
LAKE WEBB WEST BOAT LAUNCHING FACILITY FEASIBILITY REPORT



Boat Launch Ramp



Restroom and Fish Cleaning Station

**County of Kern
\$1,160,000 Grant**

SUMMARY

The Boating and Waterways Commission (Commission) is being asked to provide Advice and Comment on Kern County's (County) request for a \$1,160,000 planning and construction grant from the Harbors and Watercraft Revolving Fund (HWRF) for improvements to the Lake Webb West Boat Launching Facility (BLF) at the Buena Vista Aquatic Recreation Area (BVARA).

The proposed grant funding would complete the design, permits, and construction of the Lake Webb West BLF project. Project improvements include replacing the existing boat ramp with a four-lane v-grooved concrete push slab launch ramp, adding a new concrete apron, an 8' wide by 60' long pile-guided boarding float and abutment at the center of the boat ramp, articulated block mat, slope protection, ADA improvements to the restroom, an accessible path of travel, and project signage.

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 \$1,160,000 Harbors and Watercraft Revolving Fund planning and construction grant to Kern County for the Lake Webb West BLF improvements described in this May 30, 2019 Feasibility Report.

GRANT APPLICANT AND PREVIOUS COMMISSION ACTION

Grant Applicant

The grant applicant for this project is Kern County, which is responsible for operating and maintaining the proposed boat launching facility for 20 years after construction. The County's General Services-Parks Division currently operates and maintains Lake Webb West BLF. Funding for the facility's operations and maintenance comes from entrance and launch fees collected and the County's Parks and Recreation General Fund.

Commission Site Visit

Boating and Waterways Commission members completed an official visit to the Lake Webb West BLF on May 29, 2019, as part of the Commission tour.

Previous Commission Action and DBW Grant Awards at BVARA

The Commission has approved grants to provide boating access to the two lakes in the BVARA, Lake Webb and Lake Evans. There are three BLFs at the two lakes. Two BLFs provide access at Lake Webb, the Lake Webb East BLF and Lake Webb West BLF.

In FY 1985/86, the Commission approved a grant of \$525,000 to fund the boat launch facility at Lake Webb East, at Lake Webb.

In FY 1996/97 and FY 1997/98, the Commission approved a Phase I grant of \$50,000 and a Phase II grant of \$419,000 to fund a boat launch facility at Lake Evans.

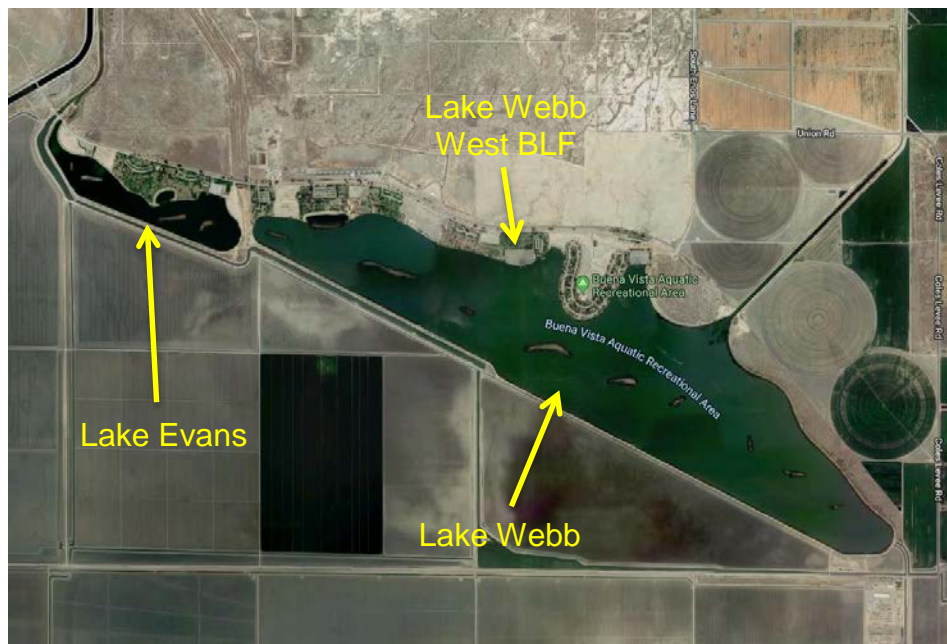
In FY 1999/00, the Commission approved a grant of \$1,158,000 to fund improvements that included boarding floats, overlaying and restriping parking areas and access roads, new restrooms, fish cleaning stations, and lighting at both Lake Webb West BLF and Lake Evans BLF.

GENERAL LOCATION AND AREA

Location

Lake Webb West BLF is located in the BVARA, which is on the north side of Kern County and the southern San Joaquin Valley.

Access to Lake Webb West BLF is via Interstate 5 to State Highway. Take exit 246 to merge onto CA-43 S/S Enos Lane toward Taft/Maricopa. Travel approximately one mile on Enos Lane, which turns west and becomes Ironbark Road. Ironbark Road leads directly to the entrance of the BVARA. Lake Webb West BLF is past the campground at 13601 Ironbark Road, Bakersfield, CA 93311.



Source: Google Maps

Area

Kern County spans from the southern end of the Central Valley, beyond the southern slope of the eastern Sierra Nevada to the northern tip of the Antelope Valley, covering over 8,100 square miles. According to the 2019 United States Census, Kern County's population is 893,119. It is one of the fastest-growing populations in the United States. The County's economy is heavily agricultural based. Precipitation in the area averages 6.49 inches per year, so the climate is very dry. Most water used for irrigation in the surrounding farms comes from groundwater, California Aqueduct, and the Kern River.

Other than irrigation, Kern County water is also important for recreational activities. Approximately 23 miles southwest of Bakersfield lies the BVARA. The BVARA contains two manmade lakes, Lake Webb and Lake Evans that were created in 1972. The BVARA provides boating opportunities to the San Joaquin Valley. There are no other boating areas within 50 miles of this facility. The Buena Vista Water District maintains the water level in both lakes, which are fed by the water from the Kern River. The lakes are open from an hour after sunrise to an hour before sunset, 365 days a year. Lake Webb, the larger of the two lakes, has 873 acres of water surface, with an average depth of six feet, and approximately 7.7 miles of shoreline. The BLFs' parking lot is shared with BVARA non-boating day users.

The BVARA also has a campground for RVs, trailers and tents that is open 7 days a week. The campground consists of 112 campsites, a playground, and volleyball courts on a peninsula of Lake Webb. Picnic tables and restrooms are available throughout the BVARA.

The smaller lake west of Lake Webb, Lake Evans, is mainly used for sailing and fishing with a maximum speed of no more than 5 mph. It has 86 acres of water surface with an average depth of twelve feet and approximately 2.4 miles of shoreline. The lake is often stocked with trout and popular for winter fishing.

Usage

Lake Webb, with a higher maximum speed of 45 mph, offers more recreational activities such as water skiing, jet skiing, sailing, motorized and non-motorized boating, and fishing. According to the County's grant application, approximately one quarter of launches at the lake are non-motorized boat launches. It is busiest from May through September. Swimming is allowed at designated swimming areas at Lake Webb.

Existing Conditions

Lake Webb West BLF was originally constructed in 1973. The BLF consists of a four-lane concrete ramp and 150 vehicle/trailer parking stalls adjacent to the ramp. In FY 1999/2000, a DBW grant replaced two boarding floats, installed a four-unit restroom and fish cleaning station at the facility. The boarding float will require minor repairs and the restroom needs ADA updates.

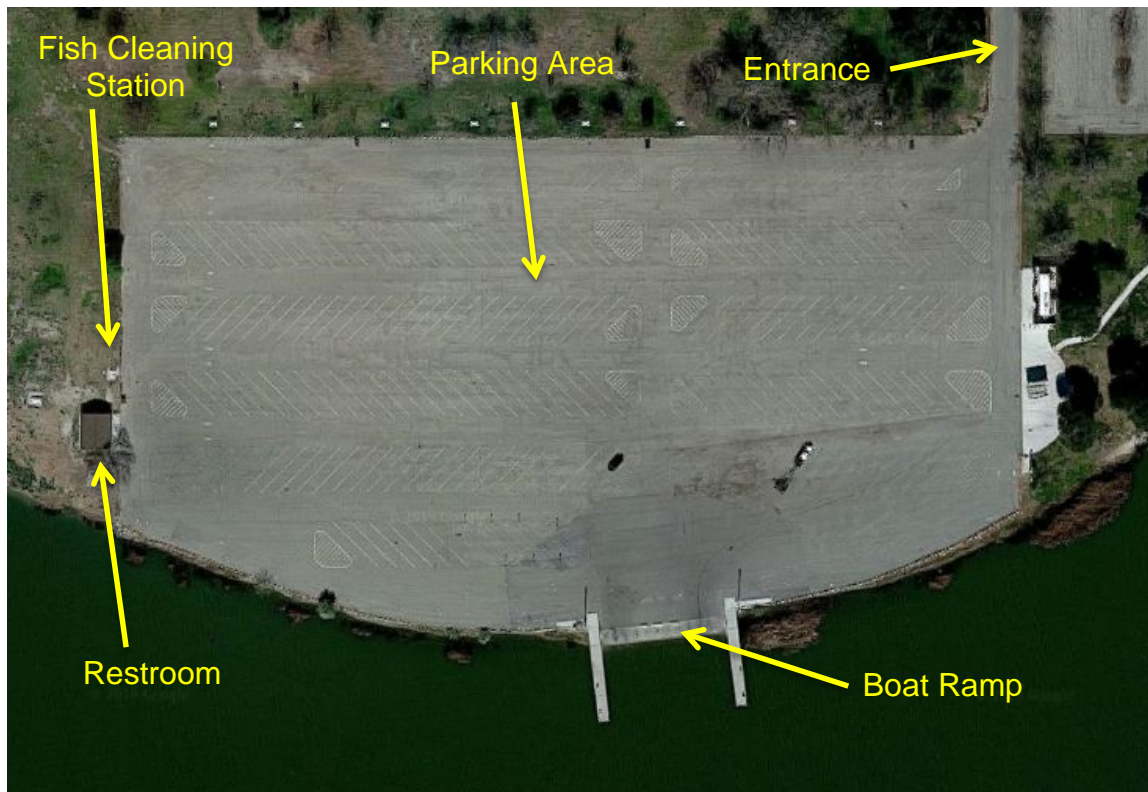
The parking lot's striping has faded and the asphalt is cracking. The County did not request funding for parking lot improvements in the grant application because that parking lot is used by various park day-users including concessionaires. The County has funding to improve the parking area already in a funding plan. DBW recommends a condition of this grant be that no less than 150 vehicle-trailer (the capacity of the boat ramp) remain available for boaters at this lot during boating season.

Boaters frequently launch in heavy traffic, especially during peak season. The four-lane boat launch ramp's concrete v-grooves have deteriorated. In addition, popular recreational activities with jet boats and jet skis create significant turbulence while trailering that has caused undermining to the boat ramp. There is a large pothole approximately three feet in diameter and

two feet deep near the center at the base of the boat launch ramp and the west portion of the boat ramp has recently experienced further deterioration. For boater safety, the County placed concrete barriers at the top of the ramp, prohibiting boaters from launching in the hazardous location. This has reduced the number of launch lanes by more than half, resulting in launching delays.

The existing boarding floats are in decent condition needing only minor repairs to maintain usefulness.

The existing restroom and fish cleaning station is in good condition but does not meet ADA requirements. The facility also lacks an accessible path of travel connecting all the various amenities.



Source: Google Maps

PROJECT DESCRIPTION

The proposed grant funding would complete the design, permits, and construction to improve the existing Lake Webb West Boat Launching Facility at the BVARA.

Proposed Project Scope

If approved, this grant would contribute up to \$1,160,000 for the design, permits, and construction of the following improvements:

Boat Launch Ramp

Demolish the existing ramp and install a new four-lane concrete, v-grooved push-slab boat launch ramp with a new concrete apron.

Pile-Guided Boarding Floats and Abutment

Install a new 8' wide by 60' long pile-guided boarding float and abutment at the center of the boat launch ramp. Repair the existing boarding floats. The existing abutments, piles, and boarding floats at either edge of the boat launch ramp will remain.

Articulated Block Mat

Install articulated block mat at the bottom of the boat launch ramp to mitigate future undermining.

Slope Protection

Install Slope protection to both sides of the ramp and at the edge of the articulated concrete block mat for erosion protection.

Restroom and Fish Cleaning Improvements

Make ADA improvements to the existing restroom and fish cleaning station.

Accessible Path of Travel

Construct an accessible path of travel between components to meet accessibility requirements.

Project Signage

Replace the existing 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, permits, and construction is \$1,160,000. See Table 1: Lake Webb West BLF Project Cost Estimate for the project cost breakdown. This estimate includes a construction contingency fund of 10% reserved for any unforeseen overages that may occur during the construction process affecting the approved scope items.

Table 1: Lake Webb West BLF Project Cost Estimate	
CONSTRUCTION SCOPE	COST ESTIMATE
Mobilization/Demobilization	\$ 140,000
Boat Launch Ramp	\$ 331,000
Pile-Guided Boarding Floats and Abutment	\$ 115,000
Articulated Block Mat	\$ 75,000
Slope Protection	\$ 15,000
Restroom and Fish Cleaning Station Improvements	\$ 100,000
Accessible Path of Travel	\$ 48,532
Project Signage	\$ 10,000
*Construction Subtotal	\$ 834,532
NON-CONSTRUCTION SCOPE	
*Escalation **9%	75,108
*DBW Contingency 10%	83,453
*Engineering 12%	100,144
*Inspection 5%	41,727
*Permits 3%	25,036
Non-Construction Subtotal	\$ 325,468
TOTAL ESTIMATED PROJECT COST	\$ 1,160,000
Source = Kern County Cost Estimate Dated April 18, 2019	
*Percentages are of the Construction Subtotal	
**3% per year for 3 years = 9% escalation	

Project Status

The proposed project preliminary site plan is attached (see Proposed Preliminary Design of Lake Webb West BLF) on page 9.

Timeline

The County estimates that project construction would be completed approximately three 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 County plans to apply for permits at the 60% design level. The County Board of Supervisors found that the proposed repairs to an existing facility is a Categorical Exemption under Section 15301 of CEQA.

Required Permits:

- California Department of Fish and Wildlife Permit
- California Regional Water Quality Control Board – Section 401 Water Quality Certification
- US Army Corps of Engineers – Section 404 Permit

PROJECT METRICS

Annual Launches

Current: According to Kern County's grant application, the annual number of motorized boat launches at the existing facility is 6,513. The number of non-motorized boat launches at the existing facility is 1,566.

Future: The County estimates the annual number of motorized boat launches at the improved facility will have a substantial increase of 30 percent to 8,466 launches per year with the number of non-motorized launches also increasing by 30 percent to 2,035 launches per year. For the purposes of this analysis, staff assumes a more modest 20 percent increase for motorized and non-motorized launches, to 7,816 motorized and 1,879 non-motorized.

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 Central Valley is 3.31. Therefore, the current estimated annual number of user days at Lake Webb West BLF is 21,558 motorized and 1,566 non-motorized for a combined 23,124 (annual launches * users per boat).

Future: DBW estimates that the annual user days for this facility will increase by 20 percent for motorized to 25,871 and increase by 20 percent for non-motorized to 1,879 for a combined 27,750 annual user days.

User Day Value

Current: The 2002 Boating Needs Assessment Study estimated a base user day value. This value, adjusted based on the Consumer Price Index, is \$26.03 per user. The total current annual user day value for the facility is \$601,919 (user day value * 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 \$722,331 (user day value * 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 \$10,822,520.

Cost: Net costs over the 20 year grant period are estimated to be \$3,079,780.

Ratio: Assuming a total project cost of \$1,160,000 to complete designs, acquire permits, and complete construction, the Benefit-Cost Ratio is 3.51.

User Fees

The County currently charges a \$7 entrance fee and a \$7 fee for boat launching. Because boaters are funding this improvement and fees can be a barrier to boating recreation, the Division established a maximum fee of \$13 total, which can be adjusted by CPI annually, for boater access to facilities it improves. This maximum was set as a "cost neutral" starting point for a rehabilitated facility. Therefore, this is a recommended condition. The County has agreed and will reduce the boat launching fee to \$6 so the total fees for access does not exceed \$13.

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 \$1,160,000 Harbors and Watercraft Revolving Fund planning grant to Kern County for the Lake Webb West Boat Launching Facility improvements described in this May 30, 2019 Feasibility Report.

CONDITION:

- The County shall maintain a minimum of up to 150 parking spaces for vehicles with boat trailers at Lake Webb West BLF during boating season.
- Prior to the commencement of construction to the proposed project, the County shall make adjustments to reduce the combination of entrance/launch fees to no more than \$13 to make this facility more fiscally accessible to boaters.

PROPOSED PRELIMINARY DESIGN OF LAKE WEBB WEST BLF

