
PILLAR POINT HARBOR BOAT LAUNCHING FACILITY FEASIBILITY REPORT



Boat Launch Ramp



Pile-Guided Boarding Float

**San Mateo County Harbor District
\$400,000 Grant (Planning)**

SUMMARY

The Boating and Waterways Commission (Commission) is being asked to provide Advice and Comment on the San Mateo County Harbor District's (District) request for a \$400,000 planning grant from the Harbors and Watercraft Revolving Fund (HWRF) for improvements to the Pillar Point Harbor Boat Launching Facility (BLF).

The proposed grant would fund the design, permits, and establish an engineer's cost estimate to construct project improvements, which include the following: demolishing and replacing the concrete boat ramp, pile-guided boarding floats, restroom, boat wash station, and fish cleaning station; installing electric vehicle charging infrastructure; improving the parking area, sewer lines and site drainage; creating an ADA path of travel; and installing project signage.

There are no expected problematic financial, engineering, permitting, stakeholder, or public access issues associated with this project. The project design is anticipated to be completed by June 2025, at which time the District will apply for construction funding.

The Department of Parks and Recreation, Division of Boating and Waterways (DBW) seeks Commission Advice and Comment on this proposed \$400,000 HWRF planning grant to the San Mateo County Harbor District for the Pillar Point Harbor BLF improvements described in this June 7, 2023 feasibility report.

GRANT APPLICANT AND PREVIOUS COMMISSION ACTION

Grant Applicant

The grant applicant for this project is the San Mateo County Harbor District, which has owned, operated, and managed the Harbor and boat launching facility since 1961. San Mateo County Harbor District has the authority to construct, operate, and maintain the Pillar Point Boat Launching Facility.

Commission Site Visit

Boating and Waterways Commission members completed an official visit to the proposed boat launching facility site on June 7, 2023, as part of the Commission tour.

Previous Commission Action

Since FY 1988/89, the Boating and Waterways Commission has approved grants totaling \$2,894,500 for improvements to the Pillar Point Harbor BLF.

In FY 1988/89, the Boating and Waterways Commission approved a \$990,000 BLF grant to replace a two-lane boat launching ramp with a new six-lane ramp, as the first part of a two-phase BLF improvement project.

In FY 1991/92, the Boating and Waterways Commission approved a \$1.4 million BLF grant to continue the second phase of the BLF improvement project including: boarding floats, piles, two-land access driveway to the ramp, restrooms, boat wash down area, parking, walkways, landscaping, lighting, and utilities.

In FY 1999/2000, the Boating and Waterways Commission approved a \$158,000 Ramp Repair and Modification grant to replace the deteriorating asphalt concrete ramp and turnaround with concrete. In FY 2001/02, the grant was amended to accommodate a \$36,500 increase for a total grant of \$194,500.

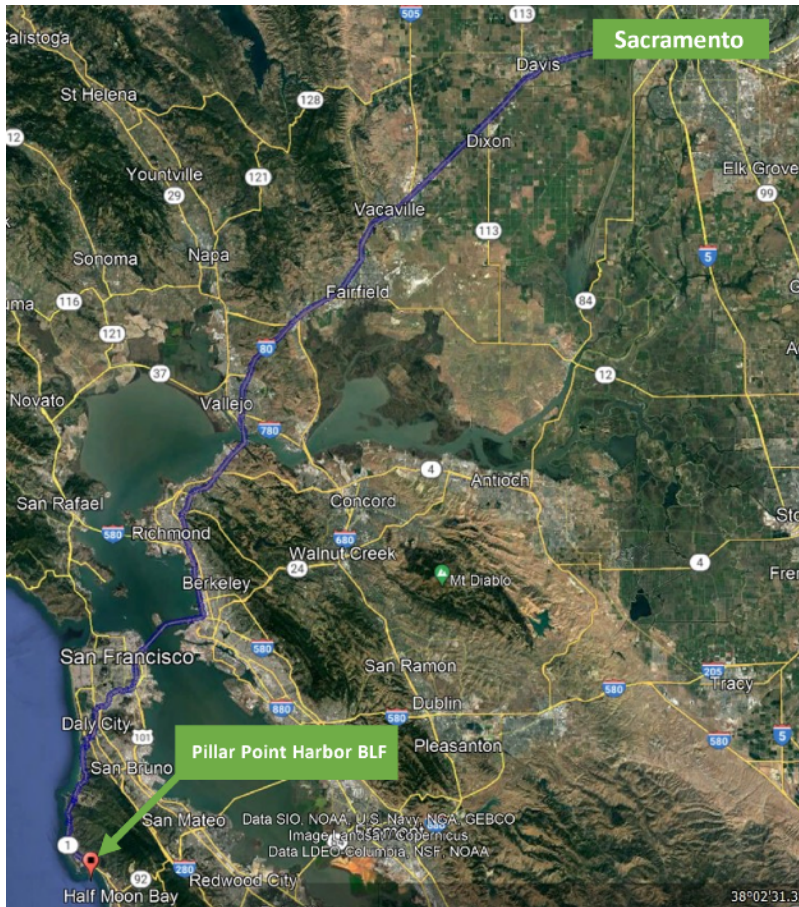
In FY 2002/03, the Boating and Waterways Commission approved a \$310,000 Ramp Repair and Modification grant to replace the deteriorating boarding floats.

GENERAL LOCATION AND AREA

Location

Pillar Point Harbor BLF is located in Pillar Point Harbor, approximately 115 miles southwest of Sacramento in San Mateo County.

To get to the Pillar Point BLF, take I-80 W toward San Francisco for approximately 95 miles, then merge onto US-101 S. Take exit 431 to merge onto I-280 S toward Daly City for 6.5 miles. Keep right to stay on CA-1 S toward Pacifica. Turn right onto Capistrano Road, then turn left onto Pillar Point Harbor Boulevard. The facility is at the end of the boulevard at 1 Johnson Pier, Half Moon Bay, CA.



Source: Google Earth

Area

Pillar Point Harbor is in San Mateo County on the California Coast, approximately 25 miles south of San Francisco and 45 miles north of Santa Cruz. It is a protected harbor offering the only public boat launching access to the Pacific Ocean on the west side of the county.

Pillar Point Harbor marks the northern end for the city of Half Moon Bay, which has a population of approximately 11,800. The area also draws significant tourism, particularly from big-wave surfers seeking the Mavericks, making Pillar Point Harbor a surfing destination for some of the world's best big-wave surfers. The area is likewise popular with fishermen and nature enthusiasts, who enjoy sites including the California Coastal Trail, inland hiking trails of the undeveloped Rancho Corral de Tierra, and preserved nature areas, such as Pillar Point Bluff and the Fitzgerald Marine Reserve.

Pillar Point Harbor features 369 berthing slips, a public boat launching facility, service facility for commercial fishing, and public restrooms. Pillar Point Harbor BLF is open to the public and provides direct ocean access.

Pillar Point Harbor BLF is the only public boat launch ramp providing direct access to the ocean for the 70 miles of coastline from San Francisco to Santa Cruz. Coyote Point Marina BLF is the nearest boat ramp, approximately 20 miles across the mountains on the San Francisco Bay side. San Mateo County Harbor District also oversees Oyster Point Marina BLF on the Bay.

History

The United States Army Corps of Engineers completed work on the outer riprap breakwater at Pillar Point in 1961 to create a safe harbor. The outer riprap breakwater protects the BLF and harbor. The inner harbor breakwater provides additional protection for the harbor only.



Source: Google Earth

The existing BLF launch ramp was constructed originally as a two-lane launch ramp in 1968 as part of the District's development of Pillar Point Harbor. The District completed a two-phase DBW grant project in 1989 and 1991 totaling \$2.39 million that replaced and relocated the launch ramp, increased the number of ramp lanes from two to six, and constructed the other facility components. DBW granted a total of \$504,500 in FY 1999/00 and FY2002/03 that repaired and replaced the ramp and boarding floats. The existing facility components are approaching the end of their useful life.

Usage

Pillar Point Harbor BLF provides public boating access to the coastal region of the San Francisco and San Mateo. Its location is especially important to the local community, including the disadvantaged communities within South San Francisco and San Mateo, being the only public boating access with direct ocean access.

Pillar Point Harbor Boat Launch Facility



Source: Google Earth

According to the District, motorized and non-motorized boaters do not experience significant overlap or conflict when launching at the BLF, as non-motorized users will often launch directly from the beach near the kayak rental area. Motorized boaters currently experience up to 3.5 hour-long wait times to launch during busy summer weekends. Boaters access the facility for fishing, sailing, whale-watching, and more. Commercial fishers who offer fresh catch to local restaurants, also incidentally utilize the launch ramp.

Pillar Point Harbor BLF is accessible 24 hours a day, 7 days a week. The BLF is open year-round with its peak season between March and November. The busiest weekdays for recreational boating are Thursday through Sunday, and for commercial boating is Monday through Wednesday.

Boater spending generates revenue for local restaurants, gas stations, hotels, and bait shops. Improvements to the facility, as proposed, will increase safety and accessibility at the BLF and will keep the facility usable for at least 20 years to come.

Existing Conditions

The BLF currently has six lanes for boat launching and retrieval, four 8' x 120' boarding floats, a boater restroom, boat wash down area, pay station, fish cleaning station, and 114 vehicle/trailer parking stalls consisting of 40 vehicle/trailer stalls in lot C1, 26 vehicle/trailer stalls in lot C2, and 45 vehicle/trailer stalls with 3 accessible vehicle/trailer stalls in lot C3 (see Pillar Point Harbor Boat Launching Facility picture).

Pillar Point Harbor Boat Launch Facility



Source: Google Earth

While the facility is currently serviceable, it is nearing the end of its useful life and will likely reach an unsafe condition by the time plans, permits, and funding are developed and acquired. Siltation has built up in recent years, rendering the two eastern far most launching lanes difficult to use especially during low tide. The District will conduct dredging of the ramp as part of the Surfer Point Beach Nourishment project, funded in part by DBW.

The asphalt at the facility's parking area and top of the launch ramp is weathered from the harsh saltwater. The site does not currently meet Americans with Disabilities Act (ADA) code requirements.

The restroom is over 40 years old and has experienced similar weathering and deterioration from the coastal weather. The District recently re-painted the wooden restroom structure, but the wood continues to rot internally, and the fixtures have rusted. The existing restroom does not meet ADA requirements and will need to be brought into compliance.

The District indicated that the facility needs improved sewage drainage for the restroom and fish cleaning station, water treatment for the boat wash down area, and storm water treatment for the asphalt turnaround.

The facility does not currently have charging stations for electric vehicles (EV). Given the increased demand for EVs, the District seeks to eventually accommodate boaters with EVs and provide charging stations. DBW may be able to fund the planning and construction infrastructure required for EV charging but not the stations themselves currently due to the lack of availability of EV's capable of towing trailers.

PROJECT DESCRIPTION

The proposed project would develop project designs, acquire permits, and establish an engineer's cost estimate for the BLF. The District may apply for construction funding in the future as engineering designs near completion.

Proposed Project Scope

Concrete Boat Launch Ramp

Replace the existing six-lane concrete boat launch ramp with a V-grooved concrete boat launch ramp. Regrade the turnaround as necessary and update the stormwater system to meet current environmental standards.

Pile-Guided Boarding Floats

Replace the four existing 8' x 120' boarding floats with new boarding floats of the same dimensions and reuse the existing piles.

Parking Area Improvements

Resurface/seal/repair as necessary the asphalt concrete paving at the top of the boat launch ramp and in the parking area to accommodate approximately 120 vehicle-trailer parking stalls and 7 accessible parking spaces, 2 of which must be van-accessible. Approximately 45 vehicle/trailer stalls in lot C1, 30 vehicle/trailer stalls in lot C2, and 45 vehicle/trailer stalls with 7 accessible vehicle/trailer stalls in lot C3.

Accessible Path of Travel

Improve the path of travel connecting the ADA parking stalls, to the boater restroom, fish cleaning station, and the top of the boat launch ramp.

Boater Restroom

Replace the existing boater restroom with a new, ADA-compliant unisex restroom for boaters, with updated sewer lines.

Boat Wash Down Station

Replace the existing boat washdown station and water treatment with new boat wash stations.

Fish Cleaning Station

Replace the existing fish cleaning station and plumbing.

EV Charging Infrastructure

Install the necessary infrastructure to support the future District-funded addition of EV charging stations in the parking area.

Project Signage

A new concrete project credit sign will be installed at the facility giving credit in part to the Harbors and Watercraft Revolving Fund for funding the project and San Mateo County Harbor District for operation and maintenance of the facility.

Cost Estimate

The District estimates the entire project cost as currently proposed is \$4,332,900. As discussed above, this project will be funded from a combination of DBW and District funding.

The estimated project cost to design, permit, and establish an engineer's estimate of probable construction costs is \$400,000 (\$315,120 for engineering and design; \$78,780 for permits). Table 1 (see below) identifies an initial cost estimate and scope items, including construction.

This estimate includes a contingency budget (10% of the construction subtotal) to supplement any unforeseen construction expenses that may occur during the construction process that affect the approved scope items. One of the goals of this grant is to determine what a legitimate cost estimate would be for this project at this location.

Table 1: Cost Estimate, Pillar Point Harbor Boat Launching Facility	
CONSTRUCTION COSTS	
Mobilization/Demobilization	\$ 300,000
Concrete Boat Launch Ramp	800,000
Pile-Guided Boarding Floats	400,000
Parking Area	300,000
Accessible Parking and Path of Travel	75,000
Trench Drain	25,000
Restroom	400,000
Boat Wash Station	250,000
Fish Cleaning Station	50,000
EV Charging Infrastructure	6,000
Project Credit Sign	20,000
Construction Subtotal	\$ 2,626,000
NON-CONSTRUCTION COSTS	
Construction Variance* 15%	\$ 393,900
Escalation 20%**	525,200
DBW Contingency* 10%	262,600
Engineering* 12%	315,120
Inspection* 5%	131,300
Permits* 3%	78,780
Non-Construction Subtotal	\$ 1,706,900
TOTAL ESTIMATED PROJECT COST	\$ 4,332,900
* Percentages are based on Construction Subtotal, per Harbor District preliminary cost estimate. DBW estimate based on similar projects at Davies BLF, Encinal BLF, and Ventura Harbor BLF.	
** 10% per year for 2 years = 20% escalation	

Project Status

The District has begun exploration of what the California Environmental Quality Act (CEQA) requirements may be. The project is in the preliminary stages of CEQA and permitting. CEQA must be complete before grant funding can be expended.

Timeline

The District estimates that project design will be completed three years from the execution of the proposed planning grant agreement. It is expected that the District would seek construction funding for at least \$3,939,000 for FY2025/25.

Engineering Feasibility

There are no particularly difficult or unusual problems associated with the proposed project.

Environmental Impact and Permits

The District has begun the California Environmental Quality Act (CEQA) process and is anticipating a Negative Declaration.

Expected permits that will be necessary to complete this project:

- Half Moon Bay Building and Public Works Permits
 - California Coastal Commission Coastal Development Permit
 - U.S. Army Corps of Engineers Section 404 Permit
 - California Regional Water Quality Control Board 401 Water Quality Certification
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PROJECT METRICS

Annual Launches

Current: According to the boat launching data provided by the Harbor District, the annual number of boat launches at the existing facility is 12,400 motorized. The Harbor District does not track non-motorized boat launches, as they primarily launch off the beach.

Future: For purposes of this feasibility analysis, the District and DBW assumes a modest 20 percent increase in usage to 14,880 motorized launches per year.

Annual User Days

Current: Based on the California Boating Needs Assessment Study published in 2002, the average number of users per boat (motorized) at the North Coast is 3.15 and the current estimated annual number of user days is 39,060 (current annual launches x user per boat). The 2018 California Boating Needs Assessment Study does not establish the average number of users per boat.

Future: DBW estimates that the number of annual user days for this facility will increase by 20 percent for a total of 46,872 annual user days.

User Day Value

Current: The 2018 California Boating Needs Assessment Study established a unit day value in the San Francisco Bay Area (Ocean Access) region. The unit day value is an established way to measure recreational benefits boaters gain from the experience of boating on a particular body of water. The unit day value, adjusted for CPI, is \$39.98. The total current annual unit day value for the facility is \$1,561,619 (unit day value x annual user days).

Future: DBW estimates that the unit day value for the proposed facility will increase after the facility is improved to \$1,873,943 (unit day value x projected annual user days).

Benefit-Cost Ratio

A common method used in the analysis of investments is to establish the net present value of the benefits and costs associated with a project. If the Benefit/Cost ratio exceeds "1" then the investment, weighed against available investment alternatives, is worthy of consideration from a financial perspective. The results of this analysis are as follows:

Benefit: The total benefits over the 20-year life of the project are estimated at \$27,246,340.

Cost: Net costs over the 20-year grant period are estimated to be \$7,801,860.

Ratio: Therefore, the Benefit-Cost Ratio is 3.49.

User Fees

The District currently charges \$17 to launch. There is no fee to park. The District offers an annual boat launch pass for \$238. The District has agreed to lower the launch fee to the required \$13 upon construction completion.

CONCLUSION

The Department's analysis indicates that this project, as proposed, makes needed improvements, is feasible from an engineering perspective, is cost effective, and increases public access.

COMMISSION ADVICE AND COMMENT

The Department of Parks and Recreation, Division of Boating and Waterways seeks Commission Advice and Comment on this proposed \$400,000 Harbors and Watercraft Revolving Fund planning grant, with conditions to the San Mateo County Harbor District for improvements to the Pillar Point Harbor BLF as described in this June 7, 2023 feasibility report.

CONDITION

The County, at its expense, must complete all CEQA requirements by December 31, 2023. No reimbursement will occur until CEQA is complete.

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