
JOHN T. DOOLITTLE AND STONEBRAKER BOAT LAUNCHING FACILITIES FEASIBILITY REPORT



John T. Doolittle Boat Launch Ramp



Stonebraker Boat Launch Ramp

El Dorado Irrigation District \$300,000 Grant (Planning)

SUMMARY

The Boating and Waterways Commission (Commission) is being asked to provide Advice and Comment on the El Dorado Irrigation District's (EID) request for a \$300,000 planning grant from the Harbors and Watercraft Revolving Fund (HWRF) for improvements to the John T. Doolittle (Doolittle) and Stonebraker Boat Launching Facilities (BLFs) at Jenkinson Lake.

The proposed grant would fund the design, permits, and establish an engineer's cost estimate to construct project improvements, which include the following:

- Doolittle BLF: Widen the ramp for a total of three launch lanes during low water, replace the vault restroom, add an ADA-compliant vehicle-trailer parking stall, install a fish cleaning station, create an ADA-compliant path of travel, refresh the parking area, add security lighting, install bear resistant garbage enclosures, install an information kiosk, and project signage.
- Stonebraker BLF: Widen the boat ramp upper turnaround to a minimum of 60 feet in diameter, replace the vault restroom, refresh the parking area, replace the fish cleaning station, install solar lighting, install bear resistant garbage enclosures, install an information kiosk, and 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 February 2026, at which time EID may apply for construction funding.

The Department of Parks and Recreation, Division of Boating and Waterways (DBW) seeks Commission Advice and Comment on this proposed \$300,000 HWRF planning grant to the EID for the Doolittle BLF and Stonebraker BLF planning activities, with conditions as described in this September 21, 2023 feasibility report.

GRANT APPLICANT AND PREVIOUS COMMISSION ACTION

Grant Applicant

The grant applicant for this project is the El Dorado Irrigation District, which has owned, operated, and managed the boat launching facility since 1961. El Dorado Irrigation District has the authority to construct, operate, and maintain both the Doolittle and Stonebraker BLF's.

Commission Site Visit

The Boating and Waterways Commission completed an official visit to the proposed boat launching facility sites on September 20, 2023, as part of the Commission tour.

Previous Commission Action

In FY 1985/86 the Boating and Waterways Commission approved a \$365,000 BLF grant for improvements to the two-lane boat launching ramp and a single vault toilet at Stonebraker BLF.

In FY 1989/90 the Boating and Waterways Commission approved a \$95,000 grant for improvements at Stonebraker BLF.

In FY 1989/90 the Boating and Waterways Commission approved a \$242,000 BLF grant that extended the four-lane boat launching ramp, paved the parking area, and constructed a boater restroom at Doolittle BLF.

In FY 2003/04, the Boating and Waterways Commission approved a \$489,000 BLF grant that added an auxiliary parking area, retaining wall, slope protection of the ramp at Doolittle BLF. .

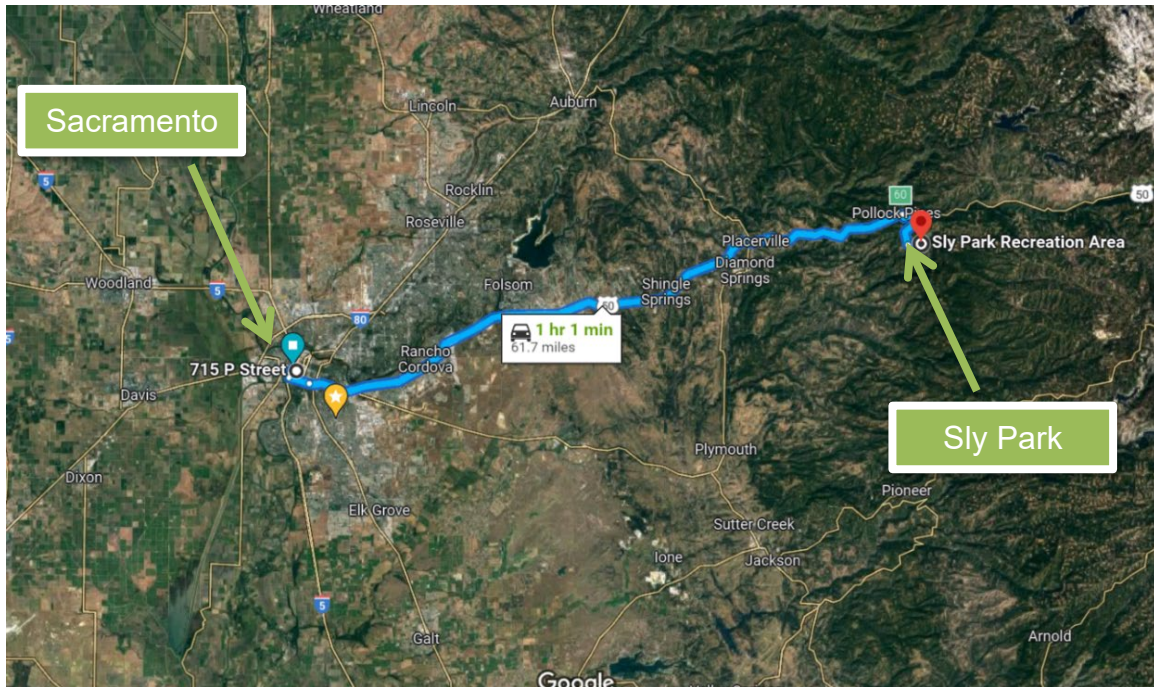
GENERAL LOCATION AND AREA

Location

Doolittle BLF is located in the Sly Park Recreation Area on the west side of Jenkinson Lake near the park entrance and Stonebraker BLF is located on the northeast side of the lake.

Access to the Doolittle BLF from Sacramento: Take US-50 E/El Dorado Freeway to **4771 Sly Park Rd, Pollock Pines, CA 95726**. Turn left onto Lakewood Drive and head through the Sly Park Recreation Area's entrance gate for 350 feet, turn right at the first available road and continue for 0.3 miles. Doolittle BLF is on the south west part of the lake.

Access to the Stonebraker BLF from Sacramento: Take US-50 E/El Dorado Freeway to **4771 Sly Park Rd, Pollock Pines, CA 95726**. Turn left onto Lakewood Drive through the Sly Park Recreation Area's entrance. Continue on Lakewood Drive for 0.9 miles. Continue onto Lakewood Lane for 1.3 miles and take a sharp right turn at the sign for the Stonebraker BLF. The parking lot is on the left.



Source: Google Earth

Area

EID manages the Sly Park Recreation Area/Jenkinson Lake in the Pollock Pines area which is their largest recreation facility and is open year-round.

Jenkinson Lake is surrounded by over nine miles of trails that serve hikers, bikers, and equestrians. The trail system winds through thick forested areas and open meadows and follows the lake shore around the entire perimeter. There are day-use areas scattered throughout the park and near the lake, with access to picnic tables, restrooms, and drinking water.

Sly Park Recreation Area is located at 3,400 feet in elevation and has been deteriorating due to age, winter weather, and heavy traffic during the summer months. There is snow in the area during the winter months, requiring the access roads to be plowed. During the summer months and peak use, the area can reach temperatures in the high 90s. EID staffs the facility seven days a week with a minimum of two employees during the winter months, and up to 40 employees during peak season summer months.

Sly Park has 196 campsites that are mostly occupied between May and September. About 33% of campers are boaters who often bring their boats back to their sites after a day of boating.

Sly Park includes two concrete boat launch ramps available for boating access. There is a 5-mph speed limit within 200 feet of swimming areas, docks, ramps, the shoreline, and 100 feet from downed skiers, other boats, and where the lake narrows. Otherwise, the maximum speed limit is 35 mph (15 mph when the lake level is 65% or below) and the travel pattern is counterclockwise.

Personal watercraft such as jet skis and wave runners are excluded from the lake for safety reasons. The number of boat launches at the lake is also limited to 101 per day to reduce

overcrowding and unsafe boating conditions. All boats are subject to noise level tests and inspection for Quagga mussels.

The nearest lake with similar types of boating activities is Ice House Reservoir located approximately 18 miles northeast of Jenkinson Lake on a steep, narrow mountain road with numerous blind turns.

History

Jenkinson Lake is a reservoir that was constructed from 1949 to 1955 by the United States Bureau of Reclamation (BOR) as part of the Central Valley Project. EID assumed operation and managed the recreation resources at the lake under a permit from BOR until 2003 when it was purchased by the EID.



Source: Google Earth

The existing Doolittle BLF launch ramp, boarding floats, parking area, and restroom were constructed in the 1960s by El Dorado County. DBW funded improvements in the 1990s consisting of a four-lane boat launching ramp, boarding floats, a 32 vehicle-trailer and 22 single vehicle parking area, a restroom, and picnic facilities. Improvements were made to the boat ramp that widened the ramp from 54.3 feet to 72 feet in 1992.

The existing Stonebraker BLF was constructed in 1987 and consists of a narrow two-lane concrete boat launching ramp and a parking area with 20 single vehicle parking spaces, 21 vehicle-trailer parking spaces, one accessible single vehicle, one accessible vehicle-trailer parking space, and a double vault toilet.

In 2003, DBW funded improvements that created a new auxiliary parking area for 20 vehicle-trailers and a retaining wall at the Doolittle BLF to reduce boater parking along the side of the roadway.

Usage

Jenkinson Lake is a reservoir that stores drinking water with an exemption that allows body contact for swimming and recreation. Animals or babies in diapers are excluded from the exemption and are not allowed in the lake. At the time of this report, Jenkinson Lake is projected to be at approximately 60%-70% capacity.

Demand for boating access is high at the Sly Park Recreation Area during the peak months of May-October. Motorized boating activities at the lake include pontoon boats, fishing, and water-skiing. Non-motorized boating activities include sailing, rowing, kayaking, stand-up paddle boards, canoeing and rafting. Boaters also engage in swimming, fishing, hiking, bicycling and picnicking at or near the BLFs.

Boaters often launch at Jenkinson Lake when Folsom Lake level is low. During drought years, Jenkinson Lake BLF's support approximately 2,500 motorized launches annually. But with normal rainfall and higher water levels motorized launches at Jenkinson Lake are approximately 12,000 annually. Non-motorized boating is also popular, but boaters generally launch from unimproved shorelines.

A concessionaire-operated paddle board and kayak rental station is located a few hundred feet from the Stonebraker BLF.

Existing Conditions

Doolittle BLF:

The four-lane concrete v-grooved boat launch ramp at Doolittle BLF is in good condition and does not require replacement. During drought years when the lake water level drops to 60% capacity, the four-lane boat ramp narrows to a single lane for roughly 100 feet, normally around June. When the lake drops below 52% capacity, the Doolittle boat ramp is no longer accessible, and all traffic is then diverted to the Stonebraker facility. Extending the ramp for use below 52% capacity is not feasible because the topography of the lake flattens out.

The existing ramp extends down to an elevation of 3,446 feet. This allows the ramp to remain in operation on average years, but the lake can be drawn down below this level during droughts.

When the lake water level drops, the boat ramp narrows to a single lane and boaters are subject to long wait times, between 15 minutes and 45 minutes during peak boating season. Due to long launch lines, boaters sometimes become frustrated with one another causing conflict. Adding additional lanes to the lower portion of the ramp would improve access, reducing wait times for boaters.

Boaters choose to recreate at Jenkinson Lake and launch at Doolittle BLF because of easy access and being only four miles off highway U.S. 50. Boaters often choose to wait in long lines at the Doolittle BLF rather navigating to the other facility on the lake. The road leading to Stonebraker is narrow and it is difficult to navigate, particularly when passing large oncoming vehicles.

The boarding floats are in good condition and do not need to be replaced.

There is no fish cleaning station at Doolittle BLF.

The parking area at Doolittle BLF has cracks which have been filled, but it is in need of being refreshed

The existing toilet building was installed in the mid-80s. The concrete slab foundation is cracked. The restroom has dry rot and poor ventilation. It will be replaced with an ADA-compliant vault restroom. The area in front of the restroom will be leveled to create a temporary, short-term accessible stall that can accommodate both vehicle-trailer and single vehicle parking.



Source: Google Earth

Stonebraker BLF:

Stonebraker is the only functioning BLF when the water level drops below 52% capacity. Stonebraker BLF is located three miles from Doolittle BLF, at the northeast part of the lake away from the dam. It is a single-lane ramp.

The long boat launch ramp at Stonebraker BLF is challenging for novice boaters to back down. When the capacity of the lake is at 100%, boaters need to back their vehicle-trailer approximately 150 feet down to launch their boats. As the lake level drops, two turnarounds are available lower on the boat ramp.

The v-grooved ramp and boarding float are in good condition.

The restrooms are old and deteriorated and need to be replaced. There is a need for solar lighting at the top of the ramp because boaters frequent the area before sunrise and after sunset despite signage that this area is open dawn until dusk.

The existing fish cleaning station was designed and assembled by EID and does not meet ADA standards.

The asphalt parking lot has cracks. There is no electricity at the facility, so solar lighting for the restroom is recommended.

The turn-around area at the top of the ramp is about 45 feet wide, making it difficult for larger vehicles with trailers to maneuver. The Layout Design and Construction Handbook for Small Craft Boat Launching Facilities suggests a minimum 60 feet diameter turn-around at the top of each boat launching ramp. Staff recommends the turn-around at Stonebraker be widened to a minimum 60 feet diameter.



Source: Google Earth

PROJECT DESCRIPTION

The proposed project would develop project designs, acquire permits, and establish an engineer's cost estimate for these improvements at both the Doolittle and Stonebraker BLFs. EID may apply for construction funding for improvements at Doolittle BLF when engineering designs near completion and then apply for construction funding for improvements at Stonebraker BLF when construction at Doolittle BLF is completed.

Proposed Project Scope

Doolittle BLF:

Articulated Concrete Block Mat Boat Launch Ramp

Widen the lower portion of the boat launch ramp where it narrows to a single lane using cost effective methods by installing approximately 100 lineal feet of articulated concrete block mat to create two additional boat launching lanes.

Slope protection

Install slope protection on the sides and toe of the widened ramp section.

Parking/Striping

Seal and repair as necessary the asphalt paving in the main and auxiliary parking areas to accommodate a minimum of 56 vehicle-trailer parking stalls, and 3 accessible vehicle-trailer parking stalls.

Temporary ADA Parking at the Restroom

Level the front area of the restroom to create a time-limited ADA-compliant vehicle-trailer parking stall.

Boater Restroom

Demolish the existing vault toilet and install a new vault toilet building with two unisex restrooms.

Fish Cleaning Station

Install a new fish cleaning station.

Accessible Path of Travel

Improve the path of travel that connects the accessible parking stalls to the fish cleaning station and the top of the boat launch ramp.

Lighting

Install lighting at the top of the boat launch ramp and the restroom area.

Bear Resistant Garbage Enclosures

Install bear resistant garbage enclosures at the restroom and the ramp.

Information Kiosk & Project Signage

Install a new information kiosk and concrete project credit sign at Doolittle BLF giving credit to the Harbors and Watercraft Revolving Fund for funding the project and EID for operation and maintenance of the facility.

Stonebraker BLF:**Ramp Turn-around**

Widen the turn-around at the top of the boat launch ramp to a minimum of 60 feet diameter.

Parking/Striping

Seal and repair the asphalt paving at the top of the launch ramp and the parking area to accommodate a minimum of 20 vehicle-trailer parking stalls, and one accessible vehicle-trailer parking stall.

Boater Restroom

Demolish the existing vault toilet building and install a new vault toilet building with two unisex restroom..

Fish Cleaning Station

Replace the existing fish cleaning station.

Solar Lighting

Install solar lighting at the top of the boat launch ramp and the restroom.

Bear Resistant Garbage Enclosure

Install bear resistant garbage enclosure at the restroom.

Information Kiosk & Project Signage

Install a new information kiosk and concrete project credit sign giving credit to the Harbors and Watercraft Revolving Fund for funding the project and EID for operation and maintenance of the facility.

Cost Estimate

EID estimates the entire project cost, as currently proposed will be approximately \$2,000,000. The estimated project cost to design, permit, and establish an engineer's estimate of probable construction costs is \$300,000.

Table 1: Doolittle BLF Project Cost Estimate	
CONSTRUCTION SCOPE	COST ESTIMATE
Mobilization/Demobilization	\$ 80,000
Articulated Concrete Block Mat Boat Launch Ramp	350,000
Slope Protection	50,000
Parking/Striping	78,000
Temporary ADA Parking at the Restroom	30,000
Boater Restroom	150,000
Fish Cleaning Station & Plumbing	50,000
Accessible Path of Travel	25,000
Lighting	30,000
Bear Resistant Garbage Enclosures	4,000
Signage & Information Kiosk	20,000
*Construction Subtotal	867,000
NON-CONSTRUCTION SCOPE	
*Escalation **9%	78,030
*DBW Contingency 10%	86,700
*Engineering 15%	130,050
*Permitting 3%	26,010
*Inspection 5%	43,350
Non-Construction Subtotal	\$ 364,140
TOTAL ESTIMATED PROJECT COST	\$ 1,231,140
Source = Tuolumne NMBLF bids from June 2023	
*Percentages are of the Construction Subtotal	
**3% per year for 3 years = 9% escalation	

Table 2: Stonebraker BLF Project Cost Estimate	
CONSTRUCTION SCOPE	COST ESTIMATE
Mobilization/Demobilization	\$ 80,000
Ramp Turn-around	60,000
Parking/Striping	70,000
Boater Restroom	150,000
Fish Cleaning Station	40,000
Solar Lighting	40,000
Bear Resistant Garbage Enclosure	2,000
Signage & Information Kiosk	20,000
*Construction Subtotal	462,000
NON-CONSTRUCTION SCOPE	
*Escalation **15%	69,300
*DBW Contingency 10%	46,200
*Engineering 15%	69,300
*Permitting 3%	13,860
*Inspection 5%	23,100
Non-Construction Subtotal	\$ 221,760
TOTAL ESTIMATED PROJECT COST	\$ 683,760
Source = Tuolumne NMBLF bids from June 2023	
*Percentages are of the Construction Subtotal	
**3% per year for 5 years = 15% escalation	

Project Status

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

Timeline

EID estimates that project design will be completed three years from the execution of the proposed planning grant agreement. It is expected that EID would seek construction funding for improvements to the Doolittle BLF in FY 2025/26 and construction funding for Stonebraker in FY 2027/28.

Engineering Feasibility

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

Environmental Impact and Permits

EID has begun the California Environmental Quality Act (CEQA) process and is anticipating a Notice of Exemption by December 24, 2023.

Expected permits that will be necessary to complete this project:

- Regional Water Quality Control Board – Section, 401 CWA Certification
 - Regional Water Quality Control Board - Section 402
 - United States Army Corps of Engineers - Section 404, Clean Water Act (CWA) Nationwide Permit
 - California Department of Fish and Wildlife - Section 1602, Lakebed Alteration Agreement.
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PROJECT METRICS

Annual Launches

Current: According to the boat launching data provided by EID, the latest three-year average of annual motorized boat launches at the existing facilities is 5,667.

Future: For purposes of this feasibility analysis, DBW assumes a modest 20 percent increase in usage to 6,800 motorized launches per year. EID anticipated a 40% increase to 7,934 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 Sacramento Basin is 3.35 and the current estimated annual number of user days is 18,985 (current annual launches x user per boat).

Future: DBW estimates that the number of annual user days for this facility will increase by 20 percent for a total of 22,780 annual user days.

User Day Value

Current: The 2018 California Boating Needs Assessment Study established a unit day value in the Central Valley Motorized Lake 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 the consumer price index (CPI), is \$43.38. The total current annual unit day value for the facility is \$823,569 (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 \$997,764 annually (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 benefit over the 20-year life of the project is estimated at \$2,738,670.

Cost: Net costs over the 20-year grant period are estimated to be \$868,150.

Ratio: Therefore, the Benefit-Cost Ratio is 3.15.

User Fees

EID currently charges \$12 to launch and a \$15 entrance fee at both BLFs. EID will require Board approval to lower the combination of boat launch, parking, and entrance fees for vehicle’s that are towing recreation vessels to the maximum allowable of \$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 \$300,000 Harbors and Watercraft Revolving Fund planning grant, with conditions to the El Dorado Irrigation District for planning activities at John T. Doolittle and Stonebraker BLFs as described in this September 21, 2023 feasibility report.

CONDITION

The District, at its expense, must complete all CEQA requirements by December 24, 2023.

The District must provide to DBW written approval from its governing board to lower the combination of boat launching, parking, and entrance fees for vehicle's that are towing recreational vessels to the maximum allowable of \$13 upon construction completion.

No reimbursement will occur until these conditions are met.