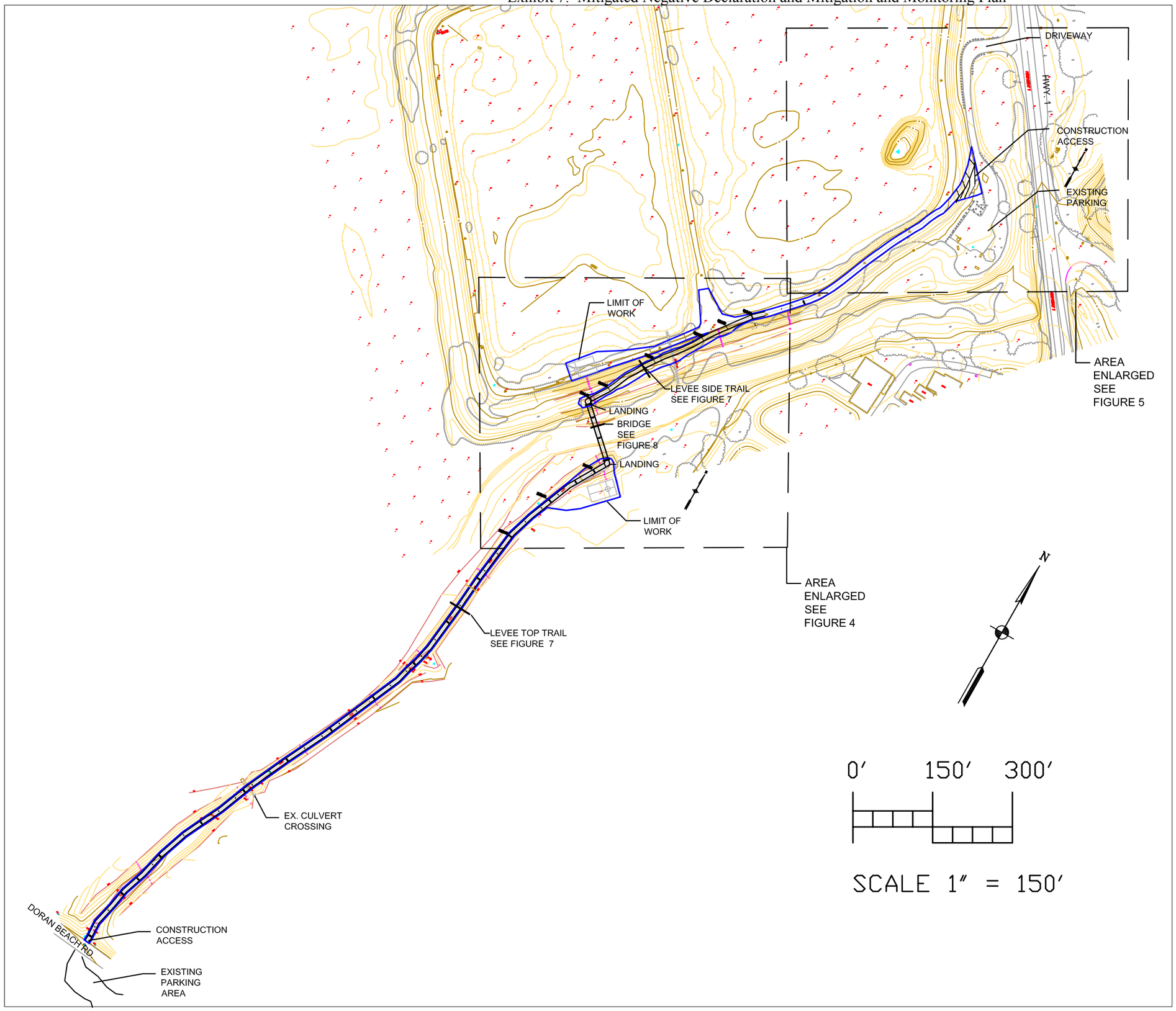

Cheney Creek
Bridge & Trail
Project
Sonoma County
Regional Parks
12/29/05
Birdwalk
Coastal Access
Project Area
Doran Regional Park
Site Location Map
0 0.5 1 0 2 0.3 0.4
Miles
Enlarged
View To Left
Healdsburg
Windsor
Santa
Rosa
Sebastopol
Rohnert
Park
Petaluma
Sonoma County
Location Map
Sonoma
Napa
Solano
Marin
Contra Costa
SF
Alameda
San
Mateo
Santa
Clara
Bay Area
Location Map

Figure 1

Cheney Creek Bridge and Trail Project - Site Map - Figure 2



Sonoma County Regional Parks

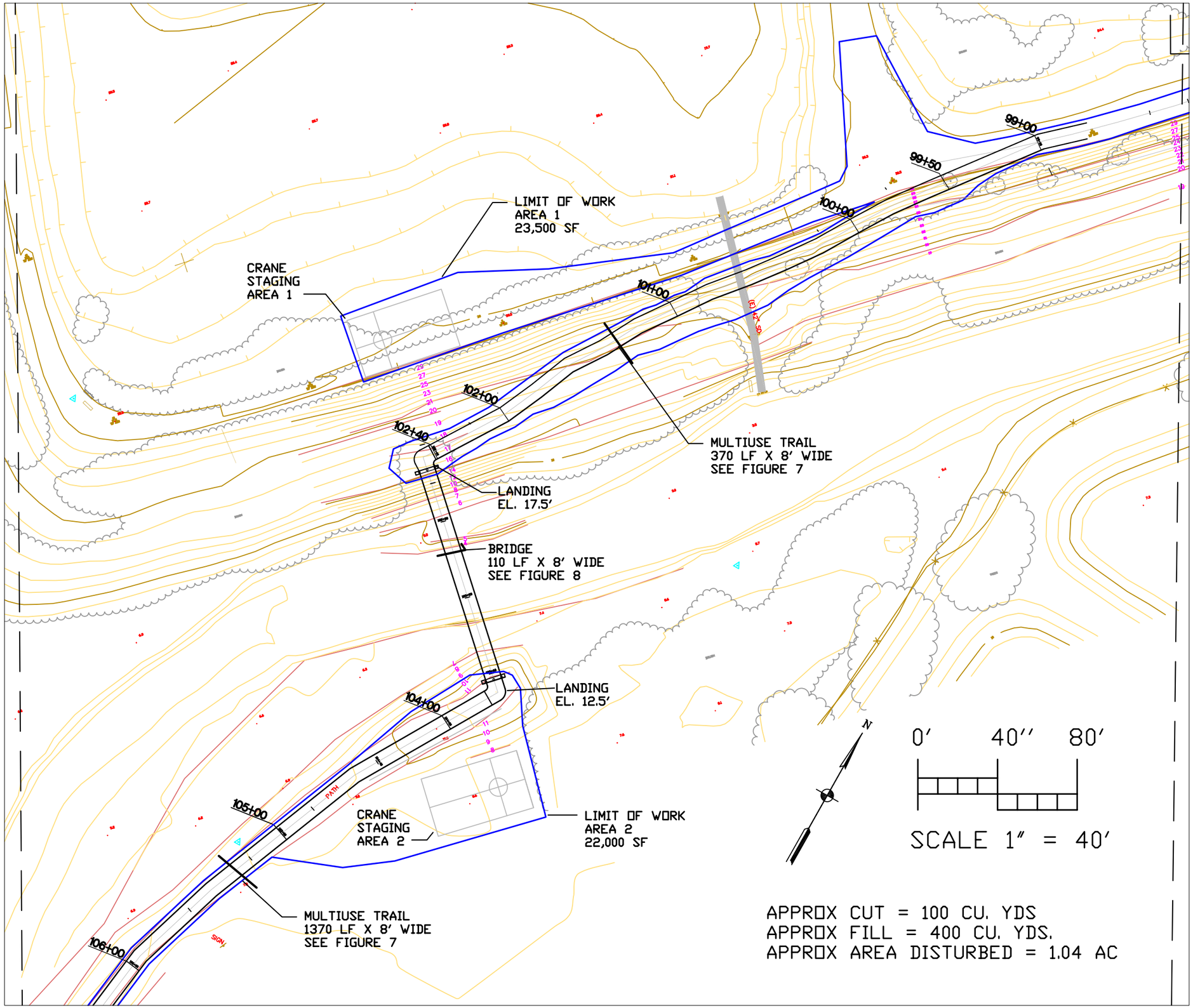
Cheney Creek Bridge & Trail Project

SITE PLAN

SCALE 1″ = 150′

Figure 3

Jan. 2006



Sonoma County Regional Parks

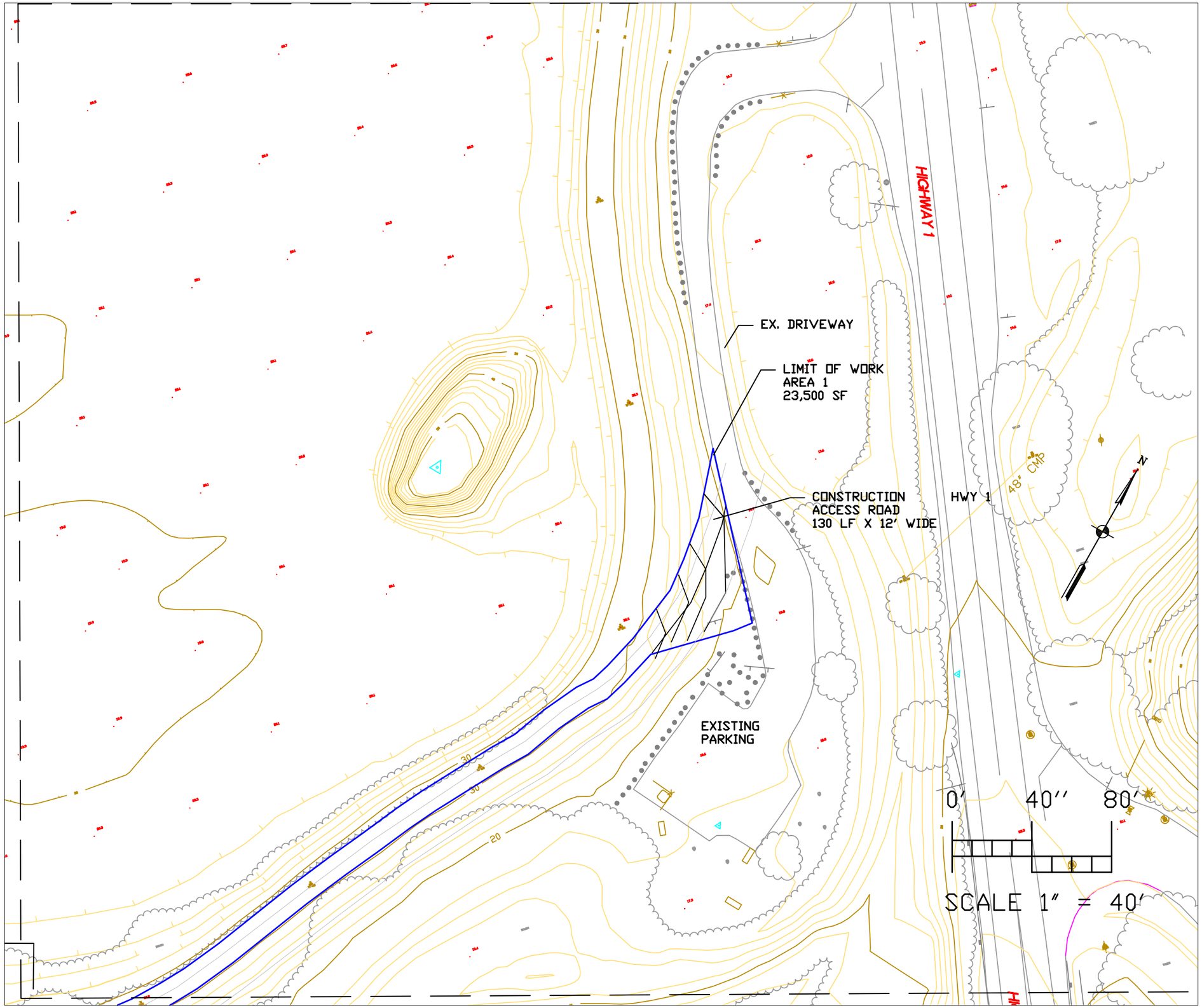
Cheney Creek Bridge & Trail Project

SITE PLAN DETAIL

SCALE 1" = 40'

Figure 4

Dec. 2006



Sonoma County Regional Parks

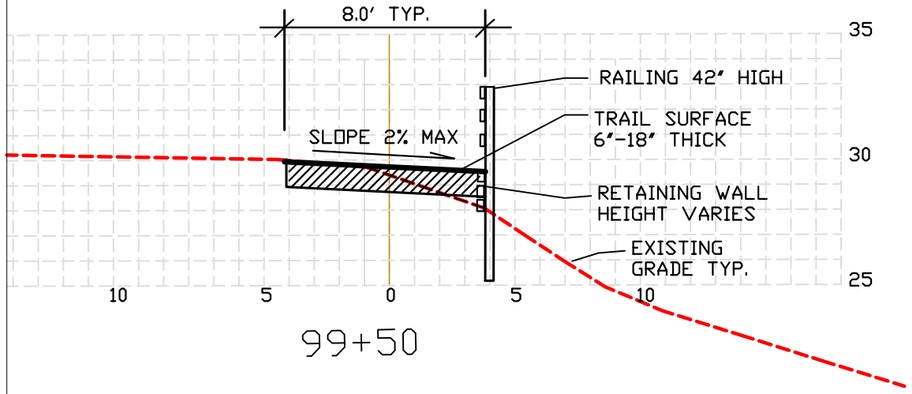
Cheney Creek Bridge & Trail Project

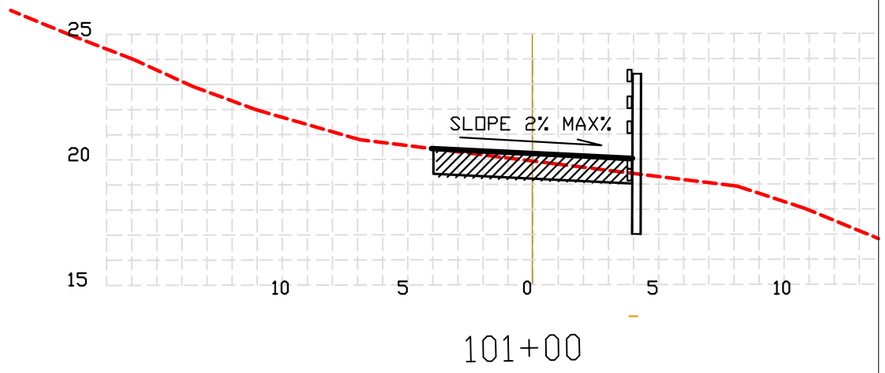
SITE PLAN DETAIL

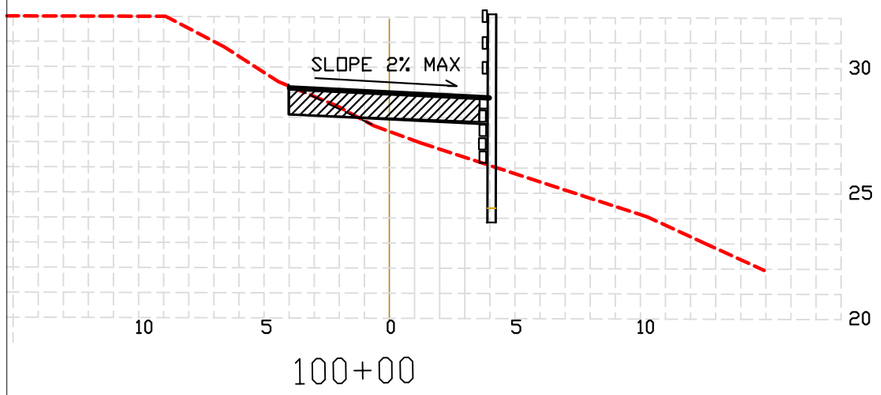
SCALE 1" = 40'

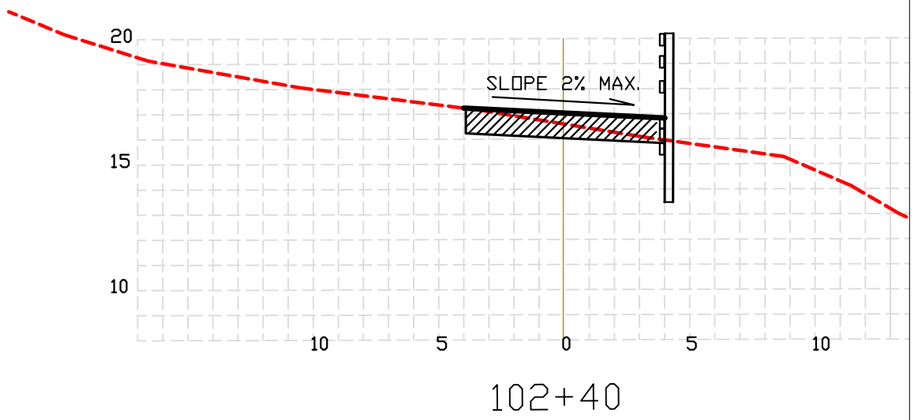
Figure 5

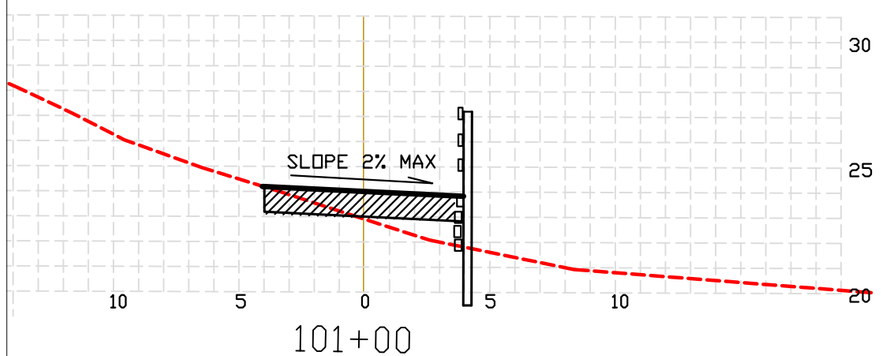
Jan. 2006

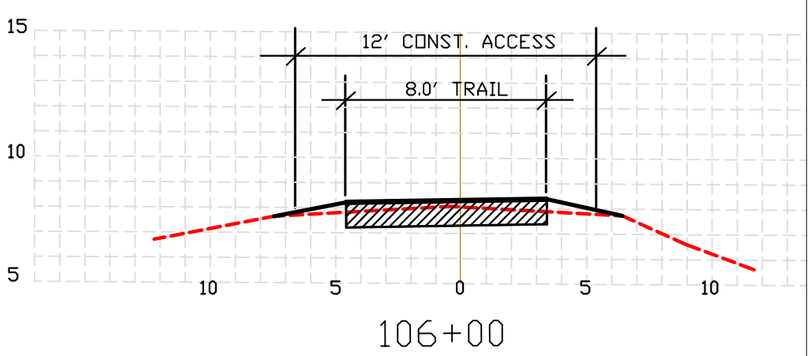












Sonoma County Regional Parks

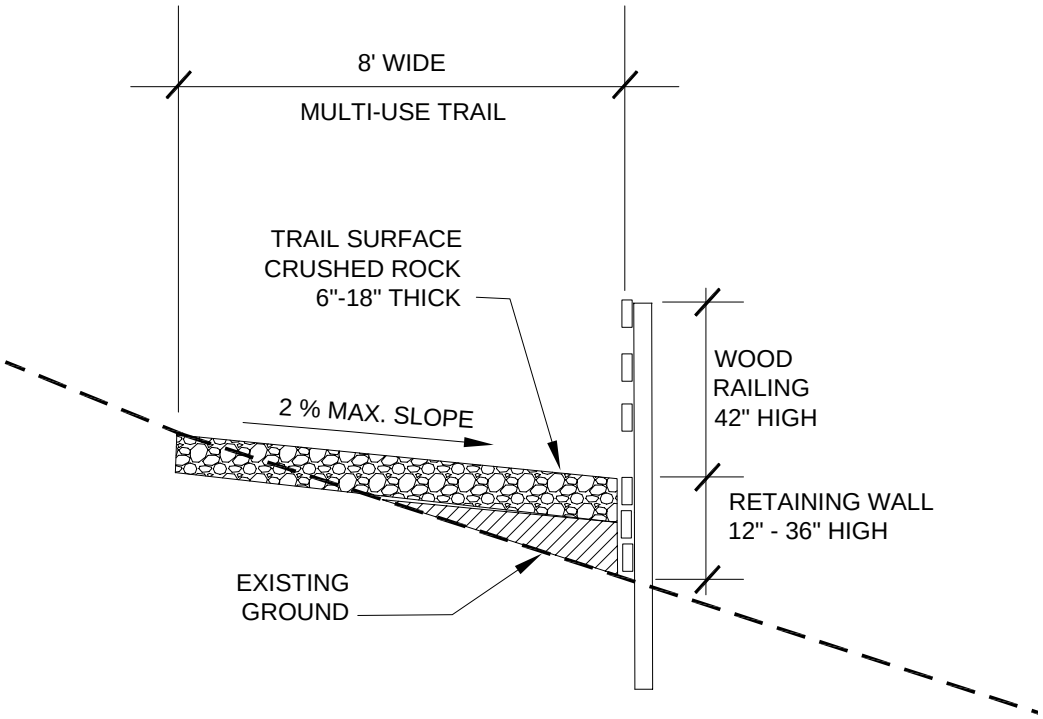
Cheney Creek Bridge & Trail Project

CROSS SECTIONS

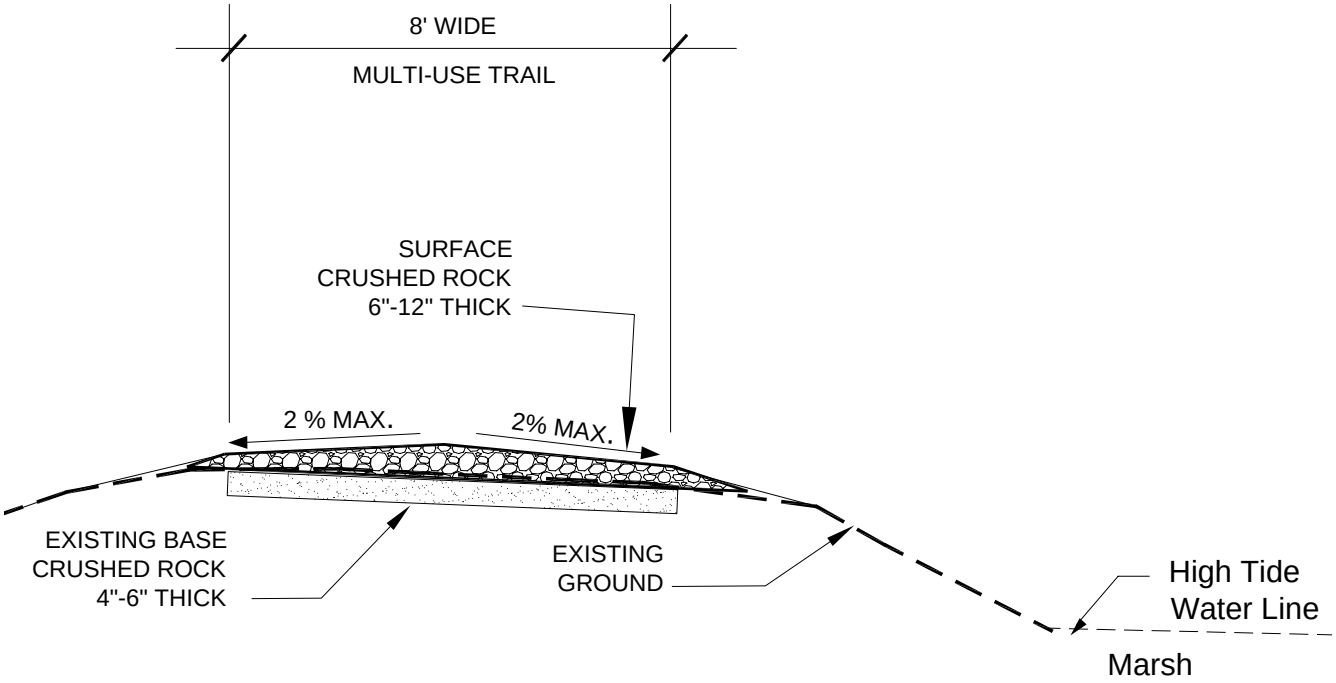
SCALE:
HORIZONTAL: 1"= 5'
VERTICAL: 1"= 5'

Figure 6

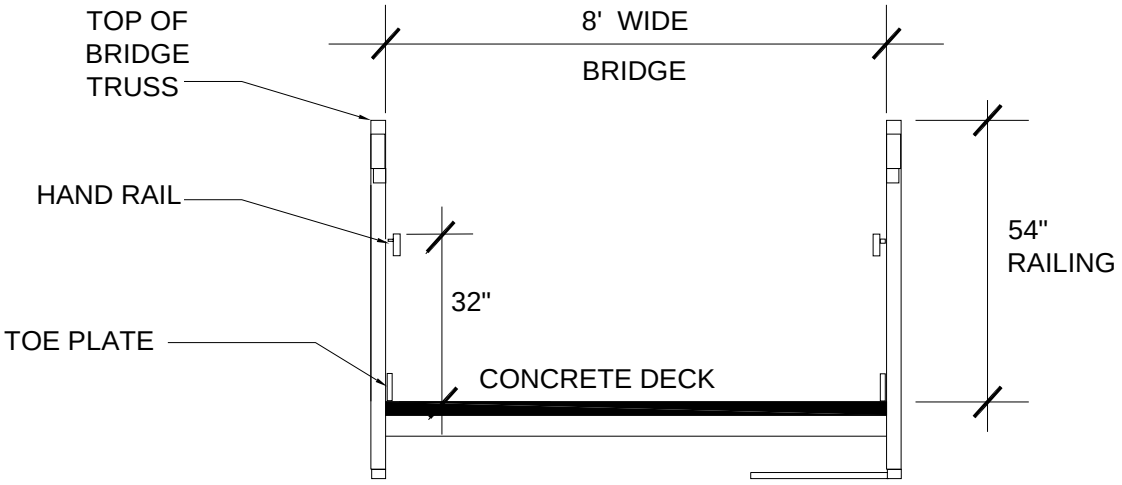
Jan. 2006



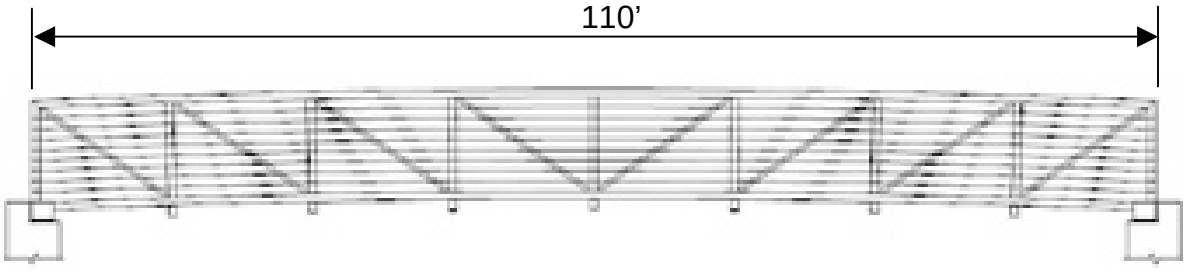
LEVEE SIDE TRAIL
CROSS SECTION



LEVEE TOP TRAIL
CROSS SECTION



BRIDGE
CROSS SECTION



BRIDGE
ELEVATION

Figure 8

Environmental Setting
&
Initial Study Checklist

Initial Study Checklist

This checklist is taken from Appendix G of the State CEQA Guidelines [1], updated October 26, 1998. For each item, one of four responses is given:

☒ No Impact: The proposed project will not have the impact described.

☒ Less Than Significant Impact: The proposed project may result in the impact described, but at a level that is less than significant. Mitigation is not required, however, mitigation measures may be included to further reduce the impact.

☒ Potentially Significant Unless Mitigated: The proposed project may result in the impact described at a level that is potentially significant. The incorporation of proposed mitigation measures would reduce the potentially significant impact to a less than significant level. For these responses, proposed mitigation measures are included after the discussion of the potential impact.

☒ Potentially Significant Impact: The proposed project may have the impact described at a level that is potentially significant. The potentially significant impact cannot be reduced to a less than significant level with the incorporation of proposed mitigation measures. An environmental impact report must be prepared for this project.

Each question on the checklist was answered by evaluating the proposed project as a whole, considering the potential impacts that may occur for any phase of the proposed project. The checklist includes a discussion of the impacts and mitigation measures that have been identified. Sources used in this Initial Study are numbered and listed at the end of the checklist. Following the discussion of each checklist item one or more sources used are noted in parentheses.

The Sonoma County Regional Parks Department agrees to accept all mitigation measures listed in this checklist as conditions of approval of the proposed project and to obtain all necessary permits. Mitigation measures are proposed to avoid, minimize, rectify, reduce, or compensate potentially significant impacts.

Initial Study Checklist resource categories begin on the pages listed below:

[1] California Environmental Quality Act, Statutes and Guidelines. 2005.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

1. AESTHETICS

SETTING: The Cheney Creek Bridge and Trail Project area is situated between two coastal Sonoma County Regional Parks (Regional Parks) facilities, Bird Walk Coastal Access (Bird Walk), bordered on the east by scenic corridor Highway 1, and Doran Beach Regional Park (Doran) accessed by Doran Park Road from Highway 1. Highway 1 is a designated Scenic Corridor in the Sonoma County General Plan.[2] Both Regional Parks facilities offer local residents and area visitor's aesthetic enjoyment opportunities. Please refer to the Photo Pages in the Figures Section of this document. In the southeast corner of Bird Walk, there is a large rock out-cropping that can be seen from Highway 1 and from Doran. The rock is the remaining vestige of a topographic feature, which was once over fifty feet above sea level before it was quarried to its current size.[3] From the Bird Walk mile-long loop trail along the top of the dredge ponds levee, park visitors have an unobstructed panoramic view of Bodega Bay, Bodega Harbor, Bodega Head, Doran Spit and Doran, and Doran Marsh. Nature enthusiasts can enjoy the scenic coastal marsh habitat, the tidal creek and channel habitat, tidal flats, and the Pacific Ocean from almost every location along the trail that offers extensive bird watching opportunities.

Cheney Creek cuts through the marsh area below the south side of Bird Walk heading southwest, where it empties into the tidal flats at the south end of Bodega Harbor. The southwestern area of the proposed project site is within Doran, located on a sand spit called Doran Beach, which curves out from the mainland and borders Bodega Harbor on the south. Doran Beach is approximately two miles long and backed by low fore dunes on the ocean side of the spit. The spit is the boundary between Bodega Harbor, and Bodega Bay and the Pacific Ocean.[4] Stretching from the Doran Marsh area along the southern edge of Bodega Harbor, and bordering scenic Bodega Bay, Doran offers vistas of coastal California beach and sand dune environments. Visitors can enjoy views of the historic fishing port of Bodega Harbor and the picturesque rolling hills to the east, as well as the open ocean beauty of Bodega Bay and Bodega Head at the end of Doran Spit at the harbor entrance.

The Bodega Bay Public Utilities District and the Bodega Bay Lodge and Spa are located southeast of the proposed project site. Hillside housing developments to the east and southeast are the nearest residential communities to the project location.

LOCAL REGULATION ASSOCIATED WITH AESTHETIC RESOURCES

Sonoma County General Plan. The General Plan Policy for Scenic Landscape Units seeks to preserve identified scenic landscapes because they are important to the quality of life of County residents, tourists, and agricultural economy and is guided by the following Goal:

OS-2: *Retain the largely open, scenic character of important scenic landscape units.*

[2] Sonoma County General Plan. Open Space Element. Figure OS-2. March 1989.
[3] Sonoma County Regional Parks and U.S. Army Corps of Engineers. *Bodega Bay Dredging Project 2001*. May 12, 1998.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

The General Plan Policy for Scenic Resources emphasizes that preservation of scenic landscapes is important to the character of the county and is guided by the following Goal associated with Scenic Corridors:

> ***OS-3:*** *Identify and preserve roadside landscapes which have a high visual quality as they contribute to the living environment of local residents and to the county's tourism economy.*

Local Coastal Plan. The goal of the Visual Resources section of the Sonoma County Local Coastal Plan is to prevent blockage or degradation of scenic views and to assure that development is compatible with the existing natural and man-made landscape. California Coastal Act policies 30251 and 30253 support the protection of coastal scenic qualities that include Scenic Corridors, Major Views, and Vista Points. The Local Coastal Plan recommends that development be prevented from obscuring views of the shoreline accessed from coastal roads, vista points, recreation areas, and beaches. Development will be prohibited if it will significantly degrade the scenic qualities of major views and vista points.

Would the project:

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

The proposed project will not result in a substantial adverse effect on a scenic vista. Construction activities may have a short-term, temporary impact to scenic resources within the project area, which could affect nearby residents and visitors to both Bird Walk Coastal Access and Doran Beach Regional Park. This construction-related impact is considered less than significant given its temporary nature. The bridge itself will have a less than significant impact on the scenic vista of the site because the bridge is blocked from the southeast and northeast by existing vegetation and natural terrain, it will be painted a color to blend with the natural environment, and it will not be blocking or obscuring public views. (Source 1)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ☐ ☐ ☒ ☐

The proposed project will not substantially damage scenic resources including trees, rock outcroppings or historic buildings. The project area is a scenic resource given its location to the Doran salt marsh and Bodega Bay. Cheney Creek is adjacent to Bird Walk Coastal Access dredge disposal ponds, which includes a large rock out-cropping in the eastern disposal pond. Coast Highway 1, a State designated scenic corridor with views considered to be a scenic resource, borders the project site on the east. The proposed project will not significantly impact these scenic resources. (Source 1) There are no state historic buildings in the vicinity of the project site. (Source 21) The new trail on the levee embankment of Bird Walk Coastal Access to the bridge landing is expected to have a less than significant impact to

[4] Sonoma County Regional Parks. *Preliminary Master Plan – Doran Park and Westside Park*.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

scenic resources because it will have a natural color crushed rock surface similar to the Doran Marsh Trail.

Some upland native and exotic vegetation will be removed on the levee embankment to accommodate the new trail between the existing levee trail and the new bridge landing. Much of the existing vegetation in the area of the new trail construction consists of invasive exotic species that have become established on the embankment. Elimination of exotic species would benefit the natural environment. (Source 17)

The Doran Marsh Trail is expected to have a less than significant impact to the scenic vista because it will remain low profile with a width of approximately eight feet, and a natural color crushed rock surface. Areas of existing vegetation along the Doran Marsh Trail will be removed to accommodate the minimal widening. The proposed project is expected to have less than significant impacts to scenic vista because only a small percentage of native vegetation will be removed as a result of project activities.

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

The proposed project will not substantially degrade the existing visual character or quality of the site or its surroundings. The Cheney Creek Bridge will be visible to Highway 1 commuters, to residents of the subdivision on the hill directly east of Highway 1, and the project site. It is unlikely that the bridge design and placement location will create a substantial aesthetic impact to the scenic vista of the area. The bridge will be painted to blend in with the surrounding natural color scheme, and the see-through structure and height of the bridge will not block or reduce the views of the area. (Source 1)

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

The proposed project will not create a new source of substantial light or glare that would impact the scenic vista of the area. Vegetative cover that is removed for trail construction will expose a minimal amount of surface area that will be covered with natural colored crushed rock that will not create glare or introduce a new source of substantial light. The bridge will be painted in a manor that will facilitate a blending into the natural environment of the site, and native vegetation will be planted near the bridge landings to further reduce any potential adverse effects of the project. (Source 1)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

2. AGRICULTURE RESOURCES

SETTING: Between 1812 and 1960 some agriculture took place near the project area. The activities included livestock grazing, and wheat and intensive potato farming. Historically, sediments from agriculture practices in the vicinity of the project area have been transported into the marsh via Cheney Creek. An on-going potential for deposition transport into the marsh exists from the Sonoma County General Plan Primary Agriculture Area east of Highway 1.[5] There are no designated farmland categories within the project site.[6]

The project site area soil is described as Tidal Marsh, consisting of nearly level marshlands that are under water or extremely wet throughout the year. Except for small areas that support limited grazing, Tidal Marsh has no farming value. It is used mainly for recreation and wildlife habitat.[7] The Sonoma County Coastal Plan prohibits construction of agricultural structures within 100 feet of wetlands.[8] The project site is zoned Public-Quasi Public/Park.[9]

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ☐ ☐ ☐ ☒

The proposed project will not convert to a non-agricultural use any designated Prime Farmland, Farmland of State Importance, or Unique Farmland according to the map of Farmland Mapping and Monitoring Program, from the California Department of Conservation, Division of Land Resource Protection. The project area is not currently cultivated. (Source 10)

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

The proposed project will not conflict with existing zoning for agricultural use or Williamson Act contract. The project site is located on Regional Parks property and is zoned Public- Quasi Public. According to the Sonoma County General Plan the project site is located within a Designated Outdoor Recreation Area. The project area is designated "Non-Agricultural Land" on the Sonoma County Agricultural

[5] Wetlands Research Associates, Inc. *Spud Point Marina Mitigation Study: Doran Park Marsh Assessment and Enhancement Recommendations.* April, 1986.
[6] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Sonoma County Important Farmland Map*. 1996.
[7] Soil Conservation Service, U.S. Department of Agriculture. *Soil Survey of Sonoma County, California*. August 1990.
[8] County of Sonoma. *Local Coastal Program – Local Coastal Plan.* December 12, 2001.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Preserve Lands map, Office of the County Assessor. The Sonoma County Williamson Act Lands, 2005 map indicates that the project site is designated "Non-enrolled Land", County land not enrolled with the Williamson Act Program. (Sources 1, 2, 3, 4)

c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use? ☐ ☐ ☐ ☒

The proposed project will not create changes in the environment that would facilitate conversion of any farmland to non-agricultural use. The project area land has been in use as a Public Park and is not zoned for agriculture. (Source 2)

[9] Sonoma County General Plan, Permit and Resource Management Department. *Land Use Plan Map*. March 1989.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

3. AIR QUALITY

SETTING: The area is coast wetlands and riparian environment, with one other road, Doran Park Road, in the immediate vicinity. There are no industrial, large commercial or agricultural land use activities currently in the project site vicinity. There are two residential subdivisions located directly east and southeast of the project site, both accessed from Highway 1. To the west of the project site along Doran Park Road are the park facilities that include recreational vehicle and tent campground areas at the end of the road, a boat launch ramp, and a small Ranger Station. The U.S. Coast Guard Station is located next to the Ranger Station on the Harbor side of Doran Spit.

Air pollutants include both gases and particulates. Particulates come from agricultural, industrial and residential sources as a result of construction and grading activities. The sources of air pollution are both mobile and stationary, and in Sonoma County come primarily from automobiles. The largest stationary pollutant source in the County is the Geysers power plants, and contributing sources include mining operations and lumber mills. In the urban areas, residential wood stoves are a contributor to particulate levels.[10]

REGULATION ASSOCIATED WITH AIR QUALITY

Sonoma County General Plan. The Sonoma County General Plan Resource Conservation Element contains policies that address county air resources with the following Goal:

> *RC-13: Preserve and maintain good air quality and provide for an air quality standard that will protect human health and preclude crop, plant, and property damage in accordance with the requirements of the Federal and State Clean Air Acts.*

Northern Sonoma County Air Pollution Control District. Air quality standards are established at both the Federal and the State level for a variety of pollutants and are intended to provide greater protection of public health. The proposed project site is located west of State Highway 1, on Regional Parks property within the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD).[11] State standards are more stringent than the Federal standards. The NSCAPCD is in non-attainment of the Federal and State one-hour ozone standards, the State PM-10 Annual Arithmetic Mean and 24-hour standards, and the State PM-2.5 Annual Arithmetic Mean Standard. The NSCAPCD has two applicable Air Quality Management Plans, which, among other things, provide a strategy to achieve progress toward attaining Federal and State standards. The 2001 Ozone Attainment Plan is associated with the Federal ozone standard and the 2000 Clean Air Plan is associated with State standards.

Fine particulate matter is defined as particulate matter that is less than 10 microns in diameter, abbreviated as PM_{10}. The sources of PM_{10} are wide ranging, and include smoke, dust, aerosols, and metallic oxides from a variety of emissions, including wood-burning fireplaces, combustion, industrial processes, grading and

[10] Sonoma County General Plan. *Resource Conservation Element*. March 1989.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

construction, and motor vehicles. PM_{10} can bypass the body's natural filtration system more easily than larger particles, lodge deep in lung tissue, and aggravate respiratory illnesses such as bronchitis and asthma. There are no air quality standards for odors. Offensive odors rarely impact public health; however, they can negatively impact quality of life. Factors such as the location of potential sources of odors and the location of potential receptors to the source of odor are considered to determine the potential effects of odors on sensitive receptors.

Ground level ozone is commonly referred to as smog. Smog is formed in the atmosphere through chemical reactions between ozone precursors in the presence of sunlight. The principal sources of ozone precursors include combustion process, such as motor vehicle engines, and evaporation of solvents, paints, and fuels. Of these, motor vehicles are the single largest source of ozone precursor in the Bay Area. Exposure to ozone can result in physical symptoms such as eye irritation, respiratory diseases, and lung damage as well as environmental impacts such as impacts to vegetation and reduced visibility.[12]

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

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

The proposed project would not conflict or obstruct implementation of an applicable air quality plan. The NSCAPSD does not have an air quality plan because it is in attainment of all federal standards. (Source 13)

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

The proposed project is not expected to result in violations of air quality standards or contribute substantially to an existing or projected air quality violation. The proposed project does not include stationary sources that would require an air quality permit. The proposed project may result in increased traffic as park visitors access the site, however, this is not expected to result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation. (Source 1)

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for	☐	☐	☒	☐

[11] California Air Resources Board. California Air Districts Map. Accessed November 2006. www.arb.ca.gov./maps/adistbw.pdf.
[12] Bay Area Air Quality Management District. April 1996.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

ozone precursors)?

The proposed project will not result in a cumulatively considerable net increase of any criteria pollutant. The NSCAPCD is in non-attainment for the state ozone and respirable particulate matter (PM_{10}) standards. Vehicle and equipment use within the project area from construction activity, visitor use, operation, and maintenance may increase fugitive dust and vehicle emissions within the project site; however, not result in a cumulatively considerable net increase of ozone precursors or fugitive dust because these activities would not result in new emissions of ozone precursors. Construction of the proposed project, use of the proposed trails, and periodic maintenance activities could result in temporary increases of fugitive dust emissions, which could temporarily increase PM_{10}. The less than significant impacts associated with construction, use, operation, and maintenance of the bridge and trails could be further reduced with implementation of the following mitigation measures. (Source 1)

Mitigation Measures:

1. The Contractor will be required to spray water or dust palliative on unpaved construction, staging areas, and to stockpiles of soil as needed to control dust during construction. Sonoma County Regional Parks Department staff will be required to spray water or dust palliative on unpaved areas as needed during maintenance activities.

2. The Contractor will be required to cover loads of soil, sand, and other loose materials over public roads, keep the loads at least two feet below the level of the sides of the hauling container, and wet the load sufficiently to prevent dust emissions during construction of the proposed project. Sonoma County Regional Parks Department staff will be required to cover loads of soil, sand, and other loose materials over public roads, keep the loads at least two feet below the level of the sides of the hauling container, and wet the load sufficiently to prevent dust emissions as needed during maintenance activities.

3. The Contractor will be required to sweep paved roads as needed to remove soil that has been carried onto them from the project site during construction. Sonoma County Regional Parks Department staff will be required to sweep paved roads as needed to remove soil that has been carried onto them from the project site due to maintenance activities.

4. The Contractor will be required to operate all construction vehicles and equipment with emission levels that meet current air quality standards and to minimize idling time for all heavy equipment to reduce on-site emissions during construction. Sonoma County Regional Parks Department staff will be required to operate all construction vehicles and equipment with emission levels that meet current air quality standards and to minimize idling time for all heavy equipment to reduce on-site emissions during maintenance activities.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

The proposed project is not expected to expose sensitive receptors to substantial long-term pollutant concentrations. Sensitive receptors are facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Sensitive receptors are likely to visit the proposed project site and sensitive receptors exist, either by residence or business, within one-mile of the proposed project site. Examples include schools, hospitals, and residential areas. The project site is not located near any schools or hospital facilities. The Bodega Bay Harbour subdivision, the Bodega Bay Lodge and the Bodega Bay Public Utilities District are located within one mile of the project site. Construction activities, use of the project, and maintenance activities may result in increased fugitive dust and vehicle emissions. There are existing conditions that contribute to fugitive dust, PM_{10}, and odors in the project area. The project area is within an existing park facility that has had a history of public use. These conditions would not change as a result of project implementation. Highway 1, to the east of the project site, is a primary arterial that carries large volumes of traffic intermittently in the vicinity of the project area. Long-term fugitive dust generation associated with vehicles would be nominal.

Project design includes elements to minimize the additional fugitive dust and PM_{10} potential for exposing sensitive receptors to increased dust from use, operation and maintenance of the facility. The new trail and improvements to Doran Marsh Trail surface would include applying a crushed rock material over and aggregate base, over a compacted native soil sub-base and adding a soil stabilizer to the crushed rock if necessary for stabilization. Given the location of the project area in relationship to nearby residences and businesses it is not expected that sensitive receptors would be affected by temporary construction-related activities. The mitigation measures proposed under 3.c would minimize the effect of this less than significant impact. (Source 12)

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

The proposed project will not result in long-term objectionable odors. Construction equipment may generate odors during project construction. This short-term, construction-related impact would cease upon completion of construction activities. The mitigation measures proposed under 3.c would minimize the effect of this less than significant impact. (Source 1)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

4. BIOLOGICAL RESOURCES

SETTING: The project area and vicinity includes a vast array of biological resources, including associated with upland and wetland plant communities that provide habitat to many wildlife species. Within the immediate project area, Doran Beach Regional Park features salt marsh habitat, Bird Walk Coastal Access Trail features upland and wetland habitats, and Cheney Creek provides a tidally influenced freshwater creek. Birdlife is abundant within the project area and vicinity, no doubt due to the abundant and diverse habitat offerings. The Cheney Creek bridge and trail project area is at the southeastern end of Bodega Harbor. The salt marsh area adjacent to Cheney Creek supports native vegetation predominantly composed of pickleweed (*Salicornia sp.)* and salt grass (*Disticilis spicata*). The upland area is dominated by coyote bush (*Baccharis pilularis*) and a variety of grasses and forbs. This vegetation community extends up the levee slope and is representative of a disturbed coastal upland habitat.[13] Doran Marsh south of Cheney Creek and extending west to Doran Park Road is one of the few historic tidal marsh areas in Bodega Harbor. An enhancement plan of the marsh was implemented in 1993-94 to improve and preserve bird and wildlife habitat. The marsh and marsh channels support a diverse invertebrate community, and multiple fish species that utilize the area for spawning and rearing habitat. Species include arrow goby, starry flounder, topsmelt, three-spine stickleback, plainfin midshipman, longjaw mudsucker and sculpin. Many species of shorebirds, waterfowl, and wading birds use the marsh as roosting and foraging habitat. Bird use in the Harbor is highly variable depending on seasonal migrations and movement related to tidal level.[14]

BIOLOGICAL RESOURCES STUDIES: Regional Parks had two biological resources studies completed regarding the proposed project, a *Botanical and Wetland Resources Report*[15] and a *Habitat Assessment*,[16] which focused on wildlife. The study area included a portion of the Bird Walk Coastal Access trail, the lower reach of Cheney Creek from the area east of the proposed bridge and trail location, and the Doran Marsh Trail including the marsh areas on both sides of the trail. Both reports included the following:

- Archival research to identify potential plants, wetlands, and wildlife species that could be present within the project area, particularly and special status species and/or habitats
- Field survey to identify the presence of plant and animal species, plant communities and wildlife habitats, and wetlands
- Assessment of potential impacts to biological resources that could result from implementation of the project

[13] Sonoma County Regional Parks and U.S. Army Corps of Engineers. *Bodega Bay Dredging Project 2001.* May 12, 1998.
[14] Wetlands Research Associates, Inc. and Sonoma County Regional Parks. *Doran Park Marsh Enhancement, Phase III Post-Project Monitoring.* June 1999.
[15] Valerius, Jane. Environmental Consulting. *Botanical and Wetland Resources Report, Cheney Creek Bridge and Trail Project.* December 21, 2006.
[16] Tatarian, Trish and Greg. Wildlife Research Associates. *Habitat Assessment, Cheney Creek Bridge.* December 11, 2006.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

- Mitigation measures that could minimize the significance of potential environmental impacts associated with biological resources.

The following discussion integrates the findings and conclusions of both reports.

WETLANDS

Three separate jurisdictions apply to the waters within the proposed project area. They include Waters of the US that are regulated by the US Army Corps of Engineers (USACOE), Waters of the State that are regulated by the Regional Water Quality Control Board (RWQCB), and coastal waters regulated by the California Coastal Commission (CCC). These jurisdictional boundaries are not necessarily contiguous.

The wetlands assessment did not identify any wetlands or waters that are isolated and therefore concluded that the existing wetlands and waters are both Waters of the U.S. and Waters of the State. There are no areas that were mapped that were outside of the USACOE jurisdiction but within the CCC or RWQCB definition of wetlands and waters. The *Botanical and Wetland Resources Report* identified approximately 1.64 acres of wetlands within the study area. The wetland areas within the project area include northern coastal salt marsh and brackish marsh communities. An area of freshwater marsh, a wetland community type, is located outside of the proposed project boundaries.

Cheney Creek is within all three jurisdictions. Cheney Creek is tidally influenced and therefore is within USACOE jurisdiction under Section 10 of the Rivers and Harbors Act. The total area of Waters of the US/State associated with Cheney Creek within the project area is approximately 0.13 acre.

The *Botanical and Wetland Resources Report* did not identify any direct environmental impacts to Cheney Creek or wetlands that would result from project implementation. A number of mitigation measures were proposed to minimize the significance of potential indirect environmental impacts to Cheney Creek or wetlands, which have been incorporated into the Mitigation Monitoring Plan.

BOTANICAL

Archival research included several databases included the California Natural Diversity Database (CNDDB) and Rare Find lists, California Native Plant Society's (CNPS) Electronic *Inventory of Rare and Endangered Plants of California*, U.S. Fish and Wildlife Service Endangered and Threatened Species List, and aerial photographs and background information of the proposed project site provided by Sonoma County Regional Parks. Field surveys were conducted in accordance with the California Department of Fish and Game (CDFG) guidelines for special-status plant surveys. The CDFG guidelines require floristic surveys, which means that all plants within the study area be identified to a level that determines their rarity status. The surveys were conducted during their respective blooming periods when the plants would be most identifiable.

PREDOMINANT PLANT SPECIES

The following plant species were identified as predominant within the study area:

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Trees and Shrubs: Arroyo willow (*Salex lasiolepis*), California bay (*Umbellularia californica*), Monterey cypress (*Cupressus macrocarpa*), California wax-myrtle (*Myrica californica*), Yellow lupine (*Lupinus arboreus*), Bush monkeyflower (*Mimulus aurantiacus*), salmonberry *(Rubus spectabilis*), Twinberry (*Lonicera involucrate var. ledebourii*)

Herbaceous Plants: Marsh gumplant (*Grindelia stricta*), seaside woolly sunflower (*Eriophyllum staechadifolium*), perennial wild buckwheat (*Eriogonum* sp.), fragrant everlasting (*Gnaphalium microcephalum* ssp. *beneolens*), beachbur (*Ambrosius chamissonis*), Douglas iris (*Iris douglasiana*), woolly lotus (Lotus heermannii var. orbicularis), California poppy (Eschscholzia californica), yarrow (Achillea millefolium), willow dock (Rumex salicifolius), rush (Juncus spp.), spikerush (Eleocharis macrostachya)

Grasses: Meadow barley (*Horedeum brachyantherum ssp. Brachyantherum*), creeping ryegrass (*Leymus triticoides*), California oatgrass (*Danthonia californica*)

Invasive Non-Native Plant Species: Several invasive non-native species have become established within the project area threatening native plant communities. These include iceplant (*Carpobrotus chilensis*), rosea iceplant (*Drosanthemum floribundum*), velvet grass (*Holcus lanatus*), slender wild oats (*Avena barbata*), medditerranean barley (*Hordeum marinum* ssp. *Gussoneanum*), wild radish (*Raphanus sativus*), European beachgrass (*Ammophila arenaria*), soft chess (*Bromus horeaceus*), meadow fescue (*Festuca pratensis*), poison hemlock (*Conium maculatum*), bristly ox-tongue (*Picris echiodes*), and fennel (*Foeniculum vulgare*).

PLANT COMMUNITIES & WILDLIFE HABITATS

Both biological resource studies identified plant communities. The *Botanical and Wetland Resources Report* utilized descriptions consistent with the *Terrestrial Natural Communities of California*,[17] and noted that some of the communities intermingle with each other partly due to the historical land use practices in the area. Remnants of previously established habitats persist in some areas, while in other areas various plant communities have invaded previously established communities, becoming the dominant habitat. The *Habitat Assessment* utilized descriptions consistent with *A Guide to Wildlife Habitats of California*[18] and also noted habitat interface. Habitat interface increases diversity within the project area as it provides several edges that allow species to forage in the open and to utilize the trees and shrub for cover. The following plant communities and wildlife habitats were identified within the study area. These are organized by type: Aquatic, Grassland, Scrub, and Dune.

Aquatic

Cheney Creek: The *Habitat Assessment* identified Cheney Creek within the project area as brackish and due to tidal action, provides similar wildlife habita as the saltmarsh and mudflat wildlife habitats. Cheney Creek provides habitat for several fish species, including tidewater goby (*Eucyclogobius newberryi*), a Central

[17] Holland, Robert F., Ph.D.,. *Terrestrial Natural Communities of California*. 1986
[18] Mayer, K.E. and W.F. and Laudenslayer, Jr. Eds. *A Guide to Wildlife Habitats of California*. California Department of Forestry

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

California Coast steelhead distinct population segment *(Onchorhynchus mykiss)*, three-spine stickleback (*Gasterosteus aculeatus*), and prickly sculpin (*Cottus asper*). Tidewater goby is a federally endangered species and a California species of special concern. Steelhead is a federally threatened species.

Coastal Brackish Marsh: The *Botanical and Wetland Resources Report* describes this plant community as usually occurs near the coast in bodies of water influenced by fresh water from inland waterways and by salt water from the ocean. Indicator plant species include Pacific silverweed (*Potentilla anserina* ssp. *Pacifica*) and alkali heath. Locations of the coastal brackish marsh plant community within the study area are near the west and east ends of the western Bird Walk dredge disposal pond.

Coastal Freshwater Marsh: The *Botanical and Wetland Resources Report* describes freshwater marsh as occurring either near the coast or in inland areas. Regardless of location, freshwater marshes are not influenced by salt water. Within the study area, coastal freshwater marsh occurs at the borders of the two Bird Walk dredge disposal ponds. Several of the existing plant species including velvet grass and iceplant can occur both in salt and fresh water, but the presence of Pacific rush (*Juncus effusus*), and spikerush (*Eleocharis macrostachya)* at the west end of the east pond indicate a freshwater habitat.

Northern Coastal Salt Marsh: The *Botanical and Wetland Resources Report* identifies the dominate plant species in Northern coastal salt marsh as pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), and miscellaneous rushes (*Juncus spp.).* Within the study area, this plant community occurs on the west side of Bird Walk levee and in places along the Doran Marsh Trail. This is a sensitive plant community of concern to the CDFG because of the rapid decline of the habitat in California for the past several years. Within the study area, this plant community includes special status plant species: Pt. Reyes bird's-beak *(Cordylanthus maritumus* ssp. *Palustris)* and Marin knotweed *(Polyginum marinense)*. Please see the discussion under Special Status Species for additional information.

Salt Marsh Mudflat: This habitat type was identified in the *Habitat Assessment*. It is determined by elevational gradients between the higher brackish sites and the lower saline sites. Plant species including pickleweed, jaumea, cordgrass, arrowgrass, and California seablite grow in the lower region of the salt marsh, which attract rails and shore bird species. The upper marsh area includes bulrush, coast carex, and common cattails, which attract mammals and perching birds known as passerines. As many as thirty-six species of waterfowl use the salt marsh habitat to forage and rest during winter and spring migrations along the Pacific Flyway.

Grassland

Non-native Grasslands: The *Habitat Assessment* identifies non-native grassland, which is similar to the Annual Grassland plant community identified in the *Botanical and Wetland Resources Report*. Non-native grasslands include native and non-native species and attracts common seed-eating and insect-eating wildlife

and Fire Protection, Sacramento. 1988.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

species such as western fence lizard (*Sceloporus occidentalis*), California quail (*Callipepla californica*), scrub jays (*Aphelocoma californica*), mourning doves (*Zenaida macroura*), meadow vole (*Microtus californicus*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and gray fox (*Urocyon cinereoargenteus*), coyotes (*Canis latrans*), red-tailed hawks (*Buteo jamaicensis*), red-shouldered hawks (*Buteo lineatus*), barn owls (*Tyto alba*), and great horned owls (*Bubo virginianus*).

Annual Grassland: The *Botanical and Wetland Resources Report* identified the annual grassland plant community as common throughout California. This plant community is often dominated by weedy non-native grasses although remnant native grasses and forbs can be found as well. The majority of the Doran Marsh trail levee is annual grassland with other plants occurring like coast gumplant and yellow lupine. Where the levee widens out north of the narrowest point the grassland extends out intermingling with the northern coastal salt marsh. Ripgut brome (*Bromus diandrus*), Chilean brome (*Bromus stamineus*), and meadow fescue (*Festuca pratensis*) dominate this area. The knoll area where the south bridge landing is proposed is dominated with wild radish (*Raphanus sativus*), as is the location for Staging Area 1 on the Bird Walk Coastal Access south levee embankment.

Sub-categories of the Annual Grassland plant community include Introduced Perennial Grassland and Native Perennial Grassland, both of which were identified within the project area. Dominant species in the Introduced Perennial Grassland plant community include velvet grass, Harding grass (*Phalaris aquatica*), and Kentucky blue grass (*Poa praetensis*), which were identified on the slopes above the Bird Walk Coastal Access ponds, along the edges of Doran Marsh Trail, and encroaching into the northern coastal salt marsh to the east. Dominant species in the Native Perennial Grassland plant community include meadow barley (*Hordeum brachyantherum* ssp.), which was widely scattered along the Doran Marsh Trail edges. California oatgrass (*Danthonia californica*), a possible remnant of coastal prairie from a previous time period, occurs near this area closer to the trail. Another native perennial grass, creeping ryegrass (*Leymus triticoides*), occurs in two very small patches further north, one on each side of the trail).

Scrub

Arroyo Willow Riparian Scrub: The *Botanical and Wetland Resources Report* identified this plant community northeast of the knoll at the eastern end of the existing Doran Marsh Trail. The knoll area is the location for the southern landing of the proposed bridge. The plant community is dominated by arroyo willows. Several other native species occur in the general area that include California wax-myrtle, California bee plant (*Scrophularia californica*), mugwort (*Artemisia douglasiana*), cow parsnip (*Herclueum lanatum*), sword fern (*Polystichum munitum*), salmonberry (*Rubus spectabilis*), and twinberry (*Lonicera involucrate*). Arroyo willow riparian scrub is also found along the east side of the parking area adjacent to Doran Beach Road near the entrance to the Doran Marsh Trail. The parking area may be used as a staging area for project construction equipment. An isolated, dense stand of arroyo willow riparian scrub is found on the north side of Cheney Creek along the creek bank approximately 200 feet west of the Bird Walk Coastal Access parking lot. A larger

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

dense area of this community is located east of the isolated patch, and continues in a northeast direction past the parking lot and along Highway 1.

Willow Scrub: The *Habitat Assessment* identifies Willow Scrub wildlife habitat provides, which is similar to the Arroyo Will Scrub plant community identified in the *Botanical and Wetland Resources Report.* This habitat provides refuge cover, foraging, and nesting opportunities for a variety of species such as song sparrow *(Melospiza melodia),* common yellowthroat (*Geothylypis trichas*), Wilson's warbler (*Wilsonia pusilla*), and Anna's hummingbird (*Calypte anna*).

Northern Coastal Scrub: The *Botanical and Wetland Resources Report* identified this plant community, which is usually dominated by coyote brush (*Baccharis pilularis)*. Within the study area, the northern coastal salt marsh plant community occurs in several areas, including along Cheney Creek, bordering the north side of the parking area adjacent to Doran Beach Road near the trail entrance to Doran Marsh Trail, and bordering both sides of the Bird Walk Trail. The Bird Walk construction access and staging areas transects in this plant community. Annual and introduced perennial grasslands that continues down slope to the ponds and rock outcropping.

A dense stand of riparian scrub consisting of wax-myrtle and sparsely dispersed arroyo willows occurs 100 feet north of Doran Beach Road on the east side of the Doran Marsh Trail, in an sub-area of coastal scrub referred to as California Wax Myrtle Dominated Riparian Scrub. Another sub-area of coastal scrub, referred to as North Coast Riparian Scrub, was identified within the study area along the east end of Cheney Creek where the dominant plant is arroyo willow (*Salix lasiolepis*), and also on the southwest side of Doran Marsh Trail, near Doran Beach Road, where the dominant species is California wax-myrtle (*Myrica californica*). This plant community is of concern to the CDFG because of the rapid reduction of riparian habitats over the last several years due to human activities that include development and water diversion. The proposed project will not affect these plant communities.

Coyote Brush Scrub: The *Habitat Assessment* identifies Coyote Brush Scrub wildlife habitat, which appears to be similar to the coyote brush dominated Northern Coastal Scrub plant community identified in the *Botanical and Wetland Resources Report*. This wildlife habitat provides nesting and refuge habitat for bird species that include California towee (*Pipilo crissalis*), spotted towee (*Pipilo maculatus*), American goldfinch (*Carduelis tristis*), white-crowned sparrow (*Zonotrichia leucophrys*), and song sparrow (*Melospiza melodia*).

Dunes

Coastal Dunes: The *Botanical and Wetland Resources Report* identified this plant community, which is usually dominated by grasses, shrubs, or sand determined by their distance from the ocean and amount of wind exposure. There are only two small areas of Coastal Dunes within the study area. One borders the south edge of the parking area adjacent to Doran Beach Road and is dominated by European beachgrass (*Ammophila arenaria*) and minimal California brome (*Bromus carinatus* var. *maritimus*). Another borders the

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

south end of Doran Marsh Trail along the levee, where the dominant plant species are non-native European beachgrass, yellow lupine, with other species including Baltic rush (*Juncus balticus*), Mexican rush (*Juncus mexicanus*), marsh gumplant (*Grindelia stricata*), and beachbur (*Ambrosia chamissonis*). The dune area begins on the north side of Doran Beach Road and continues northward along Doran Marsh Trail on the top of the levee for a few hundred feet then transitions to annual grassland. The dunes on the eastside of the trail extend down the levee slope and into the flat area, quickly transitioning into velvet grass (*Holcus lanatus*). The proposed project will not affect this plant community.

SPECIAL-STATUS PLANT SPECIES

Three special-status species plants were identified within the study area during the surveys and are described in Table I.

TABLE I – SPECIAL STATUS PLANT SPECIES

Common Name Scientific Name	Federal/ State/CNDDB Status	Habitat Blooming Period (BP)	Project Site Occurrence
Coastal bluff morning-glory *Calystegia purpurata ssp. saxicola*	-/-/List 1B	Coastal & scrub. BP: May - September	Present. Tentatively identified on the north side of Cheney Creek along both sides of the Bird Walk Trail.
Point Reyes bird's beak *Cordylanthus maritimus ssp. palustris*	-/-/List 1B	Marshes & swamps, coastal salt marsh BP: June - October	Present. Along Doran Marsh Trail.
Marin knotweed *Polygonum marinenes*	List 3	Marshes & swamps (coastal salt or brackish) BP: April - October	Present. Within northern coastal salt marsh on both sides of Cheney Creek.
CA Native Plant Society	List 1B: rare, threatened, or endangered in CA and elsewhere List 3: a review list for which more information is needed.		

WILDLIFE

The *Habitat Assessment* was conducted of the proposed project site in Spring and Summer of 2006 and evaluated existing wildlife habitats, the potential occurrence of special-status animal species, and potential impacts and mitigation measures that would avoid "take" of individuals.

The *Habitat Assessment* identified the potential for nesting shorebirds to use the salt marsh mudflats for nesting purposes and that ruderal grasslands, shrubs and willows could be used by nesting passerines Nesting passerines including are protected under the Migratory Bird Treaty Act (MBTA) and may occur within the study area along the Doran Marsh Trail and east of the project Staging Area 2. Cheney Creek provides habitat for several fish species. Wildlife ovement corridors that occur within the study area include the existing trails and roads established in both Doran Beach Regional Park and Bird Walk Coastal Access. The existing

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

trails linking Doran Beach Regional Park and Bird Walk Coastal Access via Highway 1 were previously established.

SPECIAL-STATUS WILDLIFE SPECIES

A total of thirty-six special-status animal species have potential of occurring in the region where the proposed project site is located. Of the thirty-six species, only eight species have some degree of potential to occur within the site or in the adjacent area, which are listed in the Table II.

TABLE II – SPECIAL STATUS WILDLIFE SPECIES

Common Name Scientific Name	Federal & State Status	Habitat	Project Site Occurrence Potential
Steelhead – Central Coast ESU *Onchorhynchus mykiss*	FT	Beds of loose, silt-free, coarse gravel for spawning; cover, cool water, and sufficient dissolved oxygen.	Present: Species reported in Cheney Creek (NMFS 2006)
Tidewater goby *Eucyclogobus newberryi*	FE, CSC	Slow tidal creeks and sloughs	Present: Species reported in Cheney Creek (CNDDB 2006)
Allen's Hummingbird *Selasphorus sasin*	SC, MB	Meadows, along streams	High: Suitable nesting habitat on Bird Walk Trail
Rufus Hummingbird *Selasphorus rufus*	SC, MB	Grasslands, open marshland	High: Suitable habitat present on project site
Black phoebe *Sayomis nigricans*	MB	Nests in anthropogenic structures. Nests of mud, grasses, weed stems	High: Suitable nesting habitat on Bird Walk Trail
Saltmarsh Common Yellowthroat *Geothylps trichas Sinuosa*	MB, CSC	Nests in fresh and salt Marshes in tall grasses, tules, willows	Moderate: Suitable habitat present on project site
Short-eared owl *Asio flammeus*	MB	Nests in open grasslands, marshes, or dunes by tall grass, reeds or bushes	Low: Suitable habitat present.
Northern Harrier *Circus cyaneus*	MB, CSC	Grasslands and open marshland	Low: Suitable habitat present
US Fish & Wildlife Service Abbreviations	FE: federally listed Endangered FT: federally listed Threatened MB: migratory non-game protected under the Migratory Bird Treaty Act (MBTA) SC: federal Species of Concern		NMFS: National Marine Fisheries Service, now known as National Oceanic and Atmospheric Agency
CA Department of Fish & Game Abbreviations	CE: CA listed Endangered CT: CA listed Threatened CSC: CA species of Special Concern		CNDDB: CA Natural Diversity Database

REGULATION ASSOCIATED WITH BIOLOGICAL RESOURCES

Federal and State laws, specifically the Federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA), were established to protect special-status plant and animal species. The

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Migratory Bird Treaty Act (MBTA) protects all nesting bird species. The California Department of Fish and Game (CDFG) also lists species considered to be of Special Concern.

Sonoma County General Plan. The General Plan identifies critical habitat areas and riparian corridors as plant and animal habitats that warrant protection. The proposed project is not within either of these designations.

Local Coastal Plan. The project area is zoned as Public Facilities District - Coastal Commission (PFCC). The purpose of the Public Facilities District (PFD) is to serve the community or public need and protect sites from incompatible uses. Local Coastal Plan provisions associated with PFDs are consistent with Section 2.5 of the General Plan Land Use Element, which includes sites that serve community or public need and are owned or operated by government agencies, non-profit entities, or public utilities.

The marsh areas within project area appear to be within a Sanctuary-Preservation Area designated in the Sonoma County Local Coastal Plan. [19] Development of nature trails and resource dependent uses is allowed within Sanctuary-Preservation Areas. The following policy applies to the proposed project.

> *Policy 30240: (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values and only uses dependent on such resources shall be allowed within such areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas and shall be compatible with the continuance of such habitat areas.*

The Coastal Plan Environmental Resources section includes seventy-eight recommendations to protect biological resources in specific resource categories. The proposed project is consistent with the recommendations associated with wetlands.

Would the project:

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

The proposed project is not expected to have a substantial adverse effect on any special status species identified by regulatory agencies. Project design considered the biological resources studies completed for the proposed project and was shifted to minimize loss of biological resources, regardless of official listing status. Certain construction activities, specifically driving the bridge footings, will result in ground vibration of the

[19] Local Coastal Plan, page 26.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

surrounding area and potentially affect tidewater goby and other fish in Cheney Creek. The following mitigation measures will reduce the significance of this potentially significant impact to a less than significant level: (Source 18)

Mitigation Measures

5. Regional Parks will conduct a Mandatory Contractor/Worker Environmental Awareness Training identifying sensitive resources on the site and measures to prevent take of individuals and habitat at pre-bid and pre-construction meeting.

6. The Contractor shall be required to schedule driving the bridge footings between July 01 and September 30. If this is not feasible, the following shall occur prior to initiating the activity:

   a. Regional Parks shall obtain concurrence from the United States Fish and Wildlife Service before starting work

   b. The Contractor shall drive the bridge footings during low tide to the greatest degree feasible, to reduce daily disturbance to fish species when fewer individual fish are present in Cheney Creek.

Construction activities along the Bird Walk Trail could affect two separate populations of coastal bluff morning glory, which is a species on CNPS List 1B meaning that they are rare, threatened or endangered in California and elsewhere. The following mitigation measures will reduce the significance of this potentially significant impact to a less than significant level: (Source 17)

Mitigation Measures

7. The Contractor will avoid impacts to populations and individuals of coastal bluff morning glory. Regional Parks or a qualified biologist will flag areas with coastal bluff morning glory prior to the onset of construction-related activities.

Construction activities in general will minimally affect the annual grassland and coyote brush scrub plant communities, neither of which has known protection protocol. The following mitigation measures will further reduce the significance of this less than significant impact to habitat.

Mitigation Measures

8. The Contractor will remove trees, shrubs and other vegetation between August 01 and March 15 to avoid bird-nesting season. General bird nesting season is between March 15 and July 31. If it is not feasible to remove vegetation outside of bird-nesting season, the Regional Parks Department will complete the following:

   a. Conduct a bird-nesting survey between seven and 14 days prior to the removal of vegetation. The area to be surveyed will include all construction sites and staging areas for which

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

vegetation removal is required to a buffer of 150 feet outside the boundary of the area to be cleared. Survey results will remain valid for a period of 21 days following the date of the survey.

b. Postpone vegetation clearing and construction activities within 150 feet of the nest in the event that an active nest is discovered in the surveyed area. No construction-related activity will be allowed to occur within this area until it is determined that the young have fledged, the nest is vacated, and there is no evidence of second nesting attempts.

9. The Contractor will install construction barrier fencing around the following areas prior to the onset of construction-related activities. Regional Parks will identify the areas where construction barrier fencing will be required on the construction drawings. All construction barrier fencing will consist of black silt fence, be buried 4 inches below grade using a ditch witch or placed by hand with the lower portion of the fence creating an apron along the ground facing the construction zone and dirt piled upon the apron to secure it. Construction-related activities, including storing equipment, chemicals, spoil materials, trash, parking vehicles or equipment may not take place within the protected areas. The Contractor will maintain construction barrier fencing during construction and Regional Parks will maintain construction barrier fencing after construction is complete through the first rainy season. Regional Parks will remove the construction barrier fencing after the last rains of the spring and vegetation has become established.

a. Staging Area 1 – Bird Walk Coastal Access Trail. The Contractor will install a construction barrier fence to prevent any materials from encroaching upon the adjacent wetlands.

b. Staging Area 2 – Doran Beach Regional Park Marsh Trail. The Contractor will install a construction barrier fence on the north and south side of the Marsh Trail to prevent sediment falling into Cheney Creek and delineated saltmarsh. The fence shall be placed on contour along a parallel route to the trail under direction of Regional Parks or a qualified biologist to prevent take of the saltmarsh habitat.

c. Marsh Trail – Doran Beach Regional Park. The Contractor will install a construction barrier fence along both sides of the Marsh Trail to prevent sediment from entering the adjacent salt marsh, wetlands, and native plant communities.

d. Seasonal Wetland. The Contractor will install a construction barrier fence along the outermost edge of the delineated seasonal wetland.

e. Protected Vegetation. The Contractor will install a construction barrier fence around the outermost edge of the vegetation to be protected.

10. Regional Parks Department will implement a Revegetation Plan to replace the vegetation removed as part of this project development. The Revegetation Plan will include the following

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

elements:

a. Trees removed that are subject to Sonoma County Ordinance No. 4014 will be replaced at ratios determined by the Ordinance and will be replanted on-site to the greatest degree possible.

b. Staging areas will be seeded and restored using native plants after construction activities have been completed.

c. Revegetated areas will be monitored for two growing seasons. Success will be measured by 75 percent cover of seeded areas and survival of plantings.

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

The proposed project will not affect riparian habitat because riparian habitat is not present within the project area. The proposed project will affect approximately 0.43 acre of annual grassland, 0.22 acre of coyote bush scrub, and 0.39 acre of existing trails. None of these are identified as sensitive natural plant communities. (Source 2, 5)

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

The proposed project is not expected to affect wetlands. Approximately 1.64 acres of wetlands and jurisdictional waters were mapped within the biological resources study area. (Source 17) These include approximately 0.13 acre of Cheney Creek, which is a Waters of the U.S and Waters of the State. The bridge footings will be placed above the mean high water line and therefore will not be impacted by the proposed project. Approximately 1.51 acre of wetlands were mapped within the study area and include northern coastal salt marsh and brackish marsh. These are located where the project area intersects with the Bird Walk dredge disposal pond and along both sides of the trails. The project has been designed to avoid impact to delineated wetlands.

Construction of the proposed project is not expected to generate surplus soil or other material that would require disposal. The bridge footings will be pile-driven, not excavated. Cuts and fills along the trails have been balanced on-site through the design process. If any construction-related material requires disposal, the following mitigation measure will ensure a less than significant impact to wetlands:

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Mitigation Measures

11. The Contractor will comply with regulations of the U.S. Army Corps of Engineers, the California Department of Fish and Game, the North Coast Regional Water Quality Control Board and the State Coastal Commission regarding construction activities that affect drainages and wetlands.

12. The Contractor will dispose of surplus soils, surplus concrete rubble, or pavement at an acceptable and legally permitted disposal site or taken to a permitted soil concrete and/or asphalt recycling facility.

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? ☐ ☐ ☒ ☐

The proposed project is not expected to impact the movement of native resident or migratory fish or wildlife species, established wildlife corridors, or native wildlife nursery sites. Temporary impacts resulting from project construction, particularly sedimentation from trail creation and bridge installation, have the potential to affect water quality in Cheney Creek which could, in turn, affect the fish species that reside in Cheney Creek. (Source 18) This less than significant impact can be further reduced with the implementation of mitigation measures under Checklist Items 4a, 4b, and 4c.

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

The proposed project will not conflict with local policies or ordinances that protect biological resources. The project area is not located in a designated "riparian corridor" or "critical habitat area" within the Sonoma County General Plan Biotic Resources Combining District. The project area is in a designated Sanctuary-Preservation Area within the Sonoma County Local Coastal Plan, which allows development nature trails and resource dependent uses. The proposed project is a nature trail and therefore is allowed within the SCLCP Sanctuary-Preservation Area.

Construction will require removal of three Monterey cypress trees with breast-height diameters of 4 to 6-inches. Monterey cypress is not a protected tree subject to the Sonoma County Tree Protection and Replacement Ordinance No. 4014. This less than significant impact can be further reduced with the implementation of the following mitigation measures:

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Mitigation Measures

13. Regional Parks Department will clearly identify trees and other vegetation that will require removal on the construction drawings and will identify the protected perimeter of trees to be protected on the construction drawings. The protected perimeter is defined in Sonoma County Ordinance No. 4014 as the tree drip line. The contractor will clearly mark in the field the trees that will be removed. The Contractor will insure that all trees removed for implementation of the project be left onsite to provide wildlife habitat.

14. The Contractor will be required to perform all tree trimming and branch removal in accordance with the International Society of Arborists Tree Pruning Guidelines, adopted in 1995. These standards require that (a) branches are cut cleanly, utilizing pruning shears, loppers, or a fine tooth saw that cuts on the pull stroke; (b) branches are cut just outside the branch bark ridge or at the callus shoulder, and at a point of junction with another branch to avoid leaving a limb section without live leaf support; (c) climbing spurs cannot be worn when performing work on any tree, and (d) trees will not be "headed."

15. The Contractor will be required to report any damage to protected trees that occurs during, or as a result of, project construction to Regional Parks staff. If a protected tree is damaged so that it cannot be preserved in a healthy state, the tree will be replaced in accordance with the Arboreal Value Chart included in Sonoma County Ordinance No. 4014.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

5. CULTURAL RESOURCES

SETTING: In 1986, an Assessment of the Cultural Resources within the Proposed Doran Park Sewer pipeline System was prepared for Regional Parks.[20] This study are included a portion of Doran Beach but not the area of the proposed project. The study includes a comprehensive description regarding the cultural history of the project vicinity, which is summarized below.

Prior to European contact the proposed project site area was controlled by the Bodega Miwok culture. The Bodega Miwok did not have a centralized tribal organization. Several recorded named settlements exist in the Bodega Harbor area, and two of the sites are located in the vicinity of the proposed project area on the eastern bluffs bordering the marsh. Himtigala or Hime-takala, also known as the old Stephen Smith Ranch House site, is located on the south side of the Bodega Bay Public Utility District treatment facility. It was suggested however from a 1974 archaeological survey that the site was destroyed during the construction of the treatment facility. The second site known as Huka Yakum is located south of the first site near Doran Park Road where the Bodega Bay Lodge now stands. Neither of the two cultural sites are in, or immediately adjacent to the proposed project site.

The site area later became the location of a Russian settlement between 1812 and 1840 when the Russian American Fur Company from Alaska established the Port of Bodega by the mouth of Cheney Creek. The settlers modified the local landscape through farming, growing wheat in the higher terraces, near the area of the present Bodega Bay Public Utility facility. In 1846, a local stream saw mill was constructed by Captain Smith who had obtained a land grant for the Port of Bodega area. The saw mill was later washed away in a storm. Goods were stored in warehouses at Cheney Creek for shipment by boat to San Francisco. By the 1860's the port activities subsided and land-use intensity declined. Dairying continued in grassland areas along the marine terraces.

State Highway 1, a scenic corridor, was built over Cheney Creek, just east of the project site, in the 1920's. By the 1930's some cabins had been built on the terraces and a salt marsh had developed at the mouth of Cheney Creek, presumably from sediment deposited from soil erosion, a result of the varied land-use practices. Freshwater ponding eventually decreased in the area from grazing impacts, converting freshwater marsh vegetation at the south end of Bodega Harbor to salt marsh species. Bodega Harbor began to develop in the 1940's and the County of Sonoma acquired Doran Spit to develop Doran Park, and the park road. The County was responsible for improving and reclaiming the tidelands of Bodega Harbor in the 1950's.

By 1963 the airport had been constructed west of Cheney Creek. This activity combined with the Highway 1 improvement project, and creek diversion, resulted in increased sediment deposition at the creek mouth. The harbor had been dredged for the third time by 1968, with dredge spoils deposited at the old airport site. In the 1970's the Bodega Bay Harbor subdivision including the golf course, southeast of the marsh and project site,

[20] Werner, Roger H. Archaeological Services, Inc. An Assessment of the Cultural Resources within the Pproposed Doran Park

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

was expanded, contributing irrigation runoff into the salt marsh.[21]

CULTURAL RESOURCES RECORDS SEARCH: In February 2006, a cultural resources records search was conducted by the Northwest Information Center at Sonoma State University. It concluded the project site contains no recorded Native American or historic-period archaeological resources, though the general vicinity of the project area has numerous recorded archaeological resources. The records search indicates a moderately high likelihood that unrecorded Native American cultural resources exist in the proposed project area, and that identifying historic-period archaeological resources is moderately possible. The review for possible historic structures was not comprehensive.[22]

REGULATION ASSOCIATED WITH CULTURAL RESOURCES: There is a National Register nomination form for Bodega Bay and Harbor that includes the proposed project area in its overview. State and Federal inventories list the area as within the Bodega Bay and Harbor District status code 1S, meaning it is listed for its archaeological and historical significance. It is also designated as State Historic Landmark #833. The Office of Historic Preservation Historic Properties Directory lists the Bodega Port with a status code 7, not evaluated for Federal or State listing.

Sonoma County General Plan: The Sonoma County General Plan Archaeological and Historical Resources section provides the County's guidance regarding cultural resources with the following Goal:

> ***OS-9:*** *Preserve significant archaeological and historical sites which represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County. Preserve unique or historically significant heritage or landmark trees.*

Coastal Plan: The Local Coastal Plan section on historical resources includes a brief history of Sonoma County's coastal area, describes existing zoning ordinance provisions designed to protect historic resources, includes an inventory of coastal historic resources, and makes recommendations to protect historic resources with the goal of protecting the County's resources as a reminder of past eras. None of the specific historic resources recommendations apply to the proposed project.

Would the project:

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

☐ ☐ ☐ ☒

The proposed project will not affect known historical resources. The proposed project could result in an indirect beneficial effect to Bodega Bay and Bodega Bay Harbor, as it will increase passive recreation

Sewer Pipeline System. September 1986.

[21] Wetlands Research Associates, Inc. *Spud Point Marina Mitigation Study: Doran Park Marsh Assessment and Enhancement Recommendations.* April, 1986.

[22] Much, Byron. Northwest Information Center, Sonoma State University. *Records Search Report for Proposed Cheney Creek*

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

opportunity in this area, whereby people can further appreciate the view and resources. (Source 1)

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

The proposed project is not expected to impact archaeological resources. The project area does not contain recorded Native American or historic-period archaeological resources. (Source 21) *Accidental discovery is possible during construction activity. This less than significant impact could be further reduced with implementation of the following mitigation measure:*

Mitigation Measure

16. The Contractor will cease construction activity immediately if cultural, archaeological, paleontological, and historic or other types of cultural resources are encountered in the immediate vicinity of the find during project construction. Construction will cease until a qualified archaeologist has evaluated the situation to determine the significance of the find and has recommended appropriate measures to protect the resource. The archaeologist will record identified resources on DPR 523 historic resource recordation forms and submit the forms to the Northwest Information Center.

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

The proposed project is not expected to impact unique paleontological resources or geologic features. The project area does not contain recorded sites. (Source 21) Accidental discovery is possible during construction activity. This less than significant impact could be further reduced with implementation of the Mitigation Measure 16.

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

The proposed project is not expected to disturb human remains. There are no known burial grounds or cemeteries located within the project area. Accidental discovery is possible during construction activity. (Source 21) This less than significant impact could be further reduced with implementation of the following mitigation measure:

Mitigation Measure

17. The Contractor will immediately cease construction activity in the immediate vicinity of the discovery if human remains are unearthed during construction. Regional Parks will contact the County Coroner to investigate the nature and circumstances of the discovery as required by State

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

law. If the burial appears to be Native American, Regional Parks will also attempt to contact an appropriate tribal representative to determine appropriate protocol. Construction activity will not resume in the immediate vicinity of the discovery until authorized by the County Coroner and/or Regional Parks.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

6. GEOLOGY AND SOILS

SETTING: The project area is mapped within the Bodega Head 7.5 minute Quadrangle map. The project area is located at approximately $038^0$19'03" North latitude and $123^0$2'15" West longitude, in Township 6N and Range 11W, and Section 35, Mt. Diablo Baseline and Meridian.

TOPOGRAPHY: The Cheney Creek Bridge Project site is located in the Doran Marsh area at the south end of Bodega Harbor, upstream of the mouth of Cheney Creek, and on the south side of the Bird Walk Coastal Access Park levee. Doran Marsh is flat topography and nearly sea level. The levee that defines Bird Walk Coastal Access Trail surrounds two dredge disposal ponds. The interior slope of the disposal ponds is approximately 66 percent in the north pond (Pond 1) and approximately 20 percent in the south pond (Pond 2). The exterior slope leading to Cheney Creek is approximately 20 - 25 percent. Cheney Creek is about 25 feet wide with near-vertical 3-4 foot high banks.

GEOGRAPHY: Geologic mapping of the project area includes two geologic classifications. Both geologic types are relatively young, of the Quarternary Period.[23]

Qm: Marine deposits, including mud, gritty mud, silt and sand. Present at Birdwalk Coastal Access.

Qs: Beach and dune sand. Present at Doran Beach Regional Park.

SOILS: According to the Soil Survey of Sonoma County there are three soil classifications within the project area. [24] The Bird Walk Coastal Access area and adjacent marsh to the south and the northwest is classified as Tidal Marsh (TaM). The rock outcropping in the east pond at Bird Walk Coastal Access is Kneeland Rocky Complex, 30 to 75 percent slopes (KoG). The area adjacent to the Doran Marsh, that extends from Doran Beach Road northward approximately 500 feet, is Dune Land (DuE).

Tidal Marsh: This soil type consists of nearly flat marshlands that are inundated with water or extremely wet throughout the year.

Kneeland Rocky Complex: This soil type includes rock outcrops or "sea stacks" that occupy 15 to 20 percent of the surface area. Sea Stacks are weather resistant, fine-grained remnant sandstone that rise above the surface of the area. The remaining surface area consists of Kneeland Loam, soil that is well drained with a clay subsoil found in uplands. At a depth of 25 to 45 inches is medium-grained hard sandstone. Vegetation is primarily annual and perennial grasses, bracken fern, forbs, and small brush, and some areas may have oak and California laurel.

[23] Huffman and Armstrong. *Geology for Planning in Sonoma County*. California Department of Conservation, Division of Mines and Geology; Special Report 120. 1980.

[24] Soil Conservation Service, U.S. Department of Agriculture. *Soil Survey of Sonoma County, California*. Issued 1972, reviewed and approved for reprinting August 1990.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Dune Land: This soil type consists of loose, shifting sand, often scattered along the coast. The largest area of Dune Land extends from the north side of Bodega Head to Salmon Creek. Ocean winds have shifted the dunes and a large amount of dune grass has been planted to control the mass movement of sand. Dune Land is used mainly for recreational purposes.

Soil samples in the area of proposed bridge installation indicate the site is underlain by discontinuous layers of sands and gravels with varying amounts of clayey and silty fines. The sandy soils are loose and of low strength to between 30-45 feet deep. Below that depth, there are moderate to high strength sands and gravels. Liquefaction, loss of shear strength, densification, and a reduction in void ratio, are phenomena associated with loose granular soils subjected to strong earthquake shaking. Surface cracking and subsidence can result from soil liquefaction or densification during strong earthquake shaking. Other phenomena associated with strong ground shaking at sites near creek banks are lateral spreading and soil lurching. [25]

Soils dredged from Bodega Harbor on multiple occasions dating back to 1943 were deposited in the project site area of Bird Walk Coastal Access Park and Cheney Creek on the flat plain. The soils deposited in the project location came from the inner Harbor areas, and consisted of very soft clays and very loose sands. [26]

POTENTIAL GEOLOGIC HAZARDS: The San Andreas Fault Zone passes through the Pacific Ocean just off shore, paralleling the coast in the vicinity of the project site, and comes inland at Bodega Harbor and Fort Ross. All of the known and potentially active breaks have been delineated within an Alquist-Priolo Special Studies Zone, including the San Andreas Fault, which is considered active.[27] The project area is within an area of "greatest relative slope stability due to low slop inclination" and geologic mapping shows evidence of landslide nearby the project area but not directly within the project area.[28]

LOCAL REGULATION ASSOCIATED WITH GEOLOGIC RESOURCES

Sonoma County General Plan: According to the Sonoma County General Plan Public Safety Element, the project area is located within an area subject to seismic and non-seismic hazards. Potential seismic designations include moderate-to-high potential for liquefaction and the project area is mapped as being within an Alquist-Priolo Special Study Zone. Non-seismic hazards include a moderate-to-high potential for landslides.[29] The Sonoma County General Plan includes the following policies regarding seismic and non-seismic hazards that are applicable to the proposed project:

Goal PS-1: Prevent unnecessary exposure of people and property to risks of damage or injury

[25] Giblin Associates, Consulting Geotechnical Engineers. *Soil Investigation, Proposed Cheney Creek Gulch Pedestrian Bridge, Doran Beach Regional Park*. December 24, 1996.
[26] U.S. Army Corps of Engineers. *Design Memorandum No.1-General Design and Environmental Impact Statement, Bodega Bay California*. June 1981.
[27] *Huffman and Armstrong. Geology for Planning in Sonoma County. California Department of Conservation, Division of Mines and Geology: Special Report 120. 1980.*
[28] Huffman and Armstrong. *Geology for Planning in Sonoma County*. California Department of Conservation, Division of Mines and Geology: Special Report 120. 1980.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

from earthquakes, landslides, and other geologic hazards.

OBJ PS-1.2 *Regulate new development to reduce the risk of damage and injury from known geologic hazards to acceptable levels.*

PS-1f: *Require and review geologic reports prior to decision on any project, which would subject property or persons to significant risks from the geologic hazards shown on Figures PS-1a through PS-I and related file maps and source documents. Geologic reports shall describe the hazards and include mitigation measures to reduce risks to acceptable levels. Where appropriate, require an engineer's or geologist's certification that risks have been mitigated to an acceptable level and, if indicated, obtain indemnification or insurance form the engineer, geologist, or developer to minimize County exposure to liability.*

PS-1g: *Prohibit structures intended for human occupancy (or defined as a "project" in the Alquist-Priolo Special Studies Zones Act and related Administrative Code provisions) within 50 feet of the surface trace of any fault.*

PS-1k: *Roads, public facilities, and other County projects should incorporate measures to mitigate identified geologic hazards to acceptable levels.*

Local Coastal Plan: The Environmental Resources – Geologic Hazards section of the Sonoma County Local Coastal Program recognizes various environmental hazards found throughout the planning area that are constraints to human activities and must be respected. Coastal Act policies direct new development to minimize the risks that may result from environmental hazards, and to avoid substantial alteration of natural land forms.

Policy 30253: *New development shall minimize risks to life and property in areas of high geologic, flood, and fire hazard. New development shall assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluff and cliffs.*

GEOTECHINCIAL STUDY: Giblin Associates, Consulting Geotechnical Engineers, prepared a Soil Investigation for the Cheney Creek Bridge project in 1996.[30] The Investigation concluded that from a bridge engineering standpoint, the site is suitable for the bridge installation and trail project. Giblin concluded that a deep foundation system would mitigate any potential instability factors inherent in the site's existing geologic structure. The most suitable bridge foundation support method would be to use driven piles.

[29] Sonoma County General Plan. Figure PS-1a. 1989

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐

The proposed project is not expected to increase exposure of people or structures to potential substantial adverse effects associated with the risk of loss, injury, or death involving earthquake, strong seismic ground shaking, seismic-related ground failure such as liquefaction, or landslides. The proposed project includes a multi-use trail bridge and trail improvements. The bridge is a structure but is not a habitable structure. Proposed project improvements could be damaged in a seismic event, but this is not expected to result in a substantial adverse effect on people. (Source 1)

The project area is mapped as being within the Alquist-Priolo Geologic Hazards Special Study Zone however; this is not expected to result in potential substantial adverse effects to structures or people. The project area has a moderate to high potential for liquefaction and a moderate to high potential for landslides. (Source 2) The proposed project improvements are not expected to render liquefaction or landslides more likely, therefore; exposure of people or structures to potential substantial adverse effects from these natural events is not likely. (Source 1) The bridge pilings will be driven to an approximate 55-foot depth. This method was recommended by Giblin Associates to mitigate potential instability factors inherent in the site's existing geologic structure. (Source 23)

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

The proposed project is not expected to result in substantial soil erosion or loss of topsoil. The trail construction on the Bird Walk Coastal Access levee embankment will require removal of some existing vegetation that acts as a natural soil erosion control during seasonal precipitation events however, this

[30] *Giblin Associates, Consulting Geotechnical Engineers. Soil Investigation, Proposed Cheney Creek Gulch Pedestrian Bridge, Doran*

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

is not expected to result in significant soil erosion. (Source 1, 14) This less than significant impact can be further minimized with implementation of the following mitigation measures:

Mitigation Measures

18. The Contractor will implement Best Management Practices to protect geology and soils, including the following:

    a. Avoid construction activities during rainy days as directed by Regional Parks

    b. Preserve existing vegetation except what is designated by Regional Parks for removal

    c. Leave root structure of vegetation in place whenever feasible

    d. Minimize the extent of disturbance from construction activities

    e. Stabilize exposed slopes, banks and stockpiles of soil materials during construction using erosion control blankets, or other method approved by Regional Parks

    f. Stabilize exposed soil by installing erosion control materials such as blankets, mulch, and/or seed that are free of exotic species or other method approved by Regional Parks.

19. Regional Parks will schedule ground disturbing construction activities to the dry season, April 30 – October 15. Regional Parks must approve ground disturbing construction activities that must occur during the rainy season (October 16 – May 01) based on the Storm Water Pollution Prevention Plan (SWPPP – see Mitigation Measure 24).

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? ☐ ☐ ☒ ☐

The project area is within an area susceptible to landslide. The geotechnical study associated with the proposed project concluded the site is suitable for the bridge installation and trail project and recommended that a deep foundation system, such as driven piles, would mitigate any potential instability factors inherent in the site's existing geologic structure. Regional Parks has implemented this recommendation and the bridge foundation will be driven approximately 55 feet. It is not expected that the project will render the project area more unstable, resulting in landslide, lateral spreading, subsidence, liquefaction or collapse. (Source 23)

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

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

The project area is not located within soil classifications classified as expansive. (Source 14)

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? ☐ ☐ ☐ ☒

The proposed project does not involve construction or use of septic tanks or alternative wastewater disposal systems. (Source 1)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

7. HAZARDS AND HAZARDOUS MATERIALS

SETTING: The project area is located in a seismically active region of the San Andreas Fault. Geologic and historic records indicate that earthquakes have and will continue to occur along this portion of the fault. Earthquakes can be accompanied by surface fault rupture, ground shaking, and ground failure.

Much of the surface geology of Bodega Bay area is unstable and subject to major seismic activity. Liquefaction, which changes water-saturated soils to a semi-liquid form, can result from ground shaking, and cause damage to buildings and structures by weakening the supports. Areas susceptible to liquefaction hazard include tidal marshes that have high water tables and sandy soils.

The project area is not included in Areas Subject to Flooding by 100-year Storm Event, or in Areas With Very High or High Potential for Large Wild land Fires. The project area is located in a Designated Safety Hazard Area that includes the Alquist-Priolo Special Studies Zone, and Areas With High or Moderate Potential for Liquefaction.[31] The project area is also located near a Tsunami (seismic seawave) Area, subject to possible inundation by Tsunami waves with run-up of 20 feet along the Pacific coast. The area is classified as "Younger bay mud" that consists of marine deposits, mud, gritty mud, silt and sand, and is among the most unstable deposits in Sonoma County. Liquefaction should be expected where clay-free granular materials are present. Site geologic studies of the area are recommended.[32] The National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce maintains the international Tsunami Warning System. The occurance of a major earthquake anywhere in the Pacific Ocean area ilicites an immediate system response. When confirmation of a disturbance is made the Alaska Tsunami Warning Center issues a Tsunami Warning to coastal locations with estimated tsunami arrival time. California coastal jurisdictions including Sonoma County are provided with information from the Alaska Tsunami Warning System via the National Warning System (NWAS) that sends out messages. These messages are received in Sonoma County at the Sheriff's Dispatch Center and are then relayed to appropriate agencies. The Sonoma County Department of Emergency Services is currently developing a county-wide tsunami response plan.[33]

Soils consisting of very soft clays and very loose sands have been dredged from the inner areas of Bodega Harbor on multiple occasions, and deposited into constructed dredge ponds on what was once a flat plain in the location of the proposed project site at Cheney Creek.[34] An environmental investigation conducted early in 1991 determined that the soils deposited in the dredge ponds contained concentrations of heavy metals well below the Soluble Threshold Limit Concentration (STLC). The test results obtained however were not sufficient to characterize the spoils as designated "non-hazardous solid waste," and no toxicity or flammability tests were

[31] Sonoma County General Plan. Public Safety Element, Figure PS-1a. March 1989.
[32] California Resources Agency, Department of Conservation. Map.
[33] Helgren, Chris. Deputy Emergency Services Coordinator. Sonoma County Department of Emergency Services. *Personal Communication*. January 3, 2007.
[34] U.S. Army Corps of Engineers. *Design Memorandum No.1-General Design and Environmental Impact Statement, Bodega Bay California*. June 1981.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

conducted on soil samplings.[35] Another environmental investigation conducted in 1991 on sediment chemical characteristics concluded that all concentrations of trace elements were within the range found in San Francisco bay sediments. The Bodega Bay Harbor sediments study results further concluded that concentrations of chromium, mercury and nickel were potentially high enough to be toxic to aquatic organisms, and that all detected polyaromatic hydrocarbons were below ER-L range values.[36]

LOCAL REGULATION ASSOCIATED WITH HAZARDS AND HAZARDOUS MATERIALS

Sonoma County General Plan: The proposed project site area is subject to the safety policy requirements in the Public Safety Element of the County General Plan. Applicable Goals include:

PS-1: Prevent unnecessary exposure of people and property to risks of damage or injury from earthquakes, landslides and other geologic hazards.

PS-4: Prevent unnecessary exposure of people and property to risks of damage or injury from Hazardous Materials.

Local Coastal Plan: The Environmental Hazards section of the Sonoma County Local Coastal Plan recommends the prohibition of development within 100 feet of a bluff or within an area that is designated unstable to moderately stable on Hazards maps unless a registered engineering geologist reviews and approves all grading, site preparation, drainage, leachfield and foundation plans of any proposed building and determines that there will be no significant impacts resulting from development. The engineering geologist report shall contain at least the information specified in the Coastal Administrative Manual. Design and construct all structures for human occupancy in accordance with Zone 4 standards of the Uniform Building Code Require engineering geologic reports in accordance with the Permit and Resource Management Department geologic review procedure. Encourage resource use where suitable on lands which are hazardous to development and other uses. Prohibit construction of structures within 100 feet of the top of any embankment, natural or man-made, which defines a channel, except where flood hazard has been found to be remote in review by the Sonoma County Water Agency. Where this policy conflicts with General Plan Public Safety Policy PS-2n, the more restrictive policy shall apply.

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

The proposed project is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials because the proposed project would not require the routine transport, use, or disposal of hazardous materials. (Source 2)

[35] Base Geotechnical, Inc. *Environmental Investigation, Bodega Bay Dredge spoils, Sonoma County California*. March 29, 1991.
[36] U.S. Army Corps of Engineers. *Chemical Characterization of Sediment From Bodega Harbor*. April 1991.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐

The proposed project is not expected to result in significant hazards to the public or the environment caused by the release of hazardous materials into the environment however, accidental release of hazardous materials could occur during construction and maintenance activities. Construction and maintenance activities would include use of vehicles, construction equipment, and construction materials that use hazardous materials such as motor oil and gasoline, which have the potential for accidental release of hazardous materials into the environment. Routine use of the facility would be limited to pedestrian, bicycle and equestrian use. Maintenance of the proposed project may require the occasional use of vehicles and equipment that use hazarded materials such as motor oil and gasoline, which have the potential for accidental release of hazardous materials into the environment. (Source 2) The potentially significant impacts can be reduced to a less than significant level with implementation of the following mitigation measures:

Mitigation Measures

20. The Contractor will be required to prepare, submit, and implement a spill prevention plan for the project, which shall include, but not be limited to, the following elements:

    a. Follow the provisions of Sections 5163 – 5167 of the General Industry Safety Orders (CCR Title 8) to protect the project site from being contaminated by the accidental release of any hazardous materials and/or waste.

    b. Store all flammable liquids in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters.

    c. If hazardous materials are encountered during construction, the contractor will immediately halt construction activities and will implement actions required by the current California regulatory requirements.

    d. In the event of a spill of hazardous materials the Contractor will immediately call the emergency number 9-1-1 to report the spill, and will take appropriate actions to contain the spill to prevent further migration of the hazardous materials to storm water drains or surface waters.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

e. Prevent the following activities within areas protected by construction barrier fencing:

- Fueling of any vehicles or portable generators
- Vehicle/equipment washing and maintenance areas
- Above-ground tanks for liquid storage
- Industrial waste management areas (landfills, waste piles, treatment plants, disposal areas)

f. The Contractor will use drip pans or absorbent pads during vehicle and equipment maintenance, cleaning, fueling, and storage.

g. Spill kits and cleanup materials shall be available at all locations of pile-driving activities.

h. Equipment that is to be used shall be kept leak free and inspect for leaks and spills on a daily basis.

i. Equipment will be parked over drip pans or absorbent pads.

j. When not in use, the contractor will store pile-driving equipment away from concentrated flows of storm water, drainage courses, and inlets.

k. Protect hammers and other hydraulic attachments by placing them on plywood and covering them with plastic or a comparable material prior to the onset of rain.

21. The Contractor will dispose of petroleum-based products in accordance with applicable laws and regulations.

22. Regional Parks Department operations and maintenance crews will dispose of petroleum-based products in accordance with applicable laws and regulations.

23. The Contractor will conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during construction. The contractor will conduct routine waste removal to ensure that effluent spills are avoided or minimized.

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

The proposed project is not expected to emit hazardous emissions, hazardous materials, substances, or waste within one-quarter mile of and existing or proposed school. The nearest known school is approximately 1.5 miles of the project area. Bodega Bay Elementary School is the nearest school, and is located at 1200 Canon Street, north of the project site in the town of Bodega Bay. Salmon Creek Middle School is located approximately 10 miles northeast from the project area near Occidental. (Source 1)

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

The proposed project is not expected to create a significant hazard to the public or the environment. The project area is not located on a site that is included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, otherwise know as the Cortese List. (Source 28)

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 for people residing or working in the project area?	☐	☐	☐	☒

The project area is not located within an airport land use plan or within two miles of a public airport. (Source 1)

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

The project area is not located within the vicinity of any known private airstrip. (Source 1)

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

The proposed project is not expected to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Sonoma County Department of Emergency Services (SCDES) is the lead agency under the State of California's Standardized Emergency Management System and is responsible for coordination of response and recovery activities following an emergency or disaster such as earthquakes, floods, landslides, and dam failures. The proposed project is not expected to impair implementation of or physically interfere with SCDES operations. (Source 1)

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

The proposed project is not expected to expose people or structures to risk of loss, injury, or death involving wildland fires. The project area is not within an area with high to very high potential for large wild land fires. The highest fire hazard areas are those in mountainous areas with dry summers, high fuel load, and steep slopes. (Source 2) The proposed project does not include habitable structures. The

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

bridge is a prefabricated steel structure with no potential as a fire hazard. Human activity, such as smoking, playing with fire, and campfires account for a relatively small percentage of all fires within Regional Park facilities, according to a study conducted regarding the causes of Sonoma County fires in 1996. (Source 2)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

8. HYDROLOGY AND WATER QUALITY

SETTING: The hydrological characteristics of a coastal wetland are determined by site topography, non-tidal water sources and tidal characteristics. Flooding, erosion and sedimentation are factors that can have major impact on water circulation[37]

The proposed project site is in close proximity to the south end of Bodega Harbor where the Cheney Creek empties near the tidal flats. Cheney Creek and the adjacent levee run west through Cheney Gulch from Highway 1, along Doran Marsh, and a historic tidal salt marsh to the southeast. The marsh system is bordered by coastal bluffs to the north and east, and by Doran Spit on the south. At the base of the cliffs along the eastern margin of the salt marsh is a freshwater marsh. The project site is located northwest of a groundwater recharge area.

Sonoma County Regional Parks implemented an enhancement plan in 1993-94 to restore tidal exchange in the salt marsh pond, by a hydrological reconnection with the harbor, and by improving water quality in the pond and channels by increasing circulation. Agricultural practices in the watershed during the 1920's and 1930's, and road and levee construction in the 1950's and 1960's, had created high siltation rates in the southern end of the Harbor, isolating the former tidal marsh. Wetland character had been maintained by the seasonal flooding contribution of the small watershed that a housing development and golf course created southeast of the marsh.[38]

In 1966 the creek was relocated adjacent to a dike that had been constructed in 1961 when a water pipeline was installed across Cheney Creek delta to Doran Beach Regional Park. Sediment was deposited into the marsh and old channels on the southeast side of the alluvial fan. Tidal exchange in Bodega Harbor is good, but the frequency and duration of tide heights is uncertain for the southern harbor area. Tidal exchange between Bodega Harbor and Doran Park Marsh occurs through culverts in the outer dike/levee. The tidal salt marsh around the dredge disposal site north of Cheney Creek is separated from the southern marsh areas by the levee that runs southeast of the project site, to Doran Park Road.

The south marsh receives tidal exchange from the set of culverts connecting it to Cheney Creek. This area includes salt marsh vegetation, a shallow pond with permanent water, and a brackish/freshwater marsh. The marsh to the south of Doran Park Road is separated from the marsh to the north, and is not connected to the tidal regime, but is seasonal. There is an inflow of fresh water along the northeast side of the marsh, at the base of the bluff, where fresh and brackish water vegetation provide habitat for rails and marsh wrens. Some of the freshwater contribution is from golf course irrigation runoff from the treated wastewater stored by the

[37] Sonoma County Regional Parks and U.S. Army Corps of Engineers. *Bodega Bay Dredging Project 2001*. May 12, 1998.
[38] Wetlands Research Associates, Inc. and Sonoma County Regional Parks. *Doran Park Marsh Enhancement, Phase III Post-Project Monitoring.* June 1999.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

Bodega Bay Public Utility District in the bluff reservoir.[39]

LOCAL REGULATION ASSOCIATED WITH HYDROLOGY AND WATER QUALITY

Sonoma County General Plan: Cheney Creek is not considered a "Flatland Riparian Corridor" according to Sonoma County General Plan criteria, and the project site is not located within an area designated as subject to 100-year flooding.

Local Coastal Plan: The Local Coastal Plan includes recommendations associated with protection of hydrology and water quality throughout the plan.

North Coast Regional Water Quality Control Board: The Regional Water Quality Control Board (RWQCB) is responsible for protecting surface, ground and coastal waters within its boundaries pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. The project area is within RWQCB jurisdiction. Regional Parks will obtain applicable RWQCB permits if needed.

Would the project:

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

The proposed project is not expected to violate any water quality standards or waste discharge requirements however; project construction could result in temporary impacts to water quality. (Source 1) Best Management Practices have been incorporated into the project design and mitigation measures to protect water quality. The Regional Parks Department will submit a Notice of Intent to the State Water Resources Control Board for ground-disturbing activities of one acre or more in compliance with the General Construction Permit. This less than significant impact can be further reduced with implementation of the following standard construction mitigation measures. Additional mitigation measures within the project's Mitigation Monitoring Plan associated with the stormwater pollution prevention and water quality in general are Mitigation Measures 1, 2, 3, 4, 9, 10, 12, 18, 19, 20, 21, 22, 23, 24, and 25.

Mitigation Measures

24. Regional Parks will provide an approved Storm Water Pollution Prevention Plan (SWPPP) for implementation by the Contractor prior to project construction.

25. Regional Parks will provide a sediment control plan as part of the Storm Water Pollution Prevention Plan (SWPPP) for implementation by the Contractor. The focus will be to prevent sediment from entering the delineated wetland, Cheney Creek, Doran Marsh ponds and tidal channels and any other surface drainage within the project area. The sediment control plan will

[39] Wetlands Research Associates, Inc. *Spud Point Marina Mitigation Study: Doran Park Marsh Assessment and Enhancement Recommendations.* April, 1986.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

include temporary, construction-related sediment control that may include but not be limited to silt fencing, sediment traps, fiber roles, and/or barriers. The source of each specific sediment control measure proposed by the contractor must be documented in the sediment control plan.

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

The proposed project will not deplete groundwater supplies or interfere with groundwater recharge. The project area is not within a groundwater recharge area or major groundwater basin, therefore the proposed project is not expected to deplete groundwater *supplies or interfere substantially with groundwater recharge. (Source 2)*

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

The proposed project is not expected to alter the course of existing site drainage patterns and will not alter the course of surface waters, including Cheney Creek. The proposed project bridge will span the creek from bridge landings constructed at an elevation of approximately 17.5 feet on the north bank and 12.5 feet on the south bank. The landings will be located approximately 40 feet from edge of creek channel. A permanent retaining wall for the new Bird Walk Trail section between the existing levee trail and the bridge has been designed to prevent soil erosion and instability of the slope during grading and construction. The new trail will be out-sloped so run-off will flow over the stable, vegetated embankment, and the trail will have a porous crushed rock surface to allow water infiltration. Mitigation measures included under Checklist Item 8a will ensure a less than significant impact to hydrology and water quality. (Source 1)

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

The proposed project would not alter drainage patterns or substantially increase the rate or amount of run-of in the project area. The proposed park improvements are not expected to contribute to existing flooding patterns or occurrences. The proposed project is not expected to result in a substantial increase in surface runoff, or flooding on or off-site. (Source 1) The proposed project construction would

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

include Best Management Practices to reduce the potential for less than significant impacts mitigated under Checklist items 4c, 6b, and 7b.

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

The proposed project is not expected to provide substantial additional sources of polluted runoff because the trail surfaces will be porous with a natural soils base and crushed rock top. There is no existing storm water drainage system in the project site. (Source 1) Petroleum based products maybe transported to surface water drainages during rain events but is not expected to result in a substantial additional source of polluted runoff because the project site will be subject to short-term temporary motorized vehicle traffic from construction equipment. Some occasional additional vehicle use in the vicinity of the project site will occur from Regional Parks maintenance activities. (Source 1) Proposed project construction contractor will employ Best Management Practices that comply with national and state storm water regulations. This less than significant impact can be further reduced with implementation of mitigation measures under Checklist Items 4c, 6b, and 7b.

f) Otherwise substantially degrade water quality? ☐ ☐ ☒ ☐

The proposed project is not expected to substantially degrade water quality however; project construction could result in temporary impacts to water quality. Several mitigation measures have been included in this document to ensure less than significant impacts to water quality. The following mitigation measure will also serve that purpose.

26. The Contractor will be required to install a protective impermeable barrier, such as a tarp, between the bridge work area and any surface water.

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

The proposed project area is on Regional Parks property that is zoned as Public-Quasi Public/Park, does not have housing located in the immediate vicinity, and is not within an area designated as subject to 100-year flooding. (Source 29)

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

The proposed project site is not located within a 100-year flood hazard area. (Source 2) The proposed project includes installation of a prefabricated metal bridge over a creek positioned at an elevation of 12-

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

18 feet above stream bank. It is expected that the bridge would have a less than significant impact and not impede or redirect creek flood flows. The bridge will be installed at an elevation that will avoid interference with creek flows or creek flooding.

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

The proposed project is not expected to expose people or structures to significant risk of loss, injury, or death involving flooding. The existing levee that forms the Bird Walk Trail has not experienced failure during its histor, and is not expected to experience failure in the future. The Bird Walk Trail extension and installation of the bridge is not expected to compromise the integrity of the levee. (Source 1)

j) Inundation by seiche, tsunami, or mudflow? ☐ ☐ ☒ ☐

The project area is within an area subject to tsunami (Source 2). The project will not render tsunami more likely to occur and will not cause significant environmental impacts to the environment should a tsunami occur.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

9. LAND USE AND PLANNING

SETTING: The project area is within property of Sonoma County Regional Parks, located in the community of Bodega Bay, in unincorporated Sonoma County, and is in Sonoma County General Plan's Sonoma Coast/Gualala Basin Planning Area. The property is zoned Public/Quasi-Public. The Sonoma Coast is a scenic area of regional, state and national significance, and the General Plan policies emphasize compatibility with, and protection of the natural, scenic character.

Historical land use in the project vicinity, from 1812 to the late 1950's, recorded that the area was used as a port for shipping goods, and for livestock grazing and some moderate to intensive crop farming. An airport was constructed in the site vicinity between 1958-1963, but no longer occupies the location. Harbor dredge spoils have been deposited in the vicinity of the proposed project area since the 1940's.[40]

Land use adjacent to the project site includes two residential subdivisions and a golf course, public roads, a sewage treatment plant, and Regional Parks property.

LOCAL REGULATION ASSOCIATED WITH LAND USE AND PLANNING

Sonoma County General Plan and Zoning: The project site area is zoned Public-Quasi Public/Park and Recreation/Visitor-Serving Commercial on the County Land Use Plan map, and is adjacent to Doran Park Marsh, a tidal salt marsh, that the Sonoma County Local Coastal Plan designated Sanctuary-Preservation Area. Land use designations in the project site vicinity include "Natural Resource" on the north, "Tourist Commercial" and "Rural Residential", north along Bodega Harbor, "Designated Planned Community" east and southeast of the project site, and "Primary Agriculture" area east of the Planned Community area.

Regional Parks submitted a Request for General Plan Consistency Determination to the Sonoma County Permit and Resource Management Department and is awaiting the determination.

Local Coastal Plan: The project area is in a designated Sanctuary-Preservation Area within the Sonoma County Local Coastal Plan, which allows development nature trails and resource dependent uses.[41] The Local Coastal Plan includes several land use recommendations specific to Bodega Bay. The propose project is in compliance with the applicable recommendations.

Would the project:

a)	**Physically divide an established community?**	☐	☐	☐	☒

The proposed project will not divide an established community, but will serve to link the community through an alternative route between two existing regional park facilities. (Source 1)

[40] Wetlands Research Associates, Inc. *Spud Point Marina Mitigation Study: Doran Park Marsh Assessment and Enhancement Recommendations.* April 1986.
[41] Local Coastal Plan, page 26.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The proposed project is not expected to conflict with applicable land use plans, policies, or regulations. There are several policies in the Sonoma County General Plan and Local Coastal Plan that pertain to development in areas such as the proposed project site area however; the proposed project has been designed to be consistent with these policies. (Source 1, 2, 5)

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

There are no known Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state Habitat Conservation Plans that would pertain to the proposed project area. (Source 1)

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

10. MINERAL RESOURCES

SETTING: The project area is not within a known mineral resource deposit.

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ☐ ☐ ☐ ☒

The proposed project site is not located within a mineral resource area. (Source 2, 14, 23, 24)

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? ☐ ☐ ☐ ☒

The proposed project site is not located within a mineral resource area. (Source 2, 14, 23, 24)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

11. NOISE

SETTING: Coast Highway 1 is a two-lane road running north and south that passes east of the project site location. There are no other major roads in the vicinity of the site with the exception of a Doran Beach Road, a narrow two-lane road to Doran Beach Regional Park from Highway 1.

LOCATL REGULATION ASSOCIATED WITH NOISE

Sonoma County General Plan: Noise standards are established in the Sonoma County General Plan.[42] Noise, which can be defined as "objectionable sound," is usually measured in A-scale decibels (dBA). Noise of cumulative duration cannot exceed 50 dBA and momentary noise of one minute or less cannot exceed 70 dBA during the daytime hours of 7:00 am – 10:00 pm. Between 10:00 pm and 7:00 am, the standards are 45 dBA for cumulative duration noise and 65 dBA for momentary noise. Noise of cumulative duration, in the context of the proposed project, could be defined as the on-going noise expected from use of the facility. Momentary noise of one minute or less, in the context of the proposed project, could be defined as the occasional noise from certain maintenance activities or construction activities. In general, noise levels decrease approximately 6 dBA with each doubling of distance from the source, due to the geometrical spreading of sound waves. For example, a noise that generates 70 dBA at 100 feet from the source of noise would be expected to produce 64 dBA at a 200-foot distance from the noise source, and 58 dBA at 400-foot distance from the noise source, and so on.

The Sonoma County General Plan states:

GOAL NE-1: Protect people from the harmful effects of exposure to excessive noise and to achieve an environment in which people and land uses may function without impairment to noise.

OBJ NE-1.3: Protect the present noise environment and prevent the intrusion of new noise sources, which would substantially alter the noise environment.

OBJ NE- 1.4: Mitigate noise from recreational and tourist serving uses.

POLICY NE-1b: Avoid noise sensitive land use development in noise impacted areas unless effective measures are included to reduce noise levels. For noise due to traffic on public roadways, railroads and airports, reduce exterior noise to 60 dB Ldn or less in outdoor activity areas and interior noise levels to 45 dB Ldn or less with windows and doors closed. Where it is not possible to meet this 60 dB Ldn standard using a practical application of the best available noise reduction technology, a maximum level of up to 65 dB Ldn may be allowed but interior noise level shall be maintained so as not to exceed 45 dB Ldn.

[42] Sonoma County General Plan. *Table NE-2.* March 1989.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
Would the project:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

The proposed project is not expected to result in permanent, long-term exposure of people to noise levels in excess of established standards. Noise levels may increase temporarily from short-term project construction activities and occasionally from maintenance activities. (Source 1) These less than significant impacts would be further reduced with implementation of the mitigation measures listed in items 11d.

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

The proposed project is not expected to result in permanent long-term exposure of people to excessive ground borne vibration or noise levels. Construction activities associated with driving the bridge footings will in short-term noise ground borne vibration that could also result in a short-term increase in noise. These less than significant impacts would be further reduced with implementation of the mitigation measures listed in items 11d. (Source 1)

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

The proposed project is not expected to result in a substantial permanent increase in ambient noise levels in the project vicinity above existing noise levels. Visitor use of the park facility may contribute to a negligible increase in ambient noise associated with vehicle parking use at Bird Walk Coastal Access, or at Doran Beach Regional Park and by potential increased use of trails. The visitor use will be primarily passive activities that include nature hiking, biking and equestrian, all low level noise impacts. The park facility will be closed to the public between sunset and sunrise. (Source 1)

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

The proposed project construction is expected to result in a temporary increase in ambient noise levels associated with the operation of construction vehicles and equipment. This temporary increase in ambient noise would be short-term and would cease upon completion of project construction. Periodic maintenance activities may result in an occasional temporary increase in ambient noise levels due to the operation of vehicles and equipment. These occurrences would be occasional and the temporary increase in ambient noise associated with maintenance activities would cease upon completion of the

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

activity itself. (Source 1) These less than significant impacts would be further reduced with implementation of the following mitigation measures:

Mitigation Measures:

27. The Contractor will operate all internal combustion engines with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

28. The Contractor will restrict construction activities to the hours of 7:00 am to 7:00 p.m. on weekdays, except for actions taken to prevent or resolve an emergency.

29. Regional Parks Department will operate all internal combustion engines with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

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 expose people residing or working in the project area to excessive noise levels? ☐ ☐ ☐ ☒

The proposed project area is not located within an airport land use plan or within two miles of a public airport. (Source 1, 2)

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

The proposed project area is not located within the vicinity of a known private airstrip. (Source 1, 2)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

12. POPULATION AND HOUSING

SETTING: Bodega Bay is primarily a fishing, tourist, and residential community, high priority uses identified in the Coastal Act. Bodega Bay is one of two major population centers with employment opportunity on the Sonoma Coast and there is a demand for more affordable housing. The 2000 population census for Bodega Bay was 1,423.[43]

The project site is located on Regional Parks land and is zoned Public-Quasi Public/Parks. Two housing subdivisions exist in the vicinity of the project site, one to the southeast of Doran Marsh, and the other to the east of Bird Walk Coastal Access Park and Highway 1. Lower density residential housing is scattered east and north along the Harbor front.

LOCAL REGULATION ASSOCIATED WITH POPULATION AND HOUSING

Local Coastal Plan. The major goal is of the Housing section of the Sonoma County Local Coastal Plan is to promote and protect low and moderate cost housing for the population working within the coastal zone to carry out Coastal Act policies on housing, access, and coastal zone priority issues. The 1975 California Coastal plan limited residential development in the Bodega Bay area to existing subdivisions.[44]

Would the project:

a)	**Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**	☐	☐	☐	☒

The proposed project is not expected to have any effect on population growth. The proposed project does not include new homes, businesses, or roads. The proposed project includes a new multi-use trail section, surface amendment to an existing trail, and a bridge connecting two existing Sonoma County Regional Parks facilities. (Source 1)

b)	**Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?**	☐	☐	☐	☒

The proposed project will not displace any existing housing or necessitate the construction of replacement housing elsewhere. (Source 1)

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

The proposed project will not displace people or necessitate the construction of replacement housing elsewhere. (Source 1)

[43] County of Sonoma. *Local Coastal Program – Local Coastal Plan.* December 12, 2001.
[44] Sonoma County Regional Parks. *Preliminary Master Plan – Doran Park and Westside Park*.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

13. PUBLIC SERVICES

SETTING: The project area is in the Sonoma County Sheriff Department and Sheriff's Marine Unit jurisdiction for law enforcement. The area is also within the jurisdiction of the California Highway Patrol. There is a U.S. Coast Guard facility at Doran Beach Regional Park, near the Regional Parks Ranger Station, and the Bodega Bay Fire Protection District is located at 510 Highway 1, north of Bird Walk Coastal Access Park. The Bodega Bay Volunteer Fire Department is located at 17184 Bodega Highway. Regional Parks Department Park Rangers enforce park rules at Regional Parks Facilities when the facilities are open to the public. Bird Walk Coastal Access and Doran Beach Regional Park are open between sunrise and sunset. The project site is directly northwest of the Bodega Bay Public Utility District treatment facility located at 265 Doran Park Road.

Bodega Bay Elementary School is located at 1200 Canon Street at the northeast end of Bodega Harbor, approximately 1.5 miles from the project area, and Salmon Creek Middle School is located approximately 10 miles northeast from the project area near the town of Occidental. There are no Hospitals located in the Bodega Bay area, however the Bodega Bay Fire Protection District provides paramedic and ambulance service to the community. There are no public use airport facilities near the project site location, or in the Bodega Bay area.

LOCAL REGULATION ASSOCIATED WITH PUBLIC SERVICES

Local Coastal Plan. The Sonoma County Local Coastal Plan includes recommendations associated with various public services including: water and sewer; law enforcement, fire, medical services, and schools. The proposed project is consistent with all applicable recommendations.

Would the project:

a)	**Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:**				
	i) Fire protection?	☐	☐	☒	☐

The proposed project is not expected to result in substantial adverse physical impacts associated with the provision of new fire protection facilities. The potential for wild land fires associated with public use of the proposed project is discussed under Checklist item 7h.

	i) Police protection?	☐	☐	☐	☒

The proposed project is not expected to result in substantial adverse physical impacts associated with the provision of new police protection facilities. Sonoma County Regional Park Rangers would patrol

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

the proposed bridge and trail as part of their regular duties. In addition to evaluating the proposed bridge and trail for maintenance needs, the proposed trail would be patrolled to protect against crime and vandalism and to enhance public safety. The project area is within the jurisdiction of the Sonoma County Sheriff's Department, providing assistance to park ranger staff when such assistance is requested. (Source 1)

i) Schools? ☐ ☐ ☐ ☒

The proposed project is not expected to result in substantial adverse physical impacts associated with the provision of new school facilities. As discussed in Checklist item 12a, the proposed project would not result in population growth and thus would not impact school protection. (Source 1)

i) Parks? ☐ ☐ ☒ ☐

The proposed project is not expected to result in substantial adverse physical impacts associated with the provision of new park facilities. Increased use of the Parks area trail system may result from project implementation, however this is considered a beneficial impact. (Source 1)

i) Other public facilities? ☐ ☐ ☐ ☒

The proposed project is not expected to result in substantial adverse physical impacts associated with the provision of other public facilities. As discussed in Checklist item 12a, the proposed project would not result in population growth and thus would not significantly impact other public facilities. (Source 1)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

14. RECREATION

SETTING: According to the Sonoma County General Plan, Regional Parks provide opportunities for a broad range of recreational activities generally within a 30-60 minute drive from urban areas, at a rate of 20 acres per 1,000 persons.[45] Sonoma County population continues to grow, with increased visitation to the coastal communities for recreation and scenic viewing opportunities. Visitor recreation use of Parks facilities by tourists and local residents is highest on weekends, holidays, and during the summer months, creating a need for appropriate services. The California Constitution guarantees the public's right to access to the tidelands, and the Coastal Act provides for maximum opportunities for public use and enjoyment of the coast, maximizing recreational opportunities that are consistent with sound resource conservation principles. The Coastal Act policies on recreation favor enhancement of recreational use.[46] Recreation activities that have grown in popularity include long-distance hiking and natural resource interpretation.

LOCAL REGULATION ASSOCIATED WITH RECREATION

Sonoma County General Plan. The project site on Sonoma County Regional Parks property is within a Designated Outdoor Recreation Area in the County General Plan. The Cheney Creek Bridge and trail project will connect two adjacent Parks facilities using the existing trails at Bird Walk Coastal Access on the east side of Bodega Harbor, and Doran Beach Regional Park located on Doran Spit between the harbor and the ocean. The bridge and trail project is a component in a larger proposed continuous pedestrian and bicycle trail system planned to improve coastal access in the Bodega Bay and Sonoma Coast areas. The project has been designed in consideration of the goals, objectives and policies of the Sonoma County General Plan. The Outdoor Recreation Policy 4.1 states that as of 1986 hiking and riding trails were primarily confined to parklands and to Coastal access trails within the Sea Ranch Subdivision. Sonoma County Regional Parks developed a trail system plan to link parks and expand opportunities for hiking and riding. The plan is meant for securing lands for a countywide trail system.

> *Goal OS-7:* *Establish a countywide park and trail system that will meet future recreational needs of the County's residents while protecting agricultural uses. The emphasis of the trail system should be near urban areas and on public lands.*

Local Coastal Plan. The Recreation section of the Sonoma County Local Coastal Plan states that among the facilities needed for accessways and shoreline destinations are safe trails, restrooms, parking areas, trash receptacles and signs. Facilities that are needed at specific sites will depend upon expected use and the availability of nearby facilities. Because the level of use for a facility is expected to increase over time, facilitites may be developed in several phases, with new or expanded facilities developed. The Recreation section recommends a coastal permit for all new accessways, which must be reviewed in two years, and that

[45] Sonoma County General Plan. March 1989.
[46] County of Sonoma. *Local Coastal Program – Local Co*astal Plan. December 12, 2001.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

public hearings be conducted if there is evidence of resource degradation or significant public interest. It is recommended that improvements be made to the interpretation of historical and natural features along the coast. It is encouraged that coastal trail be developed along the beach, coastal terrace, uplands, ridge roads, or highway to connect private and public recreation areas and access trails with communities and public services.

The Visitor Serving Facilities section inventories existing visitor and local serving facilities, identifies areas suitable for development, and recommends types of facilities. Coastal Act policies encourage provision of support facilities.

Policy 30213: *Lower cost visitor and recreational facilities shall be protected, encouraged, and where feasible, provided. Developments providing public recreational opportunities are preferred.*

Policy 30223: *Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.*

Bodega Bay Bicycle and Pedestrian Trails Plan

The Cheney Creek Bridge and Trail project would be one component of a larger proposed Bodega Bay Bicycle and Pedestrian Trails Plan. The connection of the two existing Regional Parks trails with the Cheney Creek bridge would create a segment of the larger trail plan that intends to provide a safer, clearer, more convenient route to and through the Bodega Bay area. The Bodega Bay Bicycle and Pedestrian Trails Plan includes important parts of the California Coastal Trail, a major project of the California Coastal Conservancy. The California Coastal Trail project is a partnership with local agencies and organizations and other state agencies with a goal to complete a continuous trail that extends the entire length of the California coast.[47]

Resource and Recreation Plan 2020

An Outdoor Recreation Plan for Sonoma County is currently in the development phase. The vision for the Regional Parks Resource and Recreation Plan 2020 includes recreation facilities in Sonoma County that are well-designed, well-maintained, safe, and enhance the lives of all residents and visitors by providing quality experiences with excellent facilities and programs. The Plan will reflect the community's ideas and priorities in protecting and gaining public access to many of Sonoma County's unique areas and resources, by providing recreation facilities that contribute to Sonoma County's role as a major visitor destination. The Plan envisions outdoor recreation facilities that respect the rights and desires of private property owners, protect agricultural interests, create outdoor recreation facilities that contribute to our local and regional economy, and help guide the County's ongoing development in a manner that brings people together to share and protect the wide-

[47] LandPeople, Landscape Architects and Planners. Bodega Bay Bicycle and Pedestrian Trails Study. September 2005.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

range of natural and cultural resources**.** [48]

Would the project:

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ☐ ☐ ☒ ☐

The proposed project is not expected to result in substantial physical deterioration of park facilities. The proposed project is a recreational facility that will connect two existing Regional Parks properties. This is considered a beneficial impact. Increased public use of facilities from proposed project is expected, however substantial impacts to the environment are not likely. Construction, use, operation, and maintenance activities associated with the proposed project are not expected to result in the physical deterioration of other recreational facilities that may exist within the adjacent residential neighborhood. (Source 1)

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? ☐ ☐ ☒ ☐

The proposed project is a recreational facility that includes construction and expansion of recreational facilities. The physical effects of the project are not expected to result in significant adverse effects on the environment. (Source 1)

[48] Sonoma County Regional Parks. *Resource and Recreation Plan 2020.* 2006.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

15. TRANSPORTATION AND TRAFFIC

SETTING: The project site is within the Northbay Regional Highway Network area of the County General Plan.[49] Access to the project site area from the east, is by the Bird Walk Coastal Access parking lot, west of Highway 1. Access to the project site from the west is by Doran Park Road, at the trailhead for Doran Marsh Trail directly east of the unpaved parking area.

Coast Highway 1 through Sonoma County is a highly scenic, low speed highway with winding narrow lanes, limiting the traffic carrying capacity. The highway provides access to the Sonoma Coast and Bodega Bay area, and to commercial and tourist destinations in the vicinity, including parks, beaches and vista points. Traffic congestion has been identified as a problem along segments of Highway 1 including Bodega Bay. Recreation travel has been identified as the largest element in traffic growth in the area. Parking management recommendations focus on the Sonoma Coast State Beach areas where demand is the greatest. Coastal Act policies encourage maintenance and improvement of access to coast resources. They also require that Highway 1 in rural areas remain a scenic two-lane highway.[50]

The location and amount of new development should maintain and enhance public access to the coast by providing non-automobile circulation within the development. Traffic tends to be higher on Friday evenings, weekends and summer months. Due to the remoteness of the Sonoma Coast region, an extensive highway system does not exist. The major highways other than Coast Highway 1 include Highway 116, Bodega Highway, both designated scenic corridors, and the Bohemian Highway. All of the highways are one or two lane roads. Daily bus service connects the small coastal communities with Sebastopol and Santa Rosa.[51]

Doran Park Road is the only access road to Doran Beach Regional Park from Highway 1. From the south, the road exits off of Highway 1 just north of Harbour Way, then runs northwest between the marsh and the subdivision southeast of Bodega Harbor, before entering Doran Beach Regional Park. The road continues out to the jetty campground area where it ends at the Harbor entrance. From the north, Doran Park Road exits off of Highway 1 just south of North Harbour Way (entrance to subdivision east of Highway 1) and connects with the segment of Doran Park Road that exits off of Highway 1 from the south, where it turns sharply at the Bodega Bay Lodge and Spa and heads toward the coast.

LOCAL REGULATION ASSOCIATED WITH TRANSPORTATION AND TRAFFIC

Local Coastal Plan. The Sonoma County Local Coastal Plan follows Coastal Act policies that encourage maintenance and improvements of access to coast resources.

Policy 30252: *The location and amount of new development should maintain and enhance public access to the coast by (2) providing commercial facilities within or adjoining*

[49] Sonoma County General Plan. *Circulation/Transit Element, Figure CT-1.* March 1989.
[50] County of Sonoma. *Local Coastal Program – Local Co*astal Plan. December 12, 2001.
[51] Sonoma County General Plan. *Circulation/Transit Element, Figure CT-1.* March 1989.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development.

The Transportation section recommends the pursuit of bikeway projects as part of Highway 1 and Highway 116 road improvement projects.

Would the project:

a)	**Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**	☐	☐	☒	☐

Short term, construction-related impacts on local traffic may occur, specifically during construction of bridge foundations and delivery of bridge sections. This less-than-significant impact can be further reduced with implementation of the following mitigation measures:

Mitigation Measures

30. The Contractor will coordinate with the Highway Patrol and California Department of Transportation regarding transportation of the bridge prior to project implementation if needed.

31. Regional Parks Department will notify residents and businesses adjacent to the project area and local emergency services at least one week prior to commencement of construction.

32. The Contractor will place appropriate signage at the project entrance at Bird Walk Coastal Access and at Doran Beach Regional Park entrance kiosk, to notify park visitors that traffic may be subject to short-term delay or detour. The Contractor will maintain access to park facilities during construction and place appropriate signage directing public to temporarily closed areas at project site.

33. The Contractor will comply with the Caltrans "Manual of Traffic Safety Controls for Construction and Maintenance Work Zones" regarding traffic safety guidelines during construction including adequate signage and precautions for public safety during project construction.

b)	**Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**	☐	☐	☐	☒

The proposed project would not exceed established level of service standards for Coast Highway 1, Doran Park Road, or Bird Walk Coastal Access Park entrance road. (Source 1)

		Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
c)	**Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**	☐	☐	☐	☒

The proposed project would not change air traffic patterns. (Source 1)

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

The proposed project would not substantially increase hazards or incompatible use. (Source 1)

e)	**Result in inadequate emergency access?**	☐	☐	☐	☒

The proposed project would not result in inadequate emergency access. As a component of the proposed project, the existing Doran Marsh Trail at Doran Beach Regional Park will be widened and re-surfaced providing improved emergency accessibility in the project area. (Source 1)

f)	**Result in inadequate parking capacity?**	☐	☐	☒	☐

The proposed project would not result in inadequate parking capacity. The project links existing multi-use coastal trails that will provide alternative public access that could reduce the use of vehicle traffic, and the need for additional parking facilities. Regional Parks personnel patrol the existing parking areas along Doran Park Road and the parking lot at Bird Walk Coastal Access Park. Illegally parked vehicles are ticketed and/or towed. Short-term impact to parking availability may occur during project construction when equipment may be utilizing some of the available parking facilities. This less than significant impact will be further reduced by implementation of checklist item 15a. (Source 1)

g)	**Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**	☐	☐	☐	☒

The proposed project is not expected to conflict with adopted policies, plans, or programs that support alternative transportation. The project vicinity is served by Sonoma County Transit, however, the proposed project is not expected to conflict with this service. The Sonoma County General Plan, Circulation and Transit Element for the Sonoma Coast/Gualala Basin area states that "Traffic patterns are affected primarily by recreation travel." (Source 1)

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

16. UTILITIES AND SERVICE SYSTEMS

SETTING: The Public Facilities and Services Element policies included in the Sonoma County General Plan address the seven types of public services that are most directly related to developing the physical aspect of the County. These include utilities, water, wastewater management, solid waste management, fire protection, public education and parks and recreation. The policies further intend to reduce uncertainty about service availability and cost, and to integrate public service concerns into land use decision making. The element is designed to assure that public services are available when needed.

The project site is located northwest of the Bodega Bay Public Utilities District facility. The existing Bird Walk Coastal Access facility is served by a portable restroom located in the parking lot, east of the project site location. There are no existing water, sewage or utilities services at the project site location.[52] There are portable restroom facilities at the parking lot on Doran Park Road, west of the Doran Marsh Trail entrance, and other park facilities at Doran Beach Regional Park that have sewage, water and utilities services.

Would the project:

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

The proposed project will not expected to exceed wastewater treatment requirements of the North Coast Regional Water Quality Control Board. (Source 1) The proposed project site has a portable restroom located in the Bird Walk Coastal Access Park parking lot, adjacent to the levee trail entrance, and portable restroom facilities located in the pull-out parking lots off of Doran Park Road, near the marsh trail entrance. These facilities will be available to park visitors and to project construction workers. The proposed project will not create any additional utilities and service systems.

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

The proposed project is not expected to require or result in the construction of new water or wastewater facilities, nor expansion of any existing facilities. (Source 1)

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

The proposed project is not expected to require or result in the construction of storm water drainage facilities or expansion of existing facilities. (Source 1)

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

The proposed project does not include available potable drinking water sources on-site, therefore no new or expanded water supply entitlements would be required. (Source 1)

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

The proposed project site has existing portable restroom facilities located in the parking lot of Bird Walk Coastal Access Park, and in parking lot off Doran Park Road, at the western project site boundary. These facilities are adequate to serve the project's expected demand from project workers, current park visitors, and any increase in park visitors resulting from proposed project. (Source 1)

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

The proposed project's construction and maintenance activities are expected to generate solid waste. Users of the proposed project are expected to generate a minimal amount of solid waste in debris receptacles that would be located within the project area. The landfill has sufficient capacity to accommodate solid waste disposal needs that result from project construction and maintenance, and facility visitor use. (Source 1)

g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

The construction, use, and maintenance of the proposed project is expected to comply with federal, state, and local regulations related to solid waste. (Source 1)

[52] Kase, Joe. Sonoma County Regional Parks, Planner II. *Personal Communication*. November 29, 2006.

	Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

17. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ☐ ☐ ☒ ☐

The proposed project is not expected to degrade the quality of the environment or substantially impact biotic, archaeological, or historic resources. Construction activities may result in short-term impacts to residents in close proximity to the project area, and to park visitors using park facilities near the project site. The proposed mitigation measures listed in the checklist items throughout will reduce potential impacts to less than significant levels.

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)? ☐ ☐ ☒ ☐

The proposed project is not expected to have considerable cumulative impacts. The proposed mitigation measures listed in the checklist items throughout will reduce potential impacts to less than significant levels.

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

The proposed project is not expected to result in environmental impacts that would cause substantial adverse direct or indirect effects on human beings. Construction activities may result in short-term impacts to residents in close proximity to the project area, and to park visitors using park facilities near the project site. The proposed mitigation measures will reduce potential impacts to a less than significant level.

Potentially Significant Impact	Potentially Significant Unless Mitigated	Less Than Significant Impact	No Impact

SOURCES

1. Sonoma County Regional Parks Department staff evaluation based on review of the project, proposed project description, and past experience with similar construction projects.

2. *Sonoma County General Plan* and *Environmental Impact Report*. Sonoma County Permit and Resource Management Department. Adopted March 1989.

3. Sonoma County Assessors Parcel Maps.

4. Sonoma County Zoning Maps.

5. County of Sonoma. Local Coastal Program – Local Coastal Plan. December 12, 2001.

6. Sonoma County Regional Parks and U.S. Army Corps of Engineers. *Bodega Bay Dredging Project 2001*. May 12, 1998.

7. Sonoma County Regional Parks. Preliminary Master Plan – Doran Park and Westside Park. Exact publication date unknown - approximately 1969.

8. Wetlands Research Associates, Inc. Spud Point Marina Mitigation Study: Doran Park Marsh Assessment and Enhancement Recommendations. April 1986.

9. LandPeople. Landscape Architects and Planners. *Bodega Bay Bicycle and Pedestrian Trails Study.* September 2005.

10. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Sonoma County Important Farmland Map*. 1996.

11. California Air Resources Board. *California Air Districts Map*. Accessed November 2006. www.arb.ca.gov/maps/adistbw.pdf.

12. Bay Area Air Quality Management District. April 1996.

13. Erdman, George. Northern Sonoma County Air Pollution Control District. *Personal Communication.* December 5, 2006.

14. Soil Conservation Service, U.S. Department of Agriculture. *Soil Survey of Sonoma County, California*. Issued 1972, reviewed and approved for reprinting August 1990.

15. Wetlands Research Associates, Inc. and Sonoma County Regional Parks. *Doran Park Marsh Enhancement – Phase III Post-Project Monitoring.* June 1999.

16. California Native Plants Society. Rare Plant Program. CNPS "List". Accessed November 30, 2006. www.cnps.org/programs/Rare_Plant/program.htm

17. Valerius, Jane. Environmental Consulting. *Botanical and Wetland Resources Report – Cheney Creek Bridge and Trail Project, Sonoma County California.* November 11, 2006.

18. Wildlife Research Associates. *Habitat Assessment – Cheney Creek Bridge, Sonoma County California.* August 28, 2006.

19. Sonoma County Permit and Resource Management Department. *Ordinance No. 4014 (Tree Protection and Replacement Ordinance)*. June 1991.

20. Archaeological Services, Inc. *An Assessment of the Cultural Resources within the Proposed Doran Park Sewer Pipeline System, Bodega Bay, California*. September 1986.

21. Much, Bryon. Northwest Information Center, Sonoma State University. *Records Search Report for Proposed Cheney Creek Bridge and Trail Project.* February 6, 2006

22. US Army Corps of Engineers. *Design Memorandum No. 1 – General Design and Environmental Impact Statement, Bodega Bay California*. June 1981.

23. Giblin Associates, Consulting Geotechnical Engineers. Soil Investigation – Proposed *Cheney Creek Gulch Pedestrian Bridge, Doran Beach Regional Park. December 24, 1996.*

24. Huffman and Armstrong. *Geology for Planning in Sonoma County*. California Department of Conservation, Division of Mines and Geology; Special Report 120. 1980.

25. California Resources Agency, Department of Conservation. Map.

26. Base Geotechnical, Inc. *Environmental Investigation – Bodega Bay Dredge Spoils, Sonoma County California*. March 29, 1991.

27. US Army Corps of Engineers. *Chemical Characterization of Sediment from Bodega Harbor.* April 1991.

28. California Environmental Protection Agency, Department of Toxic Substances Control. *Hazardous Waste and Substances Sites List (Cortese List)*. Government Code §65962.5. March, 2006.

29. Federal Emergency Management Agency. *Flood Insurance Rate Maps – Sonoma County.*

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project could not have a significant effect on the environment, and a Negative Declaration will be prepared.

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

☐ I find that 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 Environmental Impact Report (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.

☐ 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.

Signature: Date:

Jim McCray, Park Manager — February 01, 2007

Sonoma County Regional Parks Department

Appendix A

Mitigation Monitoring Program

PROPOSED MITIGATION MONITORING PROGRAM

Pursuant to Section 21081.6 of the State CEQA Guidelines[1], the mitigation measures listed in the Proposed Mitigation Monitoring Program (MMP) are to be implemented as part of the proposed project. The Proposed MMP identifies the time at which each mitigation measure is to be implemented and the person or department responsible for implementation. The initials of the designated responsible person will indicate completion of their portion of the mitigation measure. The Regional Parks Environmental Specialist or Park Planner's signature on the Certification of Compliance will indicate complete implementation of the Proposed MMP.

The mitigation measures included in the Proposed MMP are considered conditions of approval of the proposed project. The Regional Parks Department agrees to implement the mitigation measures proposed in the MMP. Implementation of the mitigation measures included in the Proposed MMP are expected to avoid, minimize, rectify, reduce, or compensate potentially significant impacts to a less than significant level.

Time of Implementation

Project Design:	The mitigation measure will be incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.
Pre Construction:	The mitigation measure will be implemented before construction activities begin.
Construction:	The mitigation measure will be implemented during construction.
Post Construction:	The mitigation measure will be implemented after project construction.

Responsible Persons and Departments

The Regional Parks Department Environmental Specialist, Park Planner, and Planning Technician will be responsible for the overall implementation of the MMP. Generally, the Regional Parks Department Environmental Specialist, Park Planner, and Planning Technician will sign off on the mitigation measures included in the MMP. Periodically, staff of other County departments or regulatory agencies will be involved in the implementation of specific mitigation measures. In these instances, the staff, department, or agency will be identified in the MMP.

Certification of Compliance

The Regional Parks Department Environmental Specialist, Park Planner, and Planning Technician will be responsible for providing signatures on the Certification of Compliance. The Certification of Compliance is a "double-check" to ensure that the MMP was fully implemented.

Record Keeping

The Regional Parks Department Environmental Specialist, Park Planner, and Planning Technician will maintain the records of the MMP. When the MMP is fully implemented, the original signed copy will be maintained in the official Project Binder.

1 California Code of Regulations Title 14.

CERTIFICATION OF COMPLIANCE

Complete the Certification of Compliance <u>after</u> mitigation measures have all been initialed. Use this Certification of Compliance to "double-check" the full implementation of each mitigation measure.

Design: The Regional Parks Department Environmental Specialist and/or the Park Planner has reviewed the project design, the plans, and the contract special provisions to verify that designated mitigation measures have been incorporated.

Regional Parks staff signature & job title *Date*

☐	1	Air Quality	☐	13	Bio. Resources	☐	25 Hydro/Water Q.
☐	2	Air Quality	☐	14	Bio. Resources	☐	26 Hydro/Water Q.
☐	3	Air Quality	☐	15	Bio. Resources	☐	27 Noise
☐	4	Air Quality	☐	16	Cult. Resources	☐	28 Noise
☐	5	Bio. Resources	☐	17	Cult. Resources	☐	30 Traffic
☐	6	Bio. Resources	☐	18	Geology & Soils	☐	31 Traffic
☐	7	Bio. Resources	☐	19	Geology & Soils	☐	32 Traffic
☐	8	Bio. Resources	☐	20	Hazards/Haz Mat	☐	33 Traffic
☐	9	Bio. Resources	☐	21	Hazards/Haz Mat		
☐	11	Bio. Resources	☐	23	Hazards/Haz Mat		
☐	12	Bio. Resources	☐	24	Hydro/Water Q.		

Pre-Construction: The Regional Parks Department Environmental Specialist and/or the Park Planner has verified that designated mitigation measures were implemented prior to construction activities.

Regional Parks staff signature & job title *Date*

☐	5	Bio. Resources	☐	9	Bio. Resources	☐	25 Hydro/Water Q.
☐	6	Bio. Resources	☐	11	Bio. Resources	☐	30 Traffic
☐	7	Bio. Resources	☐	13	Bio. Resources	☐	31 Traffic
☐	8	Bio. Resources	☐	20	Hazards/Haz Mat	☐	32 Traffic

Construction: The Regional Parks Department Environmental Specialist and/or the Park Planner has verified that designated mitigation measures were implemented during construction.

Regional Parks staff signature & job title *Date*

☐	1	Air Quality	☐	12	Bio. Resources	☐	24 Hydro/Water Q.
☐	2	Air Quality	☐	13	Bio. Resources	☐	25 Hydro/Water Q.
☐	3	Air Quality	☐	14	Bio. Resources	☐	26 Hydro/Water Q.
☐	4	Air Quality	☐	15	Bio. Resources	☐	28 Noise
☐	5	Bio. Resources	☐	16	Cult. Resources	☐	29 Noise
☐	6	Bio. Resources	☐	17	Cult. Resources	☐	30 Traffic
☐	7	Bio. Resources	☐	18	Geology & Soils	☐	32 Traffic
☐	8	Bio. Resources	☐	19	Geology & Soils	☐	33 Traffic
☐	9	Cult. Resources	☐	20	Hazards/Haz Mat	☐	
☐	10	Bio. Resources	☐	21	Hazards/Haz Mat	☐	
☐	11	Bio. Resources	☐	23	Hazards/Haz Mat	☐	

Post-Construction: The Regional Parks Department Environmental Specialist and/or the Park Planner has verified that designated mitigation measures were implemented after construction. Mitigation measures pertaining to maintenance activities have been incorporated into Resource Management Plan.

Regional Parks staff signature & job title *Date*

☐	1	Air Quality	☐	9	Bio. Resources	☐	29 Noise
☐	2	Air Quality	☐	10	Bio. Resources	☐	
☐	3	Air Quality	☐	20	Hazards/Haz Mat	☐	
☐	4	Air Quality	☐	22	Hazards/Haz Mat	☐	

AIR QUALITY

Mitigation Measure 1: The contractor will be required to spray water or dust palliative on unpaved construction areas, staging areas, and stockpiles of soils during construction as directed by the County during construction. Sonoma County Regional Parks Department staff will be required to spray water or dust palliative on unpaved areas as needed during maintenance activities.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

Mitigation Measure 2: The Contractor will be required to cover loads of soil, sand, and other loose materials over public roads, keep the loads at least two feet below the level of the sides of the hauling container, and wet the load sufficiently to prevent dust emissions during construction of the proposed project. Sonoma County Regional Parks Department staff will be required to cover loads of soil, sand, and other loose materials over public roads, keep the loads at least two feet below the level of the sides of the hauling container, and wet the load sufficiently to prevent dust emissions as needed during maintenance activities.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

Mitigation Measure 3: The Contractor will be required to sweep paved roads as needed to remove soil that has been carried onto them from the project site during construction. Sonoma County Regional Parks Department staff will be required to sweep paved roads as needed to remove soil that has been carried onto them from the project site due to maintenance activities.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

Mitigation Measure 4: The Contractor will be required to operate all construction vehicles and equipment with emission levels that meet current air quality standards and to minimize idling time for all heavy equipment to reduce on-site emissions during construction. Sonoma County Regional Parks Department staff will be required to operate all construction vehicles and equipment with emission levels that meet current air quality standards and to minimize idling time for all heavy equipment to reduce on-site emissions during maintenance activities.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

BIOLOGICAL RESOURCES

Mitigation Measure 5: Regional Parks will conduct a Mandatory Contractor/Worker Environmental Awareness Training identifying sensitive resources on the site and measures to prevent take of individuals and habitat at pre-bid and pre-construction meetings.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Mitigation Measure 6: The Contractor shall be required to schedule driving the bridge footings between July 01 and September 30. If this is not feasible, the following shall occur prior to initiating the activity:

a. Regional Parks shall obtain concurrence from the United States Fish and Wildlife Service before starting work.

b. The Contractor shall drive the bridge footings during low tide to the greatest degree feasible to reduce daily disturbance to fish species when few individual fish are present in Cheney Creek.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 7: The Contractor will avoid impacts to populations and individuals of coastal bluff morning glory. Regional Parks or a qualified biologist will flag areas with coastal bluff morning glory prior to the onset of construction-related activities.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 8: The Contractor will remove trees, shrubs and other vegetation between August 01 and March 15 to avoid bird-nesting season. General bird nesting season is between March 15 and July 31. If it is not feasible to remove vegetation outside of bird-nesting season, the Regional Parks Department will complete the following:

a. Conduct a bird-nesting survey between seven and 14 days prior to the removal of vegetation. The area to be surveyed will include all construction sites and staging areas for which vegetation removal is required to a buffer of 150 feet outside the boundary of the area to be cleared. Survey results will remain valid for a period of 21 days following the date of the survey.

b. Postpone vegetation clearing and construction activities within 150 feet of the nest in the event that an active nest is discovered in the surveyed area. No construction-related activity will be allowed to occur within this area until it is determined that the young have fledged, the nest is vacated, and there is no evidence of second nesting attempts.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 9: The Contractor will install construction barrier fencing around the following areas prior to the onset of construction-related activities. Regional Parks will identify the areas where construction barrier fencing will be required on the construction drawings. All construction barrier fencing

will consist of black silt fence, be buried 4 inches below grade using a ditch witch or placed by hand with the lower portion of the fence creating an apron along the ground facing the construction zone and dirt piled upon the apron to secure it. Construction-related activities, including storing equipment, chemicals, spoil materials, trash, parking vehicles or equipment may not take place within the protected areas. The Contractor will maintain construction barrier fencing during construction and Regional Parks will maintain construction barrier fencing after construction is complete through the first rainy season. Regional Parks will remove the construction barrier fencing after the last rains of the spring and vegetation has become established.

a. Staging Area 1 – Bird Walk Coastal Access Trail. The Contractor will install a construction barrier fence to prevent any materials from encroaching upon the adjacent wetlands.

b. Staging Area 2 – Doran Beach Regional Park Marsh Trail. The Contractor will install a construction barrier fence on the north and south side of the Marsh Trail to prevent sediment falling into Cheney Creek and delineated saltmarsh. The fence shall be placed on contour along a parallel route to the trail under direction of Regional Parks or a qualified biologist to prevent take of the saltmarsh habitat.

c. Marsh Trail – Doran Beach Regional Park. The Contractor will install a construction barrier fence along both sides of the Marsh Trail to prevent sediment from entering the adjacent salt marsh, wetlands, and native plant communities.

d. Seasonal Wetland. The Contractor will install a construction barrier fence along the outermost edge of the delineated seasonal wetland.

e. Protected Vegetation. The Contractor will install a construction barrier fence around the outermost edge of the vegetation to be protected.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

Mitigation Measure 10: Regional Parks Department will implement a Revegetation Plan to replace the vegetation removed as part of this project development. The Revegetation Plan will include the following elements:

a. Trees removed that are subject to Sonoma County Ordinance No. 4014 will be replaced at ratios determined by the Ordinance and will be replanted on-site to the greatest degree possible.

b. Staging areas will be seeded and restored using native plants after construction activities have been completed.

c. Revegetated areas will be monitored for two growing seasons. Success will be measured by 75 percent cover of seeded areas and survival of plantings.

Implementation & Monitoring

Post Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

Mitigation Measure 11: The Contractor will comply with regulations of the U.S. Army Corps of Engineers, the California Department of Fish and Game, the North Coast Regional Water Quality Control Board and the State Coastal Commission regarding construction activities that affect drainages and wetlands.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 12: The Contractor will dispose of surplus soils, surplus concrete rubble, or pavement at an acceptable and legally permitted disposal site or taken to a permitted soil concrete and/or asphalt recycling facility.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 13: Regional Parks Department will clearly identify trees and other vegetation that will require removal on the construction drawings and will identify the protected perimeter of trees to be protected on the construction drawings. The protected perimeter is defined in Sonoma County Ordinance No. 4014 as the tree drip line. The contractor will clearly mark in the field the trees that will be removed. The Contractor will insure that all trees removed for implementation of the project be left onsite to provide wildlife habitat.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 14: The Contractor will be required to perform all tree trimming and branch removal in accordance with the International Society of Arborists Tree Pruning Guidelines, adopted in 1995. These standards require that (a) branches are cut cleanly, utilizing pruning shears, loppers, or a fine tooth saw that cuts on the pull stroke; (b) branches are cut just outside the branch bark ridge or at the callus shoulder, and at a point of junction with another branch to avoid leaving a limb section without live leaf support; (c) climbing spurs cannot be worn when performing work on any tree, and (d) trees will not be "headed."

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 15: The Contractor will be required to report any damage to protected trees that occurs during, or as a result of, project construction to Regional Parks staff. If a protected tree is damaged so that it cannot be preserved in a healthy state, the tree will be replaced in accordance with the Arboreal Value Chart included in Sonoma County Ordinance No. 4014.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

CULTURAL RESOURCES

Mitigation Measure 16: The Contractor will cease construction activity immediately if cultural, archaeological, paleontological, and historic or other types of cultural resources are encountered in the immediate vicinity of the find during project construction. Construction will cease until a qualified archaeologist has evaluated the situation to determine the significance of the find and has recommended appropriate measures to protect the resource. The archaeologist will record identified resources on DPR 523 historic resource recordation forms and submit the forms to the Northwest Information Center.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 17: The Contractor will immediately cease construction activity in the immediate vicinity of the discovery if human remains are unearthed during construction. Regional Parks will contact the County Coroner to investigate the nature and circumstances of the discovery as required by State law. If the burial appears to be Native American, Regional Parks will also attempt to contact an appropriate tribal representative to determine appropriate protocol. Construction activity will not resume in the immediate vicinity of the discovery until authorized by the County Coroner and/or Regional Parks.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

GEOLOGY & SOILS

Mitigation Measure 18: The Contractor will implement Best Management Practices to protect geology and soils, including the following:

a. Avoid construction activities during rainy days as directed by Regional Parks

b. Preserve existing vegetation except what is designated by Regional Parks for removal

c. Leave root structure of vegetation in place whenever feasible

d. Minimize the extent of disturbance from construction activities

e. Stabilize exposed slopes, banks and stockpiles of soil materials during construction using erosion control blankets, or other method approved by Regional Parks

f. Stabilize exposed soil by installing erosion control materials such as blankets, mulch, and/or seed that are free of exotic species or other method approved by Regional Parks.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 19: Regional Parks will schedule ground disturbing construction activities to the dry season, April 30 – October 15. Regional Parks must approve ground disturbing construction activities that must occur during the rainy season (October 16 – May 01) based on the Storm Water Pollution Prevention Plan (SWPPP – see Mitigation Measure 24).

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

HAZARDS AND HAZARDOUS MATERIALS

Mitigation Measure 20: The Contractor will be required to prepare, submit, and implement a spill prevention plan for the project, which shall include, but not be limited to, the following elements:

a. Follow the provisions of Sections 5163 – 5167 of the General Industry Safety Orders (CCR Title 8) to protect the project site from being contaminated by the accidental release of any hazardous materials and/or waste.

b. Store all flammable liquids in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters.

c. If hazardous materials are encountered during construction, the contractor will immediately halt construction activities and will implement actions required by the current California regulatory requirements.

d. In the event of a spill of hazardous materials the Contractor will immediately call the emergency number 9-1-1 to report the spill, and will take appropriate actions to contain the spill to prevent further migration of the hazardous materials to storm water drains or surface waters.

e. Prevent the following activities within areas protected by construction barrier fencing:

- ❖ Fueling of any vehicles or portable generators
- ❖ Vehicle/equipment washing and maintenance areas
- ❖ Above-ground tanks for liquid storage
- ❖ Industrial waste management areas (landfills, waste piles, treatment plants, disposal areas)

f. The Contractor will use drip pans or absorbent pads during vehicle and equipment maintenance, cleaning, fueling, and storage.

g. Spill kits and cleanup materials shall be available at all locations of pile-driving activities.

h. Equipment that is to be used shall be kept leak free and inspect for leaks and spills on a daily basis.

i. Equipment will be parked over drip pans or absorbent pads.

j. When not in use, the contractor will store pile-driving equipment away from concentrated flows of storm water, drainage courses, and inlets.

k. Protect hammers and other hydraulic attachments by placing them on plywood and covering them with plastic or a comparable material prior to the onset of rain.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented by reviewing and approving the spill prevention plan submitted by the contractor.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 21: The Contractor will dispose of petroleum-based products in accordance with applicable laws and regulations.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 22: Regional Parks Department operations and maintenance crews will dispose of petroleum-based products in accordance with applicable laws and regulations.

Implementation & Monitoring

Post-Construction: Regional Parks staff will verify that the mitigation measure is implemented during maintenance activities.

Initials *Date*

Mitigation Measure 23: The Contractor will conduct inspections and maintenance, according to current regulations, of portable toilet facilities used during construction. The contractor will conduct routine waste removal to ensure that effluent spills are avoided or minimized.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

HYDROLOGY AND WATER QUALITY

Mitigation Measure 24: Regional Parks will provide an approved Storm Water Pollution Prevention Plan (SWPPP) for implementation by the Contractor prior to project construction.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 25: Regional Parks will provide a sediment control plan as part of the Storm Water Pollution Prevention Plan (SWPPP) for implementation by the Contractor. The focus will be to prevent sediment from entering the delineated wetland, Cheney Creek, Doran Marsh ponds and tidal channels and any other surface drainage within the project area. The sediment control plan will include temporary, construction-related sediment control that may include but not be limited to silt fencing, sediment traps, fiber roles, and/or barriers. The source of each specific sediment control measure proposed by the contractor must be documented in the sediment control plan.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

Mitigation Measure 26: The Contractor will be required to install a protective impermeable barrier, such as a tarp, between the bridge work area and any surface water.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction.

Initials *Date*

NOISE

Mitigation Measure 27: The Contractor will be required to operate all internal combustion engines with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction

Initials *Date*

Mitigation Measure 28: The contractor will be required restrict construction activities to the hours of 7:00 am to 7:00 p.m. on weekdays, except for actions taken to prevent or resolve an emergency.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction

Initials *Date*

Mitigation Measure 29: Sonoma County Regional Parks staff will be required to operate all internal combustion engines with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code.

Implementation & Monitoring

Post-Construction: Regional Parks staff will verify that the mitigation measure is incorporated into the Resource Management Plan.

Initials *Date*

TRANSPORTATION AND TRAFFIC

Mitigation Measure 30: The Contractor will coordinate with the Highway Patrol and California Department of Transportation regarding transportation of the bridge prior to project implementation if needed.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction activity.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction

Initials *Date*

Mitigation Measure 31: Regional Parks Department will notify residents and businesses adjacent to the project area and local emergency services at least one week prior to commencement of construction.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction

Initials *Date*

Mitigation Measure 32: The Contractor will place appropriate signage at the project entrance at Bird Walk Coastal Access and at Doran Beach Regional Park entrance kiosk, to notify park visitors that traffic may be subject to short-term delay or detour. The Contractor will maintain access to park facilities during construction and place appropriate signage directing public to temporarily closed areas at project site.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Pre-Construction: Regional Parks staff will verify that the mitigation measure is implemented prior to construction

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction

Initials *Date*

Mitigation Measure 33: The Contractor will comply with the Caltrans "Manual of Traffic Safety Controls for Construction and Maintenance Work Zones" regarding traffic safety guidelines during construction including adequate signage and precautions for public safety during project construction.

Implementation & Monitoring

Project Design: Regional Parks staff will verify that the mitigation measure is incorporated into the project design and/or included in the project specifications and contract special provisions prior to awarding a construction project.

Initials *Date*

Construction: Regional Parks staff will verify that the mitigation measure is implemented during construction

Initials *Date*

Appendix B

Notice of Preparation & Scoping Meeting Correspondence

NOTICE OF PREPARATION OF AN INITIAL STUDY

SONOMA COUNTY REGIONAL PARKS 2300 COUNTY CENTER DRIVE, SUITE 120a SANTA ROSA, CA 95403
PHONE: (707)565-2041 FAX: (707)565-3642

February 6, 2006

The Sonoma County Regional Parks Department (Regional Parks) is preparing an Initial Study for the proposed:

CHENEY CREEK BRIDGE AND TRAIL PROJECT

Introduction

Regional Parks is requesting comments from responsible and trustee agencies, property owners in the project vicinity, and other interested parties regarding the scope and content of the Initial Study. Responsible and trustee agencies are requested to provide comments regarding the scope and content of the environmental information which is germane to that agency's statutory responsibilities in relation to the proposed project. Regional Parks is also interested in comments from property owners and other interested parties regarding what should be included in the Initial Study.

Regional Parks staff will prepare the Initial Study in accordance with the provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. An Initial Study is a preliminary analysis of a proposed project's potentially significant environmental effects regarding construction, operation, and maintenance of the proposed project. After the Initial Study is prepared, Regional Parks will present the document to the Sonoma County Environmental Review Committee (ERC), who will determine whether a Negative Declaration or an Environmental Impact Report should be prepared. Regional Parks will invite those on the project mailing list to attend the ERC meeting.

Notice of Preparation Comment Period

Please send written comments to Pamela Higgins, Assistant Environmental Specialist, in care of the Sonoma County Regional Parks Department, at the address listed above.

The comment period for the Notice of Preparation will close at 5:00 p.m. on **March 10, 2006**, which is 33 days after mailing of this document. Please note that while the comment period for the Notice of Preparation has a closing date, interested parties are encouraged to contact Regional Parks staff at any time during the process to receive an update of the process, to ask questions, and share information.

Public Scoping Meeting

Regional Parks will host a Public Scoping Meeting regarding the proposed project. The Public Scoping Meeting is not a required part of the CEQA process. Regional Parks staff will present the conceptual plan for the Cheney Creek Bridge and Trail Project and will discuss the planning and environmental processes associated with park development. Then, the meeting will be opened to the audience to participate in the process. Regional Parks would like to hear from the community as well as the responsible and trustee agencies regarding support for the proposed project and regarding concerns. The Public Scoping Meeting is scheduled as follows:

Saturday, February 25, 2006, 10:00am-12:00pm
Bodega Bay Grange Hall
1370 Bodega Highway, Bodega Bay, CA

Regional Parks Contact Person

Please contact Pamela Higgins, Assistant Environmental Specialist, at (707) 565-2383 Email: phiggins@sonoma-county.org if you have questions regarding this Notice of Preparation.

Documents relating to the proposed project are available for review at the Sonoma County Regional Parks office. Please call the main office at (707) 565-2041 to set up and appointment.

PROJECT INFORMATION

Project Purpose

The purpose of the proposed project is to connect two existing County Regional Parks facilities Bird Walk Coastal Access Trail and Doran Beach Regional Park, with a bridge and multi-use trail. The proposed bridge will span Cheney Creek, connecting with trails on each side of the creek. The Bird Walk Coastal Access Trail location offers hikers an unobstructed view of Doran Marsh tidal flats, channels, and ponds that is ideal for bird watching. Doran Beach Regional Park offers a range of nature and recreational opportunities for visitors and local residents, extending public access to coastal environments. Connecting these two facilities would improve opportunities for public enjoyment of both existing parks.

Project Location

The proposed project site is located south of Bodega Harbor between Bird Walk Coastal Access Trail, 355 Highway 1, and Doran Beach Regional Park on Doran Park Road.[1] The Bodega Bay Public Utility District treatment facility is located on the southeast side of the project site. Doran Marsh, tidal channels and ponds border the project site on the southwest. (See Figure 1)

Existing Site Conditions

Bird Walk Coastal Access Park is 14 acres and was constructed in 1980 as a dredge disposal site for a Bodega Harbor dredging project. Two disposal ponds are enclosed by levees that are 26 feet above mean low water and 10 feet wide on top. The one-mile, multi-use loop-trail runs along the top of the levee. The all-weather, barrier-free trail offers views of Doran Marsh, Doran Beach Park, Bodega Bay and Harbor, and Bodega Head. Bird Walk Coastal Access Park has a ten-space paved parking lot with a screened portable restroom in the southeastern corner. There is a large, natural rock outcropping in pond visible from Highway 1.

Doran Beach Regional Park is west of the project site, and has ocean, bay and harbor frontage that includes salt marsh, tidal flat and sand dune environments. The park offers recreation that includes camping, fishing and boating, and picnic opportunities. The Doran Marsh Trail traverses the salt marsh and tidal channels on an existing levee, and offers public access for bird watching and scenic viewing.

Cheney Creek runs between the levee that borders Bird Walk Coastal Access Park and the Doran Marsh Trail. The creek empties into the southern tidal flats of Bodega Harbor. Fresh water wetlands are along the southeastern marsh coastal bluffs. The coastal location, mild climate, and diverse natural habitats support a wide variety of birds and wildlife in and adjacent to the project site. Vegetation in the project site vicinity consists of mixed native salt marsh species, upland native plants, and large areas of various exotic species.

The Bodega Bay Public Utility District treatment facility, Bodega Bay Lodge and Spa, and the Bodega Bay Harbour subdivision and Links at Bodega Harbour golf course, border the project site on the southeast. State Highway 1 and the North Harbour subdivision are east of the project site.

[1] Bird Walk Coastal Access Trail, APN 100-130-006 and Doran Beach Regional Park APN 100-130-00

Project Description

The Cheney Creek bridge will connect the existing Bird Walk Coastal Access Trail and Doran Beach Regional Park. The bridge installed over the creek will be prefabricated metal, approximately 110-feet long by 8-feet wide, with a 42-inch high safety railing. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55- feet. Concrete construction will follow the California Department of Transportation, Construction Site Best Management Practices Manual guidelines. Delivery of the bridge to the project site, in two 55 foot sections, will be accomplished using a standard Semi-truck trailer. Based on the overall size of the bridge, it is not anticipated that highway transportation permits or notification will be needed for delivery.[2]

Bird Walk Coastal Access Trail Extension

The proposed project will create a new 340-foot multi-use trail extension, from the existing Bird Walk Coastal Access Trail. The project will include new trail construction, with installation of a 1-3 foot high retaining wall and a 42-inch high handrail. The multi-use trail extension will be graded to a maximum slope of 5 percent and surfaced with (3/4-inch minus) crushed rock over an aggregate base and native soil sub-base, to form a firm, stable, slip resistant surface in keeping with U.S. Department of Transportation Federal Highway Administration (FHWA) Chapter 14, Shared Use Path Design Standards. These standards are equal to California Department of Transportation Class I Bikeway (Bike Path) design criteria.[3] The thickness of the crushed rock will vary from 6 to 18 inches depending on soil compaction test results. A soil stabilizer may be used in combination with the crushed rock to create a firm and stable surface. A retaining wall of 1 to 3 foot in height will be constructed to limit site disturbance, and 42-inch high hand railing will be installed as needed for user safety.

Doran Beach Trail Improvement

Approximately 1,314 feet of the Doran Marsh Trail, on the south side of Cheney Creek, will be improved to a width of eight feet, and surfaced with crushed rock using the same specifications as Bird Walk Coastal Access Trail extension.

Construction

The area of construction disturbance identified will be approximately 1.55 acres or 67,700 square feet. Estimated site grading will include approximately 100 cubic yards of cut and 400 cubic yards of fill, including about 300 cubic yards of imported material. Three staging areas have been included in the project design to accommodate heavy equipment access and setup for construction that will include pouring concrete, driving piles for bridge abutments and foundations, bridge installation, and trail construction. Staging Area 1, on the Bird Walk Coastal Access levee, is approximately 22,200 square feet. Staging Area 2, at the south bridge landing on the Doran Marsh Trail side, is approximately 22,000 square feet. Staging Area 3, at the Bird Walk Coastal Access Trail parking lot is approximately 23,500 square feet. (See Figure 2)

Equipment used for project construction will include pile driving and cement vehicles, large cranes on both sides of the creek for bridge installation, and semi-truck trailer for bridge delivery. Construction equipment will access the project site at Cheney Creek from Doran Park Road, via the trailhead entrance, and from the Bird Walk Coastal Access Park entrance road off of Coast Highway 1. The construction access paths will be prepared by scraping the existing trail surface to a width of 12 feet and adding base rock, as recommended by soils tests, to establish a firm surface for the heavy equipment.

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[2] Confirmation from bridge manufacturer to Joe Kase, Planner II - 12/20/05

[3] Chapter 1000 Bikeway Planning and Design, February 2001

Re-alignment and widening of the existing paved service path at Bird Walk Coastal Access Trail parking lot is necessary to enable construction equipment to reach the project site staging area. The new access path from the park entrance road to top of levee trail will be 130 feet long by 12 feet wide with a base rock surface. To protect existing culvert crossings, stabilize trails for equipment driving, and for stabilization of crane out-rigger footings in staging areas, placement of 12-foot by 8-foot steel plates will be implemented in appropriate locations. Project construction will employ Best Management Practices to reduce and prevent erosion and sediment problems, and storm water pollution that may result from construction activities and equipment access.

Development Schedule and Funding

The proposed project is scheduled for development following the CEQA process and project approval, Fiscal Year 2006-2007, and construction will occur in Fiscal Year 2007-2008.

Funding for the project will be from a combination of local Park Mitigation Fees, a State Coastal Conservancy Grant, and Measure 'M' Traffic Relief Act sales tax.

Areas of Potential Environmental Effect

The Initial Study will analyze the potential environmental impacts associated with construction, operation, and maintenance of the proposed project. Specific areas of analysis will include: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards, hydrology and water quality, land use, energy and mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. These are the resource categories included in the Initial Study Checklist, Appendix G to the State CEQA Guidelines.

Jurisdictional, Permitting, and Regulatory Agencies

The following agencies may have jurisdiction associated with development of the proposed Cheney Creek Bridge and Trail Project:

United States Army Corps of Engineers

United States Fish and Wildlife Service

United States National Oceanic and Atmospheric Administration

State Lands Commission

California Coastal Commission

California Department of Transportation

California Department of Fish and Game

California Regional Water Quality Control Board, North Coast Region

Northern Sonoma County Air Pollution Control District

Marin – Sonoma Mosquito and Vector Control District

Sonoma County Permit and Resource Management Department

PUBLICATION AND MAILING DATE: February 6, 2006

SENT TO OFFICE OF RESEARCH AND PLANNING: February 6, 2006

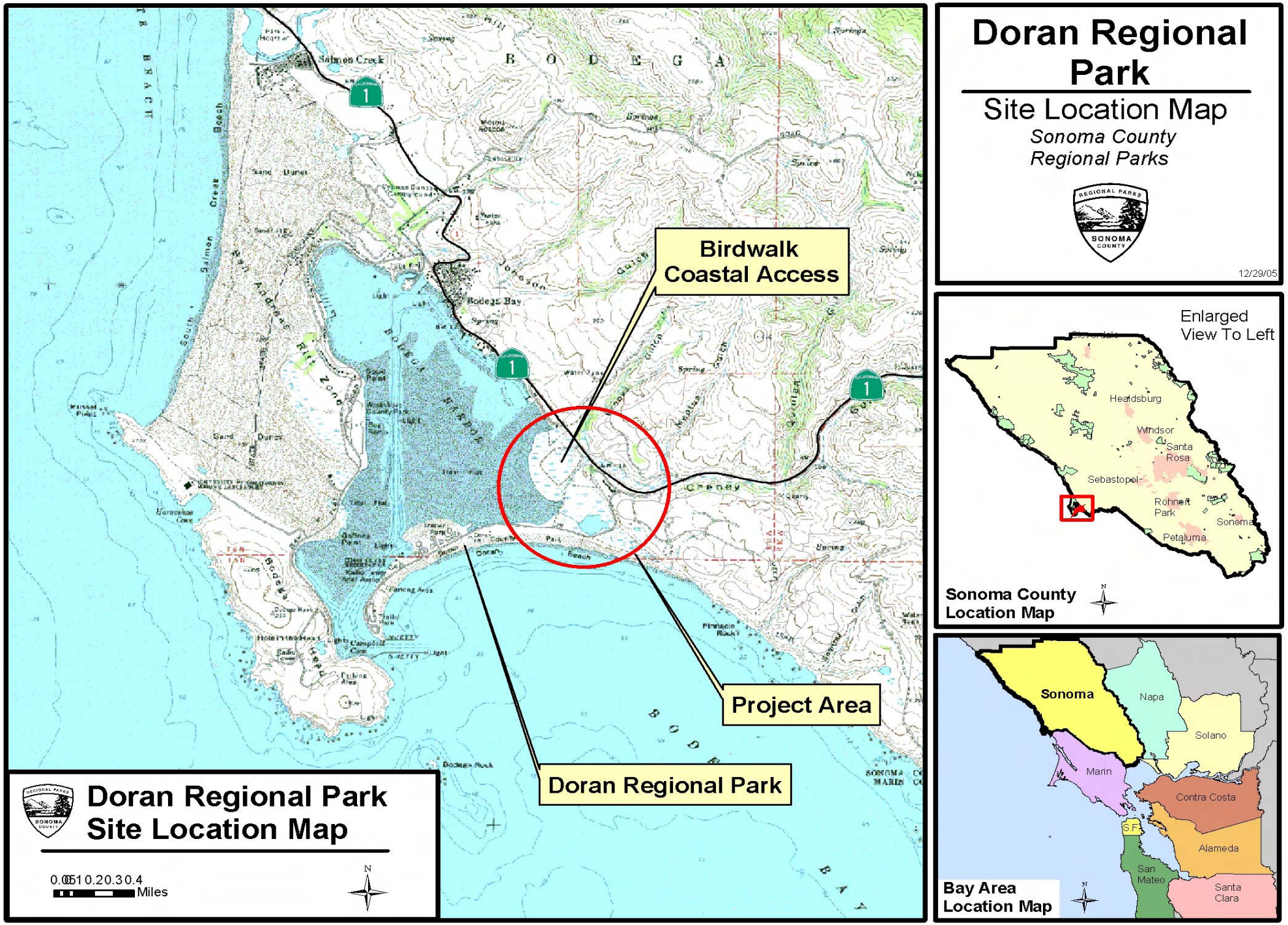
Doran Regional Park
Site Location Map
Sonoma County
Regional Parks
12/29/05
Birdwalk
Coastal Access
Project Area
Doran Regional Park
Doran Regional Park
Site Location Map
0 0.05 1 0.2 0.3 0.4
Miles
N
Enlarged
View To Left
Healdsburg
Windsor
Santa
Rosa
Sebastopol
Rohnert
Park
Sonoma
Petaluma
Sonoma County
Location Map
Sonoma
Napa
Solano
Marin
Contra Costa
SF
Alameda
San
Mateo
Santa
Clara
Bay Area
Location Map

Figure 1


Bodega Harbor
Bird Walk
Coastal
Access
Park
New Trail
Staging Area 1
Staging Area 3
Staging Area 2
Bridge
Doran Marsh Trail
Doran Park Road
Doran Beach Regional Park
Bodega Bay
(Pacific Ocean)
SMITH BROS
HWY 1
Brooks Gulch
DUBLOON
TOM JONES
MAINSAIL
SPYGLASS
Mantua Gulch
HERON
HARBOUR
SURFBIRD
N
Color Photos NOT for Public Distribution
0
1600ft

Figure 2

Document Details Report
State Clearinghouse Data Base

SCH# 2006022040
Project Title Cheney Creek Bridge and Trail
Lead Agency Sonoma County Regional Parks

Type NOP Notice of Preparation

Description Project will construct multi-use trail, improve existing trail and install bridge over Cheney Creek, connecting both trails and two adjacent regional parks facilities.

Lead Agency Contact

Name Pamela Higgins
Agency Sonoma County Regional Parks
Phone 707 565-2283 **Fax**
email
Address 2300 County Center Drive, #120A
City Santa Rosa **State** CA **Zip** 95403

Project Location

County Sonoma
City
Region
Cross Streets Highway 1, Doran Park Road
Parcel No. Various - 100-130-006
Township 11W **Range** 6N **Section** 26 **Base**

Proximity to:

Highways 1
Airports
Railways
Waterways Bodega Harbor, Bodega Bay, Cheney Creek
Schools
Land Use Public-Quasi Public / Park

Project Issues Coastal Zone; Geologic/Seismic; Wetland/Riparian

Reviewing Agencies Resources Agency; Department of Conservation; California Coastal Commission; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 3; Native American Heritage Commission; Caltrans, District 4; California Highway Patrol; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 1

Date Received 02/07/2006 **Start of Review** 02/07/2006 **End of Review** 03/08/2006

B-7

" from insufficient information provided by lead agency.

NOP Distribution List

County: Sonoma SCH# 2008022040

Resources Agency

- [■] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** David Johnson
- [■] **California Coastal Commission** Elizabeth A. Fuchs
- [ ] **Colorado River Board** Gerald R. Zimmerman
- [■] **Dept. of Conservation** Roseanne Taylor
- [ ] **California Energy Commission** Roger Johnson
- [ ] **Dept. of Forestry & Fire Protection** Allen Robertson
- [ ] **Office of Historic Preservation** Wayne Donaldson
- [■] **Dept of Parks & Recreation** Environmental Stewardship Section
- [ ] **Reclamation Board** DeeDee Jones
- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve McAdam
- [■] **Dept. of Water Resources** Resources Agency Nadell Gayou
- [ ] _____ Conservancy

Fish and Game

- [ ] **Depart. of Fish & Game** Scott Flint Environmental Services Division
- [ ] **Fish & Game Region 1** Donald Koch
- [ ] **Fish & Game Region 2** Banky Curtis
- [■] **Fish & Game Region 3** Robert Floerke
- [ ] **Fish & Game Region 4** Mike Mulligan
- [ ] **Fish & Game Region 5** Don Chadwick Habitat Conservation Program
- [ ] **Fish & Game Region 6** Gabrina Gatchel Habitat Conservation Program
- [ ] **Fish & Game Region 6 I/M** Tammy Allen Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Game M** George Isaac Marine Region

Other Departments

- [ ] **Food & Agriculture** Steve Shaffer Dept. of Food and Agriculture
- [ ] **Depart. of General Services** Public School Construction
- [ ] **Dept. of General Services** Robert Sleppy Environmental Services Section
- [ ] **Dept. of Health Services** Veronica Rameriz Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Debby Eddy
- [ ] **Office of Emergency Services** Dennis Castrillo
- [ ] **Governor's Office of Planning & Research** State Clearinghouse
- [■] **Native American Heritage Comm.** Debbie Treadway
- [ ] **Public Utilities Commission** Ken Lewis
- [ ] **State Lands Commission** Jean Sarino
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Business, Trans & Housing

- [ ] **Caltrans - Division of Aeronautics** Sandy Hesnard
- [ ] **Caltrans - Planning** Terri Pencovic
- [■] **California Highway Patrol** John Olejnik Office of Special Projects
- [ ] **Housing & Community Development** Lisa Nichols Housing Policy Division

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Katherine Eastham
- [■] **Caltrans, District 4** Tim Sable
- [ ] **Caltrans, District 5** David Murray
- [ ] **Caltrans, District 6** Marc Birnbaum
- [ ] **Caltrans, District 7** Cheryl J. Powell
- [ ] **Caltrans, District 8** Dan Kopulsky
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [ ] **Caltrans, District 11** Mario Orso
- [ ] **Caltrans, District 12** Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects Jim Lerner
- [■] Transportation Projects Kurt Karperos
- [ ] Industrial Projects Mike Tollstrup
- [ ] **California Integrated Waste Management Board** Sue O'Leary
- [ ] **State Water Resources Control Board** Jim Hockenberry Division of Financial Assistance
- [ ] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Steven Herrera Division of Water Rights
- [ ] **Dept. of Toxic Substances Control** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**

Regional Water Quality Control Board (RWQCB)

- [■] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Jonathan Bishop Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [ ] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____

Last Updated on 08/10/05

ATE OF CALIFORNIA—THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER *GOVERNOR*

ALIFORNIA COASTAL COMMISSION

)RTH CENTRAL COAST DISTRICT
FREMONT, SUITE 2000
N FRANCISCO, CA 94105- 2219
)ICE AND TDD (415) 904- 5260
X (415) 904- 5400

March 8, 2006

Ms. Pamela Higgins
Assistant Environmental Specialist
Sonoma County Regional Parks
2300 County Center Drive, Suite 120a
Santa Rosa, California 95403

RE: Notice of Preparation of an Initial Study, Cheney Creek Bridge and Trail Project

Dear Ms. Higgins:

Thank you for the opportunity to comment on Notice of Preparation dated February 6, 2006, regarding the scope and content of the Initial Study for the Cheney Creek Bridge and Trail Project. The Coastal Commission is responsible for implementing the Coastal Act, and ensuring that development permitted within the Coastal Zone is consistent with the requirements of the Coastal Act and Sonoma County's certified Local Coastal Plan (LCP). The purpose of our review is to ensure that impacts to sensitive coastal resources are adequately assessed for purposes of implementing the Coastal Act, and whether the proposed project is consistent with the resource protection policies and zoning requirements of the LCP. Ideally, this assessment would provide the basis for review of any coastal development permit (CDP) within the area of the Commission's retained jurisdiction or review of a CDP issued by the County within the Commission's appeal jurisdiction.

Staff at the Coastal Commission have reviewed the NOP and provide the following comments for consideration during the Initial Study.

It is unclear at this time whether portions of the project are located within areas of the Commission's retained jurisdiction, and therefore require a CDP from the Commission as well. The standard of review for a CDP for development in the project area within the County's jurisdictional area under the Coastal Act is all of the policies of the LCP and the public access and public recreation policies of Chapter Three of the Coastal Act (commencing with Section 30200). Should a CDP be required from the Commission in our area of retained jurisdiction, the standard of review would be all of the policies of Chapter Three of the Coastal Act. The Initial Study should clarify the jurisdictional areas of the project, so that those portions of the project, which are within the Commission's retained jurisdiction, are adequately described

The Initial Study should fully identify and evaluate the impacts of the proposed project on wetlands and other sensitive habitats located in the project area. This should include an assessment of impacts to these resources in the area of the proposed pedestrian bridge as well as the impacts resulting from the proposed extension of the Bird Walk Coastal Access trail and the expansion of the width of the Doran beach trail.

The Initial Study should also evaluate impacts to other coastal resources, including potential impacts to water quality, during construction and identify best management practices and other measures to minimize, mitigate or eliminate these impacts. Also, the Initial Study should evaluate potential impacts to public access during construction activities.

We look forward to working with the County as this project moves through the process. If you have any questions, please contact me at 415-904-5265.

Sincerely,

Alfred Wanger
Deputy Director
Energy, Ocean Resources and Water Quality Division
California Coastal Commission

CC: State Clearinghouse
Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

State of California

Memorandum

To : Ms. Pamela Higgins
Sonoma County Regional Parks
2300 County Center, Suite 120A
Santa Rosa, CA 95403

Date: February 16, 2006

From : Robert W. Floerke, Regional Manager
Department of Fish and Game - Central Coast Region, Post Office Box 47, Yountville, California 94599

Subject : Cheney Creek Bridge and Trail Project CEQA Scoping

The Department of Fish and Game (DFG) has reviewed the document for the subject project. Please be advised this project may result in changes to fish and wildlife resources as described in the California Code of Regulations, Title 14, Section 753.5(d)(1)(A)-(G). A de minimis determination is not appropriate, and an environmental filing fee as required under Fish and Game Code Section 711.4(d) should be paid to the Sonoma County Clerk on or before filing of the Notice of Determination for this project.

The proposed project involves the construction of a new bridge spanning Cheney Creek as well as creation of new trails and improvements to existing trails within the two parks ultimately linking them together. Three staging areas have also been proposed to accommodate construction activities and equipment.

Please provide a complete assessment (including but not limited to type, quantity and locations) of the habitats, flora and fauna within and adjacent to the project area, including endangered, threatened, and locally unique species and sensitive habitats. The assessment should include the reasonably foreseeable direct and indirect changes (temporary and permanent) that may occur with implementation of the project. Rare, threatened and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380). DFG recommended survey and monitoring protocols and guidelines are available at http://www.dfg.ca.gov/hcpb/species/stds_gdl/survmonitr.shtml.

Activities proposed for the construction of the new bridge spanning Chaney Creek include installation of concrete abutments with associated metal piling. For any activity that may divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of Chaney Creek, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate

avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the SAA notification process, please access our website at www.dfg.ca.gov/1600; or to request a notification package, contact the Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Mr. Jeremy Sarrow, Environmental Scientist, at (707) 944-5573; or Mr. Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

From: John Herrick <joherri@yahoo.com>
To: Pamela Higgins <phiggins@sonoma-county.org>
Date: 3/10/2006 1:53:32 PM
Subject: Cheney Gulch Bridge and Trail Project comments

Hi Pamela-

Attached are comments from the Milo Baker Chapter, CNPS for the above project.

Contact me if you have questions. We are willing to discuss our Pt Reyes bird's-beak observations. We will submit the CNDDB Field Survey form soon.

Please keep us informed of environmental review and project progress.

John Herrick
Conservation co-chair
Milo Baker Chapter, CNPS
887-8542 hm

California Native Plant Society
Milo Baker Chapter

Via email
Date: March 9, 2006
To: Pamela Higgins
From: John Herrick
Subject: Cheney Creek Bridge and Trail Project

On behalf of the Milo Baker Chapter of the California Native Plant Society, thank you for the opportunity to express our views on the scope of environmental issues to be addressed in the Initial Study for the Cheney Creek Bridge and Trail Project.

We request that the Initial Study identify measures that will protect native species and promote the integrity of native plant communities, and evaluate project alternatives that will avoid destruction of native species, habitats and natural communities.

IMPACT ON SENSITIVE SPECIES-

Known occurrences of the following sensitive plant species are found on the east side of Bodega Harbor in vicinity of the proposed project.

Lasthenia macrantha ssp bakeri	Baker's goldfields
Lasthenia macrantha ssp macrantha	perennial goldfields
Carex comosa	bristly sedge

Impact on *Cordylanthus maritimus ssp palustris* and the Northern Coastal Salt Marsh Community

The Cheney Creek bridge installation, Staging Area 2 and construction of the Doran Marsh Trail could impact the designated Northern Coastal Salt Marsh community and the existing population of *Cordylanthus maritimus ssp palustris*, Point Reyes bird's-beak (CNPS 1B). The current distribution of the Point Reyes bird's-beak is significantly broader than reported in CNDDB (occ#13), based upon observations made by the Milo Baker Chapter in July, 2005. The proposed project should avoid or minimize and mitigate impact on Point Reyes bird's-beak and the Northern Coastal Salt Marsh community.

CNPS, Milo Baker Chapter, P.O. Box 892, Santa Rosa, CA 95402

SCOPING COMMENTS:
Cheney Creek Bridge and Trail Project
Milo Baker CNPS, page 2

INVASIVE SPECIES

Botanic surveys should identify invasive exotic species infestations occurring on the project site and on adjacent properties.

The spread of Hottentot fig, *Carpobrotus edulis*, in the area was a concern noted in the 1982 CNDDB Point Reyes bird's- beak occurrence report. *Carpobrotus chilensis*, sea fig or ice plant, is present in the project area. Existing invasive exotic species infestations within the project area should be removed. The site should be monitored and resurgent and/ or new infestations removed during the construction period and for a period following project completion.

Imported fill should be free of invasive exotic species.

REVEGETATION-

Plants used in project mitigation should be propagated from native species residing in the vicinity of the project site.

Native species should be preferred for erosion control. Invasive exotic grass species should be avoided as erosion control candidates. Straw and other erosion proofing should be free of invasive exotic species.

MONITORING-

Native plant species, plant communities and invasive exotics should be monitored for a period following project completion and corrective measures taken, as needed, to restore the plant communities found on the project site.

From: Naomi Chaney <waterbearerwarrior@yahoo.com>
To: <phiggins@sonoma-county.org>
Date: 6/23/2006 5:57:20 AM
Subject: Cheney Creek Bridge and Trail Project

Pamela,

I am Naomi Chaney with the Bodega Bay Watershed Council. I represent the vitality of our watershed. Are you aware of potential impacts on anadromous fish habitat that the materials used for the bridge planned to span Cheney Creek will cause? I did not see this information documented anywhere. We need restorative processes within our habitat. Do you think the proposed bridge and park project is a restorative project?

Sincerely,

Naomi Ruth Chaney

Want to be your own boss? Learn how on Yahoo! Small Business.

From: "Naomi Ruth Chaney" <waterbearerwarrior@yahoo.com>
To: "phiggins@sonoma-county.org" <phiggins@sonoma-county.org>
Date: 6/24/2006 7:17:07 PM
Subject: An interesting article from NRDC.org

NATURAL RESOURCES DEFENSE COUNCIL
The Earth's Best Defense

Naomi Ruth Chaney thought you would be interested in this article from NRDC, the Natural Resources Defense Council. A summary of the article follows; click on the link below the summary if you would like to read the full story.

Cheney creek bridge/park project:
more info to consider

Stormwater Strategies: Community Responses to Runoff Pollution

A report documenting some of the most effective strategies being employed by communities around the country to control urban runoff pollution, which is among the top sources of water contamination today. The collection of 100 case studies is intended to serve as a guide for local decisionmakers, municipal officials, and environmental activists; it is also a resource for citizens concerned about the quality of their local environment. Also available: a CD ROM version that includes color photographs and new case studies on "low-impact development" solutions.

http://www.nrdc.org/water/pollution/storm/stoinx.asp

More on NRDC ...

Natural Resources Defense Council
http://www.nrdc.org

Cheney Creek Bridge and Trail Project

SCOPING MEETING

February 25, 2006 ❖ 10:00am – 12:00 p.m.

Comment Card

Please write your comments on this card and return to a Regional Parks Department representative. Thank you!!!

Name: Pat Rothchild
Address: POB 749, Bodega Bay, 94923
e-mail: falldragon@aol.com

Would you like to be on the mailing list? ☑ yes ☐ no

NOTE: The mailing list is public information

Comments: Rumor has it that the original charter for Doran Park gave local residents free access. Since we pay for the ser both County + State Parks use and receive no toll ben I think you should give us free access, as you origi agreed.
I also think the parks should clean up their envir messes like the "exotic species" planted in the wetla development should be contingent on fixing those past envir

Cheney Creek Bridge and Trail Project

SCOPING MEETING

February 25, 2006 ❖ 10:00am – 12:00 p.m.

Comment Card

Please write your comments on this card and return to a Regional Parks Department representative. Thank you!!!

Name: Jane Vail
Address: POB 394 Bodega Bay Ca. 94923
e-mail: janedvail@comcast.net

Would you like to be on the mailing list? ☑ yes ☐ no
I am

NOTE: The mailing list is public information

Comments: I would like the trees (Cypress) trimmed or removed along the birdwalk to maintain the "unobstructed view" of the birdwalk. Also birds rarely use these tree – they like the protection of the big trees around the Lodge & Sewag

Cheney Creek Bridge and Trail Project

SCOPING MEETING

February 25, 2006 ❖ 10:00am – 12:00 p.m.

Comment Card

Please write your comments on this card and return to a Regional Parks Department representative. Thank you!!!

Name: JACKIE P. KENILVORT

Address: P.O. BOX 1556 BODEGA BAY CA 94923

e-mail: JKATBBAY@COMCAST.NET

Would you like to be on the mailing list? ☑ yes ☐ no

NOTE: The mailing list is public information

Comments: Thank You for your time to keep us informed about what is going on in Bodega Bay. I would appreciate a copy of the paperwork Pamela read last at the meeting. The slide show was okay except that additional info was presented that was in that paperwork. With thanks JKenilvo

Appendix C

Biological Resources Study
Wetland Delineation Report

FINAL
BOTANICAL AND WETLAND RESOURCES REPORT

CHENEY CREEK BRIDGE AND TRAIL PROJECT
SONOMA COUNTY, CALIFORNIA

December 21, 2006

Prepared for:

Sonoma County Regional Parks
2300 County Center Drive #120A
Santa Rosa, CA 95403

Prepared by:

Jane Valerius
Environmental Consulting
152 Weeks Way
Sebastopol, CA 95472
Ph: 707-824-4327
Fax: 707-829-2487

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FIGURES

APPENDICES

INTRODUCTION

Protocol field surveys were conducted for special status plants and for the identification of wetlands and waters of the U. S. as defined by both the U. S. Army Corps of Engineers and the California Coastal Commission. Floristic field surveys were conducted by Dianne Lake, botanist, and field work to identify wetlands and waters of the U. S. and the state was conducted by Jane Valerius, botanist and wetland specialist.

The study area is located approximately one mile south of the Town of Bodega Bay on Highway 1 in Sonoma County, California (see Figure 1 Doran Beach Regional Park Site Location Map). The study area included a portion of the Bird Walk Coastal Access Trail a one-mile, multi-use loop-trail that encircles two dredge disposal ponds enclosed by levees. The two ponds are referred to as the east pond (closest to Highway 1) and the west pond. Access to the study area and project site was from the Bird Walk Coastal Access Trail (referred to as the Bird Walk Trail hereafter), and the Doran Marsh Trail. The Doran Marsh Trail was accessed from the Doran Beach Regional Park (DBRP) situated on the west side of Highway 1. DBRP and the Pacific Ocean form the southern and western boundaries of the study area and the Bodega Bay Public Utility District treatment facility is located on the southeast side of the study area/project site.

PROJECT DESCRIPTION

Sonoma County Regional Parks Department (Regional Parks) is proposing to construct a bridge across Cheney Creek that will connect the existing Bird Walk Trail and DBRP. The bridge to be installed over the creek will be prefabricated metal, approximately 110-feet long by 8-feet wide, with a 42-inch high safety railing. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55- feet. Concrete construction will follow the California Department of Transportation, Construction Site Best Management Practices Manual guidelines. Delivery of the bridge to the project site, in two 55 foot sections, will be accomplished using a standard Semi-truck trailer.

Bird Walk Coastal Access Trail Extension

The proposed project will create a new 340-foot multi-use trail extension, from the existing Bird Walk Trail to the bridge. The project will include new trail construction, with installation of a 1-3 foot high retaining wall and a 42-inch high handrail. The multi-use trail extension will be graded to a maximum slope of 5 percent and surfaced with (3/4-inch minus) crushed rock over an aggregate base and native soil sub-base, to form a firm, stable, slip resistant surface in keeping with U.S. Department of. Transportation Federal Highway Administration (FHWA) Chapter 14, Shared Use Path Design Standards. The thickness of the crushed rock will vary from 6 to 18 inches depending on soil compaction test results. A soil stabilizer may be used in combination with the crushed rock to create a firm and stable surface. A retaining wall of 1 to 3 foot in height will be constructed to limit site disturbance, and 42-inch high hand railing will be installed as needed for user safety.

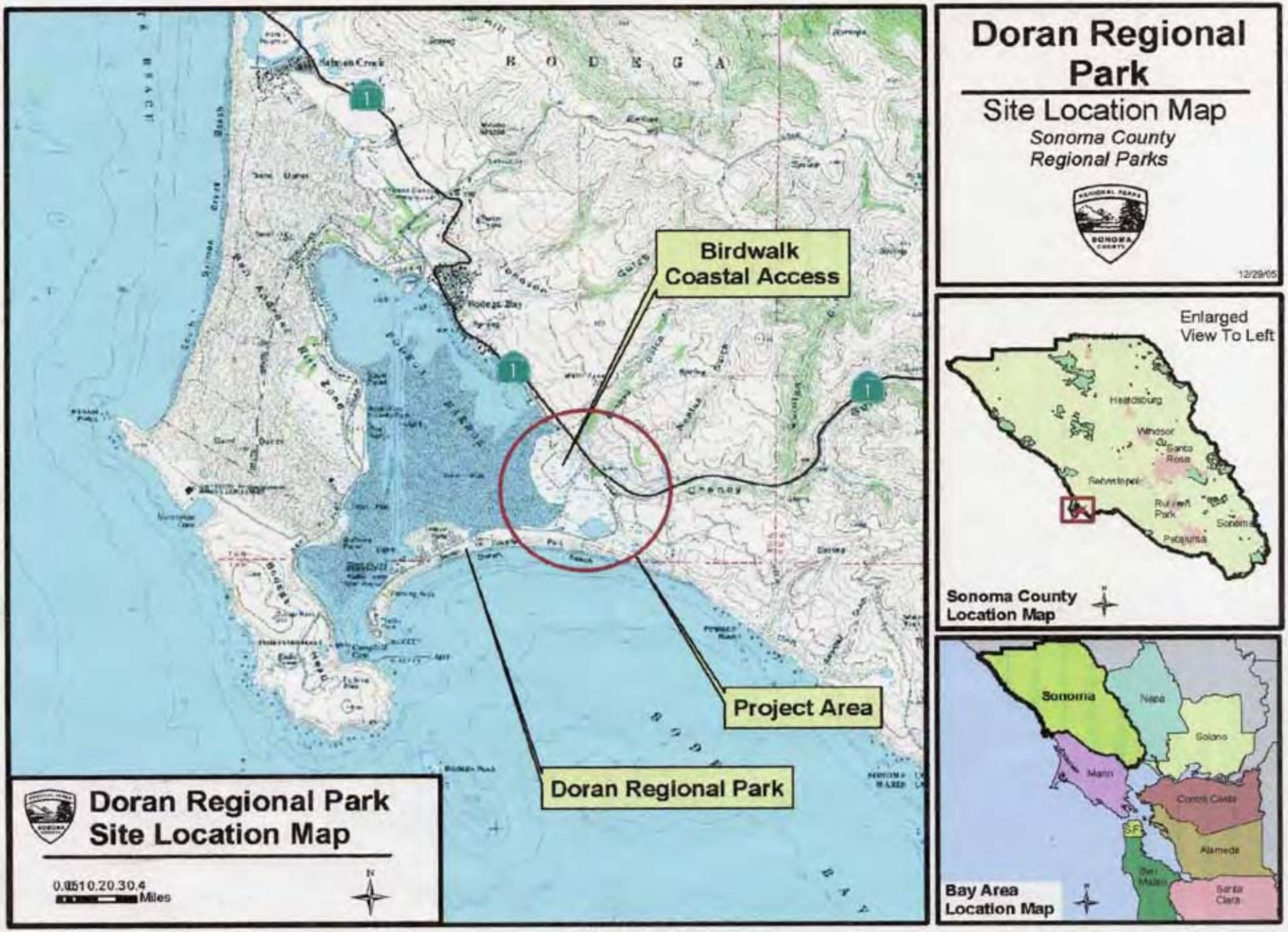

Doran Regional Park
Site Location Map
Sonoma County
Regional Parks
12/29/05
Birdwalk
Coastal Access
Project Area
Doran Regional Park
Doran Regional Park
Site Location Map
0 0.5 1 0 2 0.3 0.4
Miles
N
Enlarged
View To Left
Healdsburg
Windsor
Santa
Rosa
Sebastopol
Petaluma
Sonoma County
Location Map
Sonoma
Napa
Solano
Marin
Contra Costa
SF
Alameda
San
Mateo
Santa
Clara
Bay Area
Location Map

Figure 1

Doran Beach Trail Improvement
Approximately 1,314 feet of the Doran Marsh Trail, on the south side of Cheney Creek, will be improved to a width of eight feet, and surfaced with crushed rock using the same specifications as Bird Walk Trail extension.

Construction Activities
The area of construction disturbance identified will be approximately 1.55 acres or 67,700 square feet. Estimated site grading will include approximately 100 cubic yards of cut and 400 cubic yards of fill, including about 300 cubic yards of imported material. Three staging areas have been included in the project design to accommodate heavy equipment access and setup for construction that will include pouring concrete, driving piles for bridge abutments and foundations, bridge installation, and trail construction. Staging Area 1, on the Bird Walk Trail levee, is approximately 22,200 square feet. Staging Area 2, at the south bridge landing on the Doran Marsh Trail side, is approximately 22,000 square feet. Staging Area 3, at the Bird Walk Trail parking lot is approximately 23,500 square feet.

Equipment used for project construction will include pile driving and cement vehicles, large cranes on both sides of the creek for bridge installation, and semi-truck trailer for bridge delivery. Construction equipment will access the project site at Cheney Creek from Doran Park Road, via the trailhead entrance, and from the Bird Walk Trail entrance road off of Coast Highway 1. The construction access paths will be prepared by scraping the existing trail surface to a width of 12 feet and adding base rock, as recommended by soils tests, to establish a firm surface for the heavy equipment.

Realignment and widening of the existing paved service path at Bird Walk Trail parking lot is necessary to enable construction equipment to reach the project site staging area. The new access path from the park entrance road to top of levee trail will be 130 feet long by 12 feet wide with a base rock surface. To protect existing culvert crossings, stabilize trails for equipment driving, and for stabilization of crane out-rigger footings in staging areas, placement of 12-foot by 8-foot steel plates will be implemented in appropriate locations. Project construction will employ Best Management Practices to reduce and prevent erosion and sediment problems, and storm water pollution that may result from construction activities and equipment access.

METHODS

SPECIAL-STATUS PLANTS

Prior to field surveys a list of special-status plants species that could potentially occur with the study area or project site was compiled through a review of several databases. Background information was obtained from a review of the Bodega Head and Valley Ford USGS 7.5-minute quadrangles using the following sources:

1. U S. Fish and Wildlife Service Endangered and Threatened Species List obtained on-line;
2. California Natural Diversity Data Base (CNDDB) and Rare Find lists updated to November 2006;
3. California Native Plant Society's (CNPS) Electronic *Inventory of Rare and Endangered Plants of California*; and
4. Aerial photographs and background information of the site provided by Sonoma County Regional Parks;

Surveys were conducted in accordance with the California Department of Fish & Game (CDFG) guidelines for special-status plant surveys. The guidelines require that surveys be floristic, meaning that all plants within the study area must be identified to the level that allows a determination of their rarity status. Surveys were conducted at the time of year when special status plants would be most identifiable, which is typically when the plants are in flower. Field surveys were conducted by Dianne Lake, botanist, on April 24, May 22, July 7 and July 24, 2006. The entire project area was walked and a list of all species within the study area was recorded.

A list of plant species identified within the study/project area is provided as Attachment A. A list of special status plants that have the potential to occur within the project site, based on a review of the CNDDB and CNPS data bases for the Bodega Head and Valley Ford USGS quadrangles is included as Attachment B.

PLANT COMMUNITIES

Mapping of plant communities, populations of native plant species, including any special-status plants, and areas dominated by weedy or non-native plants was also conducted. The mapping was done on photographic aerial base maps provided by Regional Parks. Mapping was done by Dianne Lake and the graphics were prepared by Junior Engineering Temps (JET). The maps are also being provided to the Regional Parks in CAD and pdf format on a compact disc.

The map figures are included in the Results section of this report. Plant communities are shown on Figures 1A and 1B. A map of native vegetation that shows the location of populations of individual native plant species was also mapped at the request of the Sonoma County Regional Parks. Mapping of native plant species is provided on Figures 2A and 2B. The location of weedy or non-native plant species is provided on Figures 3A

and 3B. Areas dominated by weedy or non-native plants are also areas that have been identified as potential restoration sites for mitigation for project impacts.

DELINEATION OF WETLANDS AND WATERS

Jane Valerius, botanist and wetland specialist, conducted field investigations to delineate wetlands and waters of the U. S. and the state on May 22 and July 24, 2006. The determination of wetlands and waters was based on the U. S. Army Corps of Engineers (Corps) Wetlands Delineation Manual (Environmental Laboratory 1987), the California Coastal Commission (CCC) wetland definitions, and waters of the state as defined by the Regional Water Quality Control Board (RWQCB).

Sample sites were established within potential wetland areas. Where a particular sample site was determined to be within a potential jurisdictional wetland, an additional sample site was established outside the apparent wetland to determine the location of the wetland boundary. A total of 15 sample sites were recorded for the Cheney Creek study area or project site. Field data sheets for these sites are included as Appendix C and their locations are shown on Figures 4A and 4B (see Results section).

The jurisdictional boundary for Cheney Creek was based on evidence of water fluctuations sufficient to cause shelving, remove terrestrial vegetation, and/or to establish a clear line on the bank. Indicators include the presence of ponded or flowing water, scour, silt deposits, or debris deposits. The Corps' jurisdiction for tidal creeks and drainages is covered under Section 10 of the Rivers and Harbors Act. The Corps' jurisdiction for tidal creeks is determined by identifying the mean high water (MHW) line. This would correspond to the ordinary high water mark (OHWM) of non-tidal waters. Cheney Creek would also be considered a water of the state by the CCC and RWQCB.

U. S. Army Corps of Engineers Wetland Delineation Methodology

Field investigations of potential wetlands occurring on the project site were conducted using the routine determination method given in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). This methodology includes examination of specific sample sites within suspected wetlands for hydrophytic vegetation, hydric soils, and wetland hydrology. By the federal definition, all three criteria must be present for an area to be considered a wetland. Areas that meet the wetlands definition in Coastal Act, Section 30121, and the CCC's Regulations 13577 was used to identify wetlands within the project site. This included areas that had 50 percent or greater cover by hydrophytic plants.

Hydrophytic plant species are listed by the U.S. Fish and Wildlife Service in the *The National List of Plant Species That Occur in Wetlands (Region 0)* (Reed 1988). The *National List* identifies five categories of plants according to their frequency of occurrence in wetlands. The categories are:

Obligate wetland plants (OBL)	Plants that occur almost always in wetlands.
Facultative wetland plants (FACW)	Plants that usually occur in wetlands.
Facultative plants (FAC)	Plants that are equally likely to occur in wetlands or non-wetlands.
Facultative upland plants (FACU)	Plants that usually occur in uplands.
Obligate upland plants (UPL)	Plants that occur almost always in non-wetlands.

An area is considered to have hydrophytic vegetation when more than 50 percent of the dominant species in each stratum (tree, shrub, and herb) are in the obligate wetland, facultative wetland, or facultative categories.

Hydric soils are defined by criteria set forth by the National Technical Committee for Hydric Soils (NTCHS). These criteria are given in the Wetlands Delineation Manual and are based on depth and duration of soil saturation. Hydric soils are commonly identified in the field by using indirect indicators of saturated soil, technically known as redoximorphic features. These features are caused by anaerobic, reduced soil conditions that are brought about by prolonged soil saturation. The most common redoximorphic features are distinguished by soil color, which is strongly influenced by the frequency and duration of soil saturation. Hydric soils tend to have dark (low chroma) colors, which are often accompanied by reddish mottles (iron mottles), reddish stains on root channels (oxidized rhizospheres) or gray colors (gleying).

Under natural conditions, development of hydrophytic vegetation and hydric soils are dependent on a third characteristic, wetland hydrology. The wetland hydrology criterion is met if the area experiences inundation or soil saturation to the surface for a period equal to at least 5 percent of the growing season (about 14 days in the study area) in a year of average rainfall. In most cases, this criterion can only be measured directly by direct monitoring of the site through an entire wet season. In practice, the hydrological status of a particular area is usually evaluated using indirect indicators. Some of the indicators that are commonly used to identify wetland hydrology include recent sediment deposits, surface scour, and oxidized rhizospheres.

The jurisdictional boundaries of other waters of the United States are defined by the Ordinary High Water (OHW) mark on the banks of a watercourse or water body. The OHW is determined by locating evidence of water fluctuations sufficient to cause shelving, remove terrestrial vegetation, and/or to establish a clear line on the bank. Indicators include the presence of ponded or flowing water, scour, silt deposits, or debris deposits.

Identification of Section 10 Waters

The Corps jurisdiction for tidal creeks and drainages is covered under Section 10 of the Rivers and Harbors Act. The Corps jurisdiction for tidal creeks is determined by identifying the mean high water (MHW) line. This would correspond to the OHW of non-tidal waters. The Corps jurisdiction also extends to adjacent wetlands. The MHW can be calculated using tidal information or determined using visual observations of tidal

flow. Visual observations of tidal flow and scour line were used for the Cheney Creek Bridge and Trail project area.

Coastal Zone Wetland Determination Methodology

In the California Coastal Zone, the CCC with assistance from the California Department of Fish and Game (CDFG) is responsible for determining the presence of wetlands subject to regulation under the California Coastal Act (CCA).

The CDFG is the primary wetland consultant to the CCC, and relies on the U. S. Fish & Wildlife Service (USFWS) wetlands definition and classification system, with some minor changes. One important difference is that the CDFG only requires the presence of one attribute (hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland. Although CDFG has a detailed definition and classification system, Section 30121 of the CCA, that governs the CCC, has an exceptionally broad definition for a wetland.

> *CCA Wetland Definition:* "Wetland means lands within the Coastal Zone which may be covered periodically or permanently with shallow water, and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens."

The CCC Administrative Definition Regulations provides a more explicit definition:

- Administrative Definition Regulations - Section 13577(b): "Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats."
- The DFG Wetland Definition and Classification System is the delineation methodology generally followed by the CCC.

For the Cheney Creek Bridge and Trail Project areas that had 50 percent or greater dominance by hydrophytic vegetation or one of the other wetland parameters (hydric soils or wetland hydrology) were also mapped as wetlands.

California Regional Water Quality Control Board, North Coast Region

The California Regional Water Quality Control Board (RWQCB) is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. The RWQCB can issue a National Pollution Discharge Elimination System (NPDES) permit for applicable activities.

The RWQCB also has federal and state jurisdiction for activities that could result in a discharge of dredged or fill material to a water body, pursuant to Section of 401 of the Clean Water Act. Federal authority under Section 401 of the Clean Water Act is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the United States Army Corps of Engineers. The RWQCB would then issue a Clean Water Act Section 401 Water Quality Certification. Whenever a proposed project is not subject to federal authority under Section 404 of the Clean Water Act, the RWQCB can exercise state authority. In these cases, the RWQCB would issue a Notice of Coverage, Waiver of Waste Discharge Requirements. The RWQCB jurisdiction includes any surface water or ground water within the boundaries of the state. As such, there could be state jurisdictional waters that are not considered federal waters by the Corps.

RESULTS

The results of the 2006 field surveys are presented below along with a description of the plant communities and results of the delineation of wetlands and waters of the U. S.

PLANT COMMUNITIES

Several plant communities occur on the project site but a number of them intermingle with each other in several places due at least partially to the past land use practices of the site that have occurred there over the years. Remnants of previous habitats remain in some areas and in other areas various plant communities are invading and encroaching on each other with no one community currently being dominant. Plant communities are shown on Figures 1A and 1B.

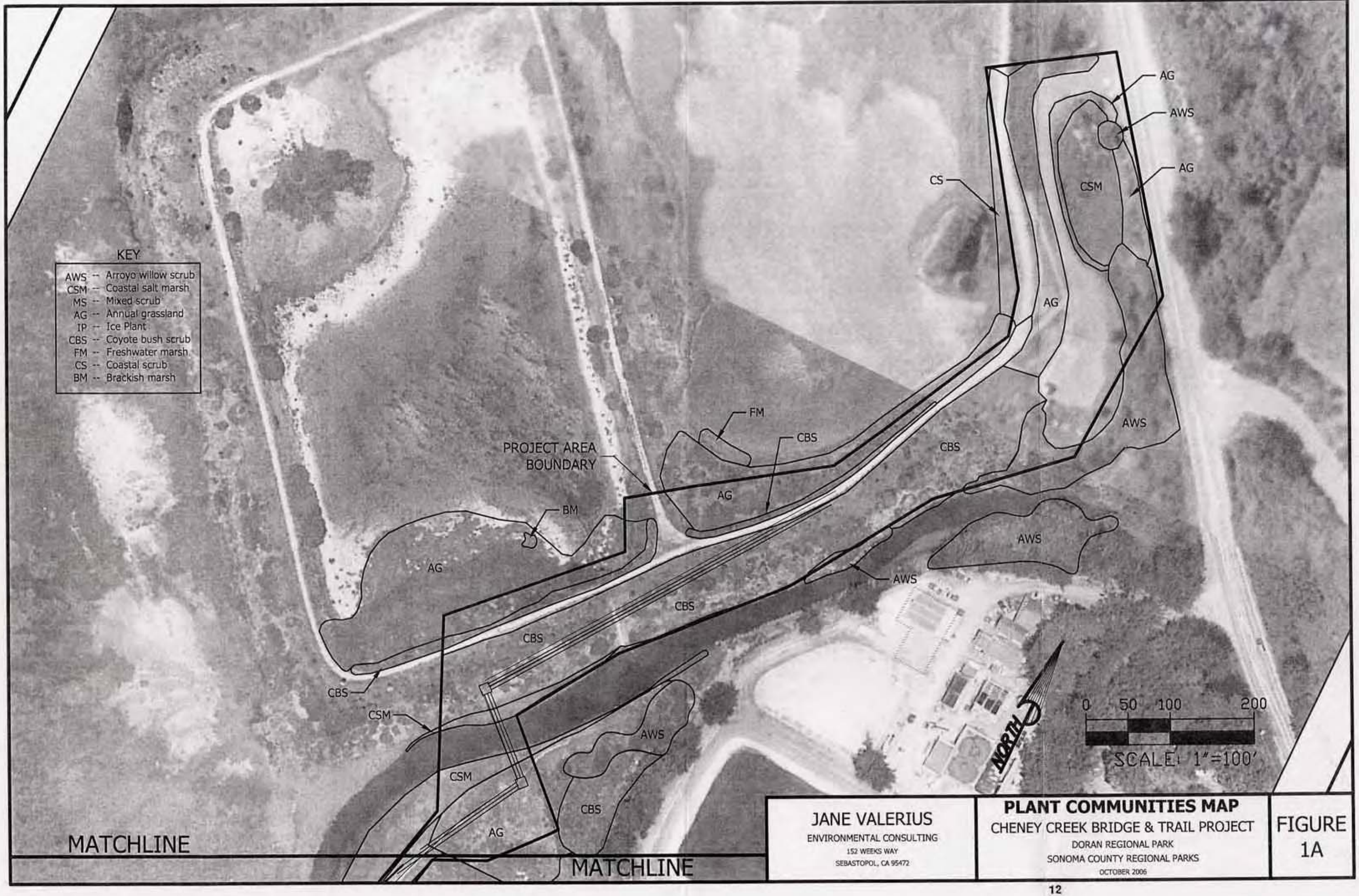
Plant community name used here are consistent with those described in *Terrestrial Natural Communities of California* by Robert F. Holland, Ph.D., 1986 (California Department of Fish and Game, Sacramento).

Northern Coastal Salt Marsh

Northern coastal salt marsh is dominated by pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*) or miscellaneous rushes (*Juncus* spp.). It is a plant community of concern to the CDFG because it has been decreasing in California at a rapid rate for several years. On the south side of Cheney Creek most of the flat areas below both sides of the Doran Marsh Trail are northern coastal salt marsh although in several places it intermingles with other plant communities, especially on the east side of the levee where it is being invaded by annual and introduced perennial grasslands as well as dense patches of iceplant.

The northern coastal salt marsh on the west side of the levee is more typical of this plant community than that on the east side consisting of salt grass, pickleweed, large-flowered sand spurry (*Spergularia macrotheca* var. *macrotheca*) and coast plantain (*Plantago maritima*). Pt. Reyes bird's-beak (*Cordylanthus maritimus* ssp. *palustris*), a CNPS 1B plant, also occurs here in two places and Marin knotweed (*Polygonum marinense*), a CNPS List 3 plant, occurs in coastal salt marsh near the north end of the trail (see discussions under Special-Status Plants).

Other native salt marsh species occurring on the site include marsh-rosemary (*Limonium californicum*), jaumea (*Jaumea carnosa*), alkali heath (*Frankenia salina*), arrow-grass (*Triglochin concinna*), three-ribbed arrowgrass (*T. striata*), Alaska alkali grass (*Puccinellia nutkaensis*), low club-rush (*Scirpus cernuus*), alkali weed (*Cressa truxillensis*), and three-square (*Scirpus americanus*).



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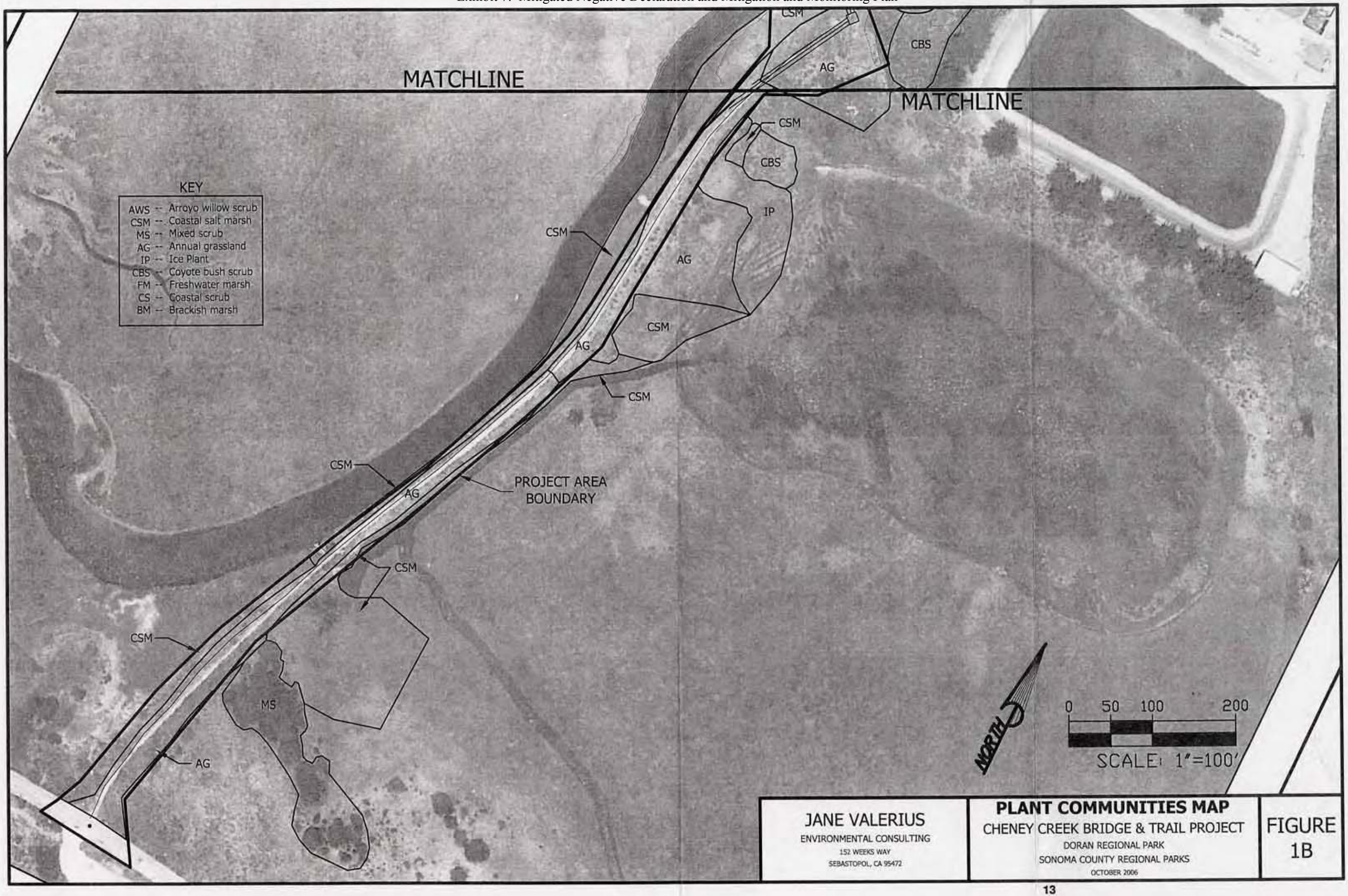
PLANT COMMUNITIES MAP
CHENEY CREEK BRIDGE & TRAIL PROJECT
DORAN REGIONAL PARK
SONOMA COUNTY REGIONAL PARKS
OCTOBER 2006

FIGURE 1A



JANE VALERIUS ENVIRONMENTAL CONSULTING 152 WEEKS WAY SEBASTOPOL, CA 95472	**PLANT COMMUNITIES MAP** CHENEY CREEK BRIDGE & TRAIL PROJECT DORAN REGIONAL PARK SONOMA COUNTY REGIONAL PARKS OCTOBER 2006	FIGURE 1B

As the northern coastal salt marsh continues northward beyond the narrowest part of the levee, however, it is invaded more and more by annual grasses and iceplant on the west side of the trail and by both annual and introduced perennial grasses and iceplant on the east side.

The area east and southeast of the knoll that is proposed for the staging area during construction of the south end of the bridge is mainly annual and non-native grassland but patches of northern coastal salt marsh occur near the east side of the trail just south of the knoll. The boundaries of the staging area may need to be adjusted in this area to avoid impacting these areas of salt marsh.

Rush-dominated northern coastal salt marsh occurs just east of the area proposed for the staging area for the south end of the bridge. This marsh is just beyond the east boundary of the staging area so protection measures should be taken to stay within that boundary to avoid impacting the marsh.

Rush-dominated northern coastal salt marsh also occurs at the southeast end of the narrow portion of the levee starting about 100 feet south of the pond and extending southward and eastward to the edges of a dense stand of California wax-myrtle (*Myrica californica*). The dominant rush species are Baltic rush (*Juncus balticus*) and salt rush (*Juncus lesueurii*). This area is below the levee and should not be impacted by the project.

Northern coastal salt marsh occurs on the north side of Cheney Creek along the north edge of the creek in a flat area below the slope stretching from near the drainage pipe westward. The flat area is narrow within the project boundaries but opens up into a wide swath beyond the boundaries and heads westward to the harbor. It is dominated by salt grass and contains several native species including Marin knotweed, a CNPS List 3.1 plant referred to above and discussed in the Special-Status Plant Section.

A small stand of northern coastal salt marsh also occurs along the east side of the entrance road from Highway 1 into the Bird Walk Trail. The dominant marsh plants here are pickleweed and Pacific silverweed but there are also non-native species here and this marsh has more non-native plants than other northern coastal salt marsh areas within the project site.

North Coast Riparian Scrub/Mixed Scrub

North Coast Riparian Scrub, shown as Mixed Scrub on Figures 1A and 1B, is typically dominated by willow species and occurs along coastal streams and rivers that flow into the ocean. It is a community of concern to the CDFG because of the rapid reduction of riparian habitats over the last several years due to development, water diversions, and other human activities.

North Coast Riparian Scrub, or Mixed Scrub, occurs on the project site in two forms, one along the east end of Cheney Creek where it is dominated by arroyo willow (*Salix lasiolepis*), and the other is located north of Doran Beach Road, east of the Doran Marsh Trail, where it is dominated by California wax-myrtle (*Myrica californica*) (see Figure 1B).

Arroyo Willow Riparian Scrub

On the south side of Cheney Creek arroyo willow riparian scrub occurs just north of the knoll where the south end of the bridge is to be placed. It is dominated by arroyo willow but also contains several native plants along its southern edge including California wax-myrtle, salmonberry (*Rubus spectabilis*), twinberry (*Lonicera involucrata* var. *ledebourii*), sword fern (*Polystichum munitum*), mugwort (*Artemisia douglasiana*), cow parsnip (*Heracleum lanatum*), and California bee plant (*Scrophularia californica*). Arroyo willow scrub also occurs along the east side of the parking lot on the south side of Doran Beach Road across from the beginning of the levee, which would serve as a staging area during construction.

On the north side of Cheney Creek a small patch of willow scrub occurs on the north edge of the creek about half way between the parking lot and the drainage pipe. It is dominated by arroyo willow and is an isolated but dense stand.

A larger dense thicket of arroyo willow scrub occurs further east on Cheney Creek below the west and east sides of the parking lot for the Bird Walk Trail. It continues eastward to Highway 1 along both sides of Cheney Creek, and then northward along the highway to the entrance road into the park, bordering a small patch of northern coastal salt marsh that is situated between Highway 1 on the east and the entrance road on the west.

California Wax Myrtle Dominated Riparian Scrub

A dense stand of riparian scrub occurs on the south side of Cheney Creek about 100 feet north of Doran Beach Road on the east side of the levee. It consists of California wax-myrtle with a few arroyo willows interspersed through it and along its west edge near the Doran Marsh Trail. This area is mapped as Mixed Scrub.

Northern Coastal Scrub

Northern coastal scrub (shown on Figures 1A and 1B as coastal scrub) is usually dominated by coyote brush (*Baccharis pilularis*) and can be found both along the coast and inland. On the project site it occurs mainly on the north side of Cheney Creek. On the south side of Cheney Creek there are only two small patches of coyote brush located on the northeast and southeast sides of the knoll where the southern end of the bridge is to be placed. The southwest patch intermingles with grassland and northern coastal salt marsh, and the northeast patch is situated between willow scrub on the north and rush-dominated northern coastal salt marsh on the south. Coyote brush-dominated coastal scrub also borders the north side of the parking lot on the south side of Doran Beach Road across from the beginning of the levee, which would serve as a staging area during construction.

Coyote brush-dominated northern coastal scrub occupies most of the slope between Cheney Creek and the south leg of the Bird Walk Trail that is to be used as an access road during construction. The dominant native plant is coyote brush, but it has been highly invaded by non-native weedy species including large areas of iceplant (*Carpobrotus chilensis*) and poison hemlock (*Conium maculatum*). Monterey cypress trees (*Cupressus macrocarpa*) have been planted along the top of the slope just south of the south leg of the trail. Although the area is largely occupied by weedy species, a few natives occur here such as California bee plant (*Scrophularia californica*), seaside woolly sunflower (*Eriophyllum staechadifolium*), willow dock (*Rumex salicifolius*), sticky monkeyflower (*Mimulus aurantiacus*), yellow lupine (*Lupinus arboreus*), California blackberry (*Rubus ursinus*), and a single young California bay tree (*Umbellularia californica*) near the drainage pipe.

A narrow band of coyote brush-dominated northern coastal scrub also runs along the north side of the south leg of the Bird Walk Trail, although it has been invaded by weedy species as well. Native plants here include seaside woolly sunflower, yellow lupine, and coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*), a CNPS List 1B plant (See Special-Status Plants section).

Northern coastal scrub also runs along the edge of the east leg of the Bird Walk Trail but here it is dominated by seaside woolly sunflower and a perennial *Eriogonum* that was not identified to species, although coyote brush also occurs here. The coastal scrub then mixes with annual and introduced perennial grasslands as it continues down slope to the ponds and a large rock outcrop on the east side of the first pond.

Coastal Dunes

Coastal dunes can be dominated by sand, grasses, or shrubs which can be determined by their distance from the ocean and exposure to wind. Thus for northern California they are classified by Holland (1986) as active dunes, northern foredunes, northern foredune grassland, or northern dune scrub. Only two small areas of coastal dunes occur on the site, one is a mixture of two dune types and one is a dune grassland. These areas were too small to map and were lumped into Annual Grassland.

Northern Foredune Grassland and Northern Dune Scrub: The coastal dunes bordering the south end of Doran Marsh Trail along the levee are a combination of grass-dominated and shrub-dominated dunes since the two main components are European beachgrass (*Ammophila arenaria*) and yellow lupine, a shrub. Baltic rush (*Juncus balticus*), Mexican rush (*Juncus mexicanus*), marsh gumplant (*Grindelia stricta*), and beachbur (*Ambrosia chamissonis*) are other dune plants that occur in this area.

The dunes here start on the north side of Doran Beach Road and continue northward along Doran Marsh Trail on the top of the levee for a few hundred feet where they are replaced by annual grassland. On the west side of the trail the dunes are only at the top of the trail, but on the east side they continue down the slope and into the flat area below the trail but are then quickly replaced by velvet grass (*Holcus lanatus*).

Northern Foredune Grassland: Coastal dunes also border the south edge of the parking lot south of Doran Beach Road that will be used as a staging area during construction. These are grass-dominated dunes with European beachgrass being the main component. A few plants of the native coastal variety of California brome (*Bromus carinatus* var. *maritimus*) also occur here.

Native Perennial Grassland

A small area of perennial native grassland occurs on the south side of Cheney Creek on the east side of Doran Marsh Trail just beyond the narrowest part of the levee. It occupies a flat area north of where a streamlet turns eastward. The grassland extends for only a few hundred feet or less where velvet grass (*Holcus lanatus*) takes over to the north and coastal salt marsh takes over to the east. The grassland is dominated by meadow barley (*Hordeum brachyantherum* ssp. *brachyantherum*) but patches of coastal salt marsh, velvet grass, and iceplant also occur here. Meadow barley is also scattered widely along the levee trail edges. A few plants of California oatgrass (*Danthonia californica*) also occur near this site, but closer to the trail, probably remaining from a previous time when coastal prairie may have occurred here.

Two very small patches of creeping ryegrass (*Leymus triticoides*), another native perennial grass, occur further north, one on the east side of the levee trail and one west of the trail.

Introduced Perennial Grassland

Although most non-native grasses are annual, there are also several non-native perennial species that can dominate grasslands. These include velvet grass (*Holcus lanatus*), Harding grass (*Phalaris aquatica*) and Kentucky bluegrass (*Poa praetensis*). Large areas of velvet grass occur on the project site in several areas. On the south side of Cheney Creek the flat area below the southeast end of the levee, just north of Doran Beach Road, is dominated by velvet grass. A fairly large and dense patch of velvet grass occurs just beyond a patch of native grassland (meadow barley) on the east side of the Doran Marsh Trail north of where the levee widens out. It also competes with northern coastal salt marsh in this area.

Velvet grass is also scattered along the edges of the trail along the levee and several dense patches occur on the east side of the trail as it continues northward. It intermingles with patches of northern coastal salt marsh and patches of iceplant. On the north side of Cheney Creek, velvet grass dominates most of the slopes above the ponds below the Bird Walk Trail, although large patches of iceplant also occur in these areas.

Annual Grassland

Annual grassland is a common community found through much of California. It can be dominated by any number of non-native, usually weedy grasses such as slender wild oats (*Avena barbata*), various bromes (*Bromus diandrus*, *B. hordeaceus*, *B. stamineus*, etc.), miscellaneous barleys (*Hordeum murinum* ssp. *leporinum*, *H. marinum* ssp. *gussoneanum*), ryegrass (*Lolium multiflorum*) or other non-native grasses. Native species

of grasses and forbs can also often be found within annual grasslands, often as remnants from the previous habitat that occurred there.

Most of the top of the levee on the south side of Cheney Creek is annual grassland on both sides of Doran Marsh Trail although plants from other plant communities also occur there, such as yellow lupine and coast gumplant. Wild oats, various brome grasses, meadow fescue (*Festuca pratensis*), and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*) are the main grasses that occur there. For about the first two-thirds of the levee the annual grasses are mainly just along the trail edges, but as the levee widens out north of its narrowest section, the annual grassland begins to extend beyond the levee on both sides of the trail where it intermingles with northern coastal salt marsh and introduced perennial grassland. On the west side of the trail in this area wild oats and Mediterranean barley become the prevalent annual grasses. On the east side, the grasses are denser and ripgut brome (*Bromus diandrus*), Chilean brome (*Bromus stamineus*), and meadow fescue (*Festuca pratensis*) are the dominant annual grasses. The knoll where the south end of the proposed bridge will be situated is annual grassland dominated by wild radish (*Raphanus sativus*).

On the north side of Cheney Creek the slope below the east leg of the Bird Walk Trail is annual grassland from the east side of the trail down to the entrance road to the park from Highway 1. Annual grassland intermingles with introduced perennial grassland along the tops of the slopes north of the south leg of the Bird Walk Trail going down to the ponds. The area above the west pond, especially, is largely annual grassland and is dominated by wild radish. This is also the proposed location of Staging Area 1.

Coastal Brackish Marsh

Coastal brackish marsh usually occurs near the coast in bodies of water that are influenced by both salt water from the ocean and fresh water from inland waterways. Two patches of Pacific silverweed (*Potentilla anserina* ssp. *pacifica*) and a small patch of alkali heath (*Frankenia salina*) occur near the west and east ends of the western pond below the Bird Walk Trail, indicating brackish conditions. Alkali heath also occurs in a small patch at the top of the slope. It is debatable, however, whether or not this should be called a true coastal brackish marsh since these plants may simply be remnants from the more alkali habitat that existed here before the ponds were created, but their presence and the healthiness of the plants does indicate that there is still at least some brackish influence.

Coastal Freshwater Marsh

Freshwater marsh can occur near the coast or inland. When it occurs near the coast it is in an area where there is no saltwater influence even though it may occur quite close to the ocean. The borders of the ponds appear to be coastal freshwater marsh, except for the area of brackish marsh mentioned above. Several of the plants along the ponds, especially the weedier ones such as iceplant and velvet grass, can occur in freshwater or saltwater conditions, but the presence of Pacific rush (*Juncus effusus*) and spikerush (*Eleocharis macrostachya*) at the west end of the eastern pond indicate a more freshwater habitat.

NATIVE PLANT MAPPING

The Regional Parks has requested that native plants locations be mapped within the project site, in addition to any special-status plants, so that the native resources can be protected to the greatest degree possible during construction activities. Part of the Regional Park's mission is to protect and enhance its natural resources so impacts should be avoided wherever possible and kept to a minimum when total avoidance is not possible.

A discussion follows of the main native plants that occur on the site, where they occur in relation to the proposed placement of bridge, trail, staging areas, and access roads, and if and how impact to them can be avoided. The location of native plant species within the project area is provided as Figures 2A and 2B.

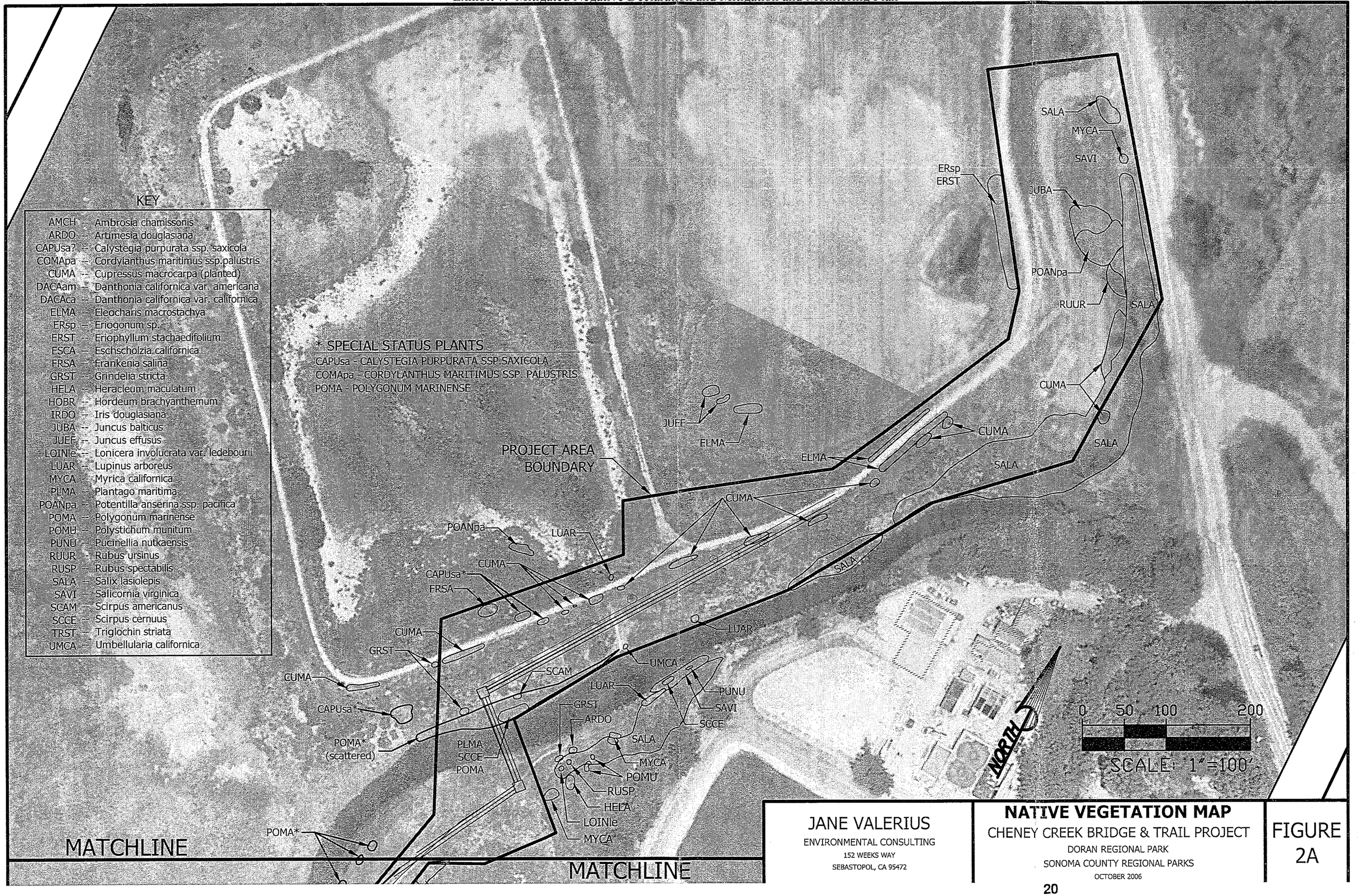
Trees and Shrubs

Arroyo willow (*Salix lasiolepis*)
Arroyo willow (*Salix lasiolepis*) is found in several places on the project site (Figures 1A and 1B and Figures 2A and 2B). On the south side of Cheney Creek a dense stand of arroyo willow begins about 50 feet north of the knoll where the south end of the bridge is proposed. It continues northeastward along Cheney Creek for a few hundred feet. The south edge of the willow stand, just north of the knoll, consists of many native plants including, California wax-myrtle (*Myrica californica*), mugwort (*Artemisia douglasiana*), sword fern (*Polystichum munitum*), salmonberry (*Rubus spectabilis*), twinberry (*Lonicera involucrata* var. *ledebourii*), California bee plant (*Scrophularia californica*), and cow parsnip (*Heracleum lanatum*). This is very close to the proposed staging area and bridge for the south end of the bridge and care should be taken to avoid this area.

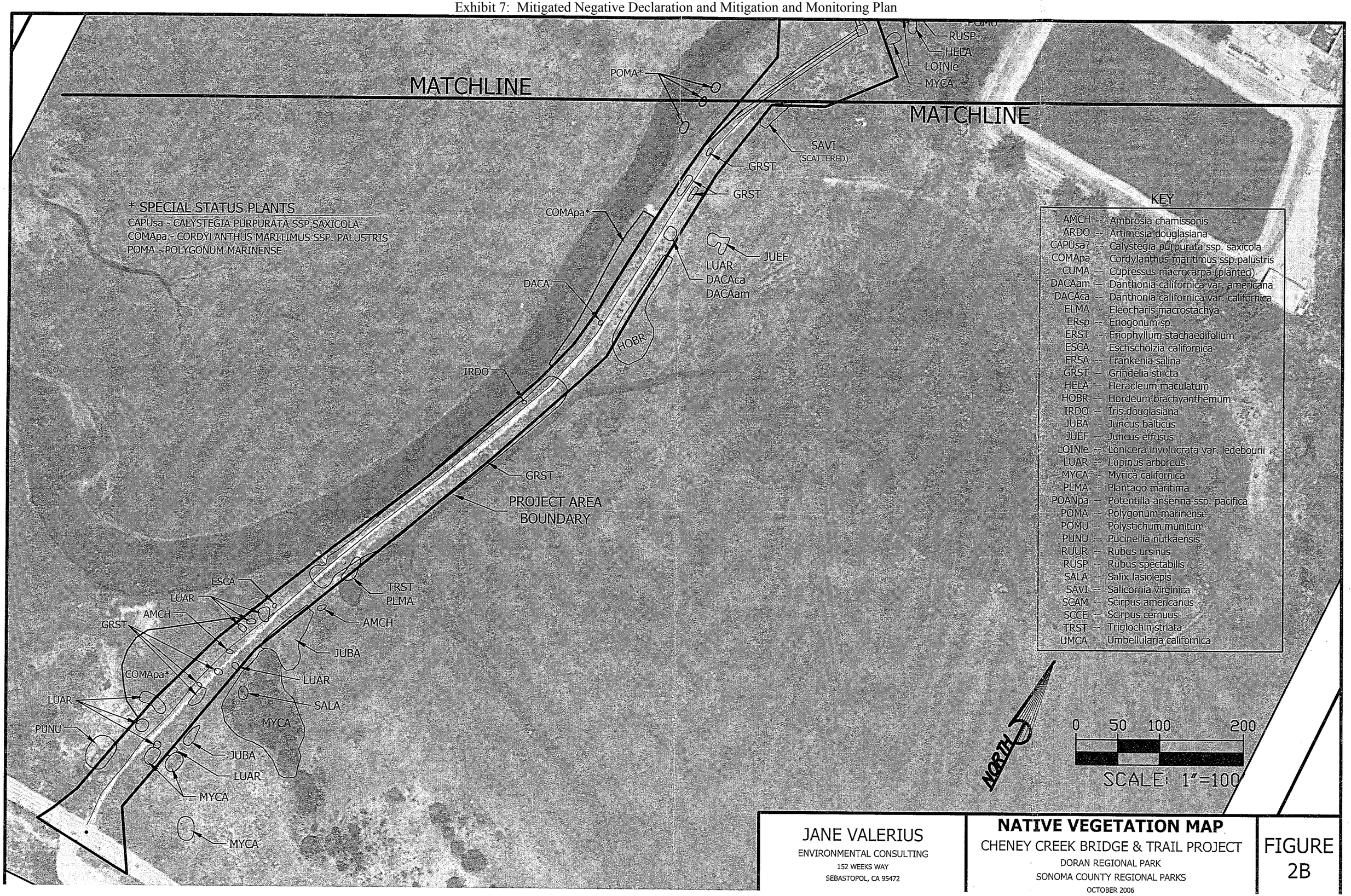
Another dense willow stand begins several hundred feet further northeast and continues to Highway 1. This stand begins across the creek from and about 100 feet south of the parking lot for the Bird Walk Trail.

A few shrubs of arroyo willow also occur at the west edge of a dense stand of California wax-myrtle (*Myrica californica*) north of Doran Beach Road. The arroyo willow occurs approximately 200 feet north of the road on the east side of the levee. Arroyo willow also occurs on the south side of Doran Beach Road, along the east and south edges of the parking lot proposed for a staging area during construction. The parking lot is large enough that impact to these willows should be avoidable.

On the north side of Cheney Creek, a small stand of arroyo willow occurs along the edge of the creek about half way between the Bird Walk parking lot and the drainage pipe. This stand of willows is well away from the proposed bridge and trail construction areas and this stand should not be affected by the project.



JANE VALERIUS ENVIRONMENTAL CONSULTING 152 WEEKS WAY SEBASTOPOL, CA 95472	**NATIVE VEGETATION MAP** CHENEY CREEK BRIDGE & TRAIL PROJECT DORAN REGIONAL PARK SONOMA COUNTY REGIONAL PARKS OCTOBER 2006	FIGURE 2A



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NATIVE VEGETATION MAP
CHENEY CREEK BRIDGE & TRAIL PROJECT
DORAN REGIONAL PARK
SONOMA COUNTY REGIONAL PARKS
OCTOBER 2006

FIGURE 2B

Further east a dense large stand of arroyo willow occurs along the creek banks beginning west of the Bird Walk parking lot and continuing eastward along the creek to Highway 1. It then runs northward along and parallel to the highway to the entrance to the Bird Walk Trail (see Figure 1A and 2A). This area will not be affected by the project.

California bay (*Umbellularia californica*)
On the north side of Cheney Creek a single young California bay tree (*Umbellularia californica*) occurs on the east side of the drainage pipe just above the creek. This is outside of the path of the proposed trail and should not be impacted during construction.

Monterey cypress (*Cupressus macrocarpa*)
Monterey cypress (*Cupressus macrocarpa*) trees are planted along the south side of the south leg of the Bird Walk Trail. This tree is native only on the Monterey Peninsula but is often planted elsewhere, especially in coastal areas, as it acts as a good wind buffer. While these trees are not native to the site, they are native to California and add interest to the site and should thus be avoided where possible. Most of the trees are not directly next to the trail and it should be easy enough to avoid them except perhaps some of those near the southwest corner of the Bird Walk Trail above the area where the north end of the bridge will be placed.

California wax-myrtle (*Myrica californica*)
A dense stand of California wax-myrtle (*Myrica californica*) occurs about 200 feet north of Doran Beach Road east of the Doran Marsh Trail on the levee. The west end of the stand occurs just below the east side of the levee but impact to these shrubs should be avoidable. A single shrub of California wax-myrtle also sits on the north side of the knoll near Cheney Creek where the south end of the bridge is proposed. This shrub is part of the cluster of native plant species referred to under arroyo willow above and discussed under "Cluster of Native Species Near Knoll" below.

Yellow lupine (*Lupinus arboreus*)
Yellow lupine (*Lupinus arboreus*) is a native plant shrub that occurs on both sides of Cheney Creek. Yellow lupine is prevalent along the south end of the Doran Marsh Trail on top of the levee. Several plants occur on both sides of the trail in this area. It may not be possible to avoid all of these individuals when the trail is widened. One plant located approximately 100 feet north of Doran Beach Road is very close to the west edge of the trail. It is possible that at least part of this individual plant may be damaged when and if the trail is widened. It should be possible to avoid most of the other yellow lupines in the area, however, by curving the road slightly around the plants instead of running a direct straight line along the levee.

More yellow lupine shrubs occur further north along the Doran Marsh Trail, mostly on the east side of the trail, but most of these appear to be in decline with many dead branches and few leaves or flowers. Two plants appear to already be dead having no foliage or flowers during any of the surveys in 2006, although they could just be temporarily dormant.

Yellow lupine also occurs on the north side of Cheney Creek within the project area on the Bird Walk Trail. One plant occurs at the northwest corner of the intersection of the south and middle legs of the trail. It is the healthiest-appearing lupine along the south leg of the Bird Walk Trail. A few other yellow lupine shrubs occur further east, above the first pond, but appear to be dead or dying. Healthier shrubs occur further north along the middle trail between the ponds but in an area where they will not be affected by the project as it is currently proposed.

A few plants are scattered along the slopes below the south leg of the Bird Walk Trail, above Cheney Creek. Most of these plants also appear to be in decline. None of the plants seen appear to be close to the proposed trail or bridge and should not be impacted by the project.

Bush monkeyflower (*Mimulus aurantiacus*)
Two individuals of bush monkeyflower (*Mimulus aurantiacus*) occur on the north side of Cheney Creek on the slopes between the south leg of the Bird Walk Trail and the creek. Both shrubs occur east of the drainage pipe and would not be impacted by the project.

Salmonberry (*Rubus spectabilis*) and Twinberry (*Lonicera involucrata* var. *ledebourii*)
A single shrub each of salmonberry (*Rubus spectabilis*) and twinberry (*Lonicera involucrata* var. *ledebourii*) occur just north of the knoll south of Cheney Creek where the south end of the bridge will sit. These plants are on the south edge of a dense stand of willows and are part of the cluster of native species mentioned under the discussion of "Arroyo willow" above and "Cluster of Native Species Near Knoll" on page 26. It is recommended that construction activities and placement of the south end of the bridge should be carefully situated to avoid impacting this area.

Herbaceous Plants

Marsh gumplant (*Grindelia stricta*)
Marsh gumplant (*Grindelia stricta*) is present on both sides of Cheney Creek, but much more prevalent on the south side. This species is common along the south end of Doran Marsh Trail on the top of the levee between Doran Beach Road and Cheney Creek. Further north where the levee narrows, this plant becomes fairly dense. It will be not be possible to avoid all of these plants when the trail is widened, especially in the narrower area, but the plants can be flagged and avoided if deemed necessary. Any plants that are removed as a result of construction could also be salvaged and used in any of the proposed restoration sites. A botanist should be on site to help avoid impacts wherever possible.

Marsh gumplant is scattered less densely along the rest of the levee trail after the levee widens again all the way north to the knoll where the south end of the bridge is proposed. Since the area is wider at this location it should be possible to avoid many of the plants in this area. A few individuals of marsh gumplant also occur on the north side of Cheney Creek, mainly at the bottom of the slope below the south leg of the Bird Walk Trail.

These plants are on the edge of and above the flat northern coastal salt marsh area and are not likely to be impacted during construction.

Seaside woolly sunflower (*Eriophyllum staechadifolium*)
Seaside woolly sunflower (*Eriophyllum staechadifolium*), also sometimes called lizardtail, occurs on the north side of Cheney Creek at the beginning of the south leg of the Bird Walk Trail. It lines the trail on both sides for about the first 150 feet and then disappears. The trail is essentially a fire road and should thus be wide enough to avoid impacting these plants. A few scattered plants also occur on the slopes above Cheney Creek below the south leg of the Bird Walk Trail but none of them appear to be near the proposed trail or any construction areas.

Seaside woolly sunflower is also prevalent on the slopes below the east leg of the Bird Walk Trail that runs past the large rock outcrop on the east side of the first pond. Several plants occur along the west side of the trail, down the slopes, and on the rock outcrop. It is unclear whether this portion of the Bird Walk Trail will be used as an access road, but these plants should be avoided if this trail is used as such.

Perennial wild buckwheat (*Eriogonum* sp.)
An unidentified perennial wild buckwheat (*Eriogonum* sp.) grows as a subshrub along the west side of the east leg of the Bird Walk Trail on the east side of the east pond. All perennial wild buckwheat species are native and these plants should be avoided if this portion of the Bird Walk Trail is used as an access road.

Fragrant everlasting (*Gnaphalium microcephalum* ssp. *beneolens*)
Fragrant everlasting (*Gnaphalium microcephalum* ssp. *beneolens*) occurs on the slopes on the east side of the east leg of the Bird Walk Trail above the road into the park from Highway 1. It is unclear if this part of the trail will be used for access during construction but this species occurs down slope and away from the trail so it should not be impacted by any construction activities.

Beachbur (*Ambrosia chamissonis*)
Two plants of beachbur (*Ambrosia chamissonis*) occur along the south end of the levee near Doran Beach Road. One occurs near a yellow lupine shrub on the west side of Doran Marsh Trail and the other occurs further north on the east side of the trail across from a bench on the west side of the trail. Both plants are fairly close to the trail. A botanist should be present to help avoid impact to these plants if feasible.

Douglas Iris (*Iris douglasiana*)
One individual of Douglas Iris (*Iris douglasiana*) occurs on the west side of Doran Marsh Trail about two-thirds of the way up the narrow part of the levee. It is several feet west of the trail and the levee is slightly wider here so it may be possible to avoid it when widening the trail to an access road.

Woolly lotus (*Lotus heermannii* var. *orbicularis*)
Woolly lotus (*Lotus heermannii* var. *orbicularis*) is a prostrate native plant that occurs on both sides of Cheney Creek. Woolly lotus occurs along Doran Marsh Trail along the top of the levee on the south side of Cheney Creek. It is found along the trail edges and sometimes in the trail itself. It may not be impossible to avoid at least some of the plants during the widening of the levee trail and during construction when vehicles are using the road. However, this species is a fairly hardy perennial and it is likely to grow back the following year, if disturbed.

A few patches of woolly lotus also occur on the north side of Cheney Creek in the grassland on the southwest slopes of the first pond. It is not likely that the plants here would be affected during construction as they are on the north side of the Bird Walk Trail and well below the access road.

Other Native Wildflowers
A few other native wildflowers are scattered through the site, especially on the south side of the creek. These include California poppy (*Eschscholzia californica*), yarrow (*Achillea millefolium*), willow dock (*Rumex salicifolius*), California bee plant (*Scrophularia californica*), and hedge nettle (*Stachys ajugoides* var. *rigida*).

Northern Coastal Salt Marsh Plants

Northern coastal salt marsh is a sensitive plant community type as well as a wetland plant community. This plant community occurs on both sides of Cheney Creek. These marsh areas are made up almost entirely of native plants and are a plant community of concern to the California Department of Fish and Game. On the south side of Cheney Creek much of the project area, especially below the levee and along the creek edges, is northern coastal salt marsh, dominated either by pickleweed (*Salicornia virginica*), saltgrass (*Distichlis spicata*), or various rushes (*Juncus* spp.). Three sites of the marsh in this area also contain protected rare plants, two sites supporting Pt. Reyes bird's-beak (*Cordylathus maritimus* ssp. *palustris*), a CNPS List 1B plant, and one site supporting Marin knotweed (*Polygonum marinense*), a CNPS List 3 plant species. (See Special-Status Plant section)

Several native species occur together in most of the northern coastal salt marsh areas on the project site. In addition to the pickleweed, saltgrass, and rushes mentioned above, the usual components are large-flowered sand spurry (*Spergularia macrotheca* var. *macrotheca*), jaumea (*Jaumea carnosa*), seaside plantain (*Plantago maritima*), alkali heath (*Frankenia salina*), and marsh-rosemary (*Limonium californicum*). Other native species found in at least some of the salt marsh areas on the project site are Alaska alkali grass (*Puccinellia nutkaensis*), low club rush (*Scirpus cernuus*), three-square (*Scirpus americanus*), Pacific silverweed (*Potentilla anserina* ssp. *pacifica*), alkali weed (*Cressa truxillensis*), arrow-grass (*Triglochin concinna*), and three-ribbed arrowgrass (*Triglochin striata*).

Most of the northern coastal salt marsh areas are below the levees on both sides of the creek away from where construction will occur, but in some cases they are near construction areas. In several places the coastal salt marsh extends up the sides of the Doran Marsh Trail levee and approaches the trail. Where the levee widens out to the north, the coastal salt marsh comes even closer to the trail in several places. Just south of the knoll where the south end of the bridge will be located at the Doran Marsh Trail and near where the staging area is proposed, patches of northern coastal salt marsh occur almost right next to the trail on the east side. To avoid impacting any of the coastal salt marsh a barrier fence should be installed around the proposed staging area. The barrier fence will separate the coastal salt marsh area from the upland annual grassland area which is an acceptable area for staging equipment. The staging area as shown on the conceptual plans may end up as a smaller area. To avoid impacts to coastal salt marsh, which is both a sensitive natural community and a wetland community, the staging area should be confined to the upland non-native annual grassland area shown on the maps. The Arroyo Willow Scrub community north of the proposed staging area should also be avoided and fenced off to prevent any potential impacts to this plant community.

On the north side of Cheney Creek, northern coastal salt marsh occurs directly below where the north end of the bridge will be placed at the Bird Walk Trail. It begins about 50 feet west of the drainage pipe and continues westward to the project boundaries where it widens out into an extensive marsh. The east end of this area contains Marin knotweed (*Polygonum marinense*), a CNPS List 3.1 plant but it was not seen in the area of bridge placement. As long as all construction activity takes place above the salt marsh area, it should be possible to protect the salt marsh. However, if impact is unavoidable, mitigation may be necessary and any damaged or impacted areas should be restored.

A patch of northern coastal salt marsh also occurs along the east side of the entrance road to Bird Walk Trail. This area is dominated by pickleweed and Pacific silverweed, although it has more weedy species in it than the other salt marsh sites in the project area. This area may be part of the access road for construction machinery but the road here is wide enough so that there should be no impact to the marsh if protection measures are implemented as described in the Mitigation Plan section.

A few coastal salt marsh plants also occur in isolated parts of the project site. On the north side of Cheney Creek at Bird Walk Trail, a small patch of alkali heath occurs near the top of the slope above the western pond and also a few plants near the bottom of the slope. Pacific silverweed occurs at the bottom of the same slope near both the west and east ends of the pond. These plants will not be affected by the project.

Rush species (*Juncus* spp.)

Most of the rushes occur on the south side of Cheney Creek but one population also occurs on the north side. Several different rush species are scattered throughout the project area south of Cheney Creek, including Baltic rush (*Juncus balticus*), common rush (*Juncus patens*), bog rush (*Juncus effusus*), salt rush (*Juncus lesueurii*), Mexican rush (*Juncus mexicanus*), and toad rush (*Juncus bufonius* var. *bufonius*).

At the beginning of the Doran Marsh Trail, Baltic rush and Mexican rush are scattered along the trail edges and often in the middle of the trail itself. It may not be possible to avoid these rushes. Potential impacts to this area should be kept to a minimum if feasible and practicable.

Some of the northern coastal salt marsh areas on the south side of Cheney Creek are dominated by rushes. Rush-dominated northern coastal salt marsh occurs on the east side of the Doran Marsh Trail starting on the north side of a dense stand of California wax-myrtle and continuing northward a few hundred feet to a pond. Rush-dominated northern coastal salt marsh also occurs just east of the area proposed for the staging area for the south end of the bridge. This marsh is just beyond the east boundary of the staging area so protection measures should be taken to stay within that boundary to avoid impacting the marsh.

Bog rush occurs in the southwest corner of the east pond on the north side of Cheney Creek. It is below the north side of the Bird Walk Trail in an area where it should not be impacted by the project.

Spikerush (*Eleocharis macrostachya*)
Spikerush (*Eleocharis macrostachya*) occurs in the southwest corner of the first pond on the north side of Cheney Creek near the cluster of bog rush. It is below the north side of the Bird Walk Trail in an area where it should not be impacted by the project.

Grasses

Meadow barley (*Hordeum brachyantherum* ssp. *brachyantherum*)
On the south side of Cheney Creek meadow barley (*Hordeum brachyantherum* ssp. *brachyantherum*) is prevalent along the Doran Marsh Trail and below it, especially on the east side. This is a native grass that usually grows in fairly wet areas. It is scattered in several places along the entire levee path and becomes dense in some places. A dense patch of it occurs below the east side of the levee just north of where the narrowest point of the levee widens out and a streamlet turns eastward.

Other Native Grasses
Creeping ryegrass (*Leymus triticoides*) occurs in a few places along the levee but most of these areas are below the levee or a fair distance from the trail so that they will probably not be impacted. One population, however, occurs just southeast of the knoll where the south end of the bridge will be placed and near the proposed staging area. It may be possible to avoid this population by curving the access road and moving the staging area slightly.

Two small clumps of California oatgrass (*Danthonia californica*) occur about 100 feet north of the north end of the narrow section of the levee, one of them occurring in the middle of the trail and the other along the east edge of the trail. These are probably remnants from a former time when coastal prairie may have occupied this area. It will probably not be possible to avoid them but, as perennials, they will probably grow back.

Cluster of Native Plants Near Knoll

Although mentioned earlier under "Arroyo willow", the cluster of native plants just north of the knoll where the south end of the bridge will be placed deserves special attention and a section of its own since there are so many native species in this small area and they are so close to the area of construction. The native plants occurring between the knoll and the stand of willows to the north include California wax-myrtle (*Myrica californica*), salmonberry (*Rubus spectabilis*), twinberry (*Lonicera involucrata* var. *ledebourii*), mugwort, (*Artemisia douglasiana*), sword fern (*Polystichum munitum*), California blackberry (*Rubus ursinus*), California bee plant (*Scrophularia californica*), and cow parsnip (*Heracleum lanatum*).

Some of the plants in this area are very close to the knoll where the south end of the bridge will be placed and care should be taken to ensure that construction activities do not impact this area. A botanist should be present to make sure that no construction activities occur in or near this area and that impacts to this area are avoided or minimized.

SPECIAL-STATUS PLANTS

Three special-status plant species were found during surveys. These are: coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*); Pt. Reyes bird's-beak (*Cordylanthus maritimus* ssp. *palustris*); and Marin knotweed (*Polygonum marinense*). Populations of special status plants are shown on Figures 2A and 2B. One location of coastal-bluff morning glory occurs along an access road and the other two species occur in the coastal salt marsh areas away from construction areas where they should not be affected by the project.

Coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*)

Two populations of coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*) have tentatively been identified on the north side of Cheney Creek along both sides of the south leg of the Bird Walk Trail. This is a CNPS List 1B.2 plant species. CNPS List 1B plants are considered to be rare, threatened or endangered in California and elsewhere. Impact to CNPS List 1B species must be considered as part of the environmental review process required under the California Environmental Quality Act (CEQA). This species is not listed by state or federal agencies.

There are taxonomic difficulties with this plant species and the identity of the plants found on the site has not been confirmed. The plants on the project site contain characteristics of more than one subspecies, therefore making it difficult to determine their exact identity, especially to determine its rarity status. Specimens were sent to the University of California, Berkeley and are awaiting examination and identification by Richard Brummit, an expert on the *Calystegia* genus.

The first population of this species occurs along the trail edges on both sides of the south leg of the Bird Walk Trail approximately 50 feet west of the intersection with the middle leg of the trail that runs north and south between the ponds. The plants on the north side

of the trail occur at the base of a coyote brush and were very dense during the May and July surveys. The plants on the south side of the trail are less dense and more difficult to spot among the grasses and other weeds except when they are flowering.

The second population is about half way down the slope below the southwest end of the Bird Walk Trail. The plants here trail through a large patch of iceplant. This is a more extensive but less dense population and the plants can be difficult to spot when they are not in flower. This area is just west of the construction activity boundary and, as long as the project boundaries are strictly adhered to, this population should not be affected. Both populations should be flagged and a botanist should be on site during construction activities to ensure that the populations are not adversely impacted.

Pt. Reyes bird's beak (*Cordylanthus maritimus* ssp *palustris*)
Two populations of Pt. Reyes bird's-beak (*Cordylanthus maritimus* ssp. *palustris*) were found within the project boundaries during the current surveys, although more populations have been found in other parts of the marsh outside of the project boundaries in previous years. This is a CNPS List 1B plant and it is thus required for consideration under CEQA. It is not listed by state or federal agencies.

Both of the populations occurring within the project boundaries are in coastal salt marsh below the levee where the Doran Marsh Trail will be widened to provide an access road for construction vehicles from Doran Beach Road to Cheney Creek. Neither population should be affected by construction activities as they are both below the levee and some distance from the current trail.

The first population occurs in the coastal salt marsh below the west side of the south end of the levee just north of Doran Beach Road. The population consists of 201 plants and begins about 150 feet north of Doran Beach Road and 50 feet west and downslope of the Doran Marsh Trail that runs along the top of levee. The plants are scattered through the salt marsh northward to the creek edge.

The second population found during the current surveys also occurs on the west side of the levee, but starts about 500 feet further north where the creek bank opens into a flat salt marsh area. The population consists of 443 plants scattered through a 300 feet stretch that continues northward to an obvious bald oval mudflat that is visible on the aerial map. No plants were found north of the mudflat.

Marin knotweed (*Polygonum marinense*)
Marin knotweed (*Polygonum marinense*) occurs in northern coastal salt marsh on both sides of Cheney Creek. Both populations are in flat areas below and away from the proposed areas of construction activity and should not be affected as long as the current plans are adhered to. This is a CNPS List 3 plant and it is thus required for consideration under CEQA. It is not listed by state or federal agencies.

There is some confusion and debate about whether or not this plant species is actually native or not. It is only found in a small portion of California, indicating that it is native, since non-native species usually spread rapidly. However, it bears several similarities to a non-native species and it has not yet been determined if it is native or not. Studies are continuing but no definitive conclusions have yet been determined. Until that time, this species remains a CNPS-listed plant and is thus required for consideration under CEQA guidelines.

On the north side of Cheney Creek, 62 plants were found during the July 7 survey. The plants are scattered through a portion of the salt marsh that begins about 50 ft southwest of the drainage pipe that is located below the Bird Walk Trail and continues southwest for about 250 feet (refer to Figure 2A). No plants were found west of that point. Habitat, however, does exist beyond that point for the plant and, as an annual plant species it can occur in different places from year to year so there is potential for this plant species to occur in the bridge construction area in the future. According to current plans, however, the bridge will be placed on the slope above the marsh and no impact should occur to the marsh itself. A botanist should be posted in this area during construction to ensure that no plants are in that area and that impact is avoided if any are present.

The mapped populations of Marin knotweed located on the south side of Cheney Creek are scattered through a 100 foot long section of the coastal salt marsh west of the Doran Marsh Trail across from and southwest of the knoll near the north end of the trail. This is only about 50 to 75 feet west of the knoll where the south end of the bridge is to be placed but it should not be impacted as long as the construction activity areas are adhered to as they are currently proposed. The population should be flagged and a botanist should be on the site to ensure that the population is not impacted.

WEEDS/RESTORATION SITES

The discussion of weedy areas, which are also potential restoration sites, is divided into areas south of Cheney Creek and areas North of Cheney Creek. The location of weedy plant species is provided on Figures 3A and 3B.

South of Cheney Creek

The two most prevalent and extensive weed species on the project site are iceplant (*Carpobrotus chilensis*) and velvet grass (*Holcus lanatus*). They occur extensively on both the north and south sides of Cheney Creek and both species occur near coastal salt marsh and in several cases have invaded the coastal salt marsh. These two species should be the most immediate targets for extrication and subsequent restoration of previous habitat. Other weedy species also occur on the site but most of them are in smaller or fewer populations but should still be considered as good target areas for weed removal and restoration.

KEY

AMAR -- Amophila arenaria
AVBA -- Avena barbata
BRST -- Bromus stamineus
CACH -- Carpobrotus chilensis
CIVU -- Cirsium vulgare
COMA -- Conium maculatum
DRFL -- Drosanthemum floribundum
FOVU -- Foeniculum vulgare
HIIN -- Hirschfeldia incana
HOLA -- Holcus lanatus
POMO -- Polypogon monspeliensis
RASA -- Raphanus sativus

PROJECT AREA BOUNDARY

MATCHLINE

MATCHLINE

0 50 100 200

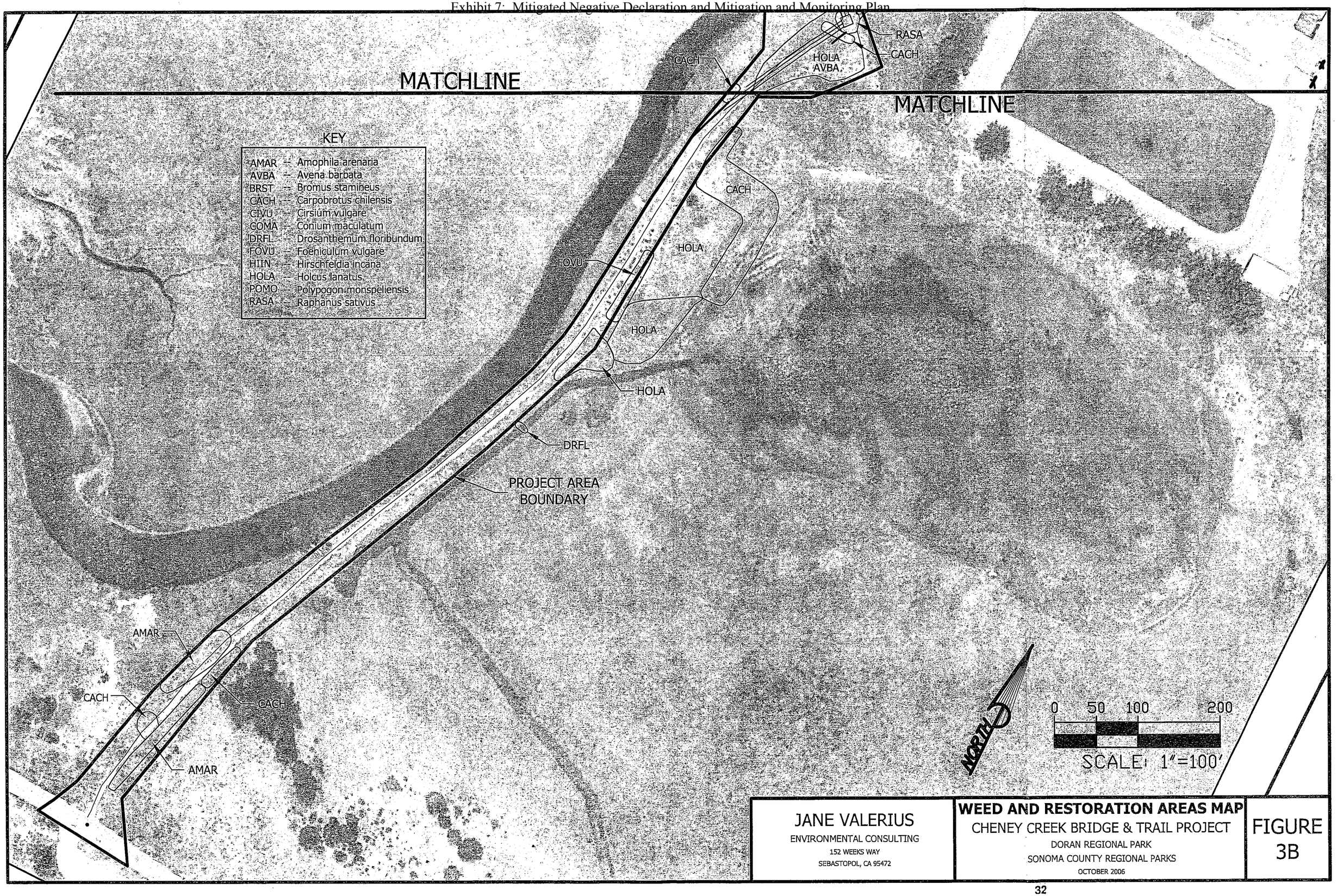
SCALE: 1"=100'

NORTH

JANE VALERIUS
ENVIRONMENTAL CONSULTING
152 WEEKS WAY
SEBASTOPOL, CA 95472

WEED AND RESTORATION AREAS MAP
CHENEY CREEK BRIDGE & TRAIL PROJECT
DORAN REGIONAL PARK
SONOMA COUNTY REGIONAL PARKS
OCTOBER 2006

FIGURE 3A



JANE VALERIUS ENVIRONMENTAL CONSULTING 152 WEEKS WAY SEBASTOPOL, CA 95472	**WEED AND RESTORATION AREAS MAP** CHENEY CREEK BRIDGE & TRAIL PROJECT DORAN REGIONAL PARK SONOMA COUNTY REGIONAL PARKS OCTOBER 2006	FIGURE 3B

The first populations that should be removed are those that have already invaded coastal salt marsh and those that are close to and threatening it. Patches of iceplant have invaded the coastal salt marsh in several places south of Cheney Creek on the project site, especially on the east side of the levee, as can be seen on the map. A small patch of rosea iceplant (*Drosanthemum floribundum*), which can also become invasive, occurs east of the levee about half way between Doran Beach Road and Cheney Creek.

Iceplant and velvet grass are both invading a population of meadow barley (*Hordeum brachyantherum* ssp. *brachyantherum*), a native perennial grass, on the east side of Doran Marsh Trail just north of where the levee widens out and a streamlet turns eastward. Although small, this is the only dense population of native grass occurring on the project site and is thus a good target for restoration. In addition, a few plants of California oatgrass (*Danthonia californica*) occur near this area but closer to the trail, indicating the area may have once supported more native grasses and may have been a coastal prairie.

A dense stand of velvet grass occurs just north of this area and smaller patches occur northward. Velvet grass also dominates a flat area just north of Doran Beach Road on the east side of the levee.

The salt marsh on the west side of Doran Marsh Trail after the levee area widens has been invaded by annual non-native grass species including slender wild oats (*Avena barbata*) and Mediterranean barley (*Hordeum marinum* ssp. *gussoneanum*). Iceplant is also invading in this area although not as extensively as in other parts of the project area. Removal and control of exotic species in this area may not be too difficult. This area is also recommended for restoration because of the presence of Marin knotweed (*Polygonum marinense*) here, a CNPS List 3.1 plant. (See Rare Plants section)

A dense stand of wild radish (*Raphanus sativus*) dominates the knoll where the south end of the bridge will be placed. The type of restoration to be done in this area, if any, should probably be determined after the bridge is in place in order to assess post-construction conditions there. A cluster of native plants occurs just north of the knoll and some of those plant species could be included in restoration plans for this area. These plants include California wax-myrtle (*Myrica californica*), salmonberry (*Rubus spectabilis*), twinberry (*Lonicera involucrata* var. *ledebourii*), sword fern (*Polystichum munitum*), mugwort (*Artemisia douglasiana*), cow parsnip (*Heracleum lanatum*), and California bee plant (*Scrophularia californica*).

A stand of European beachgrass (*Ammophila arenaria*) occurs on both sides of the Doran Marsh Trail that runs along the top of the levee near Doran Beach Road. This grass does not appear to be as invasive in this area as some of the other weedy species on the project site and only occurs at the south end of the levee. Thus, this may be a lower priority area for restoration, but the European beachgrass should be replaced with American dune grass (*Leymus mollis*), the native species.

In addition to velvet grass, several other weedy grass species occur along the trail edges and also below the levee, including soft chess (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), Chilean brome (*B. stamineus*), slender wild oats (*Avena barbata*), and meadow fescue (*Festuca pratensis*).

North of Cheney Creek

Iceplant and velvet grass are also very prevalent on the north side of Cheney Creek. The slope between the south side of the south leg of the Bird Walk Trail and Cheney Creek is made up of mostly weedy species. Iceplant and poison hemlock (*Conium maculatum*) are the dominant weeds here with large patches of both in several places along the slope. Other weedy non-native species here are Mediterranean mustard (*Hirschfeldia incana*), bristly ox-tongue (*Picris echioides*), wild radish (*Raphanus sativus*), various vetches (*Vicia* spp.), bull thistle (*Cirsium vulgare*), Italian thistle (*Carduus pycnocephala*), fennel (*Foeniculum vulgare*), bedstraw (*Galium aparine*), miscellaneous brome grasses (*Bromus* spp.), and slender wild oats (*Avena barbata*).

Velvet grass is the dominant plant species on most of the slopes above the two ponds along the Bird Walk Trail, but large patches of iceplant are interspersed throughout these areas as well.

Wild radish occurs in a dense patch on the north side of Cheney Creek just north of the west end of the south leg of the Bird Walk Trail in the area designated for the staging area for the north side of the bridge placement during construction. Most of this staging area consists of wild radish with velvet grass on the slopes below, but there is one patch of alkali heath (*Frankenia salina*), a native coastal salt marsh plant, near the west end of the radish stand just a few feet north of the trail. Two patches of another native plant species associated with coastal salt marsh, pacific silverweed (*Potentilla anserina* ssp. *pacifica*), occur at the bottom of the slope, near the ponds, but are some distance from the staging area site.

DELINEATION OF WETLANDS AND WATERS OF THE U.S. AND THE STATE

Regulatory Background

The Corps is responsible under Section 404 of the Clean Water Act to regulate the discharge of fill material into waters of the United States. Waters of the United States and their lateral limits are defined in 33 CFR Part 328.3(a) and include streams that are tributaries to navigable waters and their adjacent wetlands. The lateral limits of jurisdiction for a non-tidal stream are measured at the line of the Ordinary High Water Mark (OHWM) (33 CFR Part 328.3(e)) or the limit of adjacent wetlands (33 CFR Part 328.3(b)). Any permanent extension of the limits of an existing water of the United States, whether natural or man-made, results in similar extension of Corps jurisdiction (33 CFR Part 328.5).

Waters of the U. S. fall into two categories, wetlands and non-wetland waters. Wetlands include marshes, meadows, seep areas, floodplains, basins, and other areas experiencing extended seasonal soil saturation. Seasonally or intermittently inundated features such as seasonal pools, ephemeral streams, and tidal marshes are categorized as wetlands if they have hydric soils and support wetland plant communities. Non-wetland waters include water bodies and watercourses such as rivers, streams, lakes, springs, ponds, coastal waters, and estuaries. Seasonally inundated water bodies or watercourses that do not exhibit wetland characteristics are classified as non-wetland waters.

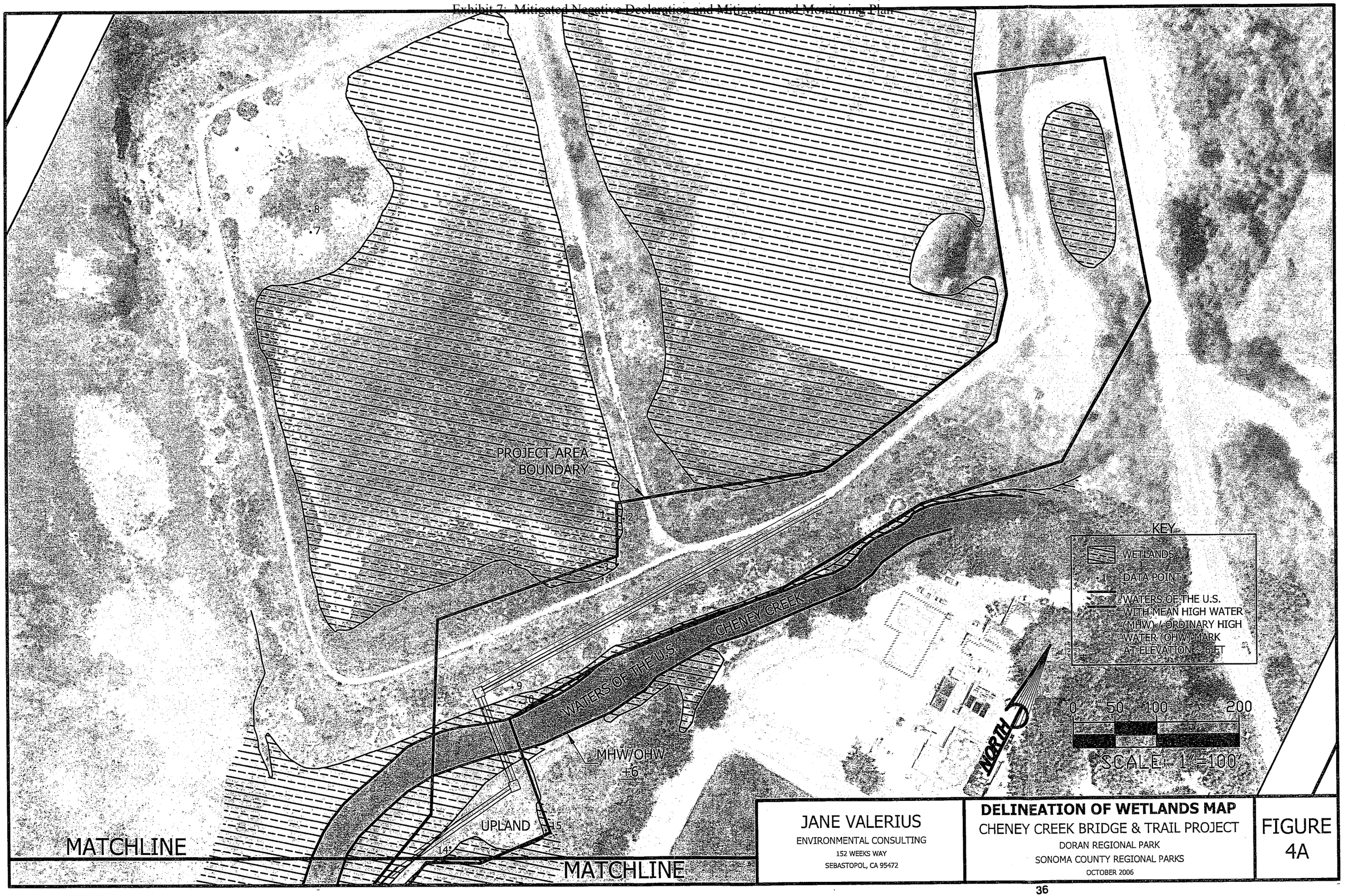
As discussed in the Methods section of this report the CCC's definition for delineation wetlands varies somewhat from the Corps'. The CCC definition is: "Wetland means lands within the Coastal Zone which may be covered periodically or permanently with shallow water, and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, or fens."

For the Cheney Creek study/project area, areas that had 50 percent or greater dominance by hydrophytic vegetation or one of the other wetland parameters (hydric soils or wetland hydrology) were also mapped as wetlands.

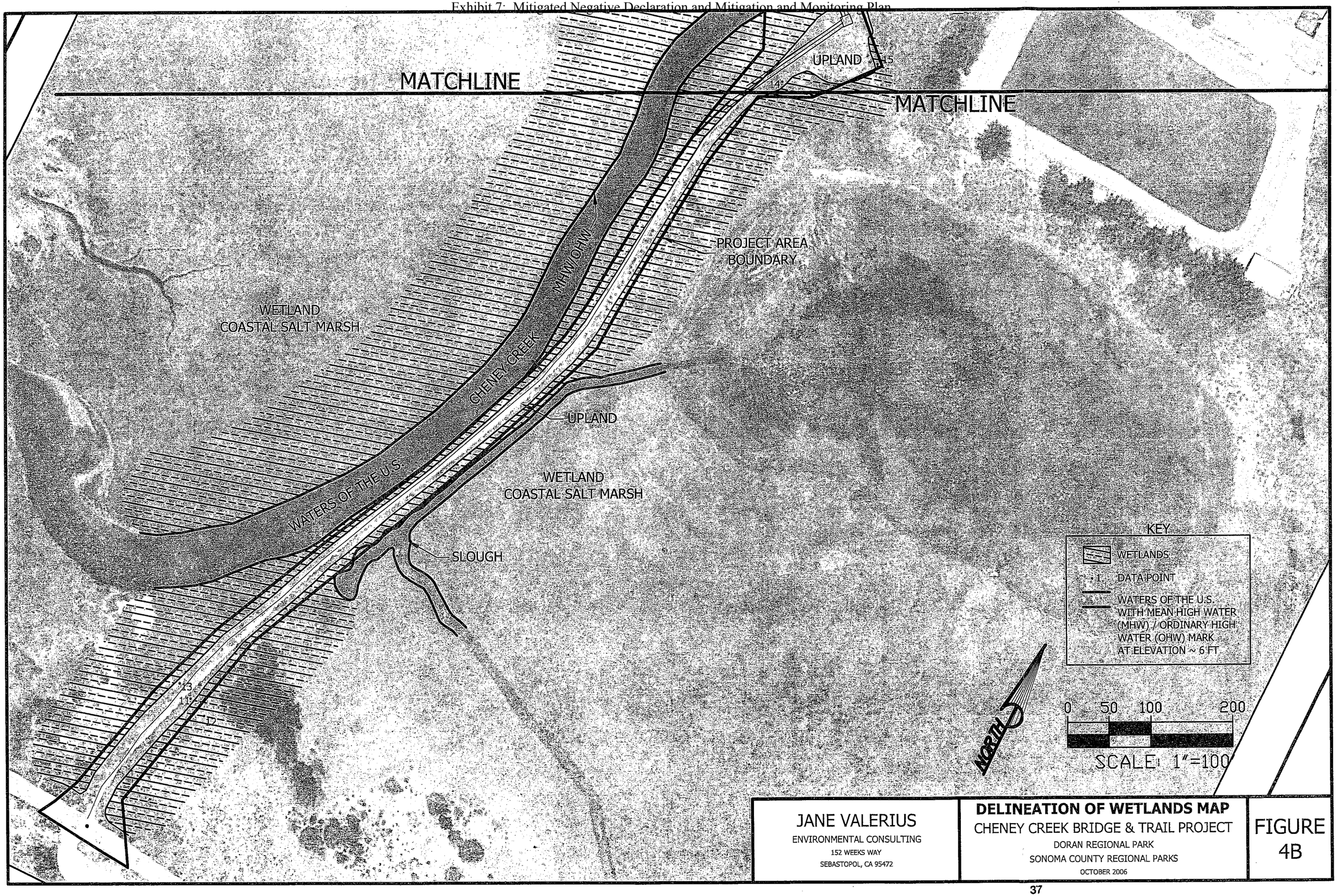
Areas mapped as wetlands are shown on Figures 4A and 4B. In general the wetlands areas within the project area include areas mapped as northern coastal salt marsh and brackish marsh within the project area. The freshwater marsh area that was mapped is outside of the project area boundary, but is also a wetland community type.

Cheney Creek is a waters of the U.S. with a direct connection to the Pacific Ocean. Within the study area Cheney Creek is tidal and therefore falls under the Corps' jurisdiction under Section 10 of the Rivers and Harbors Act. The Corps' jurisdiction extends to the mean high water (MHW) for tidal creeks and any adjacent wetlands. The approximate mean high water for Cheney Creek within the project area is the approximate 6-foot elevation. This was estimated based on observations of scour and tidal flow. The total area of waters of the U.S. or waters of the state within the project area is approximately 0.13 acres. Cheney Creek occurs within the project area boundary at only one location and that is at the bridge crossing (Figure 4A).

Areas mapped as wetlands and waters of the U.S. also meet the definition of wetlands and waters of the state as defined by the CCC and the RWQCB. There were no areas that were mapped that were outside of the Corps' jurisdiction but within the CCC or RWQCB definition of wetlands and waters. Areas that had a dominance (greater than 50 percent cover) of wetland plants also had wetland soils and hydrology and therefore met all three criteria as required by the Corps. Areas that lacked wetland vegetation but had wetland hydrology, which includes Cheney Creek and a portion of the dredge disposal ponds, are classified as waters of the U. S. and are also by definition waters of the state. The total area of wetlands mapped within the project area boundary is approximately 1.64 acres. Wetlands occur throughout the project area and are located mainly where the project area boundary intersects with the dredge disposal ponds and on either side of the trails (Figures 4A and 4B).



JANE VALERIUS ENVIRONMENTAL CONSULTING 152 WEEKS WAY SEBASTOPOL, CA 95472	**DELINEATION OF WETLANDS MAP** CHENEY CREEK BRIDGE & TRAIL PROJECT DORAN REGIONAL PARK SONOMA COUNTY REGIONAL PARKS OCTOBER 2006	FIGURE 4A



JANE VALERIUS ENVIRONMENTAL CONSULTING 152 WEEKS WAY SEBASTOPOL, CA 95472	**DELINEATION OF WETLANDS MAP** CHENEY CREEK BRIDGE & TRAIL PROJECT DORAN REGIONAL PARK SONOMA COUNTY REGIONAL PARKS OCTOBER 2006	FIGURE 4B

Vegetation

Wetland vegetation is described in the plant communities section under Northern Coastal Salt March and Coastal Brackish Marsh. The dominant plant in these communities is pickleweed (*Salicornia virginica*), which is an obligate plant species. Other associated wetland plants include brass buttons (*Cotula coronopifolia*) and inland saltgrass (*Distichlis spicata*). Upland areas along the trail were dominated by non-native grassland plants such as European beachgrass (*Ammophila arenaria*), large quaking grass (*Briza maxima*), wild oats (*Avena barbata*), rattail fescue (*Vulpia myuros*), and annual ryegrass (*Lolium multiflorum*).

Some areas mapped as wetland within the Pond 2 shoreline contain iceplant, which has no wetland status using the Reed (1988) *National List of Plant Species That Occur In Wetlands: California (Region 0),* which is the list currently used by the Corps for wetland determinations. Areas with iceplant that are included within the wetland boundary also had hydric soils and wetland hydrology. Areas dominated by iceplant that did not have hydric soils or wetland hydrology were mapped as uplands. Other wetland plants along the Pond 2 shoreline included velvet grass, a FAC species and meadow barley (*Hordeum brachyantherum*), a FACW species. Upland areas within the Pond 2 area were dominated by wild radish (Raphanus sativus), rattail fescue, ripgut brome (*Bromus diandrus*), and yellow bush lupine (*Lupinus arboreus*).

Soils

Soils within the project area are mapped as tidal marsh or duneland. Areas mapped as tidal marsh include the Pond 2 area and areas along the Doran Beach Trail. Data points 1-10 and 14-15 are mapped as tidal marsh. Tidal marsh consists of nearly level marsh lands that are under water or extremely wet throughout the year. Soils samples in these locations had mostly chroma 2 soils. Areas mapped as wetlands had chroma 2 soils with mottles, indicating reducing conditions and therefore qualified as hydric soils. Areas mapped as uplands lacked mottles or other hydric indicators. Soils were mostly clay loam in texture and some areas the soils were very rocky due to the placement of rock riprap or fill material from the levee construction.

Areas mapped as duneland soils also had chroma 2 soils in the upland areas and chroma 2 with mottles in the wetland areas. Soils were sandy and mottling was not as distinctive as it is in the clay soil types. The wetland determination included a dominance of wetland plant species and evidence of wetland hydrology.

Hydrology

The hydrology of the project site is determined by Cheney Creek and the tidal influence of the Pacific Ocean. This area also receives coastal fog and this contributes to the hydrology of the area. Evidence of wetland hydrology included saturated soils and presence of oxidized root channels.

Cheney Creek is mapped as a waters of the U.S. Cheney Creek is tidally influenced channel and therefore falls under the Corps' jurisdiction under Section 10 of the Rivers and Harbors Act. The Corps' jurisdiction extends to the mean high water (MHW) for tidal creeks and any adjacent wetlands. The approximate mean high water for Cheney Creek within the project area is the approximate 6-foot elevation. This was estimated based on observations of scour and tidal flow.

Data sheets for the wetland sampling areas are included as Appendix C.

IMPACT AND MITIGATION MEASURES

This section summarizes the potential temporary and permanent impacts from construction activities related to the Cheney Creek Bridge and Trail Project to botanical and wetland resources. The analysis of impacts is based on the project description provided by Regional Parks, which was included in the Introduction to this report, and discussions of the project with Pamela Higgins with Regional Parks.

The project has attempted to avoid or minimize impacts to any sensitive botanical or wetland resources. Avoidance measures include placing the bridge abutments and staging areas in upland areas, thereby avoiding impacts to wetlands or to Cheney Creek. However, construction access to the site for bridge construction, which will involve extending the Bird Walk Trail and improving the Doran Beach Trail, may have some temporary and permanent impacts to plant communities along the trail.

Impact 1: Staging Area 1 is located in an upland area that is dominated by wild radish, a non-native weedy plant species. The staging area is located above the west pond or on the west side of the Bird Walk Trail within the study area. The west pond has been delineated as a wetland area. The levees surrounding the pond are upland.

> **Mitigation Measure 1**: To avoid impacts to any wetlands a silt or barrier fencing should be placed on the downhill side of the staging area to prevent any disturbance to the wetlands in the west pond. Once construction activities have been completed this area should be reseeded and restored using native plants. This will provide an additional restoration component and be an enhancement to the area.

Impact 2: The Bird Walk Trail runs along the top of the levee on the north side of Cheney Creek. Construction activities will involve extending the Bird Walk trail to connect to the bridge. This will impact some of the Coyote Bush Scrub plant community that occurs on the south side of the Bird Walk Trail on the north side of Cheney Creek. There will be some temporary construction impacts during the creation and grading of the access trail and permanent impacts related to the trail itself.

Two populations of coastal bluff morning glory (*Calystegia purpurata* ssp. *saxicola*) have tentatively been identified on the north side of Cheney Creek along both sides of the south leg of the Bird Walk Trail. This is a CNPS List 1B. The first population of this species occurs along the trail edges on both sides of the south leg of the Bird Walk Trail approximately 50 feet west of the intersection with the middle leg of the trail that runs north and south between the ponds. The plants on the north side of the trail occur at the base of a coyote brush and were very dense during the May and July surveys. The plants on the south side of the trail are less dense and more difficult to spot among the grasses and other weeds except when they are flowering.

The second population is about half way down the slope below the southwest end of the Bird Walk Trail. The plants here trail through a large patch of iceplant. This is a more extensive but less dense population and the plants can be difficult to spot when they are not in flower. This area is just west of the construction activity boundary and, as long as the project boundaries are strictly adhered to, this population should not be affected.

> **Mitigation Measure 2-1**: The Coyote Bush Scrub plant community is not a sensitive plant community type, but it is a native plant community. Mitigation could include restoration of the Staging Area 1 site to a Coyote Bush Scrub plant community as compensation for the loss of this plant community from construction of the new trail.
>
> **Mitigation Measure 2-2:** Impacts to populations or individuals of coastal bluff morning glory should be avoided. A botanist should be on site prior to construction activities. Areas with coastal bluff morning glory will be flagged and fenced to avoid any impacts.

Impact 3: Staging Area 2 is located on the south side of Cheney Creek in a mostly upland, non-native annual grassland community. Portions of this staging area may include areas mapped as potential wetlands. The area east and southeast of Staging Area 2 is mainly annual and non-native grassland but patches of northern coastal salt marsh occur near the east side of the trail just south of the staging area. The boundaries of the staging area may need to be adjusted in this area to avoid impacting these areas of salt marsh. In addition, rush-dominated northern coastal salt marsh occurs just east of the area staging area.

> **Mitigation Measure 3**: To avoid impacts to any wetlands or sensitive native wetland plant communities, a silt or barrier fencing should be placed around the staging area on the upland side of the area to prevent any materials from encroaching upon the adjacent wetlands. Once construction activities have been completed this staging area, which is currently non-native grassland, should be reseeded and restored using native plants. This area could be graded to provide additional marsh habitat. The area should be seeded with native plants. This will provide an additional restoration component for the project.

Impact 4: Staging Area 3 is located north of Cheney Creek near the Highway 1 access to the Bird Walk Trail. Staging Area 3 is located in an upland dominated by non-native annual grassland and will avoid impacts to any wetlands, waters or sensitive plant species or plant communities. However, there are wetlands nearby that should be avoided.

> **Mitigation Measure 4**: To avoid impacts to any nearby wetlands a silt or barrier fencing should be placed around the staging area on the upland side of the area to prevent any materials from encroaching upon the adjacent wetlands. Once construction activities have been completed the staging area should be seeded and restored using native plants. The area should be seeded with native plants. This will provide an additional restoration component for the project.

Impact 5: Access along the Doran Marsh Trail may need to be widened for construction equipment access. The project proposes to widen the trail to a width of eight feet and surface the trail with crushed rock. Because the trail is bounded on both sides by coastal salt marsh and other native, sensitive communities, as well as individual native plant species, there will be both temporary and permanent impacts.

> **Mitigation Measure 5-1**: Wetland and native plant communities along the Doran Marsh Trail should be avoided to the extent feasible and practicable. Mitigation could include restoration of areas identified as weedy sites and also areas mapped as annual grassland since this plant community is comprised of mostly non-native plants. Restoration would involve the removal and eradication of non-native weedy plants and the seeding and planting of native plants known to occur within the project area.
>
> **Mitigation Measure 2-2:** A botanist should be on site prior to construction activities. Silt or barrier fencing should be installed on both sides of the trail prior to construction to protect native vegetation communities and to minimize impacts to native plants.

PROPOSED AVOIDANCE AND PROTECTION MEASURES

A botanist should be on site during construction activities as well as during the widening of Doran Marsh Trail along the top of the levee south of Cheney Creek so that impacts to native vegetation can be avoided where possible and that coastal salt marsh and rare plant sites, especially, can be avoided completely.

RECOMMENDATIONS FOR RESTORATION

Restoration species for salt marsh areas could include saltgrass (*Distichlis spicata*), pickleweed (*Salicornia virginica*), large-flowered sand-spurry, Alaska alkali grass (*Puccinellia nutkaensis*), seaside plantain (*Plantago maritima*), low club rush (*Scirpus cernuus*), three-square (*Scirpus americanus*), jaumea (*Jaumea carnosa*), alkali heath (*Frankenia salina*) , Pacific silverweed (*Potentilla anserina* ssp. *pacifica*), marsh-rosemary (*Limonium californicum*), arrow-grass (*Triglochin concinna*), three-ribbed arrowgrass (*Triglochin striata*), and Marin knotweed (*Polygonum marinense*).

Some of the restoration plants that could be used on the slope north of Cheney Creek between the south leg of the Bird Walk Trail and the creek are native plants that already exist there in small numbers such as sticky monkeyflower (*Mimulus aurantiacus*), yellow lupine (*Lupinus arboreus*), seaside woolly sunflower (*Eriophyllum staechadifolium*), California bee plant (*Scrophularia californica*), and wild cucumber (*Marah* sp.).

Restoration could include enhancing, extending and restoring the small patch of native grassland east of the levee to a coastal prairie habitat. Native grasses that could be used include red fescue (*Festuca rubra*), tufted hairgrass (*Deschampsia cespitosa* ssp. *holciformis*), and Pacific reed grass (*Calamagrostis nutkaensis*). These species would be in addition to meadow barley and California oatgrass that already occur in this area.

A small patch of coastal dunes could be restored at the south end of the levee by removing the European beachgrass and establishing American dune grass (*Leymus mollis*), the native dune grass in California.

MONITORING AND MAINTENANCE OF RESTORATION SITES

It can often be very difficult to eradicate the weedy non-native annual grasses as they are very hardy and produce abundant seed each year that can last in the ground for long periods of time. Constant vigilance and weeding is therefore necessary to prevent them from out-competing the natives that are planted during restoration. An extended monitoring and weeding program should be in place to ensure the success of the restoration and to make sure that the weedy non-native species do not come back and do not take over.

Weeding could be accomplished by mechanical removal. Because there are special-status plants and animals within the project site herbicide or chemical means of controlling weedy plants is not recommended unless applied in a very controlled manner and supervised by a licensed pest control adviser.

Monitoring of restored areas should be for a minimum of five years and may need to be extended to 10 or more years depending on the success of the restoration efforts. Monitoring and maintenance could be done by Sonoma County Regional Parks or by trained volunteers dedicated to the restoration and enhancement of the area.

REFERENCES

Environmental Laboratory. 1987. U. S. Army Corps of Engineers Wetlands Delineation Manual. Department of the Army.

Reed, Port B. 1988. National List of Plant Species that Occur in Wetlands: California (Region 0). U. S. Fish and Wildlife Service Biological Report 88(26.10).

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APPENDIX A

PLANT SPECIES LIST

APPENDIX A

Plant Species Observed at Cheney Creek Project Area
Coastal Bird Walk And Doran Beach, Bodega Bay, California
April 24, May 22, July 7, and July 24, 2006

Scientific Name	Common Name
Achillea millefolium	Yarrow
*Aira caryophyllea**	Hairgrass
Ambrosia chamissonis	Beach-bur
*Ammophila arenaria**	European beachgrass
*Anagallis arvensis**	Scarlet pimpernel
Artemisia douglasiana	Mugwort
Atriplex triangularis	Fat hen
*Avena barbarta**	Slender wild oats
Baccharis pilularis	Coyote bush
*Brassica rapa**	Field mustard
*Briza minor**	Little rattlesnake grass
*Briza maxima**	Large quaking grass
Bromus carinatus var. *maritimus*	California brome
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft chess
*Bromus stamineus**	Chilean brome
Calystegia purpurata* ssp. *saxicola ?	***Coastal bluff morning glory***
Cardamine oligosperma	Bittercress
*Carduus pycnocephalus**	Italian thistle
Carpobrotus chilensis	Iceplant/sea fig
*Cerastium glomeratum**	Mouse-ear chickweed
*Chamomilla suaveolens**	Pineapple weed
*Chenopodium album**	Lamb's-quarters
*Cirsium vulgare**	Bull thistle
Claytonia perfoliata	Miner's lettuce
*Conium maculatum**	Poison hemlock
*Conyza canadensis**	Horseweed
Cordylanthus maritimus* ssp. *palustris	**Pt. Reyes bird's-beak**
*Cotula coronopifolia**	Brass buttons
Crassula connata	Pygmyweed
*Cressa truxillensis**	Alkali weed
Cupressus macrocarpa	Monterey cypress
Cuscuta salina var. *major*	Salt marsh dodder
Danthonia californica var. *americana*	California oatgrass
Danthonia californica var. *californica*	California oatgrass
*Daucus carota**	Queen Anne's lace
Distichlis spicata	Saltgrass
*Drosanthemum floribundum**	Rosea iceplant
Eleocharis macrostachya	Spikerush
Eriogonum sp.	Wild buckwheat

APPENDIX A

Plant Species Observed at Cheney Creek Project Area
Coastal Bird Walk And Doran Beach, Bodega Bay, California
April 24, May 22, July 7, and July 24, 2006

Scientific Name	Common Name
Eriophyllum staechadifolium	Seaside woolly sunflower
*Erodium moschatum**	White-stem filaree/storksbill
Eschscholzia californica	California poppy
Festuca pratensis	Meadow fescue
*Foeniculum vulgare**	Fennel
Frankenia salina	Alkai heath
*Galium aparine**	Bedstraw
*Geranium dissectum**	Cut-leaf geranium
*Geranium retrorsum**	New Zealand geranium
Gnaphalium canescens ssp. *beneolens*	Fragrant everlasting
*Gnaphalium luteo-album**	Cudweed
Gnaphalium palustre	Lowland cudweed
Grindelia stricta var. *angustifolia*	Marsh gumplant
Heracleum lanatum	Cow parsnip
*Hirschfeldia incana**	Mediterranean mustard
*Holcus lanatus**	Velvet grass
Hordeum brachyantherum ssp. *brachyantherum*	Meadow barley
Hordeum marinum ssp. *gussoneanum**	Mediterranean barley
Hordeum murinum ssp. *leporinum**	Hare barley
*Hypochaeris glabra**	Smooth cat's ear/false dandelion
*Hypochaeris radicata**	Hairy cat's ear/false dandelion
Iris douglasiana	Douglas' iris
Jaumea carnosa	Jaumea
Juncus balticus	Baltic rush
Juncus bufonius var. *bufonius*	*Toad rush*
Juncus effusus	Bog rush
Juncus lesueurii	Salt rush
Juncus mexicanus	Mexican rush
Juncus patens	Common rush
Leymus triticoides	Creeping ryegrass
Limonium californicum	Marsh-rosemary
*Linum bienne**	Small-flowered flax
Lonicera involucrata var. *ledebourii*	Twinberry
*Lotus corniculatus**	Birdsfoot lotus
Lotus heermannii var. *orbicularis*	Woolly lotus
Lupinus arboreus	Yellow bush lupine
*Madia sativa**	Coast tarweed
Marah sp.	Wild cucumber
*Medicago polymorpha**	Burr clover
Mimulus aurantiacus	Sticky monkeyflower

APPENDIX A

Plant Species Observed at Cheney Creek Project Area
Coastal Bird Walk And Doran Beach, Bodega Bay, California
April 24, May 22, July 7, and July 24, 2006

Scientific Name	Common Name
Myrica californica	California wax-myrtle
*Oxalis pes-caprae**	Bermuda buttercups
*Parapholis incurva**	Sickle grass
*Picris echioides**	Bristly ox-tongue
Plantago coronopus	Cutleaf plantain
Plantago elongata	Annual coast plantain
*Plantago lanceolata**	English plantain
Plantago maritima	Seaside plantain
*Poa annua**	Annual bluegrass
Polygonum marinense	**Marin knotweed**
Polygonum sp.	Knotweed; smartweed
*Polypogon australis**	Chilean beardgrass
*Polypogon monspeliensis**	Rabbitsfoot grass
Polystichum munitum	Sword fern
Potentilla anserina ssp. *pacifica*	Pacific silverweed
Puccinellia nutkaensis	Alaska alkali grass
*Raphanus raphanistrum**	Jointed charlock
*Raphanus sativus**	Wild radish
*Rubus discolor**	Himalaya blackberry
Rubus spectabilis	Salmonberry
Rubus ursinus	California blackberry
*Rumex acetosella**	Sheep sorrel
*Rumex crispus**	Curly dock
*Rumex pulcher**	Fiddle dock
Rumex salicifolius var. *crassus*	Willow dock
Rumex salicifolius var. *denticulatus*	Willow dock
Salicornia virginica	Pickleweed
Salix lasiolepis	Arroyo willow
Sanicula crassicaulis	Pacific sanicle
Scirpus americanus	Three-square
Scirpus cernuus	Low club-rush
Scrophularia californica ssp. *californica*	California bee plant
*Senecio vulgaris**	Groundsel
*Soliva sessilis**	Soliva
*Sonchus asper**	Prickly sow-thistle
*Sonchus oleraceus**	Sow-thistle
Spergualria macrotheca var. *macrotheca*	Large-flowered sand spurry
Spergularia marina	Salt marsh sand spurry
Stachys ajugoides var. *rigida*	Hedge nettle/woodmint
Toxicodendron diversilobum	Poison oak

APPENDIX A

Plant Species Observed at Cheney Creek Project Area
Coastal Bird Walk And Doran Beach, Bodega Bay, California
April 24, May 22, July 7, and July 24, 2006

Scientific Name	Common Name
*Trifolium dubium**	Shamrock
Trifolium sp.*	Clover
*Trifolium subterraneum**	Subterranean clover
Triglochin concinna	Arrow-grass
Triglochin striata	Three-ribbed arrow-grass
Vicia sativa ssp. *sativa**	Spring vetch
*Vulpia bromoides**	Six-weeks fescue
Vulpia microstachys var. *pauciflora*	Pacific fescue
Vulpia myuros var. *hirsuta**	Zorro grass
Vulpia myuros var. *myuros**	Zorro grass

Plants in bold are special-status plants

* = Non-native plant species

APPENDIX B

LIST OF SPECIAL-STATUS PLANT SPECIES

APPENDIX B

Special status plant species that could potentially occur within the Cheney Creek Bridge Project Site based on the presence of potential habitat.

Scientific Name Common Name	Status: Federal/ State/CNPS	Flowering Period	Habitat and Notes
Abronia umbellata ssp. *breviflora* Pink sand-verbena	-/-/L1B	June-October	Coastal dune. Not found during surveys. Not present in project area.
Agrostis blasdalei Blasdale's bent grass	-/-/L1B	May-July	Coastal bluff scrub, coastal dunes, coastal prairie. Not found during surveys. Not present in project area.
Allium peninsulare var. *franciscanum* Franciscan onion	-/-/L1B	May-June	Cismontane woodland, grassland/clay, often serpentinite. Not found during surveys. Microhabitat not present.
Amorpha californica var. *napensis* Napa false indigo	-/-/L1B	April-July	Broadleafed upland forest (openings), chaparral, cismontane woodland. Not found during surveys. No habitat in project area.
***Calystegia purpurata* ssp. *saxicola* Coastal bluff morning-glory**	**-/-/L1B**	**May-September**	**Coastal dunes, coastal scrub. PRESENT-found along Bird Walk Trail. See text for details**
Campanula californica Swamp harebell	-/-/L1B	June-October	Bogs & fens, closed-cone coniferous forest, coastal prairie, meadows & seeps, marshes & swamps (freshwater), North Coast coniferous forest. Not found during surveys – no habitat in project area.
Carex comosa Bristly sedge	-/-/L2	May-September	Coastal prairie, marshes & swamps, grassland. Not found during surveys – no habitat in project area.
Chorizanthe cuspidata var. *cuspidata* San Francisco Bay spineflower	-/-/L1B	April-August	Coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub. Not found during surveys.
Chorizanthe cuspidata var. *villosa* Woolly-headed spineflower	-/-/L1B	May-August	Coastal dunes, coastal prairie, coastal scrub/sandy. Not found during surveys.
Cirsium andrewsii Franciscan thistle	-/-/L1B	March-July	Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub/ mesic, sometimes serpentinite. Not found during surveys
***Cordylanthus maritimus* ssp. *palustris* Point Reyes birds's-beak**	**-/-/L1B**	**June-October**	**Marshes & swamps, coastal salt. PRESENT –occurs along trail near Doran Beach. See text for details.**
Delphinium luteum Yellow larkspur	FE/CR/L1B	March-May	Chaparral, coastal prairie, coastal scrub/ rocky. Not found during surveys
Dirca occidentalis Western leatherwood	-/-/L1B	January-April	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, riparian woodland. Not found during surveys.
Gilia capitata ssp. *chamissonis* Dune gilia	-/-/L1B	April-July	Coastal dunes, coastal scrub. Not found during surveys.
Gilia capitata ssp. *tomentosa* Woolly-headed gilia	-/-/L1B	May-July	Coastal bluff scrub (rocky, outcrops). Habitat not in project area – not found during surveys.
Gilia millefoliata *Dark-eyed gilia*	-/-/L1B	April-July	Coastal dunes. Not found during surveys.
Hemizonia congesta ssp. *leucocephala* Hayfield tarplant	-/-/L3	April-October	Coastal scrub, grassland. Not found during surveys.
Hesperevax sparsiflora var. *brevifolia* *Short-leaved evax*	-/-/L2	March-June	Coastal bluff scrub (sandy), coastal dunes. Not found during surveys.

APPENDIX B

Special status plant species that could potentially occur within the Cheney Creek Bridge Project Site based on the presence of potential habitat.

Scientific Name **Common Name**	**Status: Federal/ State/CNPS**	**Flowering Period**	**Habitat and Notes**
Horkelia marinensis Point Reyes horkelia	-/-/L1B	May-September	Coastal dunes, coastal prairie, coastal scrub. Not found during surveys.
Lasthenia conjugens Contra Costa goldfields	FE/-/L1B	March-June	Cismontane woodland, playas (alkaline), grassland, vernal pools/mesic. Typical habitat not in project area – not found during surveys.
Lasthenia macrantha ssp. *bakeri* Baker's goldfields	-/-/L1B	April-October	Closed-cone coniferous forest (openings), coastal scrub, meadows & seeps, marshes & swamps. Not found during surveys – typical habitat not present.
Lasthenia macrantha ssp. *macrantha* Perennial goldfields	-/-/L1B	January-November	Coastal bluff scrub, coastal dunes, coastal scrub. Not found during surveys.
Lepstosiphon rosaceus Rose leptosiphon	-/-/L1B	April-July	Coastal bluff scrub. Not found during surveys – habitat not present in project area.
Lupinus eximius San Mateo tree lupine	-/-/L3	April-July	Chaparral, coastal scrub. Not found during surveys.
Lupinus tidestromii Tidestrom's lupine	FE/CE/L1B	April-June	Coastal dunes. Not found during surveys.
Microseris paludosa Marsh microseris	-/-/L1B	April-July	Closed-cone coniferous forest, cismontane woodland, coastal scrub, grassland. Not found during surveys.
Monardella villosa ssp. *globosa* Robust monardella	-/-/L1B	June-July	Broadleafed upland forest, chaparral (openings), cismontane woodland, coastal scrub, grassland. Not found during surveys.
Polygonum marinense **Marin knotweed**	**-/-/L3**	**April-October**	**Marshes & Swamps (coastal salt or brackish). PRESENT – see text for details.**
Sidalcea calycosa ssp. *rhizomata* Point Reyes checkerbloom	-/-/L1B	April-September	Marshes & swamps (freshwater). No habitat on site. Not found during surveys.
Sidalcea hickmanii ssp. *viridis* Marin checkerbloom	-/-/L1B	May-June	Chaparral (serpentinite). No habitat on site - not found during surveys.
Sidalcea malviflora ssp. *purpurea* Purple-stemmed checkerbloom	-/-/L1B	May	Broadleafed upland forest, coastal prairie. Not found during surveys.
Trifolium amoenum Showy Indian clover	FE/-/L1B	April-June	Coastal bluff scrub, grassland (sometimes serpentinite). Not found during surveys.
Triphysaria floribunda San Francisco owl's-clover	-/-/L1B	April-June	Coastal prairie, coastal scrub, grassland/ usually serpentinite. Not found during surveys.
Triquetrella californica Coastal triquetrella	-/-/L1B	N/A	Coastal bluff scrub, coastal scrub. Not found during surveys.

Status:
- FE: Federally listed as endangered.
- CE: State listed as endangered.
- CR: State listed as rare.
- L1B: CNPS list of plants rare, threatened, or endangered in California and elsewhere.
- L2: CNPS list of plants rare, threatened or endangered in California, but more common elsewhere.
- L3: CNPS list of plants about which more information is needed – a review list.

APPENDIX C

WETLAND DATA SHEETS

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek Bridge & Trail
Applicant: Sonoma County Regional Parks (SCRP)
Investigator(s): J. Valerius

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Sample Site No.: 1
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Carpobrotus chilensis	100	N.I.	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

0 % dominant species that are OBL, FACW or FAC (except FAC-) 0 % Bare ground

Remarks: No status in 1988 list

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: 0 (in.)
Depth of free water in pit: 8 (in.)
Depth to saturated soil: 0 (in.)

Wetland hydrology indicators:
_____ Inundated ✓ Saturated in upper 12"
_____ Water marks _____ Local soil survey data
_____ Sediment deposits _____ Drainage patterns in wetlands
_____ Drift Lines ✓ Oxidixed root channels in upper 12"
_____ Water-stained leaves
_____ Other (explain in remarks)

Physiographic position of site/Remarks: Soils saturated to surface. Data point at edge of pond water line

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes (No)

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"		10YR 3/2 or 2.5Y 3/2	—	—	Gravelly, rocky clay loam FILL

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks: Soil is fill material.

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present (Yes) No

Is this sampling within a wetland? (Yes) No

Remarks: The data point is at the pond waterline. Soils are composed of rocky fill material and plants are exotic. Meets CCA definition and CCC criteria.

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valeros

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Sample Site No.: 2
Date: 3/22/06
Location: Bodega Bay
County: Sonoma
State: CA

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Carpobrotus chilensis	100	N.I	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

0 % dominant species that are OBL, FACW or FAC (except FAC-)

0 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: DRY - data point on pond bank

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):

Drainage class:
Field observations confirm mapped soil series? Yes (No)

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"	—	2.5Y3/2	—	—	Clay loam

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks:

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valerius

Sample Site No.: 3
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Holcus lanatus	100	FAC	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-) Ø % Bare ground

Remarks: 1 6-8 feet from waters edge

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: 10 (in.)

Wetland hydrology indicators:
_____ Inundated
✓ Saturated in upper 12"
_____ Water marks
_____ Local soil survey data
_____ Sediment deposits
_____ Drainage patterns in wetlands
_____ Drift Lines
_____ Oxidixed root channels in upper 12"
_____ Water-stained leaves
✓ Other (explain in remarks)

Physiographic position of site/Remarks: Low area near culvert

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0–16"		10YR4/2	5YR4/6	Common, abundant Bright	Clay loam

Hydrolic Soil Indicators:
_____ Histosol
_____ Histic epipedon
_____ Probable aquic moisture regime
_____ Reducing conditions
✓ Gleyed or low-chroma colors
_____ Concretions
_____ High organic content in surface layer
_____ Organic streaking
_____ Listed on local hydric soils list
✓ Listed on national hydric soils list
_____ Sulfidic odor
_____ Other (explain in remarks)

Remarks: Grayish soils

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling within a wetland? (Yes) No

Remarks:

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Nalervs

Sample Site No.: 4
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Vulpia myuros	30	UPL	1.		
2. Hordeum lanatus	40	FAC	2.		
3. Raphanus sativus	30	UPL	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

40 % dominant species that are OBL, FACW or FAC (except FAC-)

0 % Bare ground

Remarks: ± 10 feet from water's edge

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: DRY

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16		Soils too rocky - no real soil			Rocks

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks: All 3 parameters are out

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valerius

Sample Site No.: 5
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator
1. Holcus lanatus	70	FAC
2. Potentilla sp.	10	Unknown
3. Hordeum brachyanth.	20	FACW
4.		
5.		
6.		
7.		

Associated Plant Species	% Cover	Indicator
1.		
2.		
3.		
4.		
5.		
6.		
7.		

90-100 % dominant species that are OBL, FACW or FAC (except FAC-) Ø % Bare ground

Remarks: West of culvert I 25-30 feet from water line

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: _____ (in.)
Depth of free water in pit: _____ (in.)
Depth to saturated soil: _____ (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: DRY

SOILS

Map unit name: Tidal marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"		2.5Y3/2			clay loam

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes No

Remarks: Yes for Coastal Commission criteria

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valentine

Sample Site No.: 6
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Raphanus sativus	100	UPL	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

0 % dominant species that are OBL, FACW or FAC (except FAC-)

0 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: DRY

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"		2.5Y 3/2			clay loam

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks:

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek SCRP
Applicant:
Investigator(s): Jane Valentus

Sample Site No.: 7
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Holcus lanatus	100	FAC	1.		
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-) ____ % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
____ Stream, lake, or tide gage; ____ Aerial photograph;
____ Other;
____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
____ Inundated
____ Water marks
____ Sediment deposits
____ Drift Lines
____ Water-stained leaves
____ Other (explain in remarks)
____ Saturated in upper 12"
____ Local soil survey data
____ Drainage patterns in wetlands
____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Dry - on terrace above water line

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"		10YR3/2			MOSTLY ROCKS

Hydrolic Soil Indicators:
____ Histosol
____ Reducing conditions
____ High organic content in surface layer
____ Listed on national hydric soils list
____ Histic epipedon
____ Gleyed or low-chroma colors
____ Organic streaking
____ Sulfidic odor
____ Probable aquic moisture regime
____ Concretions
____ Listed on local hydric soils list
____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks: Although vegetation is present the area is too far above the water line for there to be wetland hydrology.

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valerius

Sample Site No.: 8
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator
1. Bromus diandrus	20	UPL
2. Vulpia myuros	40	UPL
3. Raphanus sativus	10	UPL
4. Holcus lanatus	20	FAC
5. Lupinus sp. - yellow	10	Unknown
6.		
7.		

Associated Plant Species	% Cover	Indicator
1.		
2.		
3.		
4.		
5.		
6.		
7.		

20 % dominant species that are OBL, FACW or FAC (except FAC-)

Ø % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: DRY

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-16"		2.5Y 3/2	—	—	Silty clay loam

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks:

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valerius

Sample Site No.: 9
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator
1. Carpobrotus chilensis	95	N.I.
2. Briza maxima	5	UPL
3.		
4.		
5.		
6.		
7.		

Associated Plant Species	% Cover	Indicator
1.		
2.		
3.		
4.		
5.		
6.		
7.		

0 % dominant species that are OBL, FACW or FAC (except FAC-)

0 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Dry - data point on upper terrace above creek.

SOILS

Map unit name: Tidal marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0 - 1"		Rocks			Rocks

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks:

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valens

Sample Site No.: 10
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Distichlis spicata	60	FACW	1. Cotula coronopifolia		
2. Scirpus cernuus	20	OBL	2. Polygonum sp.		
3. Salicornia virginica	20	OBL	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-) 0 % Bare ground

Remarks:

HYDROLOGY

Recorded data (describe in remarks):
___ Stream, lake, or tide gage; ___ Aerial photograph;
___ Other;
___ No recorded data available.

Field observations:
Depth of surface water: 0 (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: 0 (in.)

Wetland hydrology indicators:
___ Inundated
___ Water marks
___ Sediment deposits
___ Drift Lines
___ Water-stained leaves
x Other (explain in remarks)
X Saturated in upper 12"
___ Local soil survey data
___ Drainage patterns in wetlands
X Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Located in tidal marsh assoc. w/ Cheney Creek

SOILS

Map unit name: Tidal marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-8"		10YR 3/2	5YR 4/6	Bright, Common abundant	clayey

Hydrolic Soil Indicators:
___ Histosol
___ Reducing conditions
___ High organic content in surface layer
✓ Listed on national hydric soils list
___ Histic epipedon
___ Gleyed or low-chroma colors
___ Organic streaking
___ Sulfidic odor
___ Probable aquic moisture regime
___ Concretions
___ Listed on local hydric soils list
___ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling within a wetland? (Yes) No

Remarks:
Adjacent wetland to Cheney Creek

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek Bridge + Trail
Applicant: Sonoma County Regional Parks
Investigator(s): J. Valerius

Sample Site No.: 11
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator
1. Bromus carinatus	30	UPL
2. Holcus lanatus	20	FAC
3. Juncus balticus	20	FACW+
4.		
5. Avena barbata	5	UPL
6. Bromus hordaceus	5	FACU
7. Vulpia myuros	5	UPL

Associated Plant Species	% Cover	Indicator
1. Lotus multiflorum	5	FAC
2. Achillea millefolium	5	UPL
3. Cenum macrostemon	5	FAC
4. Carduus pycnocephalus	25	UPL
5.		
6.		
7.		

45 % dominant species that are OBL, FACW or FAC (except FAC-)

0 % Bare ground

Remarks: Mostly FAC w/ upland plants <50% cover by hydrophytes

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Data point 5-6 feet from trail on South side.
No hydrology indicators - data point on bermed area.

SOILS

Map unit name: Duneland
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-6"		7.5YR 2.5/2	—	—	Sand and rock

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks: Doran Beach trail w/ Baccharis, Lupine, Myrica - mostly upland plants. Upland area.

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek Bridge + Trail
Applicant: SCRP
Investigator(s): J. Valentus

Sample Site No.: 12
Date: 5/22/06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Holcus lanatus	35	FAC	1. Aira		
2. Juncus balticus	45	FACW+	2. Valpic		
3. Bromus carinatus	20	UPL	3. Bolchans		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

80 % dominant species that are OBL, FACW or FAC (except FAC-) 0 % Bare ground

Remarks: Dominance of wetland plants

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
X Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
X Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: 32 feet from edge of trail - lots of area w/ lots of Juncus.

SOILS

Map unit name: Duneland
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-12"		MIXED COLORS			SAND - MIXED COLORS

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present (Yes) No
Wetland hydrology present (Yes) No

Is this sampling within a wetland? (Yes) No

Remarks: Hydrology is inferred along w/ soils. The dominance by wetland plants starts at about 8-9 feet from edge of trail.

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek Bridge + Trail
Applicant: SCRP
Investigator(s): J. Valentine

Sample Site No.: 13
Date: 5-22-06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Ammophila			1.		
2. arenaria	100	FACU	2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

_____ % dominant species that are OBL, FACW or FAC (except FAC-) _____ % Bare ground

Remarks: Data point 1 6 feet from trail edge

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
_____ Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Dry - no hydrology indicators. On berm. Data point on upland / wetland edge.

SOILS

Map unit name: Dunelland
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-12"		10YR 3/2	5YR 4/6	Common	Clayey

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present Yes (No)
Hydric soils present (Yes) No
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks: Area dominated by Ammophila is not wetland but below it changes to coastal salt marsh w/ Distichlis and Salicornia.

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J Valerius

Sample Site No.: 14
Date: 7-24-06
Location: Bodega Bay
County: Sonoma
State: CA

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator	Associated Plant Species	% Cover	Indicator
1. Holcus lanatus	85	FAC	1. Some Salicornia		OBL
2. Picris echioides	5	FAC	2. nearby		
3. Lotus corniculatus	10	FAC	3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		

100 % dominant species that are OBL, FACW or FAC (except FAC-) Ø % Bare ground

Remarks:
Dominance of wetland plants - meets Coastal Commission wetland criteria

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
X Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: Appears to be an "upper" marsh area - may be wet during high tide or high flows

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0-12"		10YR 3/2	NONE		Silty / loamy

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
✓ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
✓ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? Yes (No)

Remarks:
No obvious hydrology indicators - appears to be an "upper" marsh area

DATA FORM: ROUTINE WETLAND DETERMINATION (1987 COE Wetlands Delineation Manual)

Project/Site: Cheney Creek
Applicant: SCRP
Investigator(s): J. Valerius

Have vegetation, soils, or hydrology been disturbed? Yes (No)
Is the area a potential Problem Area? Yes (No)

Sample Site No.: 15
Date: 7-24-06
Location: Bodega Bay
County: Sonoma
State: CA

VEGETATION (Note those species observed to have morphological adaptations to wetlands with a *)

Dominant Plant Species	% Cover	Indicator
1. Salicornia virginica	20	OBL
2. Holcus lanatus	30	FAC
3. Frankenia salina	20	FACW+
4. Distichlis spicata	20	FACW
5. Bromus diandrus	10	UPL
6.		
7.		

Associated Plant Species	% Cover	Indicator
1. Baccharis pilularis		UPL
2.		
3.		
4.		
5.		
6.		
7.		

_____ % dominant species that are OBL, FACW or FAC (except FAC-) Ø % Bare ground

Remarks: Dominance of wetland plants

HYDROLOGY

Recorded data (describe in remarks):
_____ Stream, lake, or tide gage; _____ Aerial photograph;
_____ Other;
_____ No recorded data available.

Field observations:
Depth of surface water: — (in.)
Depth of free water in pit: — (in.)
Depth to saturated soil: — (in.)

Wetland hydrology indicators:
_____ Inundated
_____ Water marks
_____ Sediment deposits
_____ Drift Lines
_____ Water-stained leaves
— Other (explain in remarks)
_____ Saturated in upper 12"
_____ Local soil survey data
_____ Drainage patterns in wetlands
_____ Oxidixed root channels in upper 12"

Physiographic position of site/Remarks: No obvious hydrology — may be a water table or high tide area?

SOILS

Map unit name: Tidal Marsh
Taxonomy (subgroup):
Drainage class:
Field observations confirm mapped soil series? Yes No

Depth (inches)	Horizon	Matrix Color (moist)	Redoximorphic Colors (moist)	Abundance/Contrast	Additional observations (texture, concretions, porosity, etc.)
0 – 12"		10YR3/2	—	—	loamy

Hydrolic Soil Indicators:
_____ Histosol
_____ Reducing conditions
_____ High organic content in surface layer
_____ Listed on national hydric soils list
_____ Histic epipedon
_____ Gleyed or low-chroma colors
_____ Organic streaking
_____ Sulfidic odor
_____ Probable aquic moisture regime
_____ Concretions
_____ Listed on local hydric soils list
_____ Other (explain in remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic vegetation present (Yes) No
Hydric soils present Yes (No)
Wetland hydrology present Yes (No)

Is this sampling within a wetland? (Yes) ? No

Remarks: Meets Coastal Commission criteria w/ dominance of wetland plants

Appendix D

Wildlife Report

HABITAT ASSESSMENT

Cheney Creek Bridge
Sonoma County, California

December 11, 2006

Prepared for:

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SUMMARY

This report details the results of a wildlife habitat assessment conducted of the proposed approximately 1.55 acres (67,700 square feet) project area that encompaases the 0.31 mile trail proposed at the Bird Walk Coastal Access Trail and Doran Beach Regional Park, located south of Bodega Head, in Sonoma County. The proposed project is to create a northern trail extension of the current Bird Walk Coastal Access Trail, and a bridge crossing at Cheney Creek that will connect with a new formal trail on the south of Cheney Creek as the proposed Doran Marsh Trail. In order to comply with California Environmental Quality Act regulations, this habitat assessment was conducted to identify existing wildlife habitats on-site and discuss potential impacts to special-status animal species from the proposed project. Mitigation measures to reduce the potential impacts to less than significant are also provided.

Trish Tatarian of Wildlife Research Associates conducted this habitat assessment of the proposed trails and bridge placement. No focused surveys for animals were conducted. Five wildlife habitats occur on-site; non-native grasslands coyote brush scrub, saltmarsh/mudflat, willow scrub and aquatic features. Cheney Creek contains brackish water at the crossing.

The following potential impacts are addressed in this report:

- A total of 36 special-status animal species have potential to occur in the region of the site. Of these 36 species, 8 have some potential to occur within or adjacent to the project area.
- Nesting shorebirds may use the saltmarsh mudflats adjacent to the project area for nesting and may be disturbed during construction, if it is to occur between February 1 and August 31.
- Nesting passerines may use the ruderal grasslands, shrubs and willows adjacent to the project area and may be disturbed during construction, if it is to occur between February 1 and August 31.
- Tidewater goby occur in Cheney Creek and construction during the fry season may impact this species.
- No suitable habitat for the black rail occurs within or adjacent to the proposed project.

All of these impacts can be reduced to less than significant with the mitigation measures proposed in this report.

1.0 INTRODUCTION

Wildlife Research Associates conducted a habitat assessment of the proposed approximately 1.55 acres (67,700 square feet) Cheney Creek bridge project area that encompases the 0.31-mile trail that is located approximately one mile south of the Town of Bodega Bay on Highway 1, in Sonoma County, California (Figure 1). Access to the project site is from the Bird Walk Coastal Access Trail (BWCAT) and the Doran Marsh Trail (DMT), located in the Doran Beach Regional Park (DBRP), situated on the west side of Highway 1. The Bird Walk Coastal Access Trail, a one-mile, multi-use loop-trail, encircles two disposal ponds that are enclosed by levees that are 26 feet above mean low water and 10 feet wide on top. Doran Beach Regional Park and the Pacific Ocean form the southern and western boundaries, and the Bodega Bay Public Utility District treatment facility is located on the southeast side of the project site.

The proposed project entails the connection and enhancement of the existing BWCAT (APN 100-130-006) and DBRP (APN 100-130-001 and 100-130-005) with a bridge crossing at Cheney Creek, which runs between the two trails. The proposed BWCAT extension will be approximately 340-foot in length that will include a 1-3 foot high retaining wall and a 42-inch high handrail. The proposed trail extension, with a width of 8-feet, will connect to the current 10-foot wide multi-use trail approximately 450 feet west of the trail head. The DBRP, located on the south side of Cheney Creek, will be improved to a width of eight feet for approximately 1,314 feet in length, and surfaced with crushed rock using the same specifications as the BWCAT extension, as described in the Sonoma County Regional Parks Cheney Creek Bridge and Trail Project description (Sonoma County Regional Parks 2006).

The bridge installed over Cheney Creek will be of prefabricated metal, approximately 110-feet long by 8-feet wide, with a 42-inch high safety railing. The abutments will be placed on the top of bank and no dewatering is planned for the construction. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55-feet. These pilings will be driven into the ground using a vibration hammer. Noise generated by this type of construction is generally around 180 decibels.

Approximately 1.55 acres (67,700 square feet) will be disturbed at three different staging areas, with approximately 22, 200 ft^2 at the BWCAT (Staging Area 1), approximately 22, 000 ft^2 at the south bridge landing on the DMT (Staging Area 2) and 23, 500 ft^2 at the BWCAT parking lot (Staging Area 3). Concrete construction will follow the California Department of Transportation's Construction Site Best Management Practices Manual guidelines. Delivery of the bridge to the project site, in two 55 foot sections, will be accomplished using a standard Semi-truck trailer. Based on the overall size of the bridge, it is not anticipated that highway transportation permits or notification will be needed for delivery.

This habitat evaluation presents a discussion of the existing wildlife habitats on-site, potentially occurring special-status animal species on-site, as well as a discussion on potential impacts and mitigation measures to prevent "take" of individuals.

2.0 METHODS

Information on special-status animal species was compiled through a review of the California Natural Diversity Data Base (CNDDB 2006) for the Bodega Head and Valley Ford 7.5-minute topographic quadrangle, the CDFG's *Special Animals List* (CDFG 2006), *State and Federally Listed Endangered and Threatened Animals of California* (CDFG 2006) and the USFWS list of special-status animals for the same topographic quadrangle (USFWS 2006).

Trish Tatarian met with Pamela Higgins, Sonoma County Regional Parks, and conducted a site visit on July 24, 2006. The reconnaissance-level site visit was intended only as an initial evaluation of on-site and adjacent habitat types. No focused surveys for special-status wildlife species were conducted as part of this assessment.

Reports reviewed for this assessment include the *Cheney Creek Bridge and Trail Project Description* (Sonoma County Regional Parks 2006), aerial photos of the Cheney Creek Bridge Project (Sonoma County Regional Parks 2006) and the *Black Rail Surveys at Doran Park* (Avocet Research Associates 2002).

3.0 EXISTING CONDITIONS

The 1.55 acre project area is located within the North Coast Bioregion and is delineated by the Pacific Ocean on the west and the Klamath Bioregion on the east (Welsh 1994). Located between central Sonoma County south to San Luis Obispo County, the North Coast Bioregion consists of those lands west of the highest ridgeline dividing areas that drain directly into the Pacific Ocean from those areas that drain toward the interior. Habitats within this bioregion include both mesic (moist) habitats, such as freshwater marsh and coastal redwood forests, and xeric (dry) habitats, such as chaparral, and are typical of a Mediterranean type climate. Saltmarsh, estuarine and marine habitats are also included in this bioregion. Annual winter precipitation has averaged 40 inches over the past 200 years (Welsh 1994).

The Cheney Creek Bridge project area is located on the south side of the Bodega Harbor, on the northeast side of Doran Beach, at the western portion of the confluence of Cheney Creek and Brooks Gulch. The parcel ranges in elevation between 4 feet at the edge of Cheney Creek to 29 feet at the top of the BWCAT. The polygon-shaped project area is located within an unsection portion of the Bodega Head 7.5-minute topographic quadrangle, within Township 6N and Range 11W.

Along the proposed BWCAT extension, a mixture of non-native grasslands, coyote brush scrub and ruderal habitat occurs (Figures 2-4).

Habitats within the proposed DMT include California wax myrtle trees located at the western edge of the trail, non-native grasslands along the majority of the proposed trail with adjacent saltmarsh habitat, and willow scrub habitat located to the east of Staging Area 2 (Figures 5 and 6). The non-native grasslands became established on the higher elevation fill area that once supported a pipeline (Higgins, pers. com 2006). The saltmarsh habitat occurs on either side of the proposed DMT and is a transitional habitat that occurs along the margins of bays, lagoons and estuaries that are sheltered from excessive wave action. The lower margin of the community is exposed every 24 hours to tidal action, while the upper margin is exposed to tidal action infrequently and for short periods of time. The upper part of estuaries typically grade into brackish and freshwater marshes.

3.1 WILDLIFE HABITATS

The value of a site to wildlife is influenced by a combination of the physical and biological features of the immediate environment. Species diversity is a function of diversity of abiotic and biotic conditions and is greatly affected by human use of the land. The wildlife habitat quality of an area, therefore, is ultimately determined by the type, size, and diversity of vegetation communities present and their degree of disturbance. Wildlife habitats are typically distinguished by vegetation type, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of the wildlife species supported by the on-site habitats, as described by *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1989). The interface between habitats on site provides several edges, such as saltmarsh and coyote scrub, which allows species to forage in the open and use the shrub and trees for cover and increases the number of species potentially occurring on a site.

***Non-Native Grassland*:** In general, grassland habitat, including both native and non-native grasslands, attracts reptiles such as western fence lizard (*Sceloporus occidentalis*), which feed on invertebrates found within and beneath structures on the ground, such as fallen branches. This habitat also attracts avian seed-eating and insect-eating species of birds and mammals. California quail (*Callipepla californica*) are seed-eaters that nest and forage in grasslands. Insect-eaters such as scrub jays (*Aphelocoma coerulescens*) and

mourning dove (*Zenaidura macroura*) use the habitat for foraging only. Mammals common in this habitat are meadow vole (*Microtus californicus*) and Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*) that may forage on invertebrates, as well as striped skunk (*Mephitis mephitis*) and gray fox (*Urocyon cinereoargenteus*). Small rodents attract coyotes (*Canis latrans*) and raptors (birds of prey) such as barn owls (*Tyto alba*), which hunt at night, as well as day-hunting raptors such as red-tailed hawks (*Buteo jamaicensis*) and red-shouldered hawks (*Buteo lineatus*), among others.

Coyote Brush Scrub: The coyote bushes on the site may provide refuge and nesting habitat for California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), American goldfinch (*Carduelis tristis*), white-crowned sparrow (*Zonotrichia leucophrys*) and song sparrow (*Melospiza melodia*), among others.

Salt Marsh/Mudflat: Elevational gradients, from lower saline sites to higher brackish sites, determine the species of animals found within this habitat. For example, cordgrass, pickleweed, jumea, California seablite, arrowgrass, grow in the lower regions of the marsh which attracts shorebirds and rails, with tule bulrush, common cattail, and coast carex growing in the upper regions of the marsh attracting passerines (perching birds) and mammals. Species occurring within the salt marsh habitat include endemic bird species, of which some are listed as endangered, such as California black rail (*Laterallus jamaicensis coturniculus*), because of their restriction to salt marshes. Other sensitive species using this habitat for foraging include northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*) and peregrine falcon (*Falco peregrinus*). Common avian species, such as great blue herons (*Ardea herodias*), great egrets (*Ardea alba*) and snowy egrets (*Egretta thula*), use the salt marsh for foraging while nesting in nearby tall trees. Several herons and egrets were observed in the cypress trees adjacent to the sanitation ponds. Shorebirds, such as black-necked stilts (*Himantopus mexicanus*), willets (*Catoptrophorus semipalmatus*) and American avocet (*Recurvirostra americana*), use the mudflats adjacent to salt marshes for foraging on crustaceans and arthropods. Up to 36 different species of waterfowl use saltmarshes for feeding and resting during the winter and spring migrations along the Pacific Flyway. Common mammals species using the saltmarsh include shrews (XXX), bats (*Myotis* sp.), and raccoons (*Procyon lotor*). Feral cats (*Felis domesticus*) and red fox (*Vulpes vulpes*), both non-native species, have become a recent threat to mammalian and avian species using salt marshes and other wetlands.

Willow Scrub: Willow scrub provides foraging, nesting and refuge cover for a variety of species. Avian species benefit by this habitat because of the shelter provided by the dense leaves and branches. Species potentially using this habitat within the project area include common yellowthroat (*Geothlypis trichas*), Wilson's warbler (*Wilsonia pusilla*), Anna's hummingbird (*Calypte anna*) and song sparrow, among others.

Aquatic Features: Cheney Creek, within the portion of the proposed project, is brackish and supports tidewater goby (*Eucyclogobius newberryi*), threespine stickleback (*Gasterosteus aculeatus*), and prickly sculpin (*Cottus asper*), among others. The tidal action of the creek provides similar habitat as the saltmarsh/mudflat habitat.

3.2 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement includes migration (*i.e.*, usually one way per season), inter-population movement (*i.e.*, long-term genetic flow) and small travel pathways (*i.e.*, daily movement corridors within an animal's territory) (McCullough 1996). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow between populations.

These linkages between habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement between populations located in discrete areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a

large single population, often referred to as a meta-population. Even where patches of pristine habitat are fragmented, using, as an example, coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation and, if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

Movement corridors within the project area include the established trails and the roadways along the parks. The addition of a bridge across Cheney Creek will not increase the number of species moving through the areas, as trails linking the DMT and the BWCAT via Highway 1 were observed during the field reconnaissance survey.

4.0 SPECIAL-STATUS BIOLOGICAL RESOURCES

4.1 SPECIAL-STATUS ANIMAL SPECIES

Special-status animal species include those protected under the Federal Endangered Species Act (FESA), the California Endangered Species Act (CESA) and Section 15380(d) of the California Environmental Quality Act (CEQA). The U.S. Fish and Wildlife Service (USFWS) officially lists species as either Threatened, Endangered, or as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act *(e.g.*, bald eagle, golden eagle), and the Migratory Bird Treaty Act (MBTA), which protects al nesting bird species. In addition, many other species are considered by the CDFG to be Special Concern species; these are listed in Remsen (1988), Williams (1986), and Jennings and Hayes (1994). Although such species are afforded no official legal status, they may receive special consideration during the planning stages of certain development projects. The CDFG further classifies some species under the following categories: "fully protected", "protected fur-bearer", "protected amphibian", and "protected reptile". The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFG; "fully protected" indicates that a species can be taken for scientific purposes by permit only. Raptors, and birds in general, fall under California Code 3503 and 3503.5, which prohibits the taking or destroying of nest or eggs of any bird and prohibits the taking or destroying of any bird or nest in the order of Falconiformes (falcons, kites, and hawks) and Strigiformes (owls).

A total of 16 special-status animal species have been recorded in the region and an additional 20 species may occur in the region based on the habitats present. A complete list of wildlife species, including their potential to occur on site, their legal status and habitat affinities, is included in Table 1. Of these 36 species, 8 are considered to have some potential to occur on or near the site, based on habitats present, proximity of known populations within the region and/or their observed presence on site.

Table 1: Special-Status Species Potentially Occurring in the Proposed Project Area

Common Name Scientific Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Invertebrates			
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	The adult flight period is late February to mid-April, with the peak flight period occurring in March and early April. Eggs are laid in small clusters or strings on the upper or lower surface of broadleaf stonecrop (*Sedum spathulifolium*).	None: No suitable habitat present. No stonecrop species present.
Globose dune beetle *Coelus globosus*	FSC	Fore dunes, sand hummocks, sometimes back dunes along immediate coast. Larvae and pupae spend most of the time in the sand. The larvae can also be found under vegetation or debris.	None: No suitable habitat present.

Common Name Scientific Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
monarch butterfly *Danaus plexippus*	-/*	Roosts during winter migration in dense stands of large trees such as eucalyptus and Monterey pines that provide shelter from the wind. Roosts in groves close to nectar and water sources.	None: No suitable habitat present.
Ricksecker's water scavenger beetle *Hydrochara rickseckeri*	SC/-	This aquatic species has been recorded in lakes, lagoons and vernal pools. Members of this Family (Hydrophilidae) are scavengers whose larvae are predaceous. Nothing is known about the habits specific to this taxon.	None: No suitable habitat present.
Bumblebee scarab beetle *Lichnanthe ursina*	FSC	Sand dunes along outer coast.	None: No suitable habitat present.
Myrtles silverspot butterfly *Speyeria zerene myrtleae*	FE	Restricted to the foggy, coastal prairie, and coastal bluff scrub of the Point Reyes peninsula. Larval food plant is *Viola adunca*, with nectar sources of hairy gumweed *(Grindelia hirsutula)*, coastal sand verbena (*Abronia latifolia*), mints (or monardella) (*Monardella* spp.), bull thistle (*Cirsium vulgare*), and seaside fleabane (*Erigeron glaucus*). .	None: No *Viola adunca* larval plants observed. No coastal terrace prairie, or coastal bluff scrub available.
California freshwater shrimp *Syncaris pacifica*	FE/SE	Endemic to Napa, Sonoma and Marin Counties. Occurs in low elevation and low gradient streams with moderate to heavy riparian cover.	None: No suitable habitat present.
Fish			
Tidewater goby *Eucyclogobius newberryi*	FE/CSC	Occurs discontinuously throughout California, ranging from Tillas Slough (mouth of the Smith River) in Del Norte County south to Agua Hedionda Lagoon in San Diego County.	**Present**: Species reported in creek (CNDDB 2006).
Coho salmon - Central California Coast ESU *Oncorhynchus kisutch*	FT/SE	Occurs from Punta Gorda, in northern California, to the San Lorenzo River, in Santa Cruz County, and includes coho salmon populations from several tributaries of San Francisco Bay (e.g., Corte Madera and Mill Valley Creek).	None: No historical records in Cheney Creek.
steelhead - Central California Coast ESU *Onchorhynchus mykiss*	FT/	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Occurs in 3 tributaries to Monterey Bay (Pajaro, Salinas and Carmel Rivers), in the small streams of the Big Sur Coast and small intermittent streams in San Luis Obispo County, south to Point Conception.	**Present**: Species reported in creek (NMFS 2006).
steelhead - Central Valley ESU *Onchorhynchus mykiss*	FT/-	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen	None: No historical records in Cheney Creek.
Chinook salmon *Oncorhynchus tshawytscha*	FT/-	Requires cool, flowing water; clean spawning gravel; clear water to allow sight feeding; pools for resting and feeding, lots of dissolved O2; access to the sea	None: no suitable habitat present.
Chinook salmon California coast – critical habitat	FT	Critical habitat for this ESU occurs from the Klamath River south to the Russian River.	None: Outside the critical habitat designation.
Amphibians			

Common Name Scientific Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
Northern red-legged frog *Rana aurora aurora*		Range occurs from northern Sonoma County to British Columbia. Inhabit perennial and ephemeral streams with quiet waters and dense emergent vegetation.	None: No suitable habitat present.
California red-legged frog *Rana draytonii*	FT/CSC	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland habitat especially during the wet winter months.	None: No suitable habitat present.
Reptiles			
western pond turtle *Emys marmorata marmorata*	SC/CSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying.	None: No suitable habitat present.
Birds			
tricolored blackbird *Agelaius tricolor*	SC/CSC	Nests primarily in dense freshwater marshes with cattail or tules, but also known to nest in upland thistles in paris of 50 or more. Forages in grasslands.	None: No individuals observed near project area.
grasshopper sparrow *Ammodramus savannarum*	SC/-	Typically found in tall, dense grass, nesting on the ground at the base of grass tuft.	None: No suitable habitat present.
golden eagle *Aquila chrysaetos*	MB/CSC/-	Forages in a variety of habitats including grasslands, chaparral and oak woodland supporting abundant mammals. Nests on cliffs and escarpments and tall trees.	None: No suitable habitat present.
Great egret *Ardea alba*	MB/CSC	Nests colonially in large trees near water	None: No suitable habitat present.
Great blue heron *Ardea herodius*	MB/CSC	Nests colonially in large trees near water	None: No suitable habitat present.
Short-eared owl *Asio flammeus*	MB/-	Nests in open areas in grasslands, marshes, or dunes on the ground sheltered by tall grasses, reeds or bushes.	**Low**: Suitable habitat present.
Western snowy plover *Charadrius alexandrinus nivosus*	FT/CSC	Nests typically occur in flat, open areas with sandy or saline substrates. Vegetation and driftwood are usually sparse or absent.	None: No suitable habitat present.
northern harrier *Circus cyaneus*	MB/CSC	Nests and forages in grasslands and open marshland, both salt and fresh. Nests consist of a thin to thick layer of small sticks and reeds, lined with grasses.	**Low**: Suitable habitat present.
Black swift *Cypseloides niger*	FSC/CSC	Nests made of moss bound with mud or simply a cushion of grass or bare mud, are often built on small ledges with overhanging moss or grass near seashore and waterfalls.	None: No suitable habitat present.
American peregrine falcon *Falco peregrinus anatum*	FE, MB/CE	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers or marshes. Forages on shorebirds and small passerines.	None: No suitable habitat present.
saltmarsh common yellowthroat *Geothylps trichas sinuosa*	MB/CSC	Nests in fresh and salt marshes in tall grasses, tule patches and willows and forages in thick, continuous cover down to the water surface.	**Moderate**: Suitable habitat present.

Common Name Scientific Name	Status USFWS/ CDFG	Habitat Affinities and Reported Localities in the Project Area	Occurrence Potential
California black rail *Laterallus jamaicensis coturniculus*	-/ST	Inhabits saltwater, brackish, and freshwater marshes. Known from the San Francisco Bay area and the delta of the Sacramento and San Joaquin rivers south along the coast to northern Baja California and in Yuba County.	None: No suitable habitat present.
long-billed curlew *Numenius americanus*	MB/CSC	Nests at high elevations in grasslands adjacent to lakes or marshes. Winters along the coast on mudflats or in interior valleys in grasslands and agricultural fields.	None: No suitable habitat present.
Osprey *Pandion haliaetus*	-/CSC	Nests in large trees within 15 miles of good fish-producing water body.	None: No suitable habitat present.
Double-crested cormorant *Phalacrocorax auritis*	-/CSC	Nest is a well-made platform of sticks, or of seaweed on the coast, placed in a tree or on a cliff or rocky island. Nests in colonies	None: No suitable habitat present.
black phoebe *Sayornis nigricans*	MB/-	Nests in anthropogenic structures on ledges. Nest made of mud pellets, dry grasses, weed stems, plant fibers and hair.	**High**: suitable nesting habitat present on Bird Walk Trail
rufous hummingbird *Selasphorus rufus*	SC, MB/-	Nests in chaparral, coniferous forest, scrub habitats and riparian habitats. Nests are placed on a downward drooping structure.	**High**: suitable nesting habitat present on Bird Walk Trail
Allen's hummingbird *Selasphorus sasin*	SC, MB/-	Nests in wooded areas, meadows, or thickets along shaded streams, on a branch low down on stem	**High**: suitable nesting habitat present on Bird Walk Trail
California least tern *Sterna antilarum browni*	FE/SE	Nests on sandy open beaches and feeds in shallows of San Francisco Bay.	None: No suitable habitat present.
Mammals			
red tree vole Arborimus pomo	SC/CSC	Inhabits old growth, North Coast coniferous forests, redwood forests, and montane hardwood coniferous forests. Is found in the North Coast fog belt from Oregon to Sonoma County.	None: No suitable habitat present.
American badger *Taxidea taxus*	-/CSC	Inhabits open grasslands, savannas and mountain meadows near timberline. Requires abundant burrowing mammals, their principal food source, and loose, friable soils.	None: No suitable habitat present.

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered
FT = federally listed Threatened
FPE = federally proposed Endangered
FPT = federally proposed Threatened
SC[1] = federally Species of Concern
MB = migratory non-game protected under the Migratory Bird Treaty Act.

CALIFORNIA DEPT. OF FISH AND GAME

CE = California listed Endangered
CT = California listed as Threatened
CPE = California proposed Endangered
CSC = California Special Concern species
CFP =California Fully Protected

The following is a discussion of specific species and groups of species having potential to occur on-site and/or are species that are prominent in today's regulatory environment. This document does not address impacts to species that may occur in the region but for which no habitat occurs on site.

Tidewater goby inhabits lagoons and slow moving areas with pools away from the main current with emergent vegetation and submergent vegetation. Tidewater gobies are uniquely adapted to coastal lagoons and the uppermost brackish zone of larger estuaries, rarely invading marine or freshwater habitats. The species is typically found in water less than 1 meter (3.3 feet) deep and salinities of less than 12 parts per thousand. Tidewater gobies spawn in coarse sand in fresh and brackish water.

The Greater Bay Recovery Unit for tidewater goby extends from Salmon Creek just north of Bodega Head in Sonoma County to the Salinas River Valley in Monterey County. Within the Greater Bay Unit is Sub-Unit B1 which is located immediately north of Bodega Head and includes Salmon Creek.

Tidewater goby has been reported from Cheney Creek (CNDDB 2006). The bridge and abutments will be located in upland habitat and beyond the top of bank and therefore no loss of habitat will occur from the proposed project.

California black rail occupies tidal and freshwater marshes in coastal California between Bodega Bay and Morro Bay and inland at the Salton Sea and lower Colorado River. The California black rail is a year-round resident in the state, and only short migrations have been recorded between breeding and non-breeding habitats. It occupies saltwater and freshwater marshes and sloughs and is most abundant in tidal marshes near the high-tide level (Evens, et al. 1991). Access to well-vegetated upland areas for refuge during high tides may be an essential habitat component. Nesting habitat generally consists of a dense cover of pickleweed, bulrush, saltgrass and/or cattails (CDFG 1992).

Black rail has been reported previously in Doran Regional Park (Evens 2002). However, suitable habitat occurs along the eastern portion of the marsh at the base of the bluffs, located approximately 1,600 feet to the southeast, outside the project area (Evens 2002).

Saltmarsh yellowthroat is a resident of the San Francisco Bay marshes, inhabiting both salt and freshwater marshes in the summer (Grinnell 1944) and only salt marshes during the fall and winter. Tall grasses, tule patches and willow thickets are used during the breeding season for nesting, where the insectivorous bird gleans grasshoppers, caterpillars, and spiders off the branches and grasses. Both foraging and nesting grounds are within 10 feet of the ground. Grinnell noted nesting occurrences around the sloughs of the bay from southern Sonoma County down to San Jose and winter occurrences in the coastal marshes from the San Francisco Bay region down to San Diego (Grinnell 1944).

No saltmarsh yellowthroat were detected in Doran Regional Park during surreys conducted in 2002 (Evens 2002). However, there is a moderate potential that this species could nest in the willows located to the east of Staging Area 2.

Nesting Passerines: As stated previously, passerines protected under the MBTA and California Code 3503 have potential to nest within the proposed project area. Bird species nesting adjacent to the BWCAT and the DMT, include Anna's hummingbird, Allen's hummingbird, song sparrow, and Bewick's wren, among others. The potential for passerines to nest in the project area along the DMT and east of Staging Area 2 and associated habitats is high.

5.0 SIGNIFICANCE CRITERIA

CEQA Guidelines Sections 15206 and 15380, described below, were also used to determine impact significance. Impacts are generally considered less than significant if the habitats and species affected are

common and widespread in the region and the state. A species may be treated as rare or endangered even if it has not been listed under CESA or FESA. Species are designated endangered when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, disease or other factors.

This document provides an evaluation for the potential of the project to "take" individual species, which includes harm, harass and kill. Three principal components were considered when evaluating the potential for impacts to special status biological resources:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

Any evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state or federally listed species (a rarity) would be considered significant because the species is at a low population level and is presumed to be susceptible to disturbance (sensitivity) and may abandon the breeding site. Conversely, a common habitat such as non-native grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of acreage) would be required for it to be considered a significant impact.

6.0 IMPACT AND MITIGATION MEASURES

This section summarizes the potential temporary and permanent biological impacts from construction activities. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal experience with biological resources of the region. Potential impacts to special-status biotic resources, namely special-status animal species may occur from the proposed project. Mitigation for these biological impacts to avoid adverse effects on the environment, are provided below.

Impact 6.1. Although the bridge footings will be placed outside the top of banks to the Cheney Creek potential impacts from the proposed project include sedimentation from trail creation and footings excavation. This could potentially harm or harass tidewater goby and other fish along Cheney Creek.

Mitigation Measure 6.1.1. A Storm Water Pollution Prevention Plan shall be created and approved by the County prior to construction.

Mitigation Measure 6.1.2. Conduct a Mandatory Contractor/Worker Environmental Awareness Training identifying sensitive resources on the site and measures to prevent take of individuals and habitat.

Mitigation Measure 6.1.3. Prior to the creation of the staging area, a construction barrier fence consisting of black silt fence shall be placed on the north and south side of the trail to prevent sediment falling into the mouth of Cheney Creek. The fence shall be placed along a parallel route to the trail under direction of a qualified biologist to prevent take of the saltmarsh habitat, a Sensitive Biological Resource. The fence shall either be buried 4 inches below grade using a ditch witch, or placed by hand with the lower portion of the fence creating an apron along the ground on the trail side of the fence, with dirt piled on top of the fence apron.

Mitigation Measure 6.1.4. Daily monitoring of the fence shall be conducted by an on-site biological monitor to ensure the integrity of the fence.

Mitigation Measure 6.1.5. The fence shall be maintained in place during the first year rainy season and removed after the last rains of the spring or until vegetation has become established. Notification of the daily fence monitoring and fence removal shall be sent to Sonoma County Regional Parks.

Mitigation Measure 6.1.6. The staging areas shall be black silt fenced twice around the perimeter to prevent accidental spills. The following high-risk, waste-generating activities shall not be permitted in the staging areas:

-Fueling of any vehicles or portable generators
-Vehicle/equipment washing and maintenance areas
-Above-ground tanks for liquid storage
-Industrial waste management areas (landfills, waste piles, treatment plants, disposal areas)

Mitigation Measure 6.1.7. Use drip pans or absorbent pads during vehicle and equipment maintenance, cleaning, fueling, and storage.

Mitigation Measure 6.1.8. Spill kits and cleanup materials shall be available at all locations of pile driving.

Mitigation Measure 6.1.9. Keep equipment that is to be used leak free and inspect for leaks and spills on a daily basis.

Mitigation Measure 6.1.10. Park equipment over drip pans of absorbent pads. If unavailable, plastic sheeting will be used as a last resort. The storage or use of equipment at Staging Area 2 shall comply with all applicable permits.

Mitigation Measure 6.1.11. When not in use, store pile driving equipment away from concentrated flows of storm water, drainage courses, and inlets. Protect hammers and other hydraulic attachments from run-on by placing them on plywood and covering them with plastic or a comparable material prior to the onset of rain.

Mitigation Measure 6.1.12. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Precautions shall be taken to avoid damage to vegetation by people or equipment. Disturbed vegetation shall be replaced with the appropriate soil stabilization measures.

Impact 6.2. Although the bridge footings will be placed outside the top of bank to Cheney Creek, potential impacts from the proposed project include vibration of the surrounding area from the placement of the metal and concrete footings. This could potential harm or harass tidewater goby and other fish along Cheney Creek.

Mitigation Measure 6.2.1. To prevent take of individuals, the portion of the project that includes vibration from footing placement shall only occur between July 1 and September 30.

Mitigation Measure 6.2.2. If construction must occur before July 1 then concurrence form the USFWS must be obtained before starting work.

Mitigation Measure 6.2.3. After concurrence from the Service for construction to occur before July 1, then excavation of the proposed footings shall occur at low tide, so the daily disturbance will begin when fewer individual fish are present in the creek. If fish decide to move into the creek adjacent to the construction area then they will be able habituate to the disturbance.

Impact 6.3. There is a high potential for nesting passerines to occur within the project area along the BWCAT and DMT. Noise disturbance during the nesting period (February 1 and August 15, approximately)

of these species within 100 feet of its nest may result in nest abandonment and "take" of young. To avoid "take" of nesting passerines, the following measures are recommended:

Mitigation Measure 6.3.1. Grading/construction within the grasslands or removal of trees should be conducted outside the nesting season.

Mitigation Measure 6.3.2. If grading/construction within potential nesting areas are not feasible outside of the nesting season, a nesting bird survey shall be performed by a qualified biologist prior to grading. This pre-construction survey shall be conducted no more than one week prior to planned grading activity.

Mitigation Measure 6.3.3. If no nesting birds are observed no further action is required and grading/construction may proceed, provided it commences within one week of the survey to prevent "take" of individual birds that may have begun nesting after the survey.

Mitigation Measure 6.3.4. If nesting birds with eggs or young are observed during the pre-construction surveys, grading in the affected project area shall not commence within 100 feet of the occupied nest until after the young have fledged.

Mitigation Measure 6.3.5. The CDFG Central Coast Regional office does allow grading to occur if nesting birds are observed on site, providing that a 100-foot buffer zone is created around the observed nest. Because nests may occur in the middle of the grading area, this method is not advised.

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PERSONAL COMMUNICATION

LOGAN, D. NATIONAL MARINE FISHERIES SERVICE, FISHERIES BIOLOGIST. PERSONAL COMMUNICATION WITH TRISH TATARIAN JULY 17 AUGUST 11.

FIGURE 1: SITE LOCATION

SITE PHOTOGRAPHS

Figure 2. Looking east along existing BWCAT.

Figure 3. Looking west along existing BWCAT.

Figure 4. Location of proposed trail, north side.

Figure 5. Cheney Creek looking west.

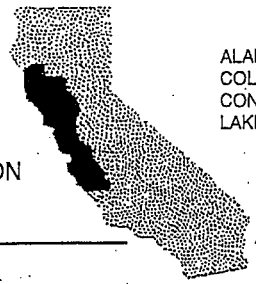
Figure 6. Location of proposed trail, south side.

Appendix E

Cultural Resources Records Search

COPY

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM



ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
1303 Maurice Avenue
Rohnert Park, California 94928-3609
Tel: 707.664.0880 • Fax: 707.664.0890
E-mail: leigh.jordan@sonoma.edu

INFORMATION CENTER ACCESS AGREEMENT **FILE NO.:** 05-629

I, the undersigned, have been granted access to historical resources data on file at the Northwest Information Center (NWIC) of the Historical Resources Information System, for the purpose of 1. Project Planning Review XX, 2. Scientific Research_____, 3. Other(specify)_____.

I understand that all access fees charged for in-person use or services provided by the Information Center Staff are subject to a one hour minimum charge, thereafter increased by the half hour increments, and that payment must be remitted within *thirty days of billing.*

I understand that any confidential information that I access at the NWIC must remain out of the public domain, except in those circumstances which may be required by law. I fully understand the confidential nature of this information and I agree to respect that confidentiality. I will attempt to ensure that specific site locations are not distributed in public documents or made available to unauthorized individuals within my institution or agency. I also understand that prior written consent of the Information Center Coordinator or the State Historic Preservation Officer is required for any exceptions to the above stipulations.

I agree to forward to Northwest Information Center, no later than 30 after completion of a final version of any report(s) and/or site record(s) resulting from access to the NWIC database for this project. I also agree to forward to the Northwest Information Center any subsequent reports or records for which I am responsible.

Failure to comply with above agreement is grounds for denial of access to the historical resources data on file at the Northwest Information Center.

*** PLEASE SIGN AND RETURN THIS FORM. SEE ATTACHED INVOICE ***

Pamela Higgins _____ **DATE:** _____
Printed Name/Signature of Researcher
Affiliation: Sonoma County Regional Parks
Address: 2300 County Center Drive, Suite 120A, Santa Rosa, CA 95403
Phone: 707-565-2383 FAX: 707-579-8247
Contact person/agency for which work conducted: _____
Address: _____
Telephone: _____ FAX: _____
Project: Cheney Creek Bridge and Trail Project
County: Sonoma
Map: Bodega Head, Calif. 7.5'
COMMENTS:

---------- **STAFF USE ONLY** ----------

Date request rec'd: Mail 1/25/06 Phone _____ Fax _____ In person _____
Date of response: Mail 2/6/06 Phone _____ Fax _____ In person _____

CHECK IN: _____ CHECK OUT: _____

Staff processing:	2.5	hour(s) @ $120/hour	$ 300.00
In person research:	_____	hour(s) @ $ 80/hour/person	$ _____
Xerox/Computer Search:	_____	page(s) @ $ 0.15/page	$ _____
Labor Charge:	_____	hour(s) @ $ 30.00/hour	$ _____
Fax @ $10 minimum charge for up to 10 pages, $1/page thereafter:			$ _____
Other:			$ _____
		SUBTOTAL	$ 300.00
Rapid Response surcharge of 50% of total cost:		SURCHARGE	$ _____

Bryan Much
Information Center Staff

Invoice # N8354 TOTAL $ 300.00
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CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLARA
SANTA CRUZ
SOLANO
SONOMA
YOLO

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February 6, 2006

NWIC File No.: 05-629

Pamela Higgins
Sonoma County Regional Parks
2300 County Center Drive
Suite 120A
Santa Rosa, CA 95403

Re: Record search results for the proposed Cheney Creek Bridge and Trail Project.

Dear Ms. Higgins:

Per your request received by our office on January 25, 2006, a records search was conducted for the above referenced project by reviewing pertinent Northwest Information Center (NWIC) data maps, historic-period maps, and literature for Sonoma County on file at this office. Review of this information indicates that the proposed project area contains no recorded Native American or historic-period archaeological resources; however, numerous archaeological resources have been recorded in the general vicinity of the proposed project area. This office has no record an archaeological study of the project area; however, S-9163 (King 1973), the National Register (NR) nomination form for Bodega Bay and Harbor, does include the proposed project in its overview. State and federal inventories list the proposed project area to be within the Bodega Bay and Harbor District (4923-0009-9999), which has a status code of 1S, meaning it is an individual property listed in the NR and the California Register (CR)for its archaeological and historical significance. The Bodega Bay and Harbor is also designated as State Historic Landmark #833. The Office of Historic Preservation Historic Properties Directory also lists the Bodega Port (4923-0011-9999) with a status code of 7, meaning it has not been evaluated for NR or CR listing.

At the time of Euroamerican contact the Native Americans that lived in the area were speakers of the Bodega dialect of the Coast Miwok language, part of the Penutian language family (Kelly 1978:414). There are two Native American resources in or adjacent to the proposed project area referenced in the ethnographic literature. *Himetagalal,* located to the east of the proposed project area, is described as a old village site (Barrett 1908:304 and Kelly 1978:415), and is referenced in Kelly's notes as "Mudhens taken just below village site of *himetagala*" (Collier and Thalman 1996:8). Kelly's notes describe *potopoto*, "...the name of the place where Cheney's house is, said medicinal grass gathered there", as being located in the vicinity of the proposed project area (Collier and Thalman 1996:12).

Based on an evaluation of the environmental setting and features associated with known sites, Native American cultural resources in this part of Sonoma County have

been found on coastal terraces or bluffs, near watercourses, and along the margins of lagoons and sloughs. The Cheney Creek Bridge and Trail Project area located along the southeastern margin of Bodega Harbor encompasses areas marginal to and including wetlands and sand dunes. Given the similarity of these environmental factors, along with the archaeological and ethnographic sensitivity of the area, there is a moderately high likelihood that unrecorded Native American cultural resources exist in the proposed project area.

Review of historical literature and maps indicated the possibility additional historic-period archaeological resources within the project area. The 1877 Thompson and West Atlas of Sonoma County indicates the presence of Bodega Port in the vicinity of the mouth of Cheney Gulch Creek. The significance statement associated with the Bodega Port Historic Resources Inventory form describes the Port as "...located on the east shore of Bodega Harbor and the south side of Cheney Gulch Creek...The first warehouse at the Port was built by Captain Smith in 1848...By 1880, nearly all buildings are gone, one warehouse and part of another still remain...Related to this site is the nearby Seaman's cemetery where Captain Stephen Smith set aside land to bury sailors...Today nothing visible remains of the port or cemetery". Additionally, the California State Lands Commission Shipwrecks index list several reported shipwrecks in and around Bodega Harbor; however, precise location information is not available. With this in mind, there is a moderate possibility of identifying historic-period archaeological resources.

RECOMMENDATIONS:

1) There is a moderately high possibility of identifying Native American sites and a moderate possibility of identifying historic-period archaeological resources in the project area. We recommend a qualified archaeologist conduct further archival and field study to identify cultural resources. Field study may include, but is not limited to, pedestrian survey, auguring, monitoring construction activities as well as other common methods used to identify the presence of archaeological resources.

2) Review for possible historic structures has included only those sources listed in the attached bibliography and should not be considered comprehensive. The Office of Historic Preservation has determined that buildings, structures, and objects 45 years or older may be of historical value. ***The area of potential effect contains two listed properties, the Bodega Bay and Harbor District (4923-0009-9999, SHL #833) and Bodega Port (4923-0011-9999); therefore, it is recommended that the agency responsible for Section 106 compliance consult with the Office of Historic Preservation regarding potential impacts to these properties.***

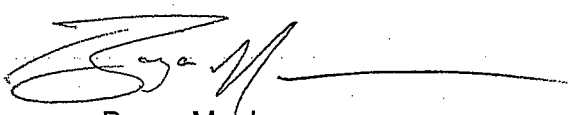
Project Review and Compliance Unit
Office of Historic Preservation
P.O. Box 942896
Sacramento, CA 94296-0001
(916) 653-6624

3) If cultural resources are encountered **during the project,** avoid altering the materials and their context until a cultural resource consultant has evaluated the situation. Project personnel should not collect cultural resources. Prehistoric resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

4) It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the Office of Historic Preservation's website: http://ohp.parks.ca.gov/default.asp?page_id=1069.

Thank you for using our services. Please contact this office if you have any questions, (707) 664-0880.

Sincerely,



Bryan Much
Researcher I

LITERATURE REVIEWED

In addition to archaeological maps and site records on file at the Northwest Information Center of the Historical Resources File System, the following literature was reviewed:

Barrett, S.A.
1908 *The Ethno-Geography of the Pomo and Neighboring Indians.* In American Archaeology and Ethnology, vol. 6, edited by Frederic Ward Putnam, pp. 1-332, maps 1-2. University of California Publications, Berkeley. (Reprint by Kraus Reprint Corporation, New York, 1964).

Collier, Mary E. Trumbull and Sylvia Barker Thalman (editors)
1996 *Interviews with Tom Smith and Maria Copa.* MAPOM Occasional Papers, No. 6. San Rafael.

Dickson, A. Bray
1993 *Tomales Township: A History* (edited with added material by Kathie Nuckols Lawson and Lois Randle Parks). Lively Printing, Novato, CA.

Duthie, Jo, Corinne Williams, Nina Bonos, and Don Curry
1981 *Marin County Local Coastal Program Historic Study.* Marin County Comprehsneisve Planning Department.

Fickewirth, Alvin A.
1992 *California Railroads.* Golden West Books, San Marino, CA.

General Land Office
1857 Survey Plat for Rancho Bodega.

Gudde, Erwin G.
1969 *California Place Names: The Origin and Etymology of Current Geographical Names.* Third Edition. University of California Press, Berkeley and Los Angeles.

Hart, James D.
1987 *A Companion to California.* University of California Press, Berkeley and Los Angeles.

Helley, E.J., K.R. Lajoie, W.E. Spangle, and M.L. Blair
1979 *Flatland Deposits of the San Francisco Bay Region - Their Geology and Engineering Properties, and Their Importance to Comprehensive Planning.* Geological Survey Professional Paper 943. United States Geological Survey and Department of Housing and Urban Development.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, revised by William N. Abeloe
1966 *Historic Spots in California.* Third Edition. Stanford University Press, Stanford.

Hoover, Mildred Brooke, Hero Eugene Rensch, and Ethel Rensch, William N. Abeloe, revised by Douglas E. Kyle
1990 *Historic Spots in California.* Fourth Edition. Stanford University Press, Stanford.

Appendix F

Geotechnical Report

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS
POST OFFICE BOX 6172 SANTA ROSA, CA 95406
TELEPHONE (707) 528-3078 FACSIMILE (707) 528-2837

Report
Soil Investigation
Proposed Cheney Gulch Pedestrian Bridge
Doran Beach Regional Park
Bodega Bay, California

Prepared for
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403
Attention: Ken Tam

By

GIBLIN ASSOCIATES
Consulting Geotechnical Engineers

Jeffrey K. Reese
Civil Engineer - No. 47753

Jere A. Giblin
Geotechnical Engineer - No. 339

Job No. 1098.4.1
December 24, 1996

GIBLIN
ASSOCIATES
CONSULTING
GEOTECHNICAL
ENGINEERS

INTRODUCTION

This report presents the results of the soil investigation we performed for the proposed pedestrian bridge to be constructed over Cheney Gulch Creek in Bodega Bay, California. The site is located, in a marsh area of Bodega Bay, just southwest of the Bodega Bay Public Utility District Treatment Facility. We understand the proposed bridge would be a prefabricated structure of welded steel and wood construction and would span about 100 feet. The bridge would provide service for pedestrian and bicycle traffic only, and would provide access to Doran Beach State Park from the bird walk coastal access trail located on top of a dredge disposal fill levee.

The object of our investigation, as outlined in our Professional Services Agreement, was to review selected, published, geologic references in our files, explore subsurface conditions, measure depth to groundwater, if encountered, and determine physical properties of the soils encountered. We then performed engineering analyses to develop conclusions and recommendations concerning:

1. Proximity of the site to active faults
2. Site preparation and grading, if appropriate
3. Foundation support and design criteria
4. Soil engineering drainage
5. Supplemental soil engineering services

WORK PERFORMED

We reviewed selected, published, geologic information in our files including:

1. The "Geologic Map of the Santa Rosa Quadrangle, California," by D. L. Wagner and E. J. Bortugno, California Division of Mines and Geology, 1982.

2. The "Geology for Planning in Sonoma County" maps, Special Report 120, California Division of Mines and Geology, 1980.

3. The Bodega Head Quadrangle Sheet of the Alquist-Priolo Special Studies Zone maps, California Division of Mines and Geology, 1983.

4. "Flood Prone Areas in the San Francisco Bay Region, California," by J. T. Limerinos, K. W. Lee and P. E. Lugo, USGS (Water Resources Investigation, 37-73), 1973.

5. Flood Insurance Rate Map (FIRM) Panel No. 060375-0785C, Maps 1 through 5, September 1983, Federal Emergency Management Agency (FEMA).

6. The "Faults with Quaternary Displacement, Northwestern San Francisco Bay Region, California," by E. J. Helley and D. G. Herd, U.S. Geological Survey, 1977.

On October 30 and November 4, 1996, we were at the site to observe conditions exposed and explore subsurface conditions to the extent of two test borings at the approximate locations indicated on Plate 1. The borings were drilled to depths of about 55 and 57 feet with truck-mounted, rotary-wash equipment. Boring 2 was positioned about 50 to 70 feet northwest of the proposed abutment location because of steep side-slopes and difficult accessibility to the drilling equipment. Our engineer

located the borings, observed the drilling, logged the conditions encountered, and obtained samples for visual classification and laboratory testing. Relatively undisturbed samples were obtained with a 2.5-inch (inside-diameter) split-spoon sampler driven with a 140-pound drop hammer. The stroke during driving was about 30 inches. The blows required to drive the sampler were recorded and converted to equivalent Standard Penetration blow counts for correlation with empirical data. Logs of the borings showing soil classifications, sample depths and converted blow counts are presented on Plates 2 and 3. The soils are classified in accordance with the Unified Soil Classification System explained on Plate 4.

Selected samples were tested in our laboratory to determine moisture content, dry density and classification (percent passing No. 200 sieve) and strength characteristics. The test results are shown on the logs with the strength data shown in the manner described by the Key to Test Data, Plate 4.

The boring locations shown on Plate 1 were determined by visually estimating from existing surface features. The locations should be considered no more accurate than implied by the methods used to establish the data. At the completion of the exploration, both the holes were backfilled.

SURFACE AND SUBSURFACE CONDITIONS

The site is located near the mouth of Cheney Gulch Creek, which outlets into the southern end of Bodega Bay. A levee about 25 feet high has been constructed on the western side of Cheney Creek for containment of dredge disposal materials. The sides of the embankment are inclined at about two horizontal to one vertical (2:1), with a nearly level bench about midway up the slope. Doran Regional Park is located on the east side of Cheney Gulch Creek and south of Bodega Bay. The area east and south of the creek consists of marshlands. The creek channel is about ±25 feet wide, with near-vertical banks about 3 to 4 feet high. The water level in the creek at the bridge location is influenced by tidal activity.

The borings and laboratory tests indicate that the site is underlain by discontinuous layers of sands and gravels with varying amounts of clayey and silty fines. In Boring 1, positioned at the east abutment location, the sandy soils are relatively loose and of low strength to a depth of about 30 feet below the ground surface. In Boring 2, positioned near the west abutment, levee fill materials were encountered to a depth of about 25 feet. The fill materials are underlain by loose sandy soils similar to those in Boring 1 that exhibit low strength to a depth of about 45 feet. Below the loose, upper materials are relatively dense sands and gravels with minor amounts of silty

and clayey fines. The dense sands and gravels exhibit moderate to high strength. Groundwater was observed in Boring 1 at a depth of about 4 feet below the existing ground surface. We believe that groundwater levels vary seasonally and with tidal changes and could rise and fall several feet.

The geologic maps reviewed did not indicate that the site is located within the San Andreas fault zone, with an active trace indicated to lie within a few hundred feet of the proposed bridge site.

CONCLUSIONS

Based on the results of our field exploration, laboratory tests, engineering analyses and our experience with similar soil conditions at nearby sites, we conclude that, from a soil engineering standpoint, the site can be used for the proposed bridge construction. The most significant soil engineering factors that must be considered in design and construction are the presence of existing fills and underlying loose granular soils.

The existing fills, if not properly placed and compacted under soil engineering observation and testing services, could be subject to total and/or differential settlements. Therefore, in the absence of documentation regarding compaction of the fill, we

must conclude that the existing fills would not be suitable for foundation support in their present condition.

Liquefaction, a loss of shear strength, and densification, a reduction in void ratio, are phenomena associated with loose granular soils subjected to strong earthquake shaking. Surface cracking and subsidence can result from soil liquefaction or densification during strong earthquake shaking. Other phenomena associated with strong ground shaking at sites near creek banks are lateral spreading and soil lurching. Lateral spreading is a horizontal slumping generally downslope, and lurching is a virtually instantaneous lateral displacement of a soil mass out of a slope. We have analyzed the soil data from our test borings and laboratory tests in accordance with an empirical method for the prediction of liquefaction potential for sands developed by H. B. Seed and others, published in the Journal of Geotechnical Engineering, American Society of Civil Engineers, dated March 1983. Based on our analysis, we judge that the loose sandy soils at the site could be subject to liquefaction and/or densification and resultant settlement during strong ground shaking. In addition, lateral displacement and/or instability in the levee embankment could occur during strong ground shaking. A stability analysis of the levee embankment is beyond the scope of our investigation. Whether such phenomena would actually occur or not depends on complicated factors such as intensity and duration

of ground shaking at the site and underlying soil and groundwater conditions. If liquefaction or densification were to occur in the site vicinity, we believe that damage to the structure in the form of differential settlement, tilting or sagging could occur. The foundation system recommended herein is intended to reduce potential distress should these phenomena occur.

We have considered several alternatives for foundation support of the proposed pedestrian bridge including spread footings, drilled piers and driven piles. Because of the weak marsh deposits and the potential for liquefaction of the underlying granular soils, we judge that spread footing foundations could experience significant future settlements. To mitigate the potential for significant settlements, we conclude that a deep foundation system would be needed. The foundation would need to bottom into dense underlying gravelly soils below the loose sandy deposits subject to liquefaction. Because the loose sandy soils are relatively deep and the potential for caving during installation of a drilled pier system, we judge that the most suitable alternative for foundation support would be the use of driven piles.

If it is judged that significant total and differential settlement of the bridge can be tolerated, spread footings could be used. We understand that you desire an evaluation of the use of a spread footing foundation. Accordingly, we have calculated

allowable bearing capacities for the underlying soils and computed anticipated settlements based on assumed loading criteria. Based on our analyses, we judge that it would be necessary to underlie footings, if used, with a pad of compacted fill to mitigate the risk of a bearing failure and to reduce anticipated static[1] settlements. Our analysis indicates that, for footings underlain with 6 feet of compacted fill, about 4 inches or more of total settlement could result from static loading conditions. For footings not underlain by fill, our analyses indicates that settlements on the order of about 9 to 12 inches could occur. We judge that if liquefaction were to occur during an earthquake event, settlement of foundations could be significantly greater than discussed above. If it is desired to proceed with the spread footing alternative, we should be consulted to perform additional soil engineering analyses based on actual foundation loads and abutment dimensions.

The site is in a seismically active region, as is all of the Bodega Bay area, and will be subject to severe ground shaking during earthquakes. It will be necessary to design and construct the project in strict accordance with current standards for earthquake-resistant construction.

---

[1] From the weight of the proposed bridge, but not including potential ground shaking effects.

RECOMMENDATIONS

Site Preparation and Grading

Designated brush and trees, if any, should be removed and the roots excavated. Areas to be developed then should be cleared of dense growths of grass and should be stripped of the upper soils containing root growth and organic matter. We anticipate that the depth of stripping will average about 3 inches. The grass and strippings should be removed from the site or stockpiled for use in landscape areas.

Wells, septic tanks or other voids encountered or created should be removed, filled with compacted soil or compacted granular material, or capped with concrete as determined in the field by the soil engineer.

Fills should be placed and compacted in accordance with the criteria outlined in Appendix 33 of the Uniform Building Code, current edition.

If spread footing foundations are desired, footing areas and extending at least 6 feet beyond their perimeter should be overexcavated so as to provide space for at least 6 feet of compacted, crushed rock fill. The crushed rock should be at least 1/4-inch in size, placed in layers no thicker than about 12 inches, and thoroughly compacted with vibratory compaction equipment. Because of the potential for high groundwater, it may be necessary to dewater excavations and/or provide temporary

shoring of excavation walls or slopes. Shoring, if needed, should be provided in conformance with current OSHA regulations.

Foundations

Driven Piles - The bridge structure can be supported on a driven pile foundation gaining support through skin friction. Piles could consist of treated timber, prestressed concrete or steel. Timber piles, if used, should be fully pressure treated for in-ground and seawater use and have a minimum tip diameter of 9 inches.

Piles should be driven with a hammer that develops at least 15,000 foot-pounds of energy per blow. The hammer should be held in-place with fixed leads, and the piles should be a minimum of 55 feet deep and should extend at least 20 feet into firm supporting material below the liquefiable granular soils. The piles should be driven plumb, and the center of the tops should be no more than 3 inches from the design position. Such piles can be designed using an average allowable skin friction value below a depth of 30 feet of 500 pounds per square foot (psf).

Resistance to lateral loads on piles can be obtained from a passive earth pressure of 200 pounds per cubic foot (pcf), assumed to act over two pile diameters. Passive pressure can be calculated from a depth of 2 feet but should be neglected in the upper 8 feet.

Spread Footings - If it is determined that the bridge structure can tolerate the anticipated settlements discussed above, we judge that spread footings could be used. Spread footings must be underlain with at least 6 feet of compacted drainrock fill and bottomed at least 24 inches below lowest adjacent grade. However, the depth of the footing should be adjusted so as to bottom below an imaginary 4:1 line extending up from the bottom of the creek channel. Such footings can be designed to impose dead plus code live load and total design load (including wind or seismic forces) bearing pressures of 1,000 to 1,500 psf, respectively.

Resistance to lateral loads can be obtained from passive earth pressures and soil friction. We recommend the following criteria for design:

Passive Earth Pressure	=	200 pcf, equivalent fluid, neglect the upper 1 foot unless confined by pavement or slab
Soil Friction Factor	=	0.25

Supplemental Services

We should review final grading and foundation plans for conformance with the intent of our recommendations. During site grading operations, if any, we should provide intermittent soil engineering observation and testing. The conditions encountered

should be observed and our recommendations modified, if warranted.

During foundation installations, the soil engineer should be notified to observe footing excavations or pile driving operations to verify that suitable bearing materials are penetrated and to modify our recommendations, if warranted.

LIMITATION

We have performed the investigation and prepared this report in accordance with generally accepted standards of the soil engineering profession. No warranty, either express or implied, is given.

Subsurface conditions are complex and may differ from those indicated by surface features or encountered at test boring locations. Therefore, variations in subsurface conditions not indicated on the boring logs could be encountered. If the project is revised or if conditions different from those described in this report are encountered during construction, we should be notified immediately so that we can take timely action to modify our recommendations, if warranted.

Supplemental services, as recommended herein, are in addition to this investigation and are charged for on an hourly basis in accordance with our Standard Schedule of Charges. Such supplemental services are performed on an as-requested basis. We

can accept no responsibility for items we are not notified to check, nor for use or interpretation by others of the information contained herein.

Site conditions and standards of practice change. Therefore, we should be notified to update this report if construction is not performed within 24 months.

GIBLIN
ASSOCIATES
CONSULTING
GEOTECHNICAL
ENGINEERS

LIST OF PLATES

Plate 1	Test Boring Location Plan and Site Vicinity Map
Plates 2 and 3	Logs of Test Borings 1 and 2
Plate 4	Soil Classification Chart and Key to Test Data

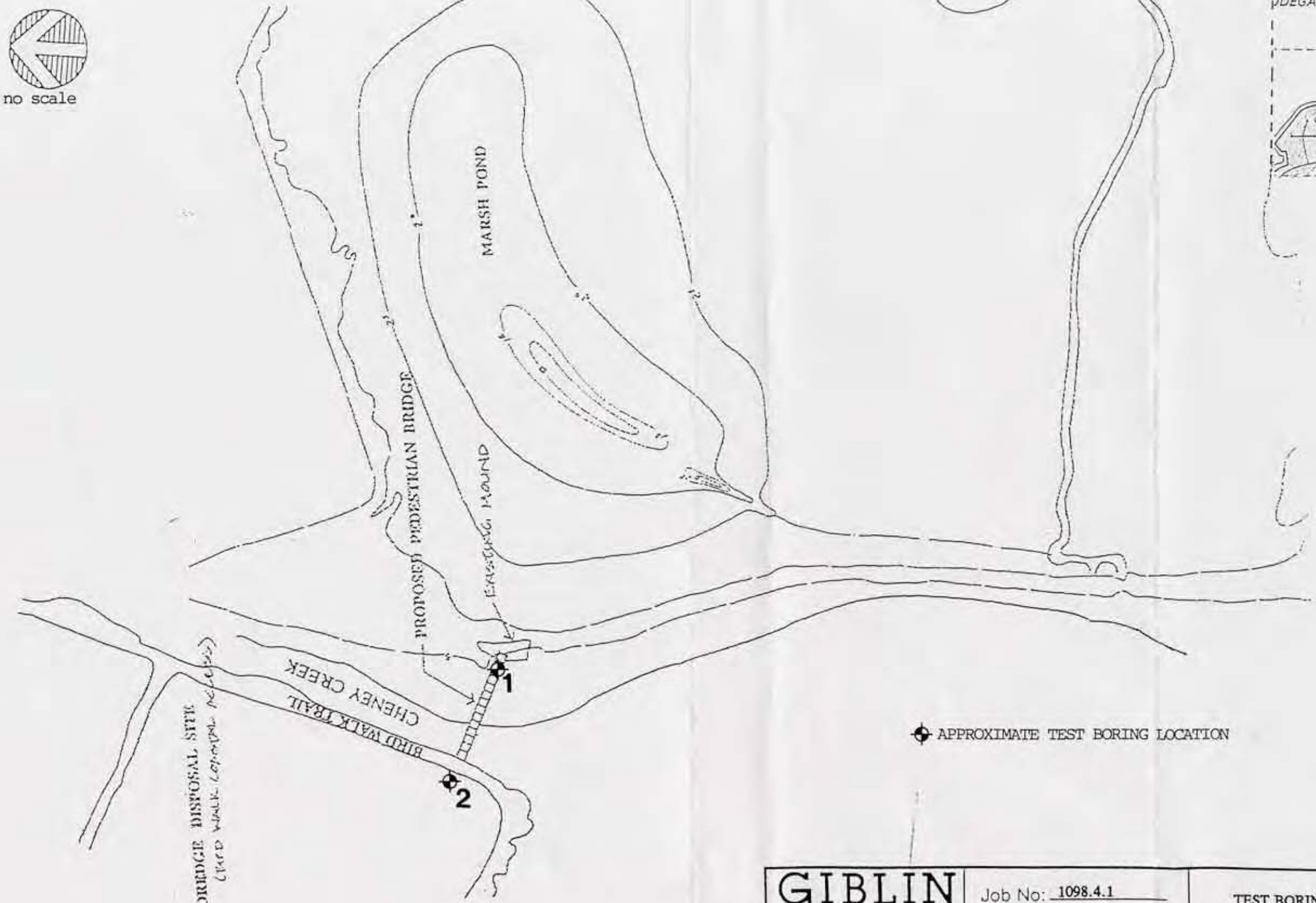
DISTRIBUTION

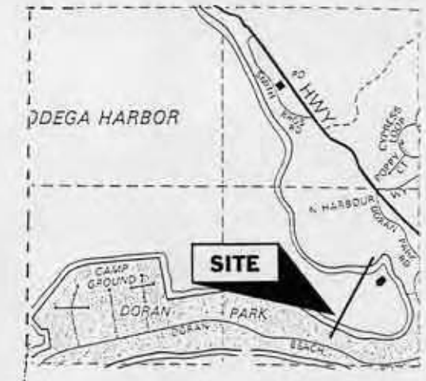
Copies submitted: 5

Sonoma County Regional Parks
2300 County Center Drive,
Suite 120A
Santa Rosa, CA 95403
Attention: Ken Tam

JKR/JAG:nay.B-68

no scale





APPROXIMATE TEST BORING LOCATION

GIBLIN ASSOCIATES CONSULTING GEOTECHNICAL ENGINEERS	Job No: 1098.4.1 Date: 12-10-96 Appr: JKR	TEST BORING LOCATION PLAN AND SITE VICINITY MAP CHENEY GULCH CREEK BRIDGE BODEGA BAY, CALIFORNIA	PLATE 1

▽ ground-water first encountered at time of drilling

LOG OF BORING 1

Equipment ROTARY-WASH

Elevation _____ Date 10-30-96

Laboratory Test Results or Remarks	Blows/foot *	Moisture Content (%)	Dry Density(pcf)
Percent Passing No. 200 Sieve = 95.0	2	46.2	71
	1		
TxUU = 150(650) Percent Passing No. 200 Sieve = 88.8	1	41.3	79
TxUU = 40(860) Percent Passing No. 200 Sieve = 36.1	1	31.3	86
	5	40.4	79
TxUU = 320(2500) Percent Passing No. 200 Sieve = 35.4	8	36.2	84

Depth (ft) / Sample

0 — BROWN SANDY SILT (ML)
soft, wet, with fine roots

BLUE-GRAY SILTY SAND (SM)
loose, saturated, with fine sand

3 — ▽

6 — BLUE-GRAY SANDY CLAY (CL)
soft, saturated

9 — BLUE-GRAY SILTY SAND (SM)
loose, saturated, with fine sand

12

15

18

21

24

27

30

*Converted to Standard Penetration Blow Counts

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 1098.4.1

Date: 12-10-96

Appr: JKR

LOG OF BORING 1

CHENEY GULCH CREEK BRIDGE
BODEGA BAY, CALIFORNIA

PLATE 2a

ground-water first encountered at time of drilling

LOG OF BORING 1

Equipment ROTARY-WASH

Elevation _____ Date 10-30-96

Laboratory Test Results or Remarks	Blows/foot *	Moisture Content (%)	Dry Density(pcf)	Depth (ft)	Sample	
TxUU = 870(2160) Percent Passing No. 200 Sieve = 19.5	27	28.2	95	30		
				33		
				36		GRAY-BROWN FINE TO MEDIUM SAND (SP) dense to very dense, saturated, with occasional gravel to 1/2 inch
				39		
TxUU = 5200(4000) Percent Passing No. 200 Sieve = 3.6	50+	18.2	110	42		LENS OF GRAVEL (GP)
				45		LENS OF GRAVEL (GP)
				48		
				51		
				54		
Percent Passing No. 200 Sieve = 2.6	50+			57		
				60		

*Converted to Standard Penetration Blow Counts

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 1098.4.1

Date: 12-10-96

Appr: GHR

LOG OF BORING 1

CHENEY GULCH CREEK BRIDGE
BODEGA BAY, CALIFORNIA

PLATE 2b

LOG OF BORING 2

Equipment ROTARY-WASH

Elevation _____ Date 11-4-96

Laboratory Test Results or Remarks	Blows/foot *	Moisture Content (%)	Dry Density(pcf)	Depth (ft)	Sample	
				0		MOTTLED DARK BLUE-GRAY AND LIGHT BROWN SANDY CLAY (CH) medium stiff to stiff, wet to saturated
				3		
				6		
UC = 590	11	18.4	110	9		
				12		
				15		
				18		DARK BLUE-GRAY CLAYEY SAND (SC) loose, saturated, hydraulic fill
				21		
				24		DARK BLUE-GRAY VERY SANDY CLAY (CL) medium stiff to stiff, saturated, bay mud
Percent Passing No. 200 Sieve = 10.7	13	26.2	92			
				27		BLUE-GRAY FINE SILTY SAND (SP-SM) medium dense, saturated, with occasional roots
				30		

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 1098.4.1

Date: 12-10-96

Appr: _____

LOG OF BORING 2

CHENEY GULCH CREEK BRIDGE
BODEGA BAY, CALIFORNIA

PLATE 3a

*Converted to Standard Penetration Blow Counts

LOG OF BORING 2

Equipment ROTARY-WASH

Elevation _____ Date 11-4-96

Laboratory Test Results or Remarks	Blows/foot *	Moisture Content (%)	Dry Density(pcf)	Depth (ft)	Sample	
				30		becomes less silty with depth
				33		
TxUU = 7150(4320) Percent Passing No. 200 Sieve = 5.4	12	26.7	97	36		DARK GRAY VERY SANDY CLAY (CL) stiff, saturated
				39		
				42		DARK BLUE-GRAY SILTY SAND (SM) medium dense, saturated
TxUU = 2280(5470) Percent Passing No. 200 Sieve = 22.8	24	28.7	95	45		
				48		
				51		
				54		
	41					becomes dense
				57		
				60		

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 1098.4.1

Date: 12-10-96

Appr: JKR

LOG OF BORING 2

CHENEY GULCH CREEK BRIDGE
BODEGA BAY, CALIFORNIA

PLATE 3b

*Converted to Standard Penetration Blow Counts

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS (MORE THAN HALF IS LARGER THAN No. 200 SIEVE)	GRAVEL (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE)	CLEAN GRAVEL WITH LESS THAN 5% FINES	GW	WELL GRADED GRAVEL, GRAVEL-SAND MIXTURE
			GP	POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURE
		GRAVEL WITH OVER 12% FINES	GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURE
			GC	CLAYEY GRAVEL, GRAVEL-SAND-CLAY MIXTURE
	SAND (MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE)	CLEAN SAND WITH LESS THAN 5% FINES	SW	WELL GRADED SAND, GRAVELLY SAND
			SP	POORLY GRADED SAND, GRAVELLY SAND
		SAND WITH OVER 12% FINES	SM	SILTY SAND, GRAVEL-SAND-SILT MIXTURE
			SC	CLAYEY SAND, GRAVEL-SAND-CLAY MIXTURE
FINE GRAINED SOILS (MORE THAN HALF IS SMALLER THAN No. 200 SIEVE)	SILT AND CLAY (LIQUID LIMIT LESS THAN 50)		ML	INORGANIC SILT, ROCK FLOUR, SANDY OR CLAYEY SILT WITH LOW PLASTICITY
			CL	INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY, SANDY, OR SILTY CLAY (LEAN)
			OL	ORGANIC CLAY AND ORGANIC SILTY CLAY OF LOW PLASTICITY
	SILT AND CLAY (LIQUID LIMIT GREATER THAN 50)		MH	INORGANIC SILT, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOIL, ELASTIC SILT
			CH	INORGANIC CLAY OF HIGH PLASTICITY, GRAVELLY, SANDY OR SILTY CLAY -(FAT)
			OH	ORGANIC CLAY OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILT
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

KEY TO TEST DATA

				Shear Strength, psf	Confining Pressure, psf
EI	— Expansion Index	TxUU	— Unconsolidated Undrained Triaxial	320	(2600)
Consol	— Consolidation	TxCU	— Consolidated Undrained Triaxial	320	(2600)
LL	— Liquid Limit (in %)	DSCD	— Consolidated Drained Direct Shear	2750	(2000)
PL	— Plastic Limit (in %)	FVS	— Field Vane Shear	470	
PI	— Plasticity Index	LVS	— Laboratory Vane Shear	700	
SA	— Sieve Analysis	UC	— Unconfined Compression	2000	*
G_s	— Specific Gravity	UC(P)	— Laboratory Penetrometer	700	*
■	"Undisturbed" Sample				
□	Bulk Sample				

Notes: (1) All strength tests on 2.8" or 2.4" diameter samples unless otherwise indicated * Compressive Strength

GIBLIN ASSOCIATES
CONSULTING GEOTECHNICAL ENGINEERS

Job No: 1098.4.1
Date: 12-10-96
Appr: GKG

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA

CHENEY GULCH CREEK BRIDGE
BODEGA BAY, CALIFORNIA

PLATE 4

MAY 1 - 2007

This notice was posted on _____
and will remain posted for a period of thirty days
until 05/30/07

07-0501-4

JANICE ATKINSON, Co. Clerk
BY: C. FARIAS
DEPUTY CLERK

PA. with SO. Co. 9.10.

NOTICE OF DETERMINATION

To: County Clerk, Sonoma County
2300 County Center Drive, B177
Santa Rosa, California 95403

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

The Sonoma County Regional Parks Department, is filing this Notice of Determination in compliance with §21108 of the Public Resources Code.

CHENEY CREEK BRIDGE & TRAIL PROJECT
Project Title

PROJECT APPLICANT: SO. CO. REGIONAL PARKS

2006022040	Michelle Julene	707/565-3962
State Clearinghouse Number	**Contact Person**	**Area Code / Telephone Number**

355 Highway 1 - BirdWalk Coastal Access & 201 Doran Park Road - Doran Beach Regional Park (APN 100-130-006)
Project Location – *include country*

Bodega Bay (unincorporated)	Sonoma
Project Location – City	**Project Location - County**

Project Description: The Project will install a bridge over Cheney Creek, connecting the existing BirdWalk Coastal Access Park and Doran Beach Regional Park, and will improve trail connections to the new bridge. The bridge will be prefabricated metal, approximately 110-feet long and 8-feet wide with a 54-inch high safety railing. The bridge will have concrete landings and be supported by concrete abutments with metal pilings driven into the ground to a depth of approximately 55-feet. Construction access will be from the BirdWalk Coastal Access Trail and the Doran Marsh Trail, requiring trail improvements. There will be staging areas along both trails, each approximately ½ acre in size. Total disturbance from construction activities will be approximately 1.02 acres. Disturbed areas ill be re-seeded and/or revegetated. The Doran Marsh Trail will be widened from its existing 3 to 6-foot width to an 8-foot width and the native soil will be surfaced with gravel to provide construction access. The Bird Walk Coastal Access Trail will be extended approximately 370 feet from the top of the levee to the new bridge. The trail will be 8-feet wide and surfaced in gravel. A 1 to 3 foot-high retaining wall will be installed along the trail extension to minimize site disturbance. The retaining wall will include a 42-inch high safety railing. The existing service road from the existing parking area to the existing Bird Walk Coastal Access Trail will be widened to a 12-foot width to provide construction access.

This is to advise that the County of Sonoma has approved the above-described project on May 01, 2007and has made the following determinations regarding the above-described project.

1. The project [☐ will ☒ will not] have a significant effect on the environment.
2. ☐ An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   ☒ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [☒ were ☐ were not] made a condition of the approval of the project.
4. A Statement of Overriding Considerations [☐ was ☒ was not] adopted for this project.

This is to certify that the final environmental document, with comments and responses and record of project approval, is available to the general public at the Sonoma County Regional Parks Department main office.

Patrice Cox

Patrice Cox
Title: Park Planning Manager
Sonoma County Regional Parks

Date: May 01, 2007

3250

DEPT: REGIONAL PARKS
CONTACT: Laura Jaques
PHONE NO: 2883
FY: FY 0607

COUNTY OF SONOMA
AUDITOR-CONTROLLER'S OFFICE
JOURNAL VOUCHER

DOCUMENT NO:
BATCH DATE/NO:
CODED BY:

LINE SUFF	TC	DOCUMENT REFERENCE	INDEX	SUB-OBJECT	VENDOR NUMBER	AMOUNT	TREAS. NO.	SUBSIDIARY NUMBER	DESCRIPTION ADDITIONAL SPACE ON BACK
1	137		322636	3158		1,800.00			Cheney Creek Bridge & Trail Project - Fish & Game Filing Fees
2	237		140623	8510		1,800.00			F&G Filing Fees Cty Clk- Cheney Creek
3									
4									
5									
6									RP Internal Cost Accounting - CC#427-623-3
7									
8									
9									
10									
	374					3,600.00			

PREPARED BY: Laura Jaques DATE: April 25, 2007

APPROVED BY: Patricia D. Cox DATE: Apr. 25, 2007
MC 4/25/07

04/25/06: Accounting Procedure: Prepare JV and deliver to Planner or to Nora for signature routing, request copy of JV and backup once signed for Accounting's records, and Planning then walks the JV to the County Clerk. Do not sent to Auditor's Office.

nty Clerk