Bodega Bay Boat Launch Facilities Improvements
Doran Park & Westside Park
Draft Mitigated Negative Declaration and Initial Study

State Clearinghouse #: 2012092001

Prepared for:
Sonoma County Regional Parks
2300 County Center Drive, Suite 120A
Santa Rosa, CA 95403

Prepared by:
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January 3, 2013

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Draft Mitigated Negative Declaration

The Sonoma County Environmental Review Committee (ERC) has reviewed the proposed *Bodega Bay Boat Launch Facilities Improvements* project described below to determine whether it could have a significant effect on the environment. "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. The ERC has recommended that a Mitigated Negative Declaration (MND) be prepared.

Project Location: Westside and Doran Regional Parks are adjacent to Bodega Harbor, Bodega Bay, Sonoma County, CA; see Figure 1.

Summary of Project Description: In order to provide improved access, amenities, and safety at boat launching facilities in Bodega Harbor, Sonoma County Regional Parks (SCRP) proposes facilities repairs and upgrades to address ramp safety; worn out parking lots, boarding floats, launch, and related amenities; disabled access; and degraded, non-hygienic fish-cleaning stations at Westside and Doran Regional Parks. Specific improvements to boating facilities would include:

Westside Park:

- ***Boat Ramp Refurbishment:*** The ramp would be expanded by 5 feet to accommodate 3 lanes and resurfaced with precast concrete planks; cast-in-place concrete would be used to repair cracks in the upper ramp. A scour hole at the toe of the ramp would be repaired using rock slope protection and the ramp surface extended one foot to prevent scour from reoccurring. Worn-out piles and boarding floats would be replaced. The replacement floating dock would include a low freeboard portion for small boats, such as kayaks. A slotted gangway would be installed on one side of the boarding float in order to improve disabled access and to allow more light penetration for eelgrass habitat.
- ***Channel Dredging:*** Sediment accumulated at the bottom of the boat ramp since the last dredging (±20 years ago) would be removed using a small mechanical machine with an environmental excavation bucket to reduce turbidity. In addition, a silt curtain or portable cofferdam may be used around the area. The material would be loaded onto a small barge and taken to the near shore, loaded onto a truck with a sealed gate, and driven to the Cypress Day-use Area for placement in the dune restoration at Doran described below or moved to another disposal/reuse area as agreed with the project's funder, the Department of Boating and Waterways (DBW), and resource agencies. Dredging would avoid the small area of eelgrass growing to one side of the channel.
- ***Parking Area:*** The parking area would be resurfaced and restriped to accommodate 99 car-and-trailer spaces, including 4 disabled spaces, and 21 car-only spaces, including 5 spaces for vehicles with disabled placards. Existing parking lot islands with large trees would be retained and an existing island with low shrubs will be removed for circulation. The fee entry station and signage would be replaced.
- ***Boat Washdown:*** The boat washdown area would be upgraded with timed hoses for water conservation.
- ***Fish-cleaning Station:*** The fish-cleaning area would be upgraded, including structural repair or replacement, fish-cleaning surface replacement, and fish-processing upgrades.
- ***Trail and Picnic Tables:*** A new, concrete trail would be built to provide disabled access to the fish-cleaning station. The trail would be installed in the area where normal use patterns have already established a path. Three picnic tables on concrete pads would be located along the path.

Doran Park:

- ***Boat Ramp Refurbishment:*** The boat ramp would be resurfaced with precast concrete planks. Worn out piles and boarding floats would be replaced. The replacement floating dock would begin with a gangway and include a low freeboard portion for small boats and to improve disabled access.
- ***Boat Washdown:*** The boat washdown would be moved out of the parking lot and across the street for improved traffic flow and safety. The new location would be a pullout from the east-bound lane across from the Coast Guard Station.
- ***Fish-cleaning Station:*** The fish-cleaning station would be repaired/upgraded, which would involve structural repair or replacement, fish-cleaning surface replacement, and hose upgrades.
- ***Parking Area:*** The parking area would be resurfaced and restriped. Improvements may include features such as raised islands of plants or vegetated swales. A pedestrian sidewalk would be added along the water side of the parking lot for improved safety. The gravel parking area immediately west of the currently paved area

would also be surfaced and striped. A vegetated swale for improved water retention and filtration would be added in the center of the parking area between the existing paved and gravel lots.

- ***Dune Restoration:*** The opportunity created by clearing the Westside channel of accumulated sand and soil would provide materials for restoration of foredune habitat at the Cypress Day-use Area at Doran. The area proposed for restoration has been worn away by unrestricted visitor use and is now open sand, although within the line of existing dunes. The restoration area would be contoured to create lateral dunes 2.5-3 feet high with paths between them. The area would be planted and seeded with foredune natives and fenced during the plant establishment. Trails would be developed to protect the enhanced habitat.

To assess potential environmental impacts of the project, SCRP conducted an Initial Study of potential resource impacts. Resource areas to assess were taken from Appendix G of the CEQA Guidelines. Areas that the project would have no possible effect were not examined. These included Agriculture and Forest Resources, Land Use and Planning, Population and Housing, Public Services, and Utilities.

Scoping for potential impacts combined review of existing literature on impacts of similar projects, assessments by qualified scientists, consultation with regulatory agencies and outreach to obtain public concerns. On August 29, 2012, SCRP published a Notice of Preparation for the Initial Study. The notice was posted at 6 sites in Bodega Bay including the project sites, mailed to interested parties and regulators, sent to a general circulation newspaper, and submitted to the State Clearinghouse. Comments were received from 9 individuals. Comments on relevant CEQA issues are quoted in the *Project Conditions* information for the relevant resource section or with the specific checklist question they address, and responses are in the *Analysis* for each question.

Findings: The attached Initial Study identifies several potentially significant effects from implementation of the project on the environment; however, measures are proposed that would reduce the effects to a less-than-significant level. Where avoidance measures were developed during project planning, those measures are included as mitigation. Detailed analyses of potential impacts and mitigation measures are found in the Initial Study, which identified potential impacts in the following categories:

<u>Beneficial Effects</u>

- Aesthetics – Improve lighting
- Air Quality – Reduce odors
- Biological Resources – Reduce spread of invasive species and enhance dune ecology
- Hydrology & Water Quality –
    - Improve drainage patterns and filtration
    - Reduce stormwater damage at Cypress Day-use Area as a result of sea level rise
- Recreation – Address physical deterioration of facilities

<u>Less Than Significant</u>

- Air Quality – *De minimis* increase in criteria pollutants that are well below air quality standards
- Greenhouse Gas Emissions – Minor project emissions during construction only
- Geology & Soils – SWPPP will be prepared if required
- Noise – Temporary groundbourne vibration and increase in ambient noise during construction only
- Traffic – Minor delays limited to park property during construction only

<u>Less Than Significant with Mitigation Incorporated</u>

- Biological Resources – Avoidance measures are included as mitigation to protect a variety of special-status species; special measures are included to address regulatory requirements for a Habitat Area of Particular Concern (eelgrass)
- Cultural Resources – Avoidance measures are included as mitigation to protect archaeological resources
- Greenhouse Gas Emissions – Compliance with existing plans
- Hydrology & Water Quality – Construction BMPs are included to prevent water quality impairments
- Noise – Construction techniques and materials options are included to meet noise standards
- Traffic – Measures are included to address traffic circulation patterns and potentially hazardous conditions

No potentially significant impacts that could not be mitigated to a less-than-significant level were identified. Impact avoidance and mitigation measures included in the project are discussed in detail in each resource section of the Initial Study. In summary, they include:

Mitigation Measures for Biological Resources:

Biol – 1: Measures to protect breeding birds.

Biol – 2: Restoration plan for pink sand verbena.

Biol – 3: Measures to protect special-status species during dredging.

Biol – 4 through 13: Measures to protect Essential Fish Habitat (EFH) during project implementation, including intertidal mud flats and eelgrass.

Biol – 14 & 15: Measures to protect and restore intertidal mudflats.

Mitigation Measures for Cultural Resources:

Cult – 1: Coordination with the Federated Indians of Graton Rancheria (FIGR).

Cult – 2: Preconstruction training to acquaint project personnel with the possibility of encountering sensitive cultural resources.

Cult – 3: Measures to follow if previously undocumented cultural resources are encountered during project construction.

Cult – 4: Measures to follow if human remains are encountered during construction.

Mitigation Measure for Geology and Soils:

Geol – 1: Storm Water Pollution Prevention Plan (SWPPP) requirement for land disturbance over one acre.

Mitigation Measure for Greenhouse Gas Emissions:

GHG – 1: Requirement to investigate feasibility of precast, low-carbon concrete.

Mitigation Measures for Hydrology and Water Quality:

Hydro – 1: Measures to reduce turbidity during dredging activities at Westside.

Hydro – 2: Measures to prepare dredge material for transport and placement in an upland area.

Hydro – 3: Light transmission requirements.

Hydro – 4 through 6: Measures to avoid or minimize impacts during pile driving.

Hydro – 7 through 11: Construction Best Management Practices (BMPs).

Mitigation Measures for Noise:

Noise – 1: Limits on construction timing.

Noise – 2 through 4: Requirements and measures to follow during pile driving.

Noise – 5: Measures to avoid impacts from clamshell dredging.

Noise – 6: Measures to avoid or minimize noise impacts on marine mammals and other aquatic species.

Mitigation Measures for Transportation/Traffic:

Traf – 1 and 2: Park closure and safety signage requirements.

PUBLIC REVIEW PERIOD: JANUARY 3, 2013 – FEBRUARY 4, 2013

This MND/IS is available for review at:

Sonoma County Regional Parks' office, 2300 County Center Drive, Suite 120A, Santa Rosa
County Supervisors' office, 575 Administration Drive, Room 100 A, Santa Rosa
Central branch of the Sonoma County Library, 211 E. Street, Santa Rosa, and
Regional Parks website at: http://www.sonoma-county.org/parks/

On or before Monday, February 4, 2013, any person may:

(1) Review the Draft Mitigated Negative Declaration/Initial Study (MND/IS); and

(2) Submit written or email comments regarding the information, analysis, and mitigation measures in the Draft MND/IS to Mark Cleveland, Senior Planner, Sonoma County Regional Parks, 2300 County Drive, Suite 120A, Santa Rosa, CA 95403, Mark.Cleveland@sonoma-county.org.

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List of Exhibits

Acronyms

ADA	Americans with Disabilities Act
BMP	Best Management Practice
BOS	Sonoma County Board of Supervisors
CalEEMod	California Emissions Estimator Model
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO_2	Carbon dioxide
CSLC	California State Lands Commission
dB	Decibels
dBA	Decibels using an A-weighted Noise Pressure Level Scale
DBW	California Department of Boating and Waterways
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
ERC	Sonoma County Environmental Review Committee
FIGR	Federated Indians of Graton Rancheria
GHG	Greenhouse gases
IS	Initial Study
LOS	Level of service
MHHW	Mean Higher High Water
MLLW	Mean Lower Low Water
MND/IS	Mitigated Negative Declaration/Initial Study
NAHC	Native American Heritage Commission
NCRWQCB	North Coast Regional Water Quality Control Board
NOAA	National Oceanic and Atmospheric Administration
NSCAPCD	Northern Sonoma County Air Pollution Control District
NOAA Fisheries	National Marine Fisheries Service
Pa	Pascal
PF CC	Public Facilities and Coastal Zone
PQP	Public/Quasi-Public
PRC	California Public Resource Code
RMS	Root Mean Square
SCRP	Sonoma County Regional Parks
SEL	Sound exposure level
SPL	Sound pressure levels
USACE	U.S. Army Corps of Engineers
µPa	micro Pascals

CEQA INITIAL STUDY

Project Description

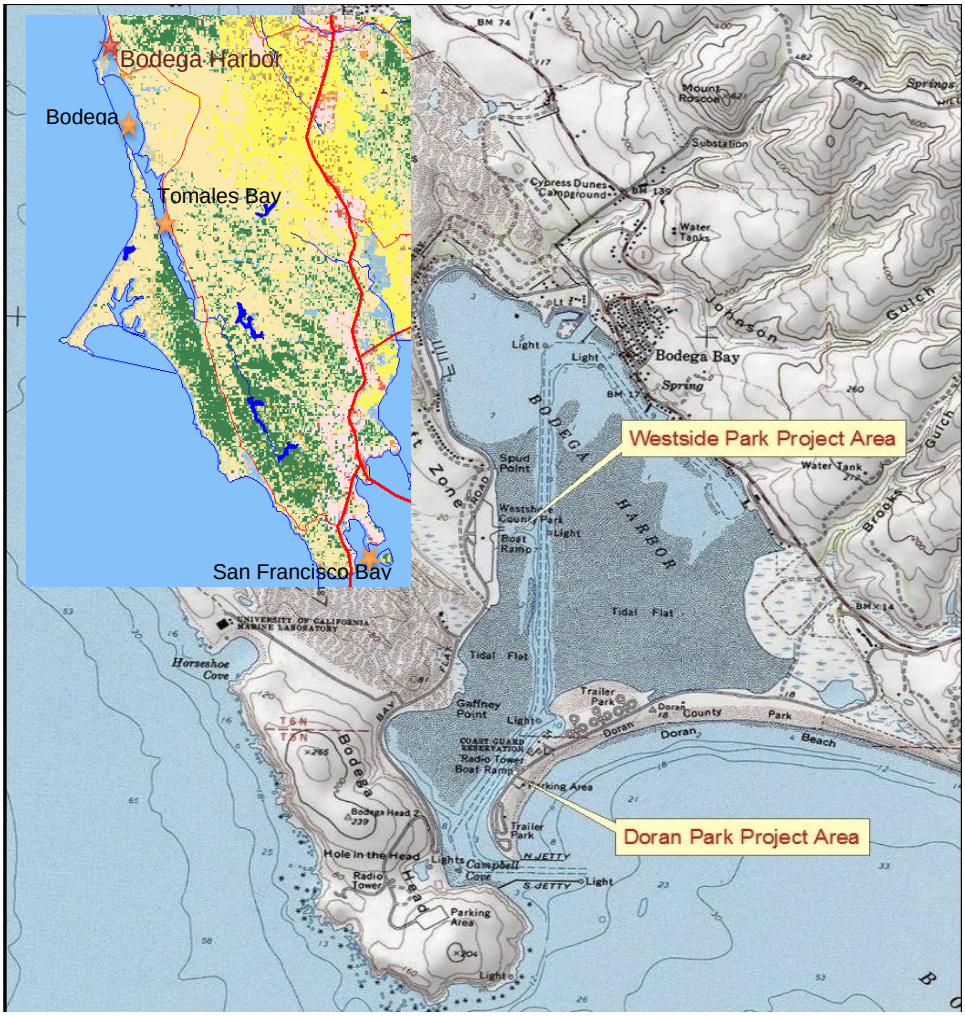
Introduction

Sonoma County Regional Parks (SCRP) is proposing upgrades to the boat launch facilities at Doran and Westside Regional Parks. Improvements would include resurfacing the boat ramps and upgrades to on-land support structures. In compliance with the California Environmental Quality Act (CEQA), this Initial Study has been prepared to identify potential adverse environmental effects of the project. The Initial Study identifies one potentially significant impact in biological resources. Impacts on Essential Fish Habitat (EFH) may occur from potential sediment, noise, and changes in light. Although these issues are separately discussed within the Water Quality, Noise, and Aesthetics sections, the primary discussion of their potential effects on EFH is in Biological Resources.

Project Setting

The project is located on the Sonoma Coast at two developed boat launch facilities adjacent to Bodega Harbor. The area surrounding both Doran and Westside Regional Parks is protected land. At Doran, the entire spit is part of the county park except for the Coast Guard station immediately east of the project area, while at Westside, the park is surrounded by Sonoma Coast State Park, with the University of California at Davis Bodega Marine Laboratory just to the south and a small neighborhood of mixed residential and harbor-related commercial uses a little to the north. See Figure 1. Location Map.

Figure 1. Bodega Bay boat launch facilities improvements project locations.



Bodega Harbor is located at the northern edge of Bodega Bay. It is bounded by Bodega Head to the north and west and by a spit to the south on which Doran Regional Park is located. It is a soft-bottomed harbor with tidal mud flats and eelgrass beds. The bay supports California sea lions, Pacific harbor seals, and many kinds of aquatic species, including ground fish, coastal pelagic fish, Pacific salmonids, and clam beds. On land, adjacent habitats are mostly shoreline, saltgrass flats, and northern foredunes. The small community of Bodega Bay is to the east.

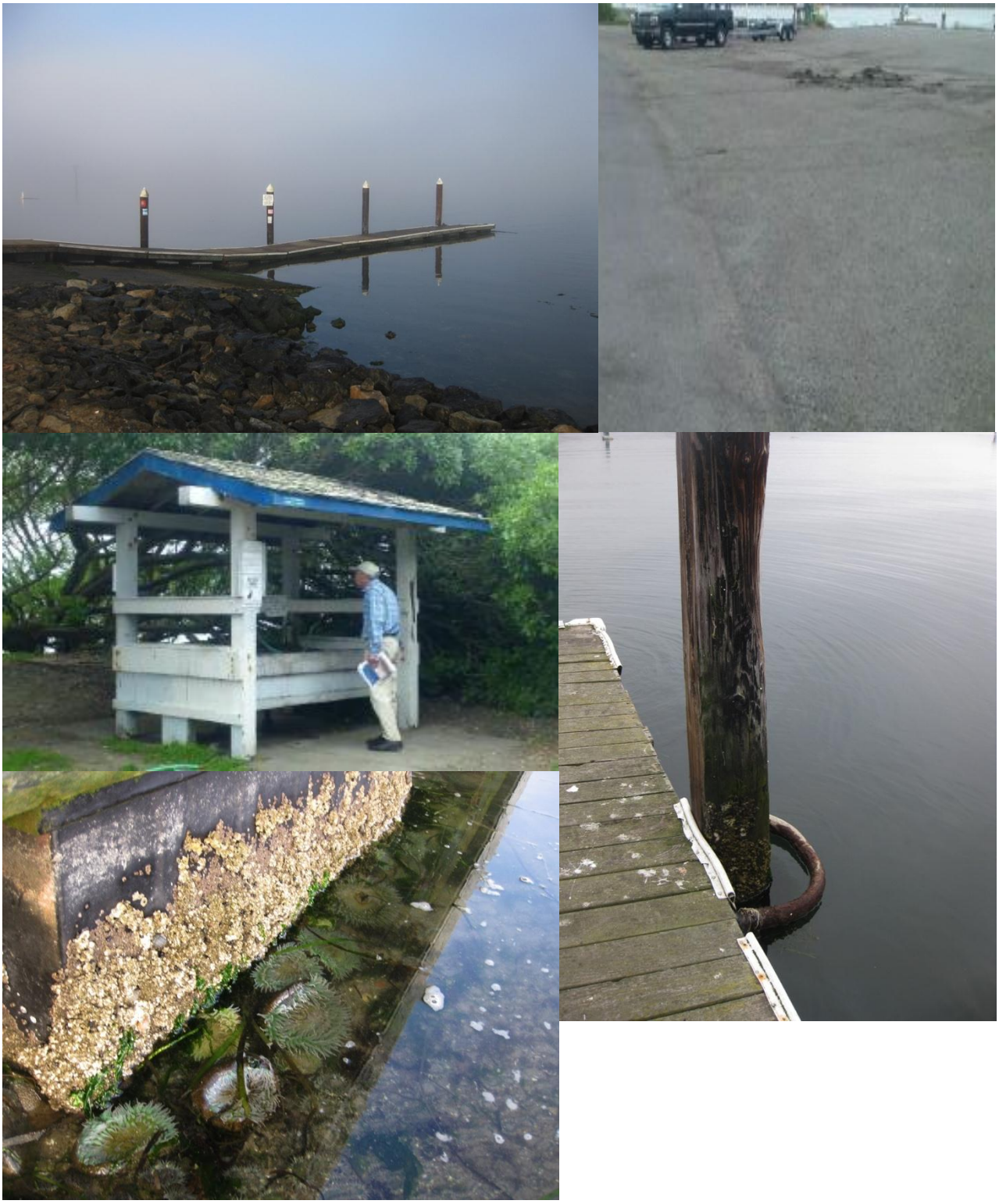
Bodega Harbor is used by recreational boaters and fishers and by small commercial fishing boats. Principal fishing catches include salmon, herring, various kinds of ground fish, and Dungeness crab. The mudflats also provide clamming. The harbor has three marinas with a total of approximately 450 berths and 4 boat launches; one of the marinas and three of the boat ramps are operated by SCRP.

Westside Regional Park is located on the bay side of Bodega Head, just south of Spud Point Marina. It has a campground as well as day-use facilities at the boat launch. The boat launch is on a side channel last dredged 20 years ago. It is a 2-lane launch with boarding floats on each side. It has an associated paved parking lot, restrooms, picnic tables, a fish-cleaning station, and a pull-through boat washdown. See Figure 2: Westside Park Boat Launch Facility Existing Conditions.

Figure 2. Westside Park Existing Conditions. Top: boat launch; area looking south from fish-cleaning station to launch. Middle: fish-cleaning station; path to the fish-cleaning station. Bottom: boat washdown; aerial with project elements.

Doran Regional Park is a 127-acre facility located on the spit between Bodega Harbor and Bodega Bay that offers two miles of sandy beach, day use, and camping facilities, as well as the boat launch, which is on the main channel through Bodega Harbor. The existing 1-lane boat launch has a boarding float on only one side. A parking lot is adjacent to the launch and can handle 30 vehicles with trailers. There is a fish-cleaning station at one end of the parking lot and hoses for boat washing at the other. Immediately northeast of the project site is a U.S. Coast Guard station with its own boat launch. See Figure 3: Doran Boat Launch Facility Existing Conditions.

Figure 3. Doran Park Existing Conditions. Top: Boat launch ramp and floating dock; existing paved parking lot. Middle: fish-cleaning station; worn piling. Bottom: dock edge showing barnacles and anemones attached.



The area for the proposed Doran boat washdown is located on the south side of the road, approximately 250 feet east of the existing boat launch. The area is sand leading up to a dunes community. The Cypress Day-use Area is located on the same side of the road as the proposed boat washdown area and provides entry to the beach on Bodega Bay. It has a parking lot for approximately 50 vehicles, picnic tables, and restrooms. The area that is proposed for dune restoration lies between the beach, parking lot, and restroom. It is denuded from broad pedestrian use; however, it occurs adjacent to occurrences of a rare plant and may provide opportunities to expand its habitat. See Figure 4: Boat Washdown & Dune Restoration Areas Existing Conditions.

Figure 4. Proposed new location for Doran boat washdown and Cypress Day-use Area dune restoration/ upland sediment placement existing conditions.

Regulatory Setting

Sonoma County Regional Parks, in partnership with the Sonoma County Agricultural Preservation and Open Space District and the Sonoma County Water Agency, is in the process of developing a plan for public outdoor recreation in Sonoma County called the Recreation and Resource Plan 2020. Draft policies and proposed projects were published in March 2003 (then called the Draft Outdoor Recreation Plan). The plan is now undergoing environmental review and revision; however, the process is on hold due to funding constraints. More information about the plan is available at: http://www.sonoma-county.org/parks/outdrpln.htm. Until this plan is complete, the major guiding document for the parks' operations remains the County General Plan Open Space and Resource Conservation Element. Zoning at both parks is for public facilities in the coastal corridor.

In addition to Sonoma County, several agencies have authority over aspects of the project. These may be responsible agencies that have discretionary approval authority over a portion of a CEQA project (i.e., would need to issue a permit) or trustee agencies having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California. Federal agencies may also have authority over the project directly and designated to state agencies. Agencies with some authority over the proposed action are listed below.

Federal Agencies with Jurisdiction

- U.S. Army Corps of Engineers (USACE) – USACE has jurisdiction over placement of fill below the level of ordinary high water under §404 of the federal Clean Water Act and §10 of the Rivers and Harbor Act. Permits from USACE would be required for project implementation.
- NOAA's National Marine Fisheries Service – NOAA Fisheries is a department of the National Oceanic and Atmospheric Administration, which is overseen by the Department of Commerce. In Bodega Bay, NOAA Fisheries has designated Essential Fish Habitat (EFH), which includes eelgrass beds and other aquatic habitat elements, under the federal Endangered Species Act. Consultation with NOAA Fisheries would be required for project implementation.

State Responsible and Trustee Agencies

- California Coastal Commission – The Coastal Commission is responsible for protecting, conserving, restoring, and enhancing the state's coastal resources under the California Coastal Act and with designated federal authority under the Coastal Zone Management Act of 1972 (CZMA), The Coastal Commission has further designated this authority to Sonoma County under the Local Coastal Plan (LCP) for most of Sonoma County's coastal zone but retains direct authority over areas west of Highway 1. This project will require a Coastal Development Permit (CDP) from the Coastal Commission or a CZMA Consistency Certification from the Coastal Commission through the USACE permitting process.
- California Department of Fish and Wildlife (CDFW) – CDFW[1] is a trustee agency with regard to the fish and wildlife of the state. CDFW designates and protects rare or endangered native plants and animals under the California Endangered Species Act (CESA). They also have authority to protect wetlands and riparian communities under Fish and Game Code §1600 et seq.
- California State Lands Commission (CSLC) – CSLC has jurisdiction over state-owned "sovereign" lands, such as the beds of navigable waters and state school lands. CSLC deeded ownership of Bodega Harbor to Sonoma County in 1966 but retains the mineral rights and, therefore, would require a dredging lease for the project.
- Native American Heritage Commission (NAHC) – NAHC is responsible for preservation and protection of Native American human remains, associated grave goods, and cultural resources throughout California under several state and federal historic and cultural preservation laws.
- North Coast Regional Water Quality Control Board (NCRWQCB) – The State Water Resources Control Board and the 9 regional water quality control boards are tasked with preserving, enhancing, and restoring the quality of California's water resources under the authority of the California Porter-Cologne Act and the federal Clean Water Act. The NCRWQCB is responsible for the area from northern Sonoma County to the northern edge of the state, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. The project would need a permit from the NCRWQCB.
- Northern Sonoma County Air Pollution Control District (NSCAPCD) – NSCAPCD is responsible for preventing the emission of air pollution from "stationary sources" in northern Sonoma County. In 1994, NSCAPCD merged with the Sonoma County Department of Transportation and Public Works under the authority, designated through the California Air Resources Board (CARB), of the federal Clean Air Act. NSCAPCD sets rules for emissions and permits new stationary sources of air pollution. This project would need to follow NSCAPCD rules, but no permit would be required.

Project Purpose and Need

The purpose of the proposed project is to provide improved access, amenities, and safety at boat launching facilities in Bodega Harbor at Doran and Westside Regional Parks. A complete assessment of existing site conditions by Moffatt & Nichol has identified priority upgrades at both locations; see Exhibit C: Site Analysis Memo for details. Specifically, work will improve:

- Ramp safety.
- Worn out parking lots.
- ADA access.
- Degraded/non-hygienic fish-cleaning stations.
- Boat-launch access at Westside.

At Doran, repairs are needed to the ramp, entire boarding float system, parking lot surface and drainage, fish-cleaning station, and boat washdown. The concrete base of the boat ramp is stable, but the surface has eroded, and safety grooves are almost worn away in the critical tire area. The boarding float and piles are worn out. The parking lot has a broken and worn surface on the eastern portion and is only dirt and gravel on the west side, and the striping is almost entirely worn away. Both east and west portions of the lot drain to a low point at the center, where it

[1] On 01/01/2013, CDFW will become the California Department of Fish and Wildlife; traditional terminology is used herein.

percolates into a gravel swale and through the riprap. The boat washdown is adjacent to the center dirt area where the parking lot drains and is in an area that is an exit lane from the east portion of the parking lot when it is full and may be used to position boat trailers for loading or unloading on the ramp, creating use conflicts and increased accident potential. The problem is exacerbated by the worn striping that provides inadequate guidance on parking lot use. The existing fish-cleaning station is serviceable but has missing roof shingles and a worn wooden cleaning surface that does not meet current food handling standards.

At Westside, the safety grooves are wearing off the ramp, and the launch has cracks at the top. Sediments at the bottom of the ramp have scoured away leaving a sharp drop-off that constitutes a safety hazard. Large rocks have been added at one corner of the ramp bottom, exacerbating the safety issues. The piers and boarding floats are worn, and the floats are uneven. The parking lot surface is also worn, and, in some places, the striping is completely gone. The fish-cleaning station is worn, and the original design did not include disposal of wastes, so a dumpster with the lid held open is set next to the station, resulting in odors. The existing light post does not meet current standards for low-impact lighting. Although the boat washdown is newer than the rest of the facilities and is in good condition, it does not meter water use, which tends to encourage waste. A small erosion channel has formed at the drainage point. Finally, at times of peak use, the waiting lines for the boat launch are very long and can take more than an hour; in addition, vehicles entering the parking lot are often lined up on the road, causing traffic and safety issues.

Proposed Action

To address these safety hazards and degraded facilities, SCRP, with a grant from the California Department of Boating and Waterways (DBW), proposes upgrades at both locations. The project has three components: improvement of the boat launches and supporting facilities, dredging of the side channel to Westside Regional Park from the main channel maintained by the USACE, and dune restoration at the Cypress Day-use Area. Specific improvements to boating facilities would include:

Westside Park:

- ***Boat Ramp Refurbishment:*** The ramp would be expanded by 9 feet to accommodate 3 lanes and resurfaced with precast concrete planks; cast-in-place concrete would be used to repair cracks in the upper ramp. A scour hole at the toe of the ramp would be repaired using rock slope protection and the ramp surface extended one foot to prevent scour from reoccurring. Worn-out piles and boarding floats would be replaced. The replacement floating dock would include a low freeboard portion for small boats. A slotted gangway would be installed on one side of the boarding float in order to improve disabled access at low tide conditions and to allow more light penetration for eelgrass habitat.
- ***Channel Dredging:*** Sediment accumulated at the bottom of the boat ramp since the last dredging (±20 years ago) would be removed using a small mechanical machine with an environmental excavation bucket to reduce turbidity. In addition, a silt curtain or portable cofferdam may be used around the area. The material would be loaded onto a small barge and taken to the near shore, loaded onto a truck with a sealed gate, and driven to the Cypress Day-use Area for placement in the dune restoration area at Doran described below or moved to another disposal/reuse area as agreed with DBW, the project's funder, and the resource agencies. Dredging would avoid the small area of eelgrass growing to one side of the channel.
- ***Parking Area:*** The parking area would be resurfaced and restriped to accommodate 99 car-and-trailer spaces, including 4 disabled spaces, and 21 car-only spaces, including 5 spaces for vehicles with disabled placards. Existing parking lot islands with large trees would be retained; the island between the car and trailer area and the restroom would be removed to improve circulation to the ramp. The fee entry station and signage would be replaced.
- ***Boat Washdown:*** The boat washdown area would be upgraded with timed hoses for water conservation.
- ***Fish-cleaning Station:*** The fish-cleaning area would be upgraded, including structural repair or replacement, fish-cleaning surface replacement, and fish-processing upgrades.
- ***Trail and Picnic Tables:*** A new, concrete trail would be built to provide disabled access to the fish-cleaning station and picnic sites. The trail would be installed in the area where normal use patterns have created a path. Three picnic tables on concrete pads would be located along the path.

Doran Park:

- ***Boat Ramp Refurbishment:*** The boat ramp would be resurfaced with precast concrete planks. Worn out piles and boarding floats would be replaced. The replacement floating dock would begin with a gangway and include a low freeboard portion for small boats and to improve disabled access at low tide conditions.
- ***Boat Washdown:*** The boat washdown would be moved out of the parking lot and across the street for improved traffic flow and safety. The new location would be a pullout from the east-bound lane across from the Coast Guard Station.

- ***Fish-cleaning Station:*** The fish-cleaning station would be repaired/upgraded, which would involve structural repair or replacement, fish-cleaning surface replacement, and hose upgrades.
- ***Parking Area:*** The parking area would be resurfaced and restriped. Improvements may include features such as raised islands of plants or vegetated swales. A pedestrian sidewalk would be added along the water side of the parking lot for improved safety. The gravel parking area immediately west of the currently paved area would also be surfaced and striped. A vegetated swale for improved water retention and filtration would be added in the center of the parking area between the existing paved and gravel lots.
- ***Dune Restoration:*** The opportunity created by clearing the Westside channel of accumulated sand and soil would provide materials for restoration of foredune habitat at the Cypress Day-use Area at Doran. The area proposed for restoration has been worn away by unrestricted visitor use and is now open sand, although within the line of existing dunes. The restoration area would be contoured to create lateral dunes 2.5-3 feet high with paths between them. The area would be planted and seeded with foredune natives and fenced during the plant establishment. Trails would be developed to protect the enhanced habitat.

Construction Practices

Construction practices will ultimately be determined by the contractor hired to complete the work and developed in accordance with the permit conditions outlined by the resource agencies and best management practices. The following includes a discussion of the proposed methods based on common practices for working within baylands. Those practices that may impact aquatic resources below the high-tide line are described below. The following was taken from Moffatt and Nichol's *Project Description Quantities 30% Design* memo.

Ramp Construction (Westside and Doran)

"The lower portion of the boat ramp (below mean low water, approximately) will likely be constructed in water by placing precast concrete planks on top of the existing concrete ramp. This will allow the existing panels to be used as a base and minimize in-water earthwork and the volume of material that would otherwise go to landfill. Below the existing ramps, gravel will be placed before setting the new panels. If during the construction turbidity develops, silt curtains would be used. Rock slope protection will be placed at the bottom of the ramp beyond the limit of the existing ramp to protect from scour and undermining of the ramp. Work will require the use a crane located from shore, a crew of 4 to 6 workers, hand tools, and generator.

"If construction needs to occur under dry conditions, coffer dams may be used. This could include the use of portable cofferdams made of tubes that are filled with water to form the water-retaining dam.

"The upper portion of the ramp (above low water) will be cast in place at a low tide. Hardening materials will be added to the concrete to provide early set that prevents wet concrete being in contact when the tide rises." (Moffatt and Nichol 2012a)

Brief Project Summary

Project Title:	Bodega Bay Boat Launch Facilities Improvements
Lead agency name and address:	Sonoma County Regional Parks 2300 County Center Drive, Suite 120A, Santa Rosa, CA 95403
Contact person and phone number:	Mark Cleveland (707) 565-2041
Project Location:	Doran and Westside Regional Parks adjacent to Bodega Harbor, Bodega Bay, CA
Project sponsor's name and address:	Sonoma County Regional Parks 2300 County Center Drive, Suite 120a, Santa Rosa, CA 95403
General plan description:	Public/Quasi-Public (PQP)
Zoning:	Public Facilities and Coastal Zone (PF CC)
Description of project:	The proposed boat launch facility improvements would include: • Replacing the existing piles, boarding floats, and related amenities at both facilities; • Adding a low freeboard boarding float at each site. • Replacing existing lighting and improving the fish-cleaning stations and boat washdown areas. • Expanding the Westside boat ramp by one lane. • Dredging the channel from Westside back to the main channel. • Restoring dunes at Doran using the dredge materials.

Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	Sonoma County Permit and Resource Management Department – Building and Grading Permits U.S. Army Corps of Engineers - Clean Water Act §404 Nationwide and Rivers & Harbor Act §10 Permits North Coast Regional Water Quality Control Board - Clean Water Act §401 Water Quality Certification California Coastal Commission – Coastal Development Permit NOAA Fisheries Service – Incidental Take Permit or Statement of No Adverse Effects

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. Please see the following checklist of potentially affected resources for additional information.

selected	Impact Area	selected	Impact Area	selected	Impact Area
☐	Aesthetics	☐	Agriculture and Forestry	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☐	Geology/Soils
☒	Greenhouse Gas Emissions	☐	Hazards and Hazardous Materials	☒	Hydrology/Water Quality
☐	Land Use/Planning	☐	Mineral Resources	☒	Noise
☐	Population/Housing	☐	Public Services	☐	Recreation
☒	Transportation/Traffic	☐	Utilities/Service Systems	☐	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature:	**Date:**
Printed Name: Mark Cleveland, Senior Park Planner	**For: Sonoma County Regional Parks**

Potentially Affected Resources

Assessment Process

The Initial Study Checklist utilized herein was updated by the state of California in 2009. Based on the project description, answers to the questions fall into one of four categories:

- No Impact
- Less Than Significant Impact
- Less Than Significant Impact with Mitigation Incorporated
- Potentially Significant Impact

A "No Impact" response indicates that no impact would result from implementation of the project. A "Less Than Significant Impact" response indicates that an adverse impact could occur, but the magnitude of the impact would not result in an important difference in the resource or that the impact would be beneficial. A "Less Than Significant with Mitigation Incorporated" response indicates that an impact may occur, and, with implementation of the identified mitigation measures, such impact would be less than significant. A "Potentially Significant Impact" response indicates that there is substantial evidence that the impact may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse effects.

The discussion that addresses each checklist question can include different components. Where necessary to understand the project's potential to result in environmental impacts, additional site and regulatory information specific to the resource being evaluated is included in a short *Project Conditions* section at the resource heading. Every checklist item has an *Analysis* section that addresses whether the project would result in potential adverse environmental impacts. Potential impacts considered include on-site and off-site effects, direct and indirect effects, and construction effects. As the only difference in operations post-construction would be reduced traffic waiting to enter the parking area and to use the boat launch at Westside during peak-use times, operations-related effects are only considered in those areas (air quality, greenhouse gas emissions, recreation, public safety, and traffic) that could be affected by the reduced wait time and altered boarding conditions.

When potentially significant impacts or impacts that are, by themselves, less than significant are identified, a *Cumulative Impacts* analysis is included to evaluate whether the project would cumulatively contribute to a significant, human-caused adverse effect. Section (h)(1) of the CEQA Guidelines (§15064(h)(1)) specifies that a project would have a significant cumulative impact when both the cumulative impact is significant and the effects of the project create a cumulatively considerable contribution to the impact. A cumulatively considerable contribution occurs when the incremental effects of an individual project are significant when viewed in connection with the effects of past, current, and probable future projects. If either project-specific or cumulative impacts are identified, and avoidance or mitigation is identified to reduce the impact to a less-than-significant level, such measures are contained in the *Mitigation Measures* section.

As part of information gathering for initial project review, SCRP conducted a public scoping process. Notices of the proposed project and a public meeting to provide information on the project were mailed to agencies with jurisdiction over the project and to members of the public who had previously expressed interest in work and were posted on the SCRP website. On August 29, 2012, SCRP published a Notice of Preparation for the Initial Study. The notice was:

- Posted at Doran Park Entry Station, Doran Park Boat Launch Information Display Case, Westside Park Campground Entry Station, Westside Boat Launch Information Display Case, Spud Point Marina Office, and Porto Bodega Sport Fishing Center Gangways.
- Mailed to the SCRP interested parties list.
- Submitted to the Press Democrat,
- Mailed to Stephen Bargsten, North Coast Regional Water Quality Control Board, Laurel Kellner, California Coastal Commission, Laurie Monarres, U.S. Army Corps of Engineers, Bill Hearn, NOAA Fisheries, Alex Saschin, NSCAPCD, and Jessica DePrimo, NSCAPCD.
- Submitted to the State Clearinghouse, which forwarded the notice to DBW, California Coastal Commission, Department of Parks & Recreation, Department of Water Resources, California Department of Fish & Game Region 3, Native American Heritage Commission, State Lands Commission, Caltrans District 4, and North Coast Regional Water Quality Control Board.

SCRP hosted a public meeting at the Grange Hall in Bodega Bay on September 12, 2012, to present information on the project and to receive comments, but it was not attended by any members of the public.

To date, comments have been received from:

- Wayne Page
- Hans Frederick Olsen
- Sean Grinnell, Bodega Bay Fire Department
- Erik Alm, Caltrans
- Nick Tipon, Federated Indians of Graton Rancheria
- Sora Azat, NOAA Fisheries Service
- Cy R. Oggins, State Lands Commission
- Paul Hamdorf, California Department of Fish & Game, Marine Region
- Rebecca Garwood, California Department of Fish & Game, Marine Region

Comments are quoted in the *Project Conditions* information for the relevant resource section or with the specific checklist question they address, and responses are in the *Analysis* for each question.

Resource Areas Not Assessed

CEQA Guidelines Appendix G provides categories of potential impact areas that can be assessed for each project. Certain areas do not apply because the project would produce no change of any kind in that resource area. Therefore, the following areas have not been assessed because there is no mechanism by which the project could affect the resources:

- Agriculture and Forest Resources – There are no agricultural or forestry uses in or around the project area or in any location affected by the project directly or indirectly.
- Land Use and Planning – The land use in the project area will not change; the same recreational activities will occur in the same location.
- Population and Housing – The project does not include any housing or elements that would cause population increases, such as increased job opportunities, expanded access with new roads or increased road capacity, or expanded utilities. Impacts on transitory recreational visitors to Bodega Bay resulting from decreased peak hour crowding at the Westside boat launch are assessed in the *Recreation* section.
- Public Services – During the scoping review, SCRP received a comment on the project from the Bodega Bay fire chief regarding potentially hazardous conditions. This comment is addressed in the *Hazards* section of the checklist. The project does not require any new public services and would not affect existing public services, so no impacts on public services will occur.
- Utilities – The project will use existing utilities and does not require any expansion or construction of new lines. It will not raise the amount of service needed and will reduce the amount of water used at Westside. Therefore, the project will not change utilities at all.

Aesthetics

Project Conditions:

Everywhere one stands in Bodega Bay there are scenic vistas, whether looking from the beach toward the coastal hills or from the hills out over the ocean. It is an area with a good deal of public access to the coast and protected lands, including the parks where the project would take place. The resident population of Bodega Bay, 1100 people (US Census 2010), is enriched by visits from 70,000 tourists each year who come to enjoy the scenic beauty (NOAA 2008). Therefore, any impacts on aesthetics could be significant.

Comments Received:

"Artificial Lighting

"New lighting is proposed at both locations. Adverse effects to fish, mammals, and birds have been noted with the use of artificial light during nighttime hours. Effects can include altered behaviors such as phototaxis, aggregation or replant of species, and changes in species richness and diversity in the area (Rich and Longcore 2006). Care should be taken to minimize the use of artificial lighting to reduce light pollution. Proper placement and shielding should be used to avoid light spillage skyward or onto harbor waters."

Paul Hamdorf, Acting Regional Manager, Marine Region, CDFW

This comment addresses the effects of light on wildlife and plant resources. Although the impact of concern would be on biological resources, it could result from light pollution, which is addressed in question d below.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista.	☐	☐	☐	☒

Analysis:

Because the project consists of upgrading the current facilities in the same location, it would have no impact on scenic vistas. Project elements are planned to avoid tall structures that would interfere with the scenic vistas available in all directions except for the light posts and trees that already exist.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	☐	☐	☐	☒

Analysis:

Highway 1 through Bodega Bay is a Sonoma County scenic corridor but not a state-designated scenic highway. The project will have no impact on views from Highway 1.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒

Analysis:

The project will not change the visual character of the site except to provide landscaping islands and native plant landscaping at the swale in the Doran parking lot and to make the fish-cleaning stations look less run-down. Since the aesthetic at the Sonoma County Regional Parks in Bodega Harbor is not the artistically decrepit look some communities develop, this will not adversely affect the visual character of the site. The existing, non-native but beautiful, trees in the parking lot at Westside will be retained.

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
	☐	☐	☒	☐

Analysis:

One of the most precious visual assets of western Sonoma County is the dark night sky that allows residents and visitors to enjoy the stars. The Sonoma County General Plan 2020 recognizes the importance of a dark sky to the visual character of a rural county and sets a goal to "preserve and maintain views of the night time skies and visual character of urban, rural and natural areas, while allowing for nighttime lighting levels appropriate to the use and location." Lights at night that shine upward can disturb bats and night hunters and lights that are downcast can disturb eelgrass habitat, as described in the *Biological Resources* section below.

At the same time, boating uses often require predawn launches to accommodate tides or fishing conditions, and available lighting is a very important safety consideration for boats coming in after sunset. General Plan 2020 acknowledges security and operations as legitimate uses of nighttime lighting. The plan adopts three policies to limit the impacts of necessary lighting:

- Policy OSRC-4a: Require that all new development projects, County projects, and signage utilize light fixtures that shield the light source so that light is cast downward and that are no more than the minimum height and power necessary to adequately light the proposed use.
- Policy OSRC-4b: Prohibit continuous all night exterior lighting in rural areas, unless it is demonstrated to the decision making body that such lighting is necessary for security or operational purposes or that it is necessary for agricultural production or processing on a seasonal basis. Where lighting is necessary for the above purposes, minimize glare onto adjacent properties and into the night sky.
- Policy OSRC-4c: Discourage light levels that are in excess of industry and State standards.

Lighting for the project will refit the existing lights with modern lamp units; no new lighting will be added. To comply with the above policies, existing fixtures will be replaced with downcast fixtures that are adequate for the safety and ease of boater use while directing light away from sensitive resources. In addition, timers with motion detectors will be installed to decrease the amount of time lights will be on compared to existing conditions.

Therefore the project would have a beneficial impact on lighting in the project area and the resulting impacts on plants and wildlife. No mitigation is required.

Air Quality

Project Conditions:

Air quality in northern Sonoma County, including Bodega Bay, is under the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD), one of 4 districts in the North Coast Air Basin. Under the federal and state Clean Air Acts, areas are designated as being in attainment, unclassified, or nonattainment of clean air standards for a set of criteria pollutants with known adverse health effects. Allowable pollutant levels and current attainment status for NSCAPCD are shown below.

Table 1. Air Quality Standards and Northern Sonoma County Attainment Status

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration3	Attainment Status
Ozone	8 Hours	0.070 ppm (137µg/m3)	A	0.075 ppm (147µg/m3)	U/A
Carbon Monoxide	8 Hours	9.0 ppm (10 mg/m3)	U	9 ppm (10 mg/m3)	U/A
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m3)	A	100 ppb (188 µg/m3)	A
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m3)	A	75 ppb (196 µg/m3)	A
Particulate Matter (PM10)	24 Hours	50 µg/m3	A	150 µg/m3	U
Particulate Matter - Fine (PM2.5)	Annual Arithmetic Mean	12 µg/m3	U	15 µg/m3	U/A
Lead	30-day Average	1.5 µg/m3	A	-------	
	Calendar Quarter	-------		1.5 µg/m3	U/A
The State of California has also designated standards for visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. Northern Sonoma County is currently unclassified for all of these pollutants.					

Source: California Air Resources Board. The California Air Resources Board approved state compliance designations on June 23, 2011, based upon 2007-2009 monitoring data. Rule making for 2012 is still underway. The North Coast Air Basin has a proposed amendment of the rating for PM2.5 to Attainment from Unclassified. Federal information reflects February 2012 designations.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒

Analysis:

The project would not violate any NSCAPCD rules or conflict with air management plans.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

Analysis:

Project emissions would occur only during construction because ongoing use of the boat ramps will be the same as pre-project conditions, except that reduction in congestion at Westside would create some reduction in emissions due to less idling time. This reduction is not quantified because there is insufficient information to do so. Current guidance from the California Air Resources Board (CARB) suggests that emissions from projects be quantified using a modeling program called the California Emissions Estimator Model (CalEEMod), which is a robust model for emissions from land-use changes, operations, and all different kinds of construction; however, it is not set up to handle very simple repairs and upgrades in place.

Construction impacts for this project were calculated using a 2008 EPA model for just construction-related activities because the simpler calculator is more accurate for this simple construction project. The model includes type of equipment and horsepower with days of use, distance traveled, fugitive dust, worker commutes, and concrete production emissions. Results from the model are shown in Table 2 below. Model output is attached in Exhibit E.

Table 2. Projected Emissions from Bodega Boat Launch Facilities Construction

Criteria Pollutant	NSCAPCD Significance Level (tons/year)	Projected Construction Emissions (tons)
Ozone Precursors	40	0.26
Carbon Monoxide	100	3.85
Nitrogen Oxide	40	1.18
Sulfur Dioxide	40	0.13
Large Particulate Matter (PM10)	15	0.06
Small Particulate Matter (PM2.5)	10	--

For the criteria pollutants calculated, project emissions are far below the significant emissions level. Therefore, the project will have no significant impact on air quality and will not violate any existing standard.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒

Analysis:

As northern Sonoma County is attainment or unclassified for all criteria pollutants, no cumulative impact would occur.

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

Analysis:

The project would not create substantial pollutant concentrations.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Analysis:

One aspect of the project would create an on-going change in odors at Westside. Currently, fish waste from the fish-cleaning station at Westside is disposed of into an adjacent dumpster. For ease of use, the dumpster lid is held somewhat open. Renovation of this cleaning station would include a less odiferous way to handle fish remains, possibly through use of a pulverizer so they can drain into an existing sewer system. This should substantially improve odors at the fish-cleaning station.

Biological Resources

Project Conditions:

The area around the project sites supports several important vegetation communities, including northern foredune, saltgrass flats, shoreline, tidal flats and eelgrass beds, as well as intertidal and subtidal habitats. As part of the biological evaluation, the California Natural Diversity Data Base (CNDDB), USFWS, and NOAA Fisheries databases were consulted, and several field evaluations by wildlife biologists and a botanist to confirm potential occurrences in the project area were conducted; see Exhibits F, G, and H. The following sensitive resources are known, or are likely, to occur in the project area:

- Pink sand verbena, a rare California Native Plant Society (CNPS) list 1B.1 species
- Central California Coast steelhead (low potential), federally listed as threatened
- Central California coast ESU coho salmon (low potential), State and federally listed as endangered
- Additional federally managed fisheries
- Marine and breeding birds
- Sensitive habitats, including Essential Fish Habitat
- Eelgrass, a Habitat Area of Particular Concern
- Marine mammals
- Monarch butterfly

Pink sand verbena, *Abronia umbellata* var. *breviflora*, is a CNPS list 1B.1 plant, the highest rarity rank CNPS gives short of "presumed extinct." It lives at the boundary of upper beach and foredune. At Doran's Cypress Day-use Area, several individuals occur at the west end of the planned dune restoration, in an area that has been denuded of most vegetation by heavy foot traffic.

Steelhead (*Oncorhynchus mykiss)* and coho salmon (*O. kisutch*) are not known to spawn in Bodega Harbor or Cheney Gulch, the main tributary to Bodega Harbor. Historically, these species may have utilized Cheney Gulch. Due to the lack of suitable spawning habitat within Bodega Harbor and Cheney Gulch, the potential for occurrence is low. However, juveniles and adults may stray into the harbor on occasion. Adult salmon can occasionally be found near the outlet to a small freshwater pond at the northwest end of the harbor but are not known to spawn there (C. Menard, Bodega Marine Lab, personal communication, October 10, 2012). Historically, Cheney Gulch supported tidewater goby, but they were extirpated prior to 1984 and have not been documented since. Federally managed fisheries and Essential Fish Habitat are discussed in question b) below.

Northern foredune habitat occurs at Doran in the Cypress Day-use Area and the new boat washdown area, where it is dominated by invasive European sea grass. In the dune restoration area at Cypress, the front of the restoration would transition into upper beach, which has much sparser vegetation in an area dominated by yellow sand verbena and European sea rocket. Saltgrass flats occur in the area between the riprap shore protection and parking lot at the Westside boat ramp. The area is dominated by saltgrass and includes a mix of other native and non-native plants. Shoreline in the project area is largely stabilized with riprap and has very little vegetation.

Tidal flats and eelgrass beds occur in the intertidal area. Tidal flats are generally a little shallower than eelgrass. They are rich with invertebrates, attracting fish that feed on them at high tide and birds that feed at low tide. Eelgrass grows in large beds in soft-bottomed bays from about mean low tide to 6 feet below. Eelgrass is very ecologically important, providing food for many species, structure for diverse habitat, and nursery sites for many commercially and recreationally important aquatic species. In the project area, eelgrass occurs along the edge of the navigation channel from Westside, to the northeast of the existing boat ramp at Doran Park, small patches within the launching area at Westside, and to the north and south of the Westside dock.

The tidal mud flats to each side of the Westside boat launch support many bird species that depend upon macro-invertebrates living in the mud. Some species may also breed nearby in the trees in and around the Westside parking lot, in the rocks along the shoreline, or in the nearby coastal prairie. This project would have no long-term effect on the bird populations; however, they may be disturbed by the noise of construction.

California sea lion and Pacific harbor seal are the most common marine mammals observed within Bodega Harbor. California sea lions can be found year-round and are frequently observed foraging around the fish docks at The Tides and throughout the harbor. They are well established on the island just off Bodega Head. Pacific harbor seals are also year-round residents along coastal Sonoma County; they frequent the harbor and can be observed hauling out near the harbor entrance on jetties and adjacent beaches and foraging within the bay. Northern elephant seal and Stellar sea lion are occasionally reported along the coast. A number of whale species are also known to occur seasonally; however, it is very uncommon for them to enter the harbor.

With all these rich habitats surrounding the project sites, almost all of the work will occur in places that are already developed with existing boat ramps and parking lots. The only terrestrial vegetation that will be disturbed is a small area at Doran in the middle of the parking lot where two bushes would be removed and replaced with a fully vegetated, native plant drainage swale and along the path and picnic table footprint in the salt grass at Westside.

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

Public Comment:

> "Sensitive Species:
> "The County should conduct queries of the California Department of Fish and Game's (DFG) California Natural Diversity Database (CNDDB) and US Fish and Wildlife Service's (USFWS) Special Status Species Database to identify any special status species that may occur in the Project area, such as migrating salmonids and protected seabirds. The County should also consult directly with DFG, USFWS, and the National Marine Fisheries Service (NMFS) for information on species that may be present, their life histories, and possible mitigation for any significant impacts. With this information, the IS should analyze the potential for such species to occur in the Project area and, if impacts to special-status species are found to be significant, identify adequate mitigation measures."
>
> Cy R. Oggins, CSLC

> "Biological Significance
> "Bodega Harbor is a shallow coastal embayment located in southwest Sonoma County. Bodega Harbor contains a diverse number of habitats, including tidal flats, salt marsh and eelgrass beds. It also contains a wide number of plants, invertebrates, and fish species. At least 75 species of fish have been reported from Bodega Harbor. Protected species that occur in Bodega Harbor and are listed under the State and federal Endangered Species Acts, or are listed under the California Rare Plant Ranking System, include: [*See Exhibit F for full list of species occurring at the project sites.*]
>
> Paul Hamdorf, CDFW

Analysis:
As stated above, the CNDDB, USFWS, and NOAA Fisheries databases were consulted, and field evaluations were conducted to confirm potential occurrences; details are found in Exhibits F, G, and H. Species that occur or are likely to occur at the project site are discussed in the site description above. Species from CDFW comments were considered as part of the project's *Biological Resources Evaluation*. Those that are likely present given the habitat actually occurring at the project sites or that were identified during site assessments are included in this discussion.

Project activities that may affect aquatic species are limited to short-term disturbances from removal and replacement of existing piles, placement of precast concrete ramps, and dredging to remove accumulated sediments that are limiting access to the ramp at Westside. Activities may temporarily directly disturb habitat or cause indirect impacts from turbidity and noise. Turbidity is addressed in *Essential Fish Habitat* below.

Noise of construction, particularly the intense intermittent noise of pile driving, can disrupt birds, marine mammals, and fish. Sufficiently loud noises can even kill fish. Noise can cause behavior disruptions in marine mammals and birds that can interfere with foraging and reproductive success. The potential noise impacts on wildlife are addressed in the *Noise* section of the checklist, along with recommended mitigation measures.

Mitigation is proposed to ensure that impacts are less than significant, and consultation will occur with NOAA Fisheries and USFWS to ensure compliance with Endangered Species Act requirements and other regulations. Only one plant species is known or suspected to occur, and dune restoration is proposed to increase the area and quality of habitat.

Mitigation Measures:

Biol – 1: To avoid potential losses to breeding birds, construction activities will occur outside of the critical breeding period (March 15 to August 15). If activities must occur during the normal breeding season, precautionary measures are required. The work area will be surveyed by a qualified biologist to determine if active nests are present. If active nests or behavior indicative of nesting are encountered, those areas plus a 50-foot buffer area for small songbirds

and 200 feet for larger species (e.g., raptors, owls, etc.) designated by the biologist will be avoided until the nests have been vacated. If the construction site is left unattended for more than two weeks during the breeding season, another survey will be completed to determine if breeding birds have moved back into the area and are occupying active nests; similar buffer zones will be established. If construction commences prior to the start of the current breeding season, preconstruction surveys will not be necessary.

Biol – 2: A detailed restoration plan will be prepared for pink sand verbena at the Cypress Day-use Area to minimize impacts on this species and to improve, to the extent feasible, habitat conditions.

Biol – 3: Prior to project commencement, a qualified biologist will conduct a training session for all construction crew personnel that will include discussion of the sensitive biological resources within the project sites and the potential presence of special-status species, their habitats, protection measures, and permit conditions.

Cumulative Effects:
In the long term, dune restoration and management of foot traffic through pink sand verbena habitat will result in improved conditions for this sensitive species.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐

Public Comment:

"Dredging
"The Project would require removal of mudflats and accumulated sediments to increase the size of the boat ramp and improve functionality of the channel at Westside Park. Dredging is likely to cause an increase in suspended sediments, release of contaminants into the water column, and entrainment of special status species. The Department recommends dredging be accomplished using mechanical methods to avoid entrainment of fish. Proper testing per US Environmental Protection Agency standards will be completed to determine the contaminant levels of the material and to determine appropriate disposal options. The Initial Study should describe dredging impacts, and include measures to avoid "take" of State-listed species from dredging activities."

Paul Hamdorf, CDFW

"Construction Noise:
"The IS should evaluate noise and vibration impacts on marine animals and birds from the proposed facility improvements. In particular, the County proposes to replace an unspecified number of piles at both of the boat ramps into the substrate in willow water. Barotrauma effects to fish and other marine species could occur if the underwater sound pressure levels (SPL) caused by pile-driving activities exceed known injury thresholds. The IS should discuss the type of piles and methods proposed for pile installation and analyze the potential for these activities to disturb, injure, or kill sensitive fish (including eggs and larvae) or other organisms. Mitigation measures could include species-specific work windows as defined by DFG, USFWS, and NMFS. Again, CSLC staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species."

Cy R. Oggins, CSLC

Analysis:

Essential Fish Habitat – Essential Fish Habitat (EFH) includes waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is included in each of a series of Fishery Management Plans (FMP) written by NOAA Fisheries Service applicable to Bodega Harbor. These include FMPs for Pacific Coast Ground Fish, Coastal Pelagic Species, and Pacific Salmon. In Bodega Harbor, eelgrass beds are also an important component of EFH. These areas are identified as Habitat Areas of Particular Concern (HAPC), a subset of EFH (PCI and Fawcett 2012).

Pacific Salmon FMP – The Pacific Salmon FMP covers Chinook and coho salmon. These species may occur occasionally within Bodega Harbor in low numbers.

Pacific Coast Groundfish FMP – Bodega Harbor has potential to support a number of fish species covered by the FMP, including Pacific sanddab, leopard shark, cabezon, kelp greenling, lingcod, English sole, starry flounder, sand sole, and shortbelly rockfish (Commins et al. 1996). Additional species are reported nearby in

the Tomales Bay watershed and may be present in Bodega Harbor as well (Kelly and Fox 1995).

Coastal Pelagic Species FMP – Four coastal pelagic species from the FMP are likely in Bodega Bay: northern anchovy, Pacific sardine, Pacific (chub) mackerel, and jack mackerel.

Eelgrass Beds – Bodega Harbor supports extensive beds of eelgrass, a vascular, perennial marine plant that grows in large colonies or beds in soft-bodied bays and estuaries and provides especially ecologically important habitat. As discussed above, it is a Habitat Area of Particular Concern (HAPC), a subset of EFH that is rare, particularly susceptible to human-induced degradation, especially ecologically important, and/or located in an environmentally stressed area (NOAA Fisheries Service Southwest Region 2011).

Proposed project activities that may affect EFH include dredging, fill material, pile removal and installation, and over-water structures (NOAA Fisheries 2003). Dredging and fill may directly impact eelgrass beds. Eelgrass may also be impacted by the reduction in light caused by turbidity from dredging and pile installation and by the presence of over-water structures. At Westside, the project would result in an additional 879 square feet of fill, 282 square feet in over-water structures, and removal of 1,400 cubic yards of material. At Doran, the project would result in an additional 156 square feet of fill and 738 square feet in over-water structures.

The project also would provide elements to improve EFH, including replacing the upper portion of boarding floats with open-grate gangways to allow more light and use of fewer piles. Federal regulations require assessment of occurrence of and potential impacts on eelgrass to occur within 60 days of commencement of construction activities because eelgrass is an annual with large year-to-year variation. Mitigation measures are included below to ensure protection of eelgrass beds.

As stated above, noise impacts on fish and other wildlife are addressed in the *Noise* section below.

Mitigation Measures:

Biol – 4: All proposed gangways will be made of light-transmitting grating to provide a minimum of 40% light transmittance to the water surface.

Biol – 5: A qualified biologist will be on-site prior to and during construction, as needed, to perform surveys and monitor sensitive habitats and species.

Biol – 6: Prior to dredging, project biologist will conduct biological surveys to assess impacts on submerged aquatic vegetation and provide contractor guidance to avoid patches if possible.

Biol – 7: Prior to and after construction, a qualified biologist will conduct surveys for the extent of eelgrass in the project area. During the consultation process with NOAA Marine Fisheries involved in obtaining a USACE permit, standards will be agreed upon for determining an adverse impact. Should the project adversely affect eelgrass, SCRP will implement eelgrass mitigation as agreed with NOAA Marine Fisheries.

Biol – 8: Contractor will utilize a small mechanical machine with environmental bucket to reduce turbidity during dredging.

Biol – 9: When removing piles, contractor will hit or vibrate the pile first to break the bond between the sediment and the pile to minimize the likelihood of the pile breaking and to reduce the amount of sediment sloughed.

Biol – 10: Contractor will slowly remove piles to allow sediment to slough off at or near the mudline.

Biol – 11: Contractor will encircle the pile with a silt curtain from the surface of the water to the substrate during removal if turbidity above threshold limits occurs.

Biol – 12: All pilings will be fit with devices to prevent perching by piscivorous birds.

Biol – 13: Immediately following removal of the existing over-water structures, project biologist will employ a best professional effort to dislodge attached, mobile, native species of animals and relocate to minimize mortality.

Cumulative Effects:

As mitigated, the project would have little impact on biological resources and would be beneficial to pink sand verbena and probably to eelgrass. There would be no ongoing impacts after construction, and it is unlikely that any other construction projects will be happening at the same time. Therefore, no cumulative impact on special-status species is anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Public Comment

"Mudflats

"Mudflats would be impacted during the widening of the Westside Park boat launch. Intertidal mudflats are classified as wetland habitats, and Project components should be designed to minimize impacts. Any unavoidable impacts will require mitigation at a level to ensure 'no net loss.' A mitigation and monitoring plan for mudflats should be submitted to, and approved by, the Department prior to the start of construction."

Paul Hamdorf, CDFW

Analysis:

The tidal mud flats that surround the Westside boat ramp qualify as wetlands under the single identifier criterion set by the California Coastal Commission. Under the federal Clean Water Act, there can be no net loss of wetlands in any project. Widening of the boat ramp at Westside would result in a net loss of 242 square feet of tidal mudflat, which would be mitigated in kind with replacement mudflat along the shore of Westside by passive restoration as stated in *Mitigation Measure* Biol-15.

There may also be temporal impacts on mudflats and eelgrass from sediment disturbed by construction and suffocating organisms as it resettles. A silt fence will be used to avoid this impact to the extent possible as described *Mitigation Measures* Biol – 11 and 14.

Cumulative Effects: The project, as mitigated, will not contribute to cumulative impacts because there is no net loss of wetland.

Mitigation Measures:

Biol – 14: To avoid construction impacts on intertidal mud flats and eelgrass, a silt curtain will be kept on hand during construction activities that have sediment-dispersing potential. If sediment plumes or clouding occurs, construction will immediately halt until the sediment curtain has been deployed.

Biol – 15: Prior to improvements at Westside, SCRP will set aside a section of shoreline between Westside and Spud Point Marina to allow the water to reclaim an area exceeding 250 sq.ft. for tidal mudflat.

Cumulative Effects:

As mitigated, the project will actually provide a small net increase in tidal mudflats. Moreover, the habitat created will be higher value as it will be a functional area instead of the border of a boat ramp. No cumulative impacts are anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐

"Invasive Species:

"Because one of the major stressors in California waterways is introduced species, the IS should consider the Project's potential to encourage the establishment or proliferation of invasive species such as bryozoans, tunicates, shellfish, or other nonindigenous, invasive species including invasive plants. For example, recreational boats brought in from other bodies of water may transport new species to Bodega Bay via hull biofouling, wherein marine and aquatic organism attach to and accumulate on the hull and other submerged parts of a vessel or boat trailer. If the Project expands the capacity of the subject boat-launch facilities, the resulting increase in vessels moving to and from the area may intensify this risk. The IS should analyze the potential for the Project of contribute to the threat of invasive species in Bodega Bay, as well as consider policies or services the two parks may implement or offer to mitigate this impact. The DFG's Invasive Species Program could assist with this analysis as well as with the development of appropriate mitigation (information at

http://www.dfg.ca.gov/invasives).

Cy R. Oggins, CSLC

Analysis:

The project sites are not in connectivity corridors; however, the harbor serves as an important stopover for migrating birds. Immediately adjacent to the project sites are the tidal flats with clam beds and eelgrass patches described above that provide very important nursery habitat. As pointed out by Mr. Oggins, the presence of invasive species can impact the invertebrates on which migratory birds feed. Invasive species, such as the green crab introduced to Bodega Bay in 1993, can also have adverse impacts on nursery habitat by feeding on local species and competing with them for food.

However, this project would not change the number or port of origin of the boaters using the boat launches; most of the boaters in Bodega Bay are using their home harbor. This project would not result in additional opportunities for introduction of invasive species. However, SCRP will consider adding information to their existing signage regarding good harbor protection practices.

Because the project would make it easier to wash boats well at Doran, the overall effect of the project may be to reduce the number of invasives moved from the harbor to other areas. If so, the project would have a beneficial effect on controlling the introduction of invasive species elsewhere.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Analysis:

The parking lot at Westside has Monterey cypress. While not native to this area, they provide roosting habitat for native birds and monarch butterflies. These trees would be retained; no trees need to be removed for the project. No project work would conflict with or violate any local policy.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Analysis:

No habitat conservation plan or natural community conservation plan has been adopted for the project area. The project will comply with all Sonoma County measures and SCRP policies to protect habitat and wildlife.

Cultural Resources

Project Conditions:

Cultural resources consist of objects or places that are, or have been, important to the people who lived with them or that help us understand life in a previous time. They may have been created within the historical period when people wrote down what was happening or in the period before writing. They can consist of entire buildings or small bits of something like a pot or a shard of chert from arrow-making.

This project involves very limited ground disturbance, reducing the likelihood of impacts on buried cultural resources. The side channel at the Westside boat launch will be dredged only to the elevation to which it was previously dredged. When dredge materials are placed for dune restoration, they will be placed on top of the existing grade. Parking lots will be resurfaced without being removed. The only excavations necessary are for the footings (6 inches to 1-foot deep) for the boat washdown at Doran and the path and picnic tables at Westside. There may be some potholing for signage and fish-station renovations. Further, the area to be disturbed at Westside is on fill taken from channel dredge materials after 1950.

To determine whether any important cultural resources occur at the project sites, Thomas Origer & Associates performed a review of literature and archaeological databases, contacted the Native American Heritage Commission and local Tribes, and performed site assessments. They determined that it is unlikely that the project will disturb cultural resources (Exhibit I).

Significance Criteria:

In accordance with California Public Resource Code (PRC) §21083.2 and CEQA Guidelines §15064.5, significant impacts on historic, archaeological, and cultural resources may occur if the project would substantially alter the significance of an important resource, and impacts cannot be avoided or mitigated. Important resources are generally defined as those that:

- Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, or are associated with the lives of persons important in our past;
- Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

PRC §21084.1 requires an Initial Study to treat any substantial adverse change in the significance of a historical resource listed in or eligible to be listed in the California Register as a significant effect on the environment. The definition of “historical resource” includes archaeological resources listed in or formally determined eligible for listing in the California Register and, by reference, the National Register of Historic Places, California Historical Landmarks, Points of Historical Interest, and local registers. Additionally, under PRC §5097, lead agencies must consult with the Native American Heritage Commission and the local Tribes to avoid restricting access to, or significantly altering, sacred and cultural tribal resources.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒

Public Comment:

“Submerged Resources:

“The IS should evaluate potential impacts to submerged cultural resources in the Project area. The CSLC [California State Lands Commission] maintains a shipwrecks database that can assist with this analysis. CSLC staff requests that the County contact Senior Staff Counsel Pam Griggs at the contact information noted at the end of this letter to obtain shipwrecks data from the database and CSLC records for the Project site. The database includes known and potential vessels located on the State's tide and submerged lands; however, the locations of many shipwrecks remain unknown. Please note that any submerged archaeological site or submerged historic resource that has remained in State waters for more than 50 years is presumed to be significant.”

Cy R. Oggins, CSLC

Analysis:

Based upon review by Origer & Associates (Exhibit I), historic-era resources do not occur in the project area, and no historical resources would be affected. The referenced database list was examined; no wreck is recorded at the

project site, and a visual inspection of the site showed no sign of wreckage. No impact on historical resources is anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Public Comment:

"We are concerned about the soil disturbance for improvements at this [Westside] location. There is a very large and significant pre contact site containing human remains and other cultural resources in close proximity. If an archaeological survey was done prior to the initial construction of these facilities we would appreciate a copy in addition to construction drawings for our review. Please send to our office at the address above."

Nick Tipon, Federated Indians of Graton Rancheria (FIGR)

Analysis:

Although the large and significant site described in the comment is not close to the project sites, two sites with potential Tribal artifacts occur close to the Westside Park. During the cultural resources survey, Origer & Associates augured between the parking lot and the road. They were able to confirm that no artifacts or dark soils indicating the likely presence of artifacts occur within the park boundary.

After further communication with the Tribe regarding Origer & Associates' methods and findings and the nature of the fill at Westside, their concerns are largely addressed. However, FIGR has several times had resources of importance show up in fill that was taken from important sites. This is unlikely at Westside because the fill is dredged material from the main channel. In order to avoid any possibility of impacts, and with respect for FIGR, SCRP will enact avoidance measures as specified in the mitigation below.

Mitigation Measures:

Cult – 1: SCRP will notify the FIGR representative when construction of the pads for the tables and path at Westside will occur so he/she can be there for the ground disturbance.

Cult – 2: SCRP will hold a preconstruction meeting to acquaint project personnel with the possibility of encountering sensitive cultural resources. Prehistoric resources may include chert or obsidian flakes, projectile points, mortars, and pestles; dark friable soil containing shell and bone dietary debris; heat-affected rock; or human burials.

Cult – 3: In the unlikely event that previously undocumented cultural resources are encountered during project construction, the construction supervisor will temporarily halt work at that specific location. A qualified archaeologist will be contacted immediately to record and evaluate the find and work with SCRP representatives to implement avoidance, preservation, or recovery measures as appropriate prior to any work resuming at that specific location. Should artifacts be determined to belong to FIGR, guidance from the Tribe's representative will be followed regarding their disposition.

Cumulative Effects: The large site described by FIGR has had cumulative impacts from repeated disturbance. The mitigation measures included in the project are part of the effort to make sure that no such thing happens again. Although it is highly improbable that they are needed in this instance because of the limited ground disturbance and nature of the site, including them in all projects anywhere near native sites is part of the larger strategy to avoid exacerbating a historically bad situation.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Analysis:

No unique geologic features are associated with the project. There are no known or suspected paleontological resources. Because the project involves essentially no ground disturbance, impacts on paleontological impacts are unlikely.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Analysis:

No archaeological or cultural artifacts have been identified within the project study area; hence, encountering human remains is unlikely. In order to avoid any potential impact, SCRP will enact the following mitigation:

Mitigation Measure:

Cult – 4: If any human remains are encountered during construction, these and their context will not be altered until the County Coroner and a qualified professional archaeologist have evaluated the situation and determined an appropriate course of action. If it turns out that the remains are Native American, the most likely descendant will be contacted through the Native American Heritage Commission, and project work will halt while a respectful arrangement is reached.

Cumulative Effects: It is not anticipated that any human remains will be found, but if they are required protocols will be followed.

Geology and Soils

Project Conditions:

Bodega Bay sits on the San Andreas fault with the Pacific Plate to the southwest and the North American Plate to the northeast. Westside is on Bodega Head, a piece of granitic land form on the continent hundreds of miles to the south. Doran is a sand spit attached to the east side of the fault that has Franciscan Complex, the mélange of rock and soil materials formed by fault-zone mixing of sea floor and land deposits (Alt & Hyndman 1975). Soils on the western interior edge of Bodega Head adjacent to Westside Regional Park are Baywood loamy sand and terrace escarpments (NRCS 2012), although the soil at Westside itself is fill from dredged materials taken from Bodega Harbor after 1942 when the USACE constructed the jetties to make a more secure entrance (Magoon et al. 2011). The dredged materials from Bodega Harbor are a mix of fine grain sand, silt, and clay. Doran is a naturally occurring sand spit with dune sand soils (NRCS 2012). As described below, the sand dune soils and dredged materials are vulnerable to both liquefaction and erosion.

Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒

Analysis:

The main fracture zone of the San Andreas fault runs right through Bodega Bay and underneath both boat launches and parking lots. Alquist Priolo zones are defined on both sides of the fault. However, renovation of existing facilities will not change the risk related to being at the project site during an earthquake. Out-of-doors places like this, without overhead structures, are among the safest places to be during an earthquake.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
ii) Strong seismic ground shaking?	☐	☐	☐	☒

Analysis:

The site is located in a zone of high seismic activity related to active faults that transverse the surrounding region. In a major earthquake, the ground may shake very strongly in the project area depending upon the distance to the earthquake epicenter, the magnitude of the shock, and the response characteristics of the underlying soil. The response of structures to this shaking depends upon the nature of the structure and the quality of construction.

The only project element that constitutes a change in the basic footprint of the boat launch facilities is the relocation of the Doran boat washdown. This will actually improve public safety during strong ground shaking because it will eliminate the existing parking lot congestion at Doran whereby vehicles backing off the boat ramp are pointed straight at the boat washdown, which currently makes it more likely that vehicles being bounced by a strong earthquake might collide.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒

Analysis:

Fill is often subject to liquefaction, and the area at Westside may be subject to that hazard. Both Doran and Westside are shown as potential liquefaction hazard sites in the Sonoma County Hazard Mitigation Plan. However, as with the questions above, this project will not result in a change in potential liquefaction hazard at the project sites.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	☐	☐	☐	☒

Analysis:

Areas surrounding the project are flat and not vulnerable to landslides. No aspect of the project will increase landslide hazard potential.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐

Analysis:

Erosion can be increased by concentrating stormwater runoff or by exposing areas of erodible soils, such as those that occur at both Westside and Doran. In the long term, stormwater is concentrated by increasing the slope of a site, adding impervious surface, or redirecting storm flows so that they combine. The project would not change any slopes or redirect storm flow, but it would add impervious surface by paving the gravel area at Doran. However, this lot already slopes toward the center of the two parking areas, and stormwater from both would be retained in a new vegetated swale to be constructed between the two as part of the project. There would also be a very small amount of impervious surface added at Westside in creating the paved trail to the fish-cleaning station. This is basically disconnected impervious surface since it would largely drain to the saltgrass on either side and infiltrate there. No increase in stormwater flow or erosion is anticipated.

During construction, erosion occurs when rainwater meets disturbed ground. This construction project has low erosion potential since very little ground would be disturbed. Most of the work would involve resurfacing of existing impervious surfaces of parking lots and boat ramps. For the small areas to be graded, the swale at Doran and the trail base at Westside, appropriate erosion control materials, such as fiber rolls or straw wattles, will be on site and deployed if there is a forecast for rain to detain stormwater until it can infiltrate. Except as noted below, all disturbed areas would be stabilized at the end of construction.

One aspect of the project, dune restoration at the Doran Cypress Day-use Area, would require non-traditional erosion planning because, in order to establish and maintain good foredune habitat, the following requirements

must be met:

1. Native dune plants flourish best when they are in an area with sparse vegetation; therefore, the 70% cover normally required to prevent erosion is not in this case desirable.
2. Native dune habitat is maintained by active wind erosion moving sand, so any cover that keeps the dunes from blowing about will be contrary to the purpose of the project.

As required, contractor will prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for any disturbance over one acre prior to any land-based construction activities, and a NPDES "General Permit for Storm Water Discharges Associated with Construction Activities" issued by the State Water Resources Control Board will be obtained.

Cumulative Effects: As mitigated, the project will actually have beneficial effects on erosion by creating the drainage swale at Doran, so no cumulative effects are anticipated.

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

Analysis:

Soils at the project site are stable, and no project elements will cause it to become unstable.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒

Analysis:

Soils at the project site are not expansive.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Analysis:

The project does not require the addition of any new septic systems or an increase in the use of the current septic system. Soils at the project site are able to accommodate the current septic system at Doran.

Greenhouse Gas Emissions

Project Conditions:

One of the largest impacts on the environment currently occurring, and forecast to increase over the next few centuries, is global climate change (IPCC 2007). The direct cause of global climate change is the human-produced greenhouse gas (GHG) emissions that are altering the balance of heat retention in the atmosphere (EPA 2010). This section analyzes the potential contribution of the project to the total amount of greenhouse gases being put into the atmosphere and thus to climate change.

Some of the impacts of climate change, such as sea level rise, alterations of precipitation amount and duration, greater temperature variation, extended heat waves, and more energetic storm events, can themselves cause secondary impacts, such as increased environmental stress on both humans and natural systems and additional hazards from storms and coastal flooding (California Emergency Management Agency and California Natural Resources Agency 2012). Where there is potential for a project to exacerbate the secondary impacts of climate change, this is addressed in the *Cumulative Impact* analysis for the relevant resource section of the checklist. For example, the question of would the project potentially increase stormwater runoff that could combine with other stormwater effects, including the climate change effect to produce cumulatively more damaging floods would be assessed in the *Hydrology and Water Quality* section. Likewise, the potential effect of the project on global sea level rise is addressed in the *Hydrology and Water Quality* section.

Mr. Oggins' second comment below indicates that CSLC, based on staff recommendations from 2009, requires consideration of the eventual effects of sea level rise on facilities located within the CSLC's jurisdiction. Recent appellate court decisions have found that CEQA requires analysis of the project's effects ***on*** climate change, including secondary impacts, but does not require analysis of the effects of climate change on the project (Robinson 2012). Therefore, the following discussion is provided for informational purposes only.

The anticipated lifespan of a boat launch ramp is 30 to 40 years. Thus, the project life is until approximately 2050. Since that is one of the planning horizons used for climate change predictions, there is information about what is expected to occur in the project area. Changes projected for the central coast of California include sea level rise of approximately 5 to 24 inches by 2050 relative to 2000 levels. The December 2012 king tide was 2.5 feet (30 inches) above current mean higher high water (MHHW) in Bodega Bay. The photographs in Figure 5 below, taken very shortly after the king tide, illustrate what the new MHHW may be like on a calm day in 2050. A brief discussion of how the change in sea level may affect flooding at the project site is included for informational purposes in the Hydraulics and Hydrology section.

Figure 5. King tide at Doran and Westside illustrating expected mean high high water in 2050 (Dec. 2012).

Comments Received:

"Greenhouse Gases:

"A greenhouse gas (GHG) emissions analysis consistent with the California Global Warming Solutions Act (AB 32) and required by the State CEQA Guidelines should be included in the IS. This analysis should identify a threshold for significance for GHG emissions, calculate the level of GHGs that will be emitted as a result of construction, and ultimate build-out of the Project, including any increase in vehicle emissions that may result from expansion of boat-launching facilities, determine the significance of the impacts of those emissions, and if impacts are significant, identify mitigation measures that would reduce them to less than significant."

Cy R. Oggins, CSLC

"Sea Level Rise:

"The IS should also consider the effects of sea level rise on all resource categories potentially affected by the proposed Project. At its meeting on December 17, 2009, the CSLC approved the recommendations made in a previously staff report, 'A Report on Sea Level Rise Preparedness' (Report), which assessed the degree to which the CSLC's grantees and lessees have considered the eventual effects of sea level rise on facilities located within the CSLC's jurisdiction. (The Report can be found on the CSLC's website, http://www.slc.ca.gov). One of the Report's recommendations directs CSLC staff to consider the effects of sea level rise on hydrology, soils, geology, determinations associated with CSLC leases."

Cy R. Oggins, CSLC

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Analysis:

The project would generate greenhouse gases from construction equipment fuel, worker transport, and production of construction materials. Ongoing emissions from site use are not calculated because conditions before and after project implementation would be substantially the same except for the minor reduction in emissions by the relief of crowding at Westside described in the *Air Quality* section above.

Production of greenhouse gases was calculated using the EPA Greenhouse Gas Equivalency Calculator, which is focused on construction emissions (EPA 2008). This calculator includes construction operations and materials and produces an estimate for carbon dioxide (CO_2) equivalent that includes methane and nitrogen dioxide in the analysis. Construction would generate an anticipated 42 tons CO_2 equivalent, with most of the emissions coming from concrete production.

Determining significance in greenhouse gas emissions can be done by looking at performance thresholds, compliance with an established climate action plan, or numerical standards. Sonoma County has begun the process of developing a Climate Action Plan in cooperation with the 9 cities in the County and local non-profit groups, but it has not yet been adopted. Because this project's emissions would only occur during construction, performance thresholds do not apply. Neither the state of California nor NSCAPCD has adopted a numeric standard. Therefore, this document compares project emissions with current conditions.

Sonoma County has yearly CO_2 equivalent emissions of approximately 4,100,000 tons (Sonoma County Climate Action Campaign 2008). Since the project will produce 42 tons, it will raise County emissions by 0.001%. This is equivalent to putting approximately 7 cars on the road for one year. In and of itself, this is not a significant impact.

Cumulative Effects:

Climate change is creating significant adverse effects, so if this project would have a cumulatively considerable contribution, it would have a potentially significant cumulative impact. In order to determine whether the project would make a cumulatively considerable contribution, potential impacts were assessed to quantify what would happen if all similar entities did the same thing.

There are approximately 14 public boat launches in Sonoma County. If all of them were to upgrade in the same year, it would produce about 280 tons CO_2 equivalent. This would be 0.007% of the County emissions for the year. This is not a cumulatively considerable contribution. However, similar entities could be considered to be parks. Sonoma County has 49 regional parks and 11 state parks; urban parks are a different kind of land use. If each of the regional and state parks did a project this size they would produce 1,260 tons CO_2 equivalent, or 0.03% of County emissions. Again, this is still not a considerable amount.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Analysis:

The Climate Action Plan for Sonoma County has not yet been adopted, but the Climate Action Campaign, a non-profit group working with the County to reduce greenhouse gas emissions has published a plan that focuses on reductions in building materials, low-carbon agriculture, and especially transportation reduction because 62% of Sonoma County's emissions come from transportation.

Most of this project's emissions would come from concrete production. There are low-carbon, precast concretes available that can cut emissions by as much as 75%, although they may not make the specific pieces required to build boat launches. While the Climate Action Campaign plan does not have the power of law, SCRP will use low-carbon cement if it is feasible and not cost-prohibitive.

Mitigation:

GHG – 1: Contractor will investigate availability and cost of low-carbon concrete precast pieces and use if feasible.

Hydrology and Water Quality

Project Conditions:

The only change to hydrology from the project would be the addition of a vegetative swale at the Doran parking lot that would create an entirely beneficial effect. An insignificant water quality issue from possible dune erosion is discussed in the *Geology & Soils* section above. This section addresses two potential impacts on water quality—dredging and potential contamination from construction materials.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐

Public Comment:

"Dredging Impacts:

"The IS should be as precise as possible in describing the amount, duration and timing of the proposed dredging, as these would affect the intensity of any environmental impacts. For example, dredging activities may impact aquatic and marine species in a number of ways. Disturbance of fine sediments may generate turbidity, wherein suspended particulates can impede light penetration and photosynthesis of submerged vegetation such as eelgrass beds; suspended sediment may also react with and reduce dissolved oxygen in the water column, making less available for marine organisms. If toxic metals lay buried in the sediment, they may be reintroduced into the environment and, potentially, enter into the food chain, affecting both water quality and the health of humans and wildlife. Finally, dredging equipment can entrain and kill organisms in the sediment and water column when removing dredge material.

"The IS should analyze these potential impacts to biological resources and water quality from the dredging component of the Project. If impacts prove potentially significant, possible mitigation could include the employment of silt curtains or other best management practices."

Cy R. Oggins, CSLC

Analysis:

Mr. Oggins accurately describes the possibility of adverse consequences from dredging-induced turbidity, including decreasing light, suffocating marine organisms, and reducing dissolved oxygen. Driving and removing the piles may also result in turbidity. Testing of the sediments has shown that the material to be removed does not contain substances (metals and organic compounds were measured) above normal soil levels (Exhibit J), so no toxicity impacts are anticipated.

Other water quality impacts could occur from improper placement of dredge materials stored onshore before final upland placement, insufficient erosion control during construction, or insufficient post-implementation site stabilization. Construction may create water quality impacts from direct discharge of vehicle chemicals, from contaminated stormwater runoff, or from improper waste management.

Mitigation Measures:

Hydro – 1: Dredging will be performed using a small mechanical machine with environmental bucket working from the existing ramp and/or a small barge to reduce turbidity.

Hydro – 2: The dredge material will be placed into a containment facility on shore to allow drying of the material before transport to be ultimately placed for dune restoration. The dredged material will remain within the on-site containment facility only until dry enough to be removed to the designated final placement site, or for a period of no more than 45 days. The containment facility will be approximately 40 feet by 40 feet and constructed of concrete barrier rail (K-Rail) lined with filter fabric to contain the sediment and allow water to drain out and evaporate. The drained water will percolate into the sandy soil beneath and will be contained with straw bales or similar material to prevent surface flow into the harbor. The precise location and dimensions of the facility will be developed by the contractor and submitted for approval prior to construction commencement. Once the material is suitable for transport, it will be loaded onto dump trucks with sealed gates to prevent any material or residual water from leaking outside the truck bed. Following project completion, the site of the containment facility will be returned to pre-project conditions.

Hydro – 3: All proposed gangways will be made of light transmitting grating to provide a minimum of 40% light transmittance to the water surface.

Hydro – 4: Piles will be driven and removed during low tide periods when substrates are exposed in intertidal areas to minimize amount of sediments re-suspended in the water column or as agreed with NOAA Fisheries according to *Mitigation Measures* Biol – 6 and 7.

Hydro – 5: When removing piles, the pile will be hit or vibrated first to break the bond with the sediment, which will minimize the likelihood of the pile breaking and reduce the amount of sediment sloughed.

Hydro – 6: Piles will be removed slowly to allow sediment to slough off at or near the mudline. If turbidity develops during construction, the dredge area or pile will be encircled with a silt curtain from the surface of the water to the substrate.

Hydro – 7: To minimize construction-related impacts and to eliminate increased turbidity from overwater construction, most of the float and gangway construction will be completed off site where the various components will be assembled; therefore, the only in-water work would be floating into place and securing with the use of small hand

tools.

Hydro – 8: No equipment will be operated in areas of flowing or standing water in such a way as to result in the discharge of pollutants into Bodega Harbor; no fueling, cleaning, or maintenance of vehicles or equipment will take place within any area where an accidental discharge to water of the State may occur; and any earth moving work will be performed outside of areas of flowing or standing water.

Hydro – 9: The contractor will have a spill contingency plan for hazardous waste spill into the harbor. Spill contingency plan will include floating booms and absorbent materials to recover hazardous spills. Non-buoyant debris discharged into the Bay will be recovered by divers as soon as possible after loss.

Hydro – 10: All vehicles and equipment operating within or adjacent to the harbor will be visually inspected for waste releases before the vehicles or equipment begin conducting work for the day. Spillage and leaks will be noted during any point that they occur within or adjacent to the harbor during the day. Presence of any spillage from leaks will be noted and will be immediately removed from the harbor or adjacent areas and disposed of at a permitted facility.

Hydro – 11: Floating booms will be used to contain debris discharged into the harbor, and any debris discharged will be removed as soon as possible but no later than at the end of each day.

Cumulative Effects:

In the NCRWQCB's update of impaired water bodies, revised May 24, 2012, Bodega Harbor is not listed as sediment or pollution impaired. Its only impairment is the presence of the invasive green crab. Since this project would not influence the green crab, it would not make a contribution to a cumulative water quality impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒

Analysis:

The proposed project does not rely on groundwater resources, and the proposed activities would not result in impacts on groundwater resources, such as increased use or lowering of the groundwater table.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒ (Beneficial)	☐

Analysis:

The project would result in no alteration to drainage at Westside except reduced washout water flowing to the adjacent undeveloped area. This change would have no adverse impact on erosion. Reducing the water use and runoff at the boat washdown may reduce or halt the small erosion that is currently occurring at the point where the existing washout drains.

Paving of the existing gravel area at Doran may increase stormwater runoff, but it would drain into drain to a new vegetated swale; the existing paved parking area would also drain to the swale. Since the swale would drain more slowly than the existing rock parking lot border and would provide filtration through both vegetation and soil, overall there should be less runoff of stormwater, vehicle toxics, and sediment. The relocation of the Doran boat washdown would place it in an area where all runoff would tend to infiltrate rather than flowing directly to the bay.

Overall the project should produce a mild, beneficial impact on erosion and sedimentation.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Analysis:

The work at the boat launch facilities would not alter runoff patterns except in the manner described in item c) above. It would have no effect on flooding. At Doran, the change in runoff patterns between flat sand and low dunes would be insignificant. More water could infiltrate into the project area with the rougher surface, but this would not be enough to create measurable benefits to flood levels in Bodega Harbor or Bay.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒

Analysis:

The project would neither increase stormwater runoff nor provide substantial additional sources of polluted runoff. No storm drain would be required.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒

Analysis:

The project would result in no additional sources of water quality degradation.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒

Analysis:

The project does not involve housing and would not influence the placement of housing.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐

Analysis:

Both boat ramps and the parking lot at Doran are located within the 100-year flood zone when storms occur in conjunction with high tide. The facilities are built to tolerate this condition, and the upgrades would not redirect or impede flood flows. Over the life of the project, anticipated to be 30 to 40 years, sea level is expected rise as a result of global climate change. The change by the end of the project life (mid-century) is estimated to be 5 to 24 inches based on the most recent NRC study of Sea Level Rise for the Coasts of California, Oregon and Washington (2012). Rising ocean levels will result in more frequent inundation of all coastal facilities; however, the subject boat launch

facilities are designed to be submerged periodically and to stand up to salt water.

Thus, at the highest prediction level, the ramp could be 2 feet deeper in the water. Boaters can accommodate this change by altering the tide level at which they launch, with higher tides perhaps not being as good, but they will be able to use more low tides. This would not create significant effects on launching boats.

The principal at-risk features of this project are the floating docks (risk of docks floating off the top of pile restraints) and the onshore improvements, principally the parking areas (risk of high tide flooding). The highest observed tide estimated for Bodega Bay is about 8.4 feet above the mean lower low water (MLLW) datum (or about 2.6 feet above the MHHW) based on correlations with the principal tide station at the Presidio of San Francisco. This historic high tide level has an expected recurrence of about one in 100 years based on a study prepared by the USACE. If this event is adjusted for the a projected sea level rise in the mid-century of 1.33 feet (16 inches), which is towards the higher end of the NRC estimates (2012) and the value adopted for similar waterfront project planning by the San Francisco Bay Conservation and Development Commission, the highest tide level becomes 9.73 feet MLLW. This level refers to a still water condition and does not include wave action, which would be additive, even for the relatively sheltered sites on Bodega Bay.

The risk for the floating docks will be addressed by an increase to the cut-off level of the guide piles that restrain the docks to 14 feet. Since the parking areas are at or above elevation 10 feet MLLW, they (and the project improvements located around the parking area) are above the projected still water level. Therefore, the risk of flooding is reduced to an acceptable level, although the freeboard (difference between the parking grade and the still water level) has been reduced from about 1.6 feet to about 0.3 feet. This suggests intermittent wave runup onto the parking area is likely if an extreme high water event occurs coincidentally with a significant wave event. This risk will be addressed through the design of the parking area drainage system to remove wave runup, as well as rainfall runoff.

Ocean-facing aspects of the project may be vulnerable to the increased frequency of interactions between storm events and high waves that is predicted to occur because the base sea level rise means that unchanged storm intensity will create more frequent beach run-up (Cayan et al. 2012) By 2100, the storm surge currently occurring with the 100-year flood is predicted to occur approximately yearly. The new dunes at the Cypress Day-use Area, once stabilized by planting, should help protect the picnic area behind them from the increased frequency of storm surge expected as the climate changes. Thus, the project will have a small beneficial effect on flooding.

Cumulative Effects:

The project would not contribute to cumulative impacts from flooding or sea level rise as structures within the flood zone are essentially the same size as existing conditions and would not displace floodwaters.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Analysis:

Although the project sites would flood in a 100-year storm that occurs at high tide, elevation of the facilities would not be altered in a way that would change either the vulnerability of the structures or the people using them to flooding.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

Analysis:

There has not been a tsunami that caused any impact at Bodega Bay in recorded history; however, on the tsunami flood map in the Sonoma County Hazard Mitigation Plan, both project sites are mapped as vulnerable to tsunami. No work at either site would change their vulnerability to tsunami.

Mineral Resources

Project Conditions:

The Sonoma County General Plan 2020 identifies gravel as the principle mineral resource in Sonoma County. Historically, the area also provided mercury for gold mining. However, neither of these resources occurs in or near the project area. Testing of the sediments that would be removed from the channel at Westside showed normal soil levels of mercury (Exhibit J).

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

There is no mineral resource extraction occurring in either regional park or within the federal boating channels, and no gravel mining is currently happening at the project site or anywhere in Bodega Bay. No project activities will disturb or lead to the loss of mineral resources specified or delineated in the Sonoma County General Plan 2020. The General Plan does not identify any mineral resources in Bodega Bay.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

No aspect of the project would render any area that currently could be mined unavailable or remove any materials except sediments deposited in the past 20 years. The channel would only be dredged to its previous depth. The renovation of existing facilities in the same footprint would not affect the availability of mineral resources.

In order to protect their retained mineral right, CSLC may require a dredging lease for the project.

Noise

Considerations in Noise Evaluation

Sound and noise, although often used interchangeably, are distinct. Sound is used to describe both the actual physical pressure differences in the air caused by sound-generating events and the way the pressure differences are directly perceived. For example, a person clapping compresses the air as they bring their hands together. Those compressions propagate through the air in expanding and contracting pressure (sound waves) that spread out in a sphere around the point where the hands collided with the intensity of the wave diminishing as the size of the sphere increases. When sound waves reach someone who can hear them, a "receptor," they are interpreted into what we generally think of as sound, and the receptor "hears" a clap. Thus, sound has two components, the physical waves and the hearing capacity of the receptor.

Sound is measured by instrumentation that deals with the physical characteristics of the wave, but the importance of the measurement results are interpreted by the way the receptor perceives the sound. Since there is a finite amount of energy in the vibration or compression that generated the sound, the energy at any part of the sphere is reduced as it expands. Thus, the further the receptor is from the sound source, the quieter it will seem.

Noise is a particular kind of sound that is generally unwanted by, and sometimes damaging to, the receptor. For example, in an audience of people applauding a great performance one just enjoyed, the sound of the clapping may be loud, but it is generally not perceived as a problem. The much quieter sound of a child waking their parent on a Saturday morning by a clap near their head, however, will be highly disruptive and annoying – this is noise. The California Department of Transportation defines noise as "(airborne) sound that is loud, unpleasant, unexpected or undesired" (Caltrans 1998). Although this definition limits noise to air, human activities can also create vibrations and underwater sounds that cause disruption and physical damage to aquatic and marine wildlife. These sounds are also considered noise for environmental analysis herein.

Sound has three characteristics: the amount of pressure in the sound wave (loosely, the loudness), pitch, and timing. Each of these characteristics can be described in a number of ways depending on the purpose of the sound evaluation. For this acoustical analysis of potential impacts from project noise, sound descriptors are fairly simple, utilizing terms common in environmental noise analysis; a more technical description of the terms can be found in the acoustical analysis in Exhibit K.

Loudness is primarily a result of the intensity of sound waves, generally measured in Pascals (Pa). The range of human hearing from the quietest sound a human can detect to the loudest sound without hearing damage is about 10,000,000 fold. Since this is a bit unwieldy, sound pressure is converted into a logarithmic scale of levels called decibels (dB). Decibels are actually a ratio of the measured sound to a reference sound level chosen so that the threshold of human hearing is at 0 dB. Table 3 below shows some examples of the loudness in dB of various sounds. Sounds above 90 dB can damage hearing with prolonged exposure. Sounds above 140 dB can cause deafness with short-term exposure.

Table 3: Example Sound Pressure Levels

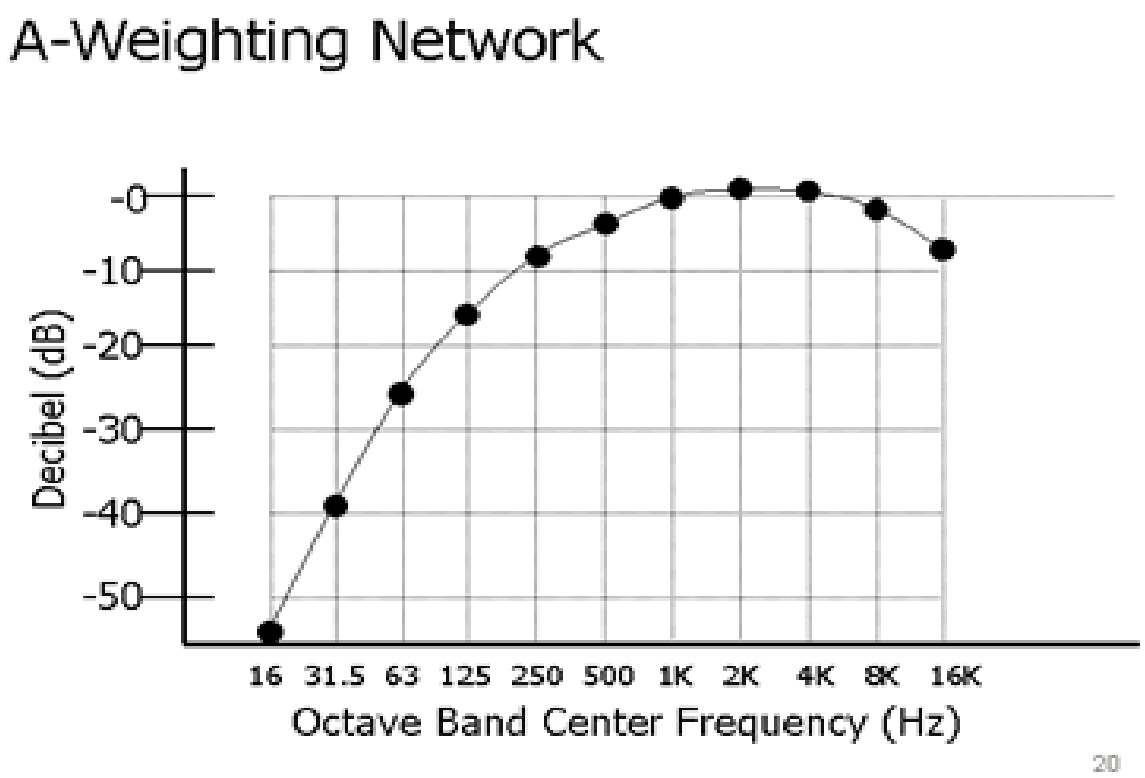
Sound Pressure Levels (dB)	*Built Environment*	*Natural Environment*
120	Military jet at 100 meters	
110	Power mower	
100	Diesel truck at 10 meters	Thunder
90	Food blender	
80	Car at 10 meters	
70	Clothes dryer	Shouting
60	Urban background	Normal conversation
50	Quiet car at low speed	Bird calls
40	Quiet home	Crickets at 5 meters
30	Inside city residence	Whisper
20	Watch ticking	Leaves rustling
10		Human breath
0	Threshold of Human Hearing	

Table data compiled from the Federal Highway Administration, Argonne National Laboratory, San Francisco State University, the National Park Service, NOAA Fisheries, and the Sonoma County General Plan 2020.

Pitch is another factor that can make a sound annoying or distracting. Mosquito buzzing is only about 40 dB, but it can rivet a person's attention. High-pitched tones are used as attention-getting signals. Pitch, or frequency, is the height or depth of a tone or sound, depending on the number of vibrations (expansions and contractions) in the sound waves within a distance often measured in Hertz (Hz). Humans don't hear all frequencies equally. As shown

in Figure 6, higher-pitched sound tends to be heard well, although hearing drops off at both ends of the range. Thus, the actual loudness of the sound is an interaction between the pressure and the frequency. To reflect how humans hear sounds, pressure levels can be adjusted, or filtered, based upon the frequency of the measured sound. The most frequent adjustment is the A-weighted scale with dB adjusted to the shown curve. Environmental sound is described as the A-weighted sound pressure level in decibels, generally written as dBA or dB(A). For some sound evaluation uses, other weighting scales are used but are not needed here.

Figure 6 - Scale used to adjust sound pressure level to more closely describe human hearing. Noise is measured using a filter that adjusts the sound according to the frequency in Hertz. Source: Caltrans



Sound and the perception of sound are variable through time. Sounds have different durations that combine with the pressure to control the total amount of sound energy the receptor receives, measured as the Sound Energy Level (SEL). Thus an 80-dBA noise that lasts for 2 minutes may actually be less stressful than a 70-dBA noise that lasts for 5 minutes. To describe how long sounds last, a number of different systems are used: sounds can be described by the maximum and minimum sound levels measured (L_{max} and L_{min}), by an averaged sound level that gives the equivalent sound energy level to a constant sound through the entire measurement time (L_{eq}), or statistically to show how often a loud noise occurs. For example, L_{10} indicates the sound level exceeded 10% of the time, or 6 minutes out of an hour. This analysis uses percent exceedance for air sound measurements to be compatible with Sonoma County regulatory standards.

If sound were being measured directly as pressure per area, water could be treated in the same way as air. However, using the dB ratio, sound in water must be treated differently because the pressures, transmission rate, and receptors are all different. Typically, sound in water is measured in dB that are calculated differently in two ways: the ratio used is the root-mean-square that provides integrated sound intensity levels and, instead of being referenced to 20 micro Pascals (µPa), which is equal to 0 dB, the quietest sound humans can hear in air, they are referenced to 1 µPa because the range of potential receptors in marine environments is even larger than in air. These units are correctly referred to as “RMS decibels re: 1 µPa.” For this analysis, we are abbreviating this term to “dB RMS” to indicate unweighted, integrated underwater decibels. Underwater decibels are not directly comparable to air decibels and are quite different from A-weighted decibels. Separate standards apply to air and water.

Regulatory Conditions

Federal laws and regulations concerning noise:

- *National Environmental Policy Act (NEPA)* – NEPA requires noise analysis on all projects conducted by the

federal government, on federal land, or with federal funding. This project would not trigger this federal standard.

- *Federal Highway Administration (FHWA) Title 23 CFR Part 772* – Title 23 gives the FHWA authority to regulate any noise-generating activity related to interstate transportation or the federal highway network and to give direction to state departments of transportation. This project does not include any federal highways.
- *Occupational Safety and Health Act of 1970 (OSH Act)* – The OSH Act created the Occupational Health and Safety Administration (OSHA) with broad power to protect worker safety including from adverse noise effects. Contractors routinely follow OSHA regulations when workers operate loud machinery. This does not need to be separately analyzed as a CEQA issue.
- *Noise Control Act of 1972 42 USC §4901 et seq. (1972)* – The Act gave the EPA authority to regulate all federal activities having to do with noise, including transportation noise and standards for machinery and appliances. In 1981, the Reagan Administration determined that noise was best regulated at the state and local level and discontinued funding for the EPA program. Although the Noise Control Act authority was not rescinded in law, the EPA's role is now largely advisory pursuing research on health effects through funded research programs.
- *Endangered Species Act (ESA)* – ESA regulations give U.S. Fish and Wildlife Service and NOAA Fisheries Service the authority to protect listed species and their habitats from threats to their continued survival. Since noise can constitute a serious threat to marine mammals and Essential Fish Habitat, both under the jurisdiction of NOAA Fisheries, that agency has authority over potential noise impacts from this project.

California laws concerning noise:

- *California Environmental Quality Act (CEQA)* – CEQA identifies noise as an important environmental issue but does not set numeric standards. Guidance on acoustic assessment is provided by the questions in this checklist.
- *California Noise Reduction Act* – The Act established the Office of Noise Control within the Department of Health Services to gather and disseminate information, conduct research on noise effects, and assist local governments with establishing and implementing state policies. The functions of the office were transferred to other divisions when the Department of Health Services was reorganized into the Department of Health Care Services and the California Department of Public Health.

Local laws & regulations:

- *Sonoma County General Plan 2020* – In the Sonoma County General Plan 2020, the need to establish a new noise ordinance is identified; however, this ordinance has not yet been adopted. For the time being, noise standards for the unincorporated County come directly from the General Plan. General Plan 2020 uses statistical exceedances to define acceptable noise levels, with different day and night standards, as shown in Table 4.

Table 4. Sonoma County Noise Standards

Hourly Noise Metric[1], dBA	*Daytime (7 am to 10 pm)*	*Nighttime (10 pm to 7 am)*
L_{50} (30 minutes in any hour)	50	45
L_{25} (15 minutes in any hour)	55	50
L_{08} (5 minutes in any hour)	60	55
L_{02} (1 minute in every hour)	65	60

[1] The sound level exceeded n% of the time in any hour.

Source: Sonoma County General Plan 2020

Considerations in the General Plan for allowable noise include surrounding land use, ambient noise levels, time of noise generation, and type of noise. Noise standard levels may be adjusted upward for high ambient noise and downward for very simple, repetitive noise. The plan gives priority to protecting the following sensitive receptors:

- Residences.
- Schools.
- Long-term care facilities.
- Places of public worship.
- Libraries.

Other sensitive receptors likely to occur in the project area, as identified in the *Biological Resources* section above, include:

- Essential Fish Habitat (EFH) and fish.
- Marine mammals.
- Breeding and migratory birds.

While General Plan 2020 does not specifically address construction noise, Policy NE-1c does address non-transportation new noise sources, including short-term noises:

> *"Policy NE-1c:* Control non-transportation related noise from new projects. The total noise level resulting from new sources shall not exceed the standards in Table NE-2 as measured at the exterior property line of any adjacent noise sensitive land use. Limit exceptions to the following:
>
> "(1) If the ambient noise level exceeds the standard in Table NE-2, adjust the standard to equal the ambient level, up to a maximum of 5 dBA above the standard, provided that no measurable increase (i.e. +/- 1.5 dBA) shall be allowed
>
> "(2) Reduce the applicable standards in Table NE-2 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises, such as pile drivers and dog barking at kennels
>
> "(3) Reduce the applicable standards in Table NE-2 by 5 decibels if the proposed use exceeds the ambient level by 10 or more decibels
>
> "(4) For short-term noise sources which are permitted to operate no more than six days per year, such as concerts or race events, the allowable noise exposures shown in Table NE2 may be increased by 5 dB. These events shall be subject to a noise management plan including provisions for maximum noise level limits, noise monitoring, complaint response and allowable hours of operation. The plan shall address potential cumulative noise impacts from all events in the area."

NOAA Fisheries Guidance

NOAA Fisheries recognizes two types of sound: pulsed (impulsive) and non-pulsed (referred to as continuous). NOAA Fisheries acoustic exposure criteria are based on the dB RMS for underwater sound and have two levels:

- Level A harassment –180 dB re: 1 µPa (RMS)
- Level B harassment –
    - 120 dB re: 1 µPa (RMS) for continuous sources
    - 160 dB re: 1 µPa (RMS) for impulsive sources

Exposure criteria for fish are for impulse-type noise. The underwater threshold for harm of fish has been set at 206 dB RMS peak, 187 dB RMS accumulated sound pressure level (SPL) for fish over 2 grams, and 183 dB RMS for fish less than 2 grams. Exposure criteria for pinnipeds in air are 90 dB (unweighted) for harbor seals and 100 dB (unweighted) for all other pinnipeds. (NOAA Fisheries 75 FR 207:66070 *et seq.*; 76 FR 245:79410 *et seq.*; 77 FR 128:39471 *et seq.*; Boudreau Associates LLC 2012.)

Assessment Methodology

A complete acoustical assessment was prepared for the project; see Exhibit K (PCI 2012). The relevant policy guidance for reviewing potentially significant impacts from this project came from the Sonoma County General Plan 2020 for effects on humans and from NOAA Fisheries for effects on protected aquatic resources. This section summarizes the steps in the noise study. An initial assessment of potential noise concerns used aerial photography to identify sensitive human receptors in close proximity to the construction area. Since all human receptors are farther from Doran than Westside, and EFH occurs at both sites, assessment focused on Westside.

Assessment of existing field conditions in the project vicinity was performed during daytime in the mid-week to match proposed project construction conditions. Noise was measured using a Casella-246 with an A-weighted filter. Measurements were taken near the property lines of the two closest sensitive receptor communities, at the project area, and near the closest "business district" at Spud Point Marina.

Project noise from construction was estimated using data from previous construction projects. Expected attenuation was calculated for air using spherical spreading and for water using a compromise between spherical and cylindrical spreading per NOAA Fisheries (77FR128). Air and water values were compared to regulatory standards to identify potentially significant effects.

Significance Criteria

Since construction will occur only during the day, the project would be considered to have a significant adverse effect on noise if it is likely to exceed the County's daytime noise standards in Table 4 above, or if it exceeds the aquatic standards set by NOAA Fisheries to protect marine organisms, and mitigation to reduce noise levels or noise impacts is not feasible.

Project Conditions

Except along Highway 1, Bodega Bay is very quiet. Noise sources in the project area include wind and water, conversation, cars, boats and boat-related equipment, and the foghorn. Because Bodega Bay's primary industry is fishing, both recreational and commercial, a good deal of the noise at the project sites is related to fishing equipment.

In addition, Bodega Bay is a highly desirable tourist destination. Doran Regional Park has approximately 4,000,000 visitors each year. Unlike many areas, in Bodega Bay weekends are louder than weekdays. Since construction would occur on weekdays, this analysis looks at weekday noise levels.

Residences and guest accommodations for the University of California at Davis' Bodega Marine Laboratory are just west of Westside Regional Park, and a small residential neighborhood is northeast near Spud Point Marina area. Most of the area around Westside is open space, either park or university lands. Doran Regional Park is on a long spit, so there is no surrounding land. A U.S. Coast Guard station is adjacent to the Doran project area. Zoning at both parks is Public Facilities in the Coastal Corridor, and significant development expansion is not anticipated.

Table 5 summarizes the noise survey results of existing daytime conditions in terms of statistical descriptors in which noise level is exceeded a given percent of the time (i.e., L_{50}, L_{25}, L_{08}, and L_{02}). Because sampling locations A, B, and D were less than 50 feet from the edge of the road, numbers may be slightly higher than shown on County standards and still not constitute a violation of standards because of the attenuation expected from moving further from the road. Westside Regional Park was louder than the L_{50} standard, probably because of background wind conditions on the day of the evaluation.

Table 5: Ambient Daytime Noise in the Project Area on 11/19/2012

	Spud Point Area (Location A)	*Westshore Road by Nearest Residence (Location B)*	*Westside Regional Park at Boat Launch (Location C)*	*Westshore Road by Bodega Marine Laboratory (Location D)*
L_{50}	45.6	43.8	52.8	47.1
L_{25}	50.3	46.5	54.4	49.6
L_{08}	60.6	52.3	56.5	55.7
L_{02}	67.4	62.4	58.9	60.9

[1] *The sound level, expressed as dBA, exceeded n% of the time at sites located around the project area. Measurements were taken mid-week during normal business hours (PCI 2012c). Measurements at locations B and D were taken 23 feet from the mid-point of the road and location A was taken 36 feet from the mid-point of the road. Measurement numbers for A, B, and D are adjusted to give the 50-foot sound pressure level.*

Comments Received during CEQA Scoping:

"Pile Driving
"This project proposes to replace existing piles. The Department prefers the use of a vibratory hammer to reduce impacts to fish and wildlife. If impact hammering is proposed, the Department's Interim Criteria for Injury to Fish from Pile Driving Activities (Interim Criteria, see attached) should be incorporated into Project plans. According to the Interim Criteria, the sound pressure levels should not exceed 206 dB peak and 187 dB accumulated sound exposure level (SEL) for all listed fish except those that rare less than 2 grams. In that case, the criteria for accumulated SEL will be 183 dB. If sound pressure levels exceed those in the Interim Criteria, an application for an Incidental Take Permit and a sound-attenuation monitoring plan should be submitted to the Department prior to construction. The Initial Study should also include the material and size of new piles, the proposed method of pile driving, monitoring plan, the size of hammer, the monitoring methods, and mitigation measure to avoid injurious sound pressure levels to fish and marine mammals."

Paul Hamdorf, Acting Regional Manager, Marine Region, CDFW

"Construction Noise:
"The IS should evaluate noise and vibration impacts on marine animals and birds from the proposed facility improvements. In particular, the County proposes to replace an unspecified number of piles at both of the boat ramps into the substrate in shallow water. Barotrauma effects to fish and other marine species could occur if the underwater sound pressure levels (SPL) caused by pile-driving activities exceed known injury thresholds. The IS

should discuss the type of piles and methods proposed for pile installation and analyze the potential for these activities to disturb, injure, or kill sensitive fish (including eggs and larvae) or other organisms. Mitigation measures could include species-specific work windows as defined by DFG, USFWS, and NMFS. Again, CSLC staff recommends early consultation with these agencies to minimize the impacts of the Project on sensitive species."

Cy R. Oggins, CSLC

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

Analysis:

The project would only generate noise during construction; it would not create any long-term change in noise levels. Noise from project construction would be generated by:

- Vehicles arriving and leaving the project site,
- Construction equipment, such as loaders and bulldozers,
- Dredging, and
- Pile driving.

The loudest construction activity would be pile driving. The amount of noise generated during pile driving varies depending upon the size and type of the pile, size and type of hammer, water depth, and geotechnical conditions that determine how difficult it is to drive the pile (Illingworth & Rodkin 2007). Caltrans has conducted a study of noise created by various piling materials—wood, concrete, and steel—and by various driving methods. The loudest noises come from hollow steel piles being driven by an impact hammer.

Project construction would avoid the combination of an impact hammer and steel piles and instead employ either concrete piles or a vibratory hammer. According to Illingworth & Rodkin (2007), underwater sound levels ranged from 185-188 peak dB for concrete driven with an impact hammer to 165-185 peak dB for steel driven with a vibratory hammer. In a water depth of 5 meters, a representative depth for this project, a 24-inch steel pile driven with a vibratory hammer would produce 160 dB RMS. Since project piles would be only 18 inches wide and would be driven into soft substrate, 160 dB RMS is used as a conservative estimate of underwater noise. As this is below the exposure limits for fish defined by NOAA Fisheries (206 dB RMS peak, 187 dB RMS for fish over 2 grams, and 183 dB RMS for fish less than 2 grams), underwater impacts on fish are not anticipated.

For this project, pile-driving noise in air is expected to have an L_{max} of 95 dBA at 50 feet using concrete piles with an impact hammer or 86 dBA with a vibratory hammer. As the County prioritizes protecting private residences as the most important sensitive receptor, and the closest sensitive receptor to Westside is a residence, all potential effects on humans are evaluated using noise levels near the closest residence. Using the equations from the *Assessment Method* above, this would result in noise levels at the property line of the nearest residence as shown in Table 5 for the loudest and most used construction equipment.

Sonoma County's standards are for L_{50}, L_{25}, L_{08}, and L_{02}. To compare predicted project-induced noise levels to County standards, the predicted L_{10} (exceedence 10% of an hour, or 6 minutes), which is very close to the County's L_{08} (exceedence 8% of an hour or ±5 minutes), was used. The County's standard L_{08} during the workday is 60 dBA or less, but General Plan policies specify adjustments to the levels according to project-specific circumstances:

- Impact pile drivers must be 5 dBA quieter.
- Short-term noises that occur less than 6 days per year may be 5 dBA louder.

It is estimated that pile driving at both sites will take only 3 days (2 at Westside and 1 at Doran), spread out over 2 years, so it would be a short-term noise. Both adjustments above apply to impact pile driving, leading to no net change in the standard of 60 dBA. If vibratory pile driving is employed, the allowed L_{08} level would be 65 dBA.

Construction generally will meet County standards. However, impact pile driving and clam-shovel dredging would be above County limits. Mitigation is proposed below that will allow these activities to meet County standards for humans.

Air noise standards for pinnipeds (i.e., 90 dB (unweighted) for harbor seals and 100 dB (unweighted) for all other pinnipeds) are higher than the potential project L_{max} levels. However, clam-shovel dredging and impact pile driving, both of which produce noise levels above 90 dBA at 50 feet, could disrupt marine mammals in the project area. Mitigation measures are recommended below to keep marine mammals safe during construction.

Because eelgrass beds, an important habitat for fish and other marine species, occur close to the project site, mitigation measures have also been included to ensure that harmful sounds do not travel underwater.

Mitigation Measures

Noise – 1: Construction will occur in the daytime during the work week (Monday through Friday).

Noise – 2: The minimum number and size of piles necessary to support the floating docks and gangways will be

used.

Noise – 3: Concrete piles may be driven by impact hammer; however, if steel piles are utilized, they will be driven by vibratory hammer. If an impact hammer is used, a wooden cushioning block will be placed between the hammer head and pile to reduce both air and underwater noise levels. This will reduce air sound pressure levels by 5 dBA, bringing the project into compliance with both County and NOAA Fisheries standards.

Noise – 4: To achieve compliance with NOAA Fisheries' underwater noise standards and protect marine organisms, underwater noise transmission will be reduced by:

- Driving piles only during periods of minimal current (slack tide).
- Conducting underwater noise monitoring and implementing noise barriers such as bubble curtains or temporary noise attenuation piles if necessary.
- If NOAA Fisheries recommends work windows, pile driving will be performed only during those windows.

Noise – 5: In order to comply with County standards, clam-shovel dredging will require either:

- Total dredging time be less than 6 days per year, or
- Noise monitoring be performed for the first hour of dredging activity to confirm that the project is meeting County standards. If noise levels exceed the County standards, a temporary noise barrier will be erected in the transmission path between the project and the Spud Point residential neighborhood.

Noise – 6: For protection of marine mammals and other marine species, the contractor will:

- Bring loud mechanical equipment on-line slowly.
- Maintain sound levels below 90 dBA in air when pinnipeds (seals and sea lions) are present.
- During pile driving with an impact hammer and during dredging:
  - Maintain a 200-foot safety zone around sound source in the event the sound level is unknown or cannot be adequately predicted.
  - Halt work activities if a marine mammal enters the 200-foot safety zone.
  - Allow marine mammals to completely exit the project area before pile driving or work with other loud mechanical equipment resumes.

Cumulative impacts from temporary construction are addressed in item d) below.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Analysis:

Construction activities may include driving concrete piles using an impact hammer. Pile driving can generate perceptible groundborne vibration levels within 25-50 feet of the pile-driving activity. No vibration sensitive receptors are located within 50 feet of where pile driving would occur. Pile driving would be imperceptible at the closest adjacent structures. No other construction activities are likely to generate perceivable groundborne vibration.

Cumulative impacts from temporary construction activities are addressed in item d) below.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
Analysis: No permanent increases in ambient noise levels above those existing without the project would occur.				
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
Analysis: Construction would cause temporary increases in noise in the project area at both Westside and Doran. The specific temporary impacts are addressed in item a) above. *Cumulative Effects:* Construction at Westside would take 16 weeks. Construction at Doran would take 10 weeks and probably occur in the following year. Little construction would occur elsewhere in the project area, because most of the land is protected. Further, these construction projects will be deliberately scheduled for times of year when construction doesn't generally happen in order to avoid wildlife impacts. Therefore, no cumulative impact is likely.				
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
Analysis: The project is not within two miles of an airport.				
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
Analysis: No private airstrips have been identified within the vicinity of the project area.				

Recreation

Project Conditions:

The purpose of the project is to improve access and safety of existing recreational facilities at Doran and Westside Regional Parks. Measures that will improve facilities without expanding them include:

- Resurfacing the boat launch ramps and repairing drop off at Westside.
- Paving gravel parking areas at Doran and resurfacing existing paved areas at both parks.
- Refurbishing or replacing fish-cleaning stations at both parks.
- Paving the public-use trail that has developed by casual use between the Westside ramp and fish-cleaning station to make it ADA accessible.

Expansion of facilities included in the project are:

- Widening Westside boat launch from 2 to 3 lanes to address existing peak-use crowding.
- Adding 3 picnic tables in the grassy area to the north of the Westside ramp.
- Relocating Doran boat washdown from the center of the parking lot to an area across the street with room for 2 lanes to improve traffic flow and safety.
- Creating and restoring foredune habitat at the Cypress Day-use Area.
- Adding a low freeboard boarding float at each site to accommodate carry-down boats (kayaks, canoes etc.) and disabled access.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact (Beneficial)	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

Analysis:

There are a few short periods each year, such as the opening of fishing season, when the number of boaters launching from Westside exceeds the existing capacity. This generates long waits in the parking lot and traffic congestion on the road. It is anticipated that the addition of a third lane in the center of the boat ramp would reduce wait times for boaters that already use the park. Likewise, relocation of the boat washdown facility at Doran from the center of the parking area to a spot across the road with room for 2 lanes would reduce congestion during peak-use times. These upgrades will improve safety and reduce the wait time.

Park use for boaters is limited by the number of boat-trailer parking spaces available. The number of parking spaces will not be expanded. Further, 50-75% of the boat users at these parks are campers or local people, so the population of boaters is finite (Mark Cleveland, personal communication, September 2012). Thus, the decreased wait time would improve the experience of people using the park and help the facilities last longer without resulting in significant increases in usage.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Analysis:

The expansion of the Westside boat ramp and relocation of the Doran boat washdown may temporarily affect sensitive biological resources. Possible impacts are addressed in the *Biological Resources* section of this Initial Study. No adverse physical effect has been identified.

Transportation/Traffic

Project Conditions:

Highway 1 is the main road through Bodega Bay. This road sometimes becomes congested on weekends and holidays but is not congested during the week when the project would be constructed. In addition, the project is small enough that the construction crew is unlikely to make any impact on overall project conditions, and the project only includes 145 truck trips across 16 weeks of construction for both sites. Many of these trips (128) would be concentrated in a short time to move the dredge materials from Westside to the Doran dune restoration area.

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐

Analysis:

The project would have no long-term effect on traffic circulation except to improve circulation in the Doran parking lot.

Use of the boat launches would not be permitted during construction of upgrades of the ramps or during paving and restriping of the parking lots, but closures would not affect through traffic continuing past the facilities at either park. Construction would be scheduled so that closures would occur at only one at a time. Closures would last less than 3 days at each facility.

Mitigation Measure:

Traf – 1: Several days prior to closures, the contractor will place signs at appropriate turnoff points several days prior and during construction to alert boaters that the facilities are not accessible and to direct them to the alternative facility.

Cumulative Effects: This project will be isolated construction that will not block any public roads or cause any congestion. No cumulative effects are anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

Analysis:

Sonoma County General Plan 2020 sets a new direction for congestion management that focuses on use of public transit, bicycles, and walking as much as possible. During periods when construction-related vehicle traffic would occur, the existing level of service (LOS) would be maintained. As traffic through Bodega Bay in the middle of the week is free flowing, the addition of even the highest concentration of truck traffic the project might produce (128 trucks trips over a period of 2 weeks – approximately 2 trips an hour during working hours) would not reduce the LOS. According to the significance standards provided by Caltrans, the project would have a significant effect on traffic if it generated more than 100 truck trips per hour to peak hour traffic. Since this project would only contribute 2 trips per hour during non-peak times, it is far, far less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation	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?	☐	☐	☐	☒

Analysis:

No air traffic patterns would be affected by the upgrades to the boat launch facilities in Bodega Harbor.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐

Analysis:

The project would reduce hazards due to the current location of boat washdown at Doran and from deteriorated conditions at both parks. The Bodega Bay Fire Chief raised concerns that 3 lanes of boat access with two floats might create hazards at Westside during storm events. Although the 3-lane, two-float design has been used successfully at other boat launch facilities, SCRP proposes signage to direct boaters to treat the ramp as two lanes during storms.

Mitigation Measure:

Traf – 2: Safety signage will be added to the project site that states: “To prevent boating accidents, do not use adjacent lanes during storms or rough seas.”

Cumulative Effects:

Traffic use patterns at either site would not affect traffic use patterns or hazards off site; no cumulative impact is anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?	☐	☐	☐	☒

Analysis:

The project would not alter emergency access. The adjacent Coast Guard station at Doran has its own harbor access and boat ramp, so construction would not interfere with their rescue activities. The project would not impinge on Doran Park Road or Westshore Road, so construction would not reduce access, except when a construction truck is bringing supplies to or from the project site. Even in these cases, both Westshore Road and Doran Park Road have numerous opportunities to pull over so that no significant delay would occur.

Cumulative Effects:

The project would not contribute to any cumulative impact on emergency services because work will not occur on weekends when there is often congestion in Bodega Bay.

Mandatory Findings of Significance	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
Analysis: Although the project has the potential to impact Essential Fish Habitat and sensitive species, avoidance and mitigation measures are incorporated into project design that will protect sensitive resources, including construction scheduling, design of restoration dunes, use of noise-sensitive pile driving methods, low-silt dredge methods, and silt curtains, if needed. Even without these measures, impacts would not be large enough to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number, or restrict the range of a rare or endangered plant or animal. The project would not eliminate any important examples of California history or prehistory.				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
Analysis: For each resource area with potential impacts, even if less than significant, this analysis has included assessment of potential cumulatively considerable contributions to existing significant impacts. The project will not have significant cumulative effects even when considered in the light of other past, present, and future projects.				
	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒
Analysis: The project will not have substantial adverse effects on human beings. It would provide improved safety, ADA access, and recreational opportunities.				

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