
PINE FLAT LAKE BOAT LAUNCHING FACILITY FEASIBILITY REPORT



Deer Creek Boarding Float & Boat Ramp



Lakeview Boarding Float & Boat Ramp

United States Army Corps of Engineers

\$358,450 Grant

SUMMARY

The Boating and Waterways Commission (Commission) is being asked to provide Advice and Comment on the United States Army Corps of Engineers' (USACE) request for a \$358,450 grant from the Harbors and Watercraft Revolving Fund (HWRF) to install two new cable-guided boarding floats, two guide-free boarding floats, and project credit signage at Pine Flat Lake.

The proposed grant would complete the installation of four new boarding floats and project credit signage. This includes installation of the new boarding floats with new cables, anchors, and associated hardware connections at the Deer Creek Recreation Area boat launching ramp and the Lakeview Recreation Area boat launching ramp. The existing boarding floats will be relocated to the Island Park and Trimmer Recreation Area boat launching ramps where there is less usage and a reduced need to move the heavy floats on a regular basis.

There are no expected problematic financial, engineering, permitting, stakeholder, or public access issues associated with this project.

The Department of Parks and Recreation, Division of Boating and Waterways (DBW) seeks Commission Advice and Comment on this proposed \$358,450 Harbors and Watercraft Revolving Fund construction grant to the USACE for the Pine Flat Lake improvements described in this November 19, 2020 Feasibility Report.

GRANT APPLICANT AND PREVIOUS COMMISSION ACTION

Grant Applicant

The grant applicant for this project is the USACE, which owns, operates, and manages the launch ramps. USACE will be responsible for operating and maintaining the boarding floats for 20 years after installation.

Commission Site Visit

Due to the COVID-19 Pandemic, the Boating and Waterways Commission will be conducting a virtual tour of the site during its scheduled Commission Meeting on November 19, 2020 in lieu of an in-person site visit.

Previous Commission Action and DBW Grant Awards at Pine Flat Lake

The Commission has approved the following grants to provide boating access at Pine Flat Lake. In FY 1976/77, the Commission approved a \$60,000 grant to fund four new boarding floats at Pine Flat Lake.

In FY 1989/90, DBW approved a \$25,000 Ramp Repair grant to extend the boat ramp at Deer Creek BLF.

In FY 2000/01, the Commission approved a \$342,000 grant to fund the asphalt parking lot at the Deer Creek Recreation Area.

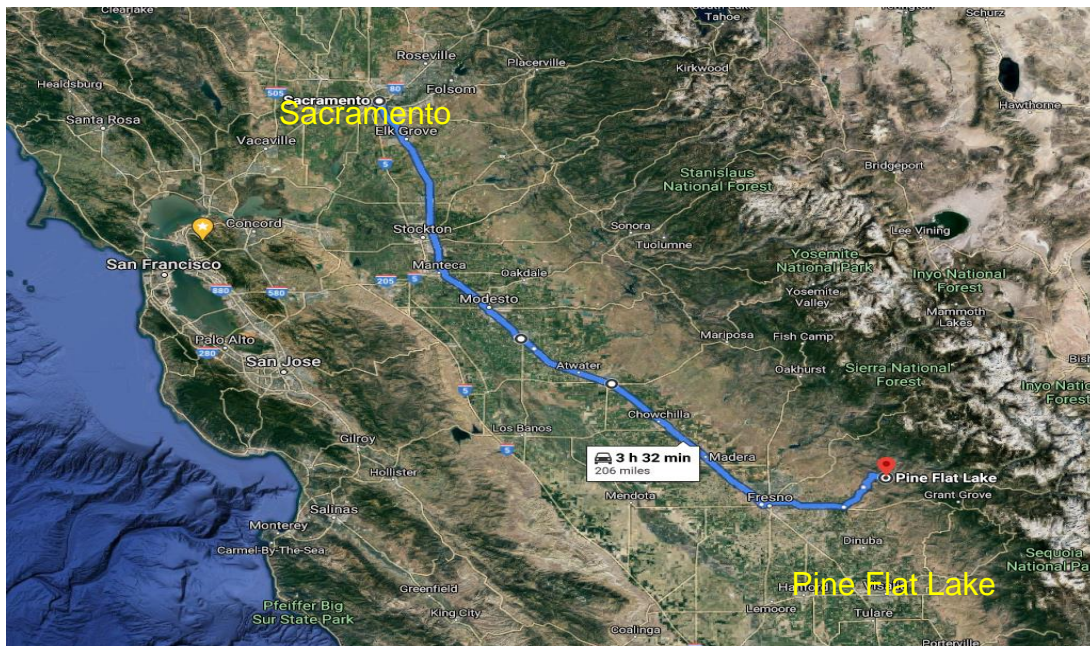
In FY 2004/05, DBW installed four floating restrooms at Pine Flat Lake purchased with a combination of Clean Vessel Act federal funds and Harbors and Watercraft Revolving Fund state funds.

In FY 2019/20, DBW awarded Pine Flat Lake one ADA-compliant floating restroom; installation is pending construction of the restroom.

GENERAL LOCATION AND AREA

Location

Pine Flat Lake is located approximately 206 miles southeast of Sacramento in Fresno County.



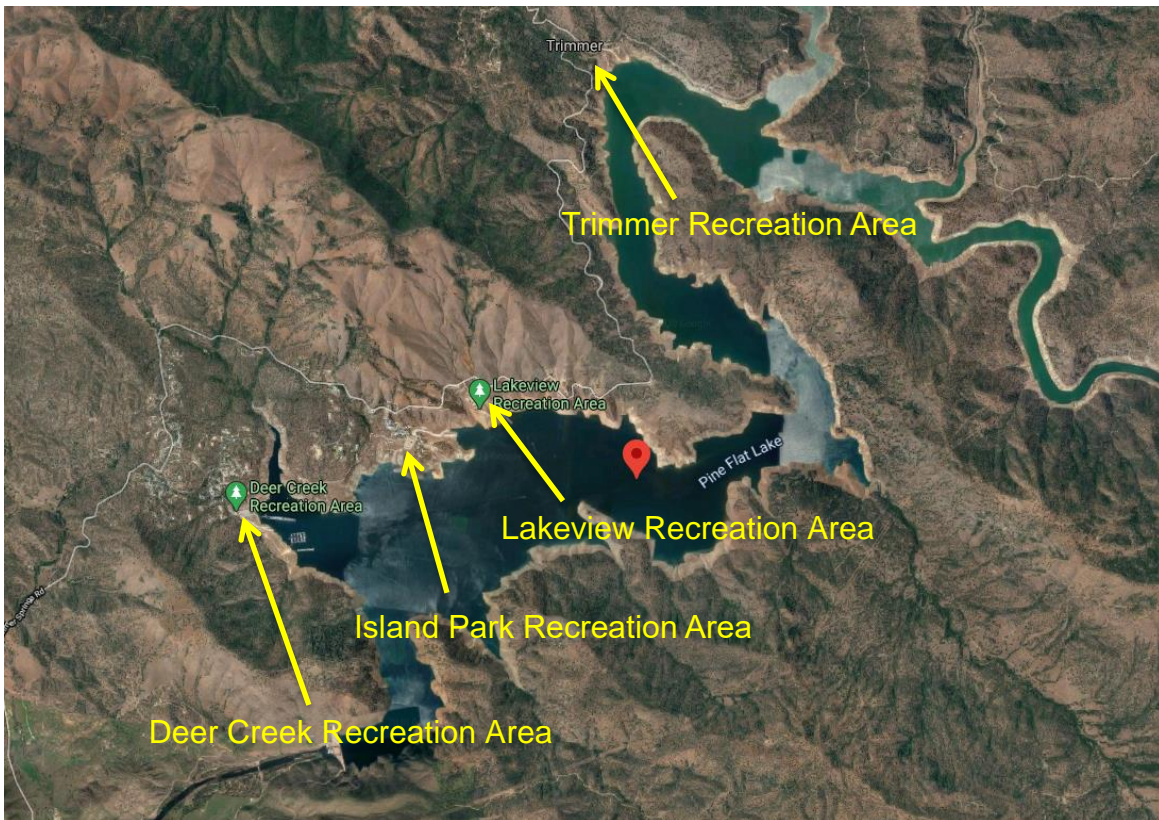
Source: Google Maps

The proposed improvements at the Deer Creek and Lakeview Recreation Areas are located at Pine Flat Lake. From Sacramento take CA-99 S for 165 miles then take Highway 180 east to

N. Piedra Road. Turn left and continue for 8.5 miles, then turn right onto E. Trimmer Springs Road. Continue for 9.6 miles, bearing right at the fork onto Sunnyslope Road. Continue to the end of Sunnyslope Road and arrive at the Deer Creek Recreation Area Boat Launch, 30547-30799 Sunnyslope Rd, Sanger, CA 93657.

To access the Lakeview Recreation Area, return to E. Trimmer Springs Road, continue east approximately 2 miles, and turn right onto Lombardos Road. The Lakeview Recreation Area is at the end of the Lombardos Road, in Sanger, California, 93657.

Figure: Pine Flat Lake



Source: Google Maps

Area

Pine Flat Lake is located in Fresno County which has a residential population of approximately 999,101, that surges annually with 24,000 students attending California State University, Fresno. The County is located in the Central Valley, south of Stockton and north of Bakersfield.

Agriculture is the primary industry in the County and it is known as the most agriculturally rich county in the United States. The County produces major crops and livestock such as grapes, plums, oranges, peaches, nectarines, cotton, almonds, tomatoes, turkeys, cattle, and milk.

Pine Flat Lake is an artificial lake in the Sierra Nevada foothills, located about 30 miles east of the City of Fresno. It is operated by the US Army Corps of Engineers. The Lake is fed by the waters of the Kings River and provides irrigation, flood control, and hydroelectricity to the area. Pine Flat Dam provides irrigation for over 1 million acres of agricultural land in the Central Valley.

The demand for agricultural irrigation occurs from March through September and is regulated by the local Water Master, Kings River Water Association. In addition to agricultural irrigation, water release for hydroelectricity also causes fluctuation in the lake's water level. The hydropower plant is managed by Kings River Conservation District and operated under a FERC license. USACE takes over and manages water releases during all flood condition situations, no matter what time of year they occur.

The Lake also contributes to the area's tourism and economy through its four major recreation areas (Deer Creek, Lakeview, Island Park, and Trimmer). It provides recreation opportunities for hundreds of thousands of visitors annually. Visitors come to the lake from as far as Los Angeles and the Bay Area to get away from the overcrowded lakes in those areas.

There are boat launch ramps providing access to the Lake at all four recreation areas: long continuous ramps are located at Deer Creek and Trimmer. The Island Park and Lakeview locations each have several ramps for various stages of water level. All the boat launch ramps were constructed in the 1960's and were graded to follow the contours of the sloping terrain.

Usage

Pine Flat Lake is popular among many types of recreational boating such as houseboats, pontoon boats, sports fishing boats, and personal watercraft. The Lake's wide channels also provide plenty of room for sailing, waterskiing, and cruising. Approximately 6% of the recreational activities at the Lake are non-motorized boating such as kayaks and stand-up-paddleboards.

The Lake also provides great fishing for trout and kokanee salmon and is best known for its record spotted bass. Fishing is best in the spring and early summer when the water levels are high. During the late summer and fall, lake levels drop significantly.

There are campgrounds at Trimmer and Island Park Recreation Areas. The campgrounds are operated by the USACE, the Fresno Parks Department, and the Sierra National Forest.

There are two marinas on the Lake, both privately owned and operated by Pine Flat Lake Marina. One of the marinas is next to the Deer Creek launch ramp and the other is beside the Lakeview launch ramp. Slips are available at both marinas and there is a limited rental boat inventory.

All boat launching facilities at the Lake are open 24 hours a day, 7 days a week, year-round, with the Deer Creek and Lakeview boat launch ramps providing significantly higher annual boat launches than Island Park and Trimmer. Peak season for boating is from April through September, with the heaviest visitation days during the Memorial Day and Independence Day holidays. The weekends before and after Spring Break are also busy and considered to be the kickoff to the recreation season with Labor Day weekend as the end.

Existing Conditions

All of the existing boarding floats are guide-free and retrofitted with adjustable anchor systems and winches.

Significant water elevation changes at the Lake make it necessary for park staff to physically maneuver the boarding floats several times a day. This has caused severe wear and tear on the existing aluminum boarding float frames. Maintenance staff must regularly repair the existing boarding floats that are over 20 years old and too heavy to constantly maneuver. The USACE is only seeking improvements to the Deer Creek and Lakeview Recreation Area which receives

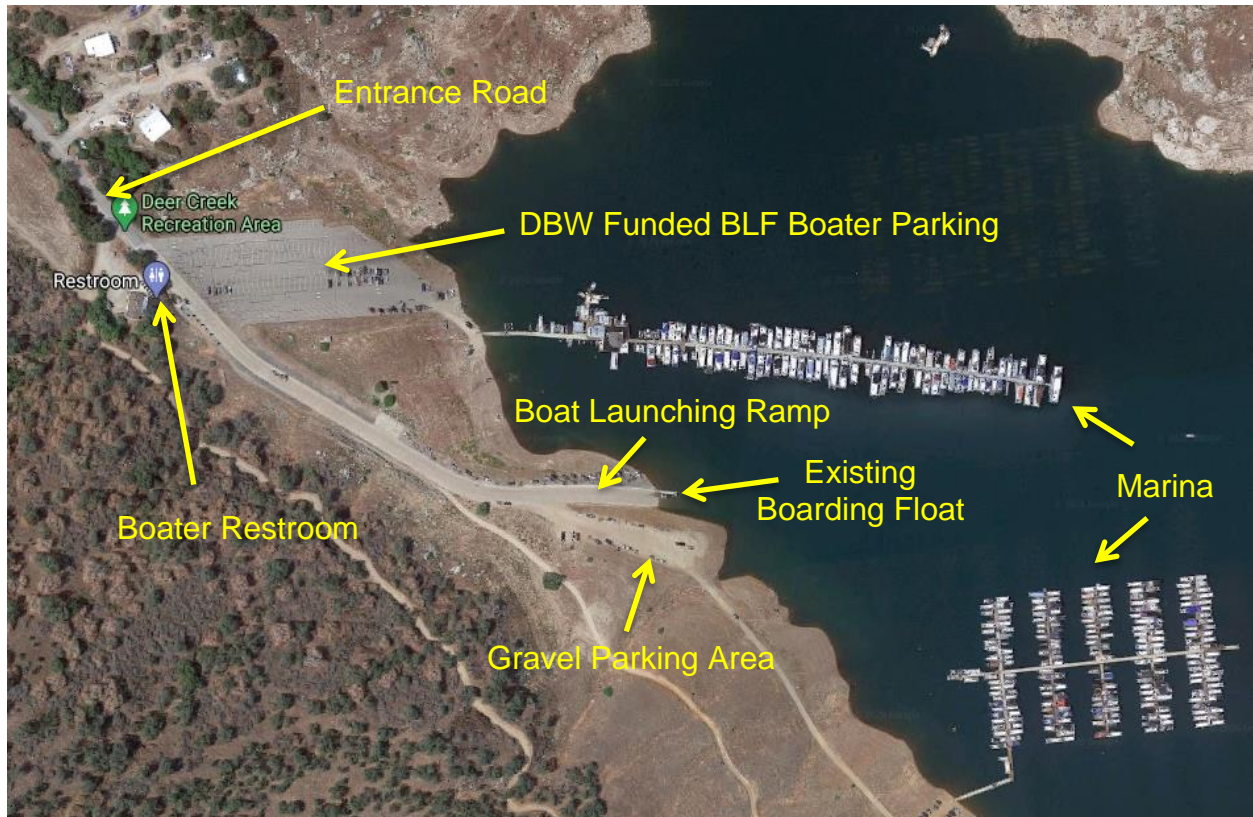
the highest amount of visitation due to their proximity to the nearest stores, services, marina operations, and parking spaces available.

USACE is intending to relocate the existing boarding floats to the Island Park and Trimmer Recreation Area boat launching ramps where there is less usage and a reduced need to move the heavy floats on a regular basis. Asphalt parking is available at the Deer Creek Recreation Area which has 20 single-vehicle spaces and 94 vehicle-trailer spaces. There is an additional 3 acres of dirt/gravel parking area in various locations adjacent to and along the sides of the Deer Creek boat launch ramp when the lake water level is low.

There is no paved parking at the Lakeview Recreation Area but has an approximately 4.5 acre dirt/gravel area available in various locations adjacent to and along the sides of the Lakeview boat launch ramp for parking when the lake's water level is low.

All four recreation areas have their own two-stall, concrete vault-style restroom near the top of the boat launch ramp parking area. The restrooms were each constructed with an ADA-compliant wheelchair ramp; however, due to the lake topography, there is no ADA compliant parking or path of travel at any of the BLFs. The boarding float replacements will not trigger the requirement to make ADA improvements. At this time, the existing infrastructure is functional. DBW and the USACE will work together to make ADA improvements and restore functionality when the time comes.

Figure: Deer Creek Recreation Area



Source: Google Maps

Figure: Lake View Recreation Area



Source: Google Maps

PROJECT DESCRIPTION

The proposed grant would complete the construction and installation of two new cable-guided boarding floats, two new guide-free boarding floats and project credit signage at Pine Flat Lake as listed below.

- One cable-guided boarding float will be installed at Deer Creek Recreation Area boat launch ramp.
- One cable-guided boarding float will be installed at Lakeview Recreation Area in the upper straight section of the boat launch ramp.
- Two new guide-free boarding floats will be installed at Lakeview Recreation Area's lower water boat launch ramps.
- Existing boarding floats at Deer Creek and Lakeview will be relocated to the Trimmer and Island Park Recreation Areas.

Proposed Project Scope

Cable-Guided Boarding Floats

The existing aluminum boarding floats and gangways at Deer Creek and Lakeview will be replaced with new 8-foot wide by 60-foot long heavy-duty steel-framed boarding floats with 5-foot wide by 16-foot long aluminum gangways, galvanized steel grab rails and recycled wood bumper material. New wire cable, new concrete anchors and hardware will be installed.

Guide-Free Boarding Float

Two new guide-free 8-foot wide by 60-foot long, heavy-duty steel-framed boarding floats with 5-foot wide by 16-foot long aluminum gangways, galvanized steel grab rails and recycled wood bumper material will be installed at Lakeview Recreation Area lower boat launch ramps.

Project Signage

Replace the existing signage with a project credit sign giving credit to the Harbors and Watercraft Revolving Fund for funding the project.

Cost Estimate

The total estimated project cost for engineering and construction is \$358,450. See Table 1: Pine Flat Lake BLF Project Cost Estimate for the project cost breakdown. This estimate includes a 10% construction contingency allocation reserved for any unforeseen overages affecting the approved scope items that may occur during the construction process.

Table 1: Pine Flat Lake BLF Improvement Cost Estimate	
Project Scope	Estimate
Boarding Floats	\$ 288,000
Relocation of the Existing Boarding Floats	5,000
Signage	10,000
CONSTRUCTION SUBTOTAL:	\$ 303,000
Escalation*	15,150
Contingency*	30,300
Engineering and Inspection*	10,000
TOTAL GRANT REQUEST:	\$ 358,450

*While DBW grants' non-construction project costs are normally set at a percentage of Construction subtotal: Escalation 5%, Contingency 10%, Engineering 12%, Inspection 5%, Permits 3%, this project will not realize significant Contingency or Engineering costs due to the scope of the project.

Project Status

The proposed project is "shovel-ready". It does not require design or permitting for work to be completed. Proposed items can be delivered and installed upon approval of project funding and execution of the grant agreement.

Timeline

USACE estimates that project construction will be completed no longer than two years from execution of the proposed grant agreement.

Engineering Feasibility

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

Environmental Impact and Permits

- The project is exempted from CEQA/NEPA requirements.
- USACE does not anticipate needing any permits for the installation of the cable-guided boarding float systems.

PROJECT METRICS

Annual Launches

Current: According to boat launching data provided by USACE, the annual number of motorized boat launches at the Deer Creek and Lakeview is 17,160.

Future: DBW estimates the annual number of motorized boats launches at the improved facility will have an estimated increase of 20 percent to 20,592 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 at the Pine Flat Lake is 4.12. Therefore, the current estimated annual number of user days at BLF is 70,699 annual user days (annual launches x users per boat).

Future: DBW estimates that the number of annual user days for this facility will increase by 20 percent to 84,839 annual user days.

User Day Value

Current: The 2002 Boating Needs Assessment Study estimated a base user day value. This value, adjusted by the Consumer Price Index, is now \$26.03 per user. The total current annual user day value for the facility is \$1,840,295 (user day value x annual user days).

Future: DBW estimates that the total annual user day value for the proposed facility would increase after the facility is improved to \$2,208,360 (user day value x projected annual user days).

Benefit-Cost Ratio

A common method used in the analysis of investments is to establish 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 to be \$6,400,010.

Cost: Net costs over the 20-year grant period are estimated to be \$443,920.

Ratio: Assuming a total project cost of \$358,450 to complete construction, the Benefit-Cost Ratio is 14.42.

User Fees

USACE charges a \$5 per day entrance/parking fee for all vehicles entering the park at the recreation areas where the launch ramps are located. There are no additional fees for launching a boat. An annual day use pass is available for \$40.

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 \$358,450 Harbors and Watercraft Revolving Fund construction grant to the USACE for the Pine Flat Lake Boat Launching Facility improvements described in this November 19, 2020 Feasibility Report.