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## **RIO VISTA BOAT LAUNCHING FACILITY FEASIBILITY REPORT**



**Boat Ramp and Pile-Guided Boarding Float**



**Parking Area**

**City of Rio Vista**

**\$1,240,000 Construction Grant**

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### **SUMMARY**

The Boating and Waterways Commission (Commission) is being asked to provide Advice and Comment on the City of Rio Vista's request for a \$1,240,000 construction grant from the Harbors and Watercraft Revolving Fund (HWRF) for improvements to the Rio Vista Boat Launching Facility (BLF).

The City was previously awarded a \$300,000 planning grant from the Department of Parks and Recreation, Division of Boating and Waterways (DBW) for engineering and permitting to rehabilitate the BLF. The project design of Rio Vista BLF has been completed to the 95% level.

The proposed construction grant will fund the construction costs to renovate the existing facility. Project improvements include replacing the two-lane boat launch ramp, improving the parking area, replacing the retaining walls, and installing a new pile-guided boarding float, security lighting, accessible path of travel, and project signage.

There are no expected problematic financial, engineering, permitting, stakeholder or public access issues associated with this project. If approved, the proposed construction improvements are expected to be completed by April 2021.

The Department of Parks and Recreation, Division of Boating and Waterways seeks Commission Advice and Comment on this proposed \$1,240,000 Harbors and Watercraft Revolving Fund (HWRF) construction grant to the City of Rio Vista for the proposed improvements to the Rio Vista BLF as described in this February 7, 2019 Feasibility Report.

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### **GRANT APPLICANT AND PREVIOUS COMMISSION ACTION**

#### **Grant Applicant**

The grant applicant for the proposed project is the City of Rio Vista. The City owns the land and operates and maintains the facility.

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## Commission Site Visit

Boating and Waterways Commission members are scheduled to complete an official visit to the proposed boat launching facility site on February 6, 2019, as part of the Commission tour.

## Previous Commission Action

In FY2013/14, DBW approved a planning grant of \$300,000 to improve the BLF.

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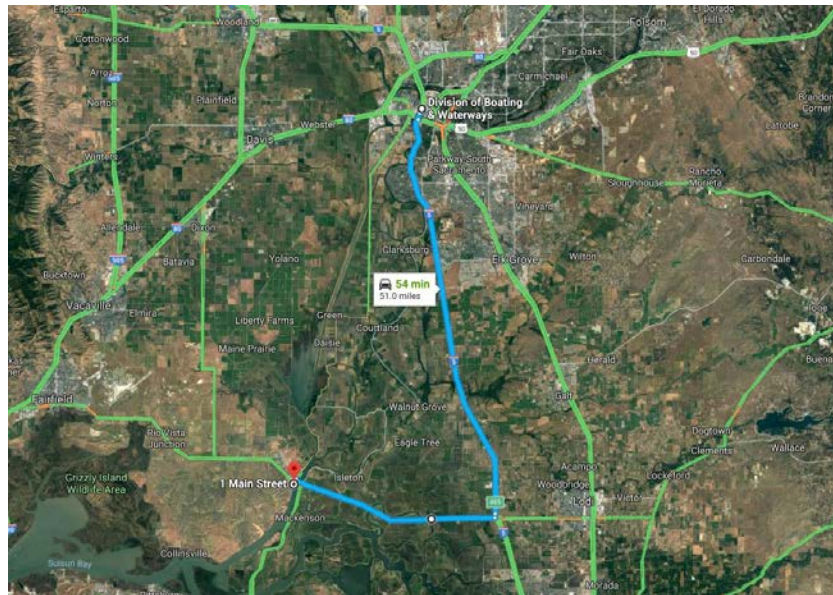
## GENERAL LOCATION AND AREA

### Location

The Rio Vista BLF is located behind City Hall on the Sacramento River. The City is located in the eastern end of Solano County, approximately 44 miles south of Sacramento and just over 60 miles southwest of San Francisco.

### Directions

From Sacramento, Take I-5 south, drive 45 miles and exit towards Highway 12 west towards Rio Vista. Take the River Road exit, turn right on North Front Street, drive 0.4 miles and make a left on Montezuma St. and you will reach the entrance to the BLF.



Source: Google

### Area

The City of Rio Vista, also known as the “Gateway to the Delta,” has a population of 9,009 residents. The City is located on the Sacramento River and is surrounded by over 1,000 miles of waterways. The Rio Vista Bridge, located just north of the BLF, carries approximately 21,000 cars per day across the Sacramento River and is considered one of the city’s most famous landmarks. Rio Vista is popular for fishing, delta exploration, bird watchers, water skiing, jet skiing and wind surfing. There are also many kayakers that boat along the Sacramento River, but they don’t normally launch at this location. The City hosts one of the largest and longest running Bass Derby events on the West Coast. In 2018, there were 300 participants in the fishing derby. In October 2019, the City will host the 72<sup>nd</sup> year of this annual family festival that includes a carnival, fishing derby, vendors, live music and fireworks.

The Rio Vista BLF is the only public boat launch facility that is managed by the City. Other public launch facilities in the area include Sandy Beach County Park Boat Launch, which is 1.5

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miles south; Brannon Island State Park Boat Launch, which is 5 miles south; and Sacramento County Hogback Island Boat Launch, which is 11 miles north of Rio Vista.

The BLF is located in downtown Rio Vista which, is considered an economically underserved area. The launch plays an important role in the City's economics and recreational offerings. One of the City's priorities is economic development and the City is planning a new Rio Vista Waterfront Promenade that will link the City's downtown to the Rio Vista Bridge. This new promenade will include pedestrian walkways, skating, biking, shopping and restaurants. The City also has four new planned residential developments, which will bring more boaters to the area.

The City just completed its brand new floating transient dock located just outside of City Hall. This dock was partially funded by a federal Boating Infrastructure Grant, which was approved by DBW in 2013 for \$225,000. This dock is now providing much needed shore access to boaters to the downtown area.

### Usage

The Rio Vista BLF is open 24 hours a day, seven days per week, year-round and users pay a \$10 parking fee. Motorized vessels are launched from this facility along with a small number of non-motorized. The facility is heavily used by recreational boaters and fishing enthusiasts. The California Department of Fish and Wildlife, the County Sheriff, the US Coast Guard, and the US Geological Survey Team also utilize the facility.

Currently, the City states they have approximately 6,000 annual boat launches at this facility. With the new planned developments and the improved access, the usage is expected to increase to at least 7,000 annual boat launches.



Source: Google

### Existing Conditions

The Rio Vista BLF was originally constructed in 1965 utilizing funds from the California Department of Fish and Wildlife. The existing facility consists of a two-lane, concrete boat ramp, pile-guided boarding floats, a restroom, and a paved and striped parking area.

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The existing two-lane boat ramp is beyond its useful life and the walkway and parking area have deteriorated. The boat ramp has many large cracks, which can make it difficult to launch and retrieve boats. The retaining walls bordering the ramp are failing, and the boarding floats require significant ongoing maintenance. The parking area has many large potholes and is not accessible to people with disabilities.

The City reports that the facility is inundated regularly by floodwaters, and during heavy rains it is not unusual to see the water reach the top of the 5-foot floodgates. During these events, the parking lot and ramp are not accessible. The Delta waterways are controlled by the tidal action from the Pacific Ocean and the releases from up-river dams. The most significant high tide events are during the months of November through February, and at times this makes dry access to the boat launch ramp impossible.

The City has an accessible public restroom adjacent to the BLF that is open 24 hours a day to boaters. The restroom was built in 2011 with funding from proposition 40 through California State Parks and Recreation. The restroom is not part of this project.

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## PROJECT DESCRIPTION

The proposed grant would provide funding for the construction to rehabilitate the City of Rio Vista Boat Launching Facility on the Sacramento River.

### Proposed DBW Scope

If approved, this grant would contribute up to **\$1,240,000** to construct the following scope items:

**Boat Launch Ramp** – Replace the deteriorated two-lane concrete boat ramp with a new two-lane cast in place V-grooved boat ramp.

**Pile-Guided Boarding Floats** – Remove existing steel piles and install two new concrete piles and four 8' wide by 20' long boarding floats. Add handrails to boarding floats as needed to meet the California Building Code requirements during low water.

**Abutment** – Remove existing abutment and add a new taller abutment with handrails that will extend to the top of the apron, extending the availability of the facility.

**Concrete Retaining Wall/Fencing** - Remove existing retaining wall south of boat ramp and install new concrete retaining wall with a concrete walkway overlooking the ramp. Remove existing guardrail and add 42-inch chain-link fencing between the walkways and water.

**Parking Area** – Overlay and stripe the BLF's 30 vehicle-trailer spaces, 16 single-vehicle spaces that includes two ADA vehicle-trailer parking spaces and two ADA single-vehicle spaces adjacent to the restroom.

**Accessible Path of Travel** – Provide an accessible path of travel between BLF components and the City's restroom.

**Utilities** – Move utility lines at entry of facility underground.

**Security Lighting** – Add site lighting at the end of the retaining wall on both sides and near the restroom.

**Project Signage** - A new concrete project credit sign would be installed at the facility giving credit to the Harbors and Watercraft Revolving Fund for funding the project and City for operation and maintenance of the facility.

### Cost Estimate

The estimated project cost to complete construction is \$1,240,000 (see Table 1: Rio Vista BLF Project Cost Estimate for expected costs). This construction project would be 100% funded through this proposed DBW grant.

<b>Table 1: Rio Vista BLF Project Cost Estimate</b>	
<b>CONSTRUCTION SCOPE</b>	<b>COST ESTIMATE</b>
Mobilization	\$ 20,000
Demolition	105,450
Boat Launch Ramp	397,200
Pile-guided Boarding Floats	158,000
Abutment	27,000
Fencing/Concrete Retaining Wall	93,400
Parking Area	131,200
Accessible Path of Travel	11,750
Utilities	35,000
Lighting	16,000
Project Signage	5,000
<b>Construction Subtotal</b>	<b>\$ 1,000,000</b>
<b>NON-CONSTRUCTION COSTS</b>	
Escalation 9%	\$ 90,000
Contingency 10%	100,000
Engineering 0%	-
Inspection 5%	50,000
<b>Non-Construction Subtotal</b>	<b>\$ 240,000</b>
<b>TOTAL ESTIMATED PROJECT COST</b>	<b>\$ 1,240,000</b>
Source = Dillon & Murphy Consulting Civil Engineers Cost Estimate 3/25/2017	
*Percentages are of the Construction Subtotal	
*3% per year for 3 years = 9% escalation	

### Project Status

The proposed project site plan is attached (See Exhibit A) and is subject to minor changes based on available funding, requirements of the site, and permitting agency requirements.

### Timeline

The City estimates that project construction will be completed approximately two years from execution of the proposed construction grant agreement.

### Engineering Feasibility

Other than the high tide water events, there are no particularly difficult or unusual problems associated with the proposed project.

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## Environmental Impact and Permits

The City completed a Biological Assessment in June 2017 and has completed a Categorical Exemption pursuant to the provision of CEQA. The City has applied for all of the required permits and is waiting for final approvals.

- US Army Corps of Engineers
  - CA Department Fish and Game
  - Central Valley Flood Protection Agency
  - Regional Water Quality Control Board
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## PROJECT METRICS

### Annual Launches

**Current.** According to the City of Rio Vista grant application, the annual number of motorized boat launches at the existing facility is 5,500. The number of non-motorized boat launches is 500.

**Future.** The City estimates that the annual number of motorized boat launches at the improved facility will have an increase of 9.09%, to 6,000 launches per year. The City projects non-motorized will have an increase of 100% to 1,000 launches per year.

### Annual User Days

**Current.** Based on the California Boating Needs Assessment study published in 2002, the area average for numbers of users per boat (motorized) at the Sacramento River is 2.88. Therefore, the current estimated annual number of user days is 15,840 for motorized and 500 for non-motorized. For a total of 16,340 (annual launches \* user per boat).

**Future.** DBW estimates that the annual user days for this facility will increase by 9.09% to 17,280 for motorized with the number of non-motorized to increase by 100% to 1,000 for a combined total of 18,280 annual user days.

### User Day Value

**Current.** The 2002 Boating Needs Assessment Study estimated a base user day value. This value adjusted for CPI is \$25.55 per user. The total current annual user day value for this facility is \$417,487 (user day value \* annual user days).

**Future.** DBW estimates that the total annual user day value for the proposed facility will increase after the facility is improved to \$467,054 (user day value \* projected annual user days).

### Benefit-Cost Ratio

A common method 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 \$5,355,780.

**Cost.** Net costs over the 20-year grant period are estimated to be \$2,426,320.

**Ratio.** Assuming a total project cost of \$1,540,000 to complete designs, acquire permits, and complete construction, the Benefit-Cost Ratio is 2.21.

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### **User Fees**

The City charges \$10 for parking. The City may consider increasing these fees after the project is complete.

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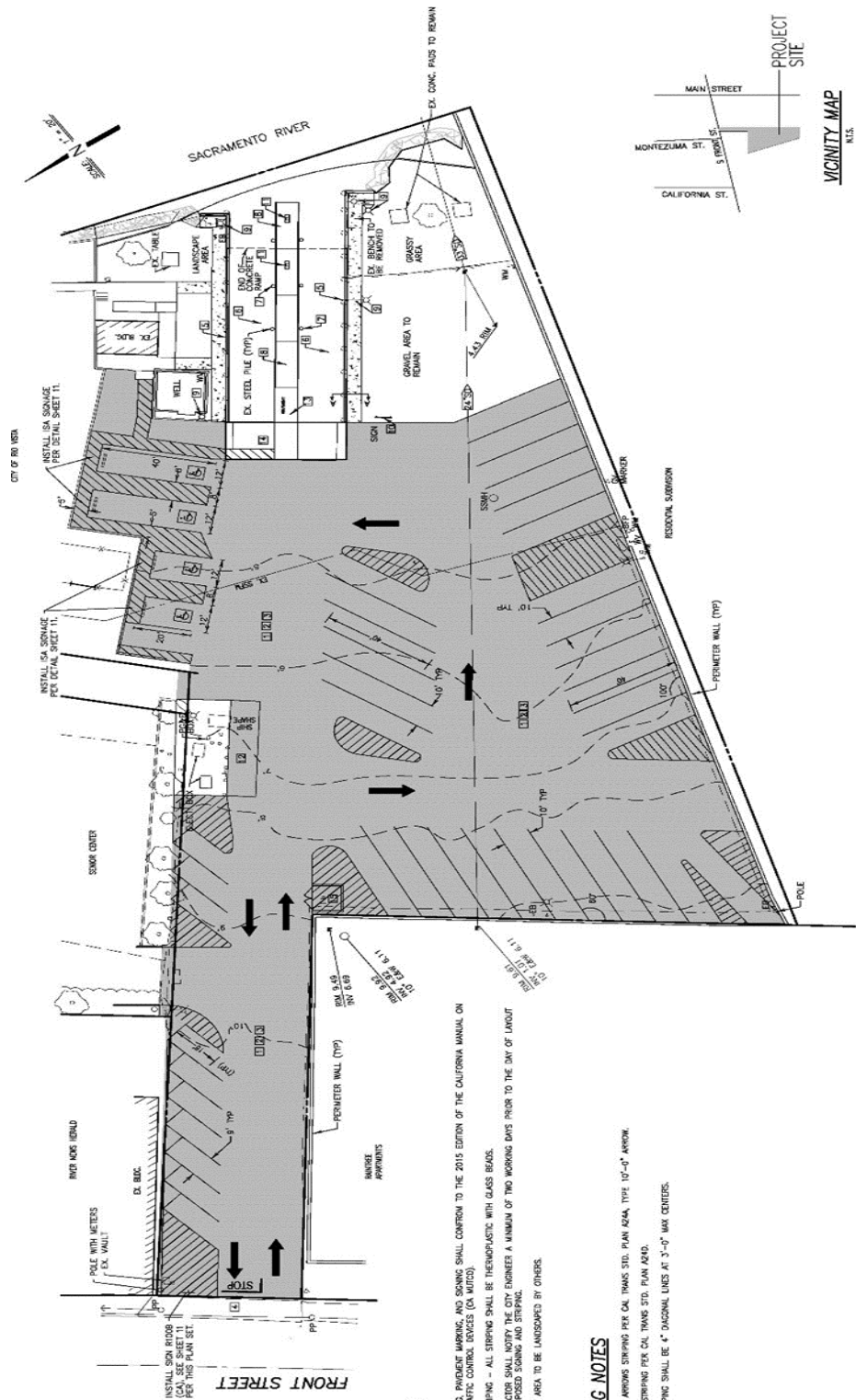
### ***CONCLUSION***

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

### ***COMMISSION ADVICE AND COMMENT***

The Department of Parks and Recreation, Division of Boating and Waterways seeks Commission Advice and Comment on the proposed \$1,240,000 Harbors and Watercraft Revolving Fund construction grant to the City of Rio Vista for the proposed improvements to Rio Vista BLF as described in this February 7, 2019 Feasibility Report.

# Exhibit A – 100% Design



### NOTES

1. ALL STRIPING, PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO THE 2015 EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. TRAFFIC STRIPING - ALL STRIPING SHALL BE THERMOPLASTIC WITH GLASS BEADS.
3. THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEER A MINIMUM OF TWO WORKING DAYS PRIOR TO THE DAY OF LAYOUT OF THE PROPOSED SIGNING AND STRIPING.
4. THE GRASSY AREA TO BE LANDSCAPED BY OTHERS.

### STRIPING NOTES

1. DIRECTIONAL ARROWS STRIPING PER CAL TRANS STD. PLAN A244, TYPE 10'-0" ARROW.
2. STOP SIGN STRIPING PER CAL TRANS STD. PLAN A240.
3. ISLAND STRIPING SHALL BE 4" DIAGONAL LINES AT 3'-0" MAX CENTERS.