

TISDALE

BOAT LAUNCHING FACILITY

\$716,000 PHASE II GRANT

STATE OF CALIFORNIA  
**STANDARD AGREEMENT AMENDMENT**  
 STD. 213 A (Rev 6/03)

CHECK HERE IF ADDITIONAL PAGES ARE ATTACHED 10 Pages

AGREEMENT NUMBER	AMENDMENT NUMBER
<b>02-101-325</b>	<b>1</b>
REGISTRATION NUMBER	
3680 0808 32 8952.1	

PROJECT CODE 345

- This Agreement is entered into between the State Agency and Contractor named below:  
 STATE AGENCY'S NAME  
DEPARTMENT OF BOATING AND WATERWAYS (DEPARTMENT)  
 CONTRACTOR'S NAME  
COUNTY OF SUTTER (GRANTEE)
- The term of this Agreement is September 23, 2002 through (20 years from date of acceptance of the Project)
- The maximum amount of this Agreement after this amendment is: \$ 1,676,000.00  
ONE MILLION SIX HUNDRED SEVENTY SIX THOUSAND DOLLARS
- The parties mutually agree to this amendment as follows. All actions noted below are by this reference made a part of the Agreement and incorporated herein:

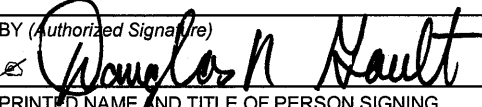
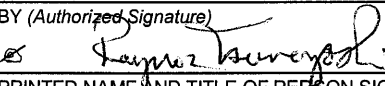
**Tisdale Boat Launching Facility  
 Phase II (\$716,000 Increase)**

This amendment is entered into on May 12, 2008.

- In October 2007 the Department and its Commission approved the additional Phase II of the grant.
- This amendment adds \$716,000 for Phase II of the Project in accordance with the terms and conditions of the Agreement. The maximum amount of this Agreement after this amendment is \$1,676,000 (ONE MILLION SIX HUNDRED SEVENTY SIX THOUSAND DOLLARS).

(continued)

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto.

<b>CONTRACTOR</b>		CALIFORNIA Department of General Services Use Only  <div style="border: 1px solid black; padding: 10px; text-align: center;">           APPROVED             JUL - 1 2008             DEPT OF GENERAL SERVICES         </div>
CONTRACTOR'S NAME (If other than an individual, state whether a corporation, partnership, etc.)		
COUNTY OF SUTTER		
BY (Authorized Signature) 	DATE SIGNED (Do not type) <u>5/23/08</u>	
PRINTED NAME AND TITLE OF PERSON SIGNING DOUGLAS GAULT, Director, Public Works <u>PER RES. 06-029</u>		
ADDRESS PUBLIC WORKS DEPARTMENT 1160 CIVIC CENTER BLVD., STE. D, YUBA CITY, CALIFORNIA 95991		
<b>STATE OF CALIFORNIA</b>		
AGENCY NAME DEPARTMENT OF BOATING AND WATERWAYS		
BY (Authorized Signature) 	DATE SIGNED (Do not type) <u>6/16/08</u>	
PRINTED NAME AND TITLE OF PERSON SIGNING RAYNOR TSUNEYOSHI, Director		
ADDRESS 2000 EVERGREEN STREET, SUITE 100, SACRAMENTO, CALIF. 95815-3888		
		<input type="checkbox"/> Exempt per:

c. The supplemental Tisdale Boat Launching Facility – Phase II Grant Amount: \$716,000) feasibility report (9 pages) is attached herein and made a part of the Agreement.

d. Article 6 (A) of Exhibit A is hereby amended to read:

“ The Grantee shall complete the Project no later than May 1, 2009.”

e. Article 20 of Exhibit A is hereby amended with the following changes to read:

Article 20 – Liability

- A. The Grantee waives all claims and recourse against the Department, including the right to contribution for any losses or damages arising from, growing out of, or in any way connected with or incident to this Agreement.
- B. The Grantee agrees to indemnify, defend and hold harmless, the Department, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, suppliers, laborers, and any other person, firm, entity or corporation furnishing or supplying work services, materials, or supplies in connection with the performance of this Agreement, and/or from any and all claims and losses accruing or resulting to any person, firm, entity or corporation who may be injured or damaged by Grantee in the performance of this Agreement.
- C. The Grantee shall indemnify, hold harmless, and defend the Department, its officers, agents and employees against any and all claims, demands, damages, costs, expenses or liability connected with or arising out of the acquisition, design, construction, operation, maintenance, existence or failure of the project.
- D. If the Department is named as a co-defendant pursuant to Government Code section 895, et seq., the Grantee shall notify the Department and represent it unless the Department elects to represent itself. If the Department undertakes its own defense, it shall bear its own litigation costs, expenses and attorney's fees.”

Save as herein or previously amended, the contract of September 23, 2002 shall remain in full force and effect.

# Tisdale Boat Launching Facility

**Phase II Grant Amount: \$716,000**  
**(Total Grant Amount: \$1,676,000)**

## SUMMARY

The County of Sutter (County) has applied to the Department of Boating and Waterways (Cal Boating) for a grant of \$1,676,000 to construct the Tisdale Boat Launching Facility (BLF) on the Sacramento River. This report concerns phase II grant funding of \$716,000 for this project.

The proposed boat launching facility site is located in Sutter County west of the Tisdale Weir, 17 miles north of Knights Landing, 10 miles south of Meridian, and 40 miles north of Sacramento.

The proposed site is a waterside berm (180' by 1400') within the levee system of the Sacramento River and the Tisdale Bypass. This site will replace the existing, unusable boat launching facility located 1/2 mile upstream from the proposed site.

The Boating and Waterways Commission previously consented to grants totaling \$1,110,000 to the County for improvements to the BLF.

The proposed project entails (1) construction of a two-lane boat launching ramp, (2) construction of a 35 vehicle/trailer parking area, and (3) slope protection.

The cost-benefit ratio for this project is 3.58

## **INTRODUCTION**

### **Grant Applicant**

The grant applicant for this project is the County.

### **Project Identification**

The Project Area is the proposed BLF, which will be operated by the County.

### **Project Location**

The proposed BLF will be located in Sutter County west of the Tisdale Weir, 17 miles north of Knights Landing, and 10 miles south of Meridian, and 40 miles north of Sacramento.

### **Access to Project**

From I-5 take Highway 113 north 16 miles to the town of Robbins. Go north on Reclamation Road 11 miles until you reach the Tisdale Bypass, then west on Tisdale Road two miles to the Tisdale Weir.

### **Area Description**

The Sacramento River provides recreation for boating, fishing, and waterskiing. Set between levees since the early 1900's, the river has maintained a deep channel. It also maintains a steady flow as it is controlled primarily by the Shasta Dam to the north. Due to the levee system, boat launching facility development opportunities on the river are limited.

The proposed project site is a waterside berm (180' by 1400') within the levee system of the Sacramento River and the Tisdale Bypass. This area is stable from erosion as the bank is necessary for weir operation and protection. The weir itself is a 1200' long by 20' wide concrete slab located 100' from the river and at right angles to the water flow in the bypass. The weir also acts as a foundation for the existing bridge spanning the bypass.

The California Department of Transportation will replace the existing bridge over the bypass with a new bridge. The new bridge will have a different alignment, and will not be constructed over the weir. The bridge construction is projected to be complete in 2009.

The area proposed for the project is owned by the Sacramento and San Joaquin Drainage District (State Reclamation Board), and is leased to the California Department of Fish and Game (DFG). The County has a verbal commitment from DFG to lease the site for the purpose of constructing and operating a boat launching facility for the term of the grant (20 years). The site is currently used for shore fishing.

The nearest launching facilities are located at: 1) Knights Landing in Yolo County, approximately 18 miles to the south, and; 2) launch facility just north of Meridian, approximately 20 miles to the north of the proposed facility.

### **Previous Commission Action**

The Boating and Waterways Commission previously consented to the following grants to the County:

In FY 1978/79, the Commission approved a grant for \$150,000 for 1) a two-lane boat launching ramp, 2) a boarding float, 3) a 50 vehicle/trailer parking area, and 4) two portable restrooms. This facility is currently closed due to extreme siltation.

In FY 2002/03, the Commission approved the phase I grant for this project for \$960,000, for construction of a two-lane ramp, a parking area, and slope protection. As project planning progressed, the U.S. Army Corps of Engineers informed the County that a concrete (instead of asphalt) parking area would be required, as the project is considered to be in a flood plain, and is also in a weir environment. This increased project costs significantly, at a time when construction costs were rising dramatically. Project options were considered, and the County decided to apply to Cal Boating for an additional grant phase to complete the project as delineated by the the U.S. Army Corps of Engineers.

## ENGINEERING CONSIDERATIONS

### Proposed Project

The proposed project entails (1) construction of a two-lane concrete v-grooved boat launching ramp - the ramp will be situated at a 45 degree angle to the river flow, (2) construction of a 40 vehicle/trailer parking area with a concrete cut-off wall constructed on the north and west ends of the parking area to prevent the river from uplifting the pavement, (3) slope protection, (4) a pay station and a lockable gate, and (5) a concrete project sign.

The lockable gate will be for use during periods of high water. During these periods, the river spills through the weir and into the bypass (an average of two months per year), and may be dangerous for boaters to traverse. The lockable gate will prevent access to the site on these occasions.

In addition, in the future, the County plans to install a restroom at the site, on the landside of the levee.

### Cost Estimate

<u>PROJECT ITEM</u>	<u>COST</u>
Mobilization/Demobilization	\$ 40,000
Earthwork	35,000
Boat Launching Ramp	145,000
Cofferdam	125,000
Parking Area	764,000
Slope Protection	87,000
Vehicle Gate/Paybox	14,000
Project Sign	<u>6,000</u>
<b>SUBTOTAL</b>	<b>\$ 1,216,000</b>
Contingency	122,000
Engineering	146,000
Escalation	95,000
Inspection	61,000
Permits	<u>36,000</u>
<b>TOTAL</b>	<b>\$ 1,676,000</b>

## ENGINEERING FEASIBILITY

Cal Boating has found no particularly difficult or unusual issues associated with this project as it falls within the normal range of practice for design and construction of projects of this type. Therefore, the proposed project is considered feasible from an engineering standpoint at a total estimated cost of \$1,676,000.

## ECONOMIC ANALYSIS

### INTRODUCTION

The economic justification of any proposed project rests upon a comparison of the costs and benefits attributable to the project. A cost-benefit analysis is performed to demonstrate whether the total cost of a project to society is justified by its overall benefit to society. A project is deemed beneficial and therefore economically feasible when total benefits equal or exceed total costs.

In cost-benefit analysis, projects evaluated by Cal Boating are considered either new projects or improvement projects. A new project is defined as initial facility construction. An improvement project is a project at an existing facility. The BLF is considered to be a new project. The value of a new project is determined by the benefits and the costs of the proposed facility, with the proposed improvements in place.

### THE COST-BENEFIT PROCESS

The first step in the cost-benefit analysis is to calculate the annual base year user days (Table 1A) and the annual percentage growth rate (Table 1B).

TABLE 1A

ANNUAL BASE YEAR USER DAYS CALCULATION	EXISTING	PROJECTED
ANNUAL BOAT LAUNCHES		7,000
AVERAGE PERSONS ABOARD		3.35
ANNUAL BASE YEAR USER DAYS		23,450

Next, annual costs are determined by multiplying the existing or projected annual boat launches for the facility by the cost per boat launching to give annual costs (Table 2). If there is no charge for boat launching at the facility, a standard cost is substituted in the equation. Annual costs are then multiplied by the expected annual percentage cost escalation rate (Table 2) and the annual percentage growth rate to give annual costs.

TABLE 1B

#### ANNUAL GROWTH RATE CALCULATION

NUMBER IN MKT. AREA	ACTUAL		PROJECTED	
	2007	2027		
BOATS < 26' IN LENGTH	low	154,427	198,200	1.42%
	high	154,427	239,797	2.73%
ANNUAL GROWTH RATE				2.10%

**TABLE 2**  
**ANNUAL COSTS**                      **EXISTING**    **PROJECTED**

BOAT LAUNCHING FEE	6.11
ANNUAL LAUNCHES	7,000
BASE ANNUAL COST	\$42,770

MAINTENANCE	
ANNUAL COST ESCALATION	2.10%

**EXISTING**    **PROJECTED**

**ANNUAL GROWTH RATE**

2.10%	2.10%
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ANNUAL COSTS		EXISTING		PROJECTED	
	1	\$ -	\$ 42,770	\$ -	\$ 43,668
	2	\$ -	\$ 43,668	\$ -	\$ 44,585
	3	\$ -	\$ 44,585	\$ -	\$ 45,521
	4	\$ -	\$ 45,521	\$ -	\$ 46,477
	5	\$ -	\$ 46,477	\$ -	\$ 47,453
	6	\$ -	\$ 47,453	\$ -	\$ 48,450
	7	\$ -	\$ 48,450	\$ -	\$ 49,467
	8	\$ -	\$ 49,467	\$ -	\$ 50,506
	9	\$ -	\$ 50,506	\$ -	\$ 51,567
	10	\$ -	\$ 51,567	\$ -	\$ 52,650
	11	\$ -	\$ 52,650	\$ -	\$ 53,755
	12	\$ -	\$ 53,755	\$ -	\$ 54,884
	13	\$ -	\$ 54,884	\$ -	\$ 56,037
	14	\$ -	\$ 56,037	\$ -	\$ 57,214
	15	\$ -	\$ 57,214	\$ -	\$ 58,415
	16	\$ -	\$ 58,415	\$ -	\$ 59,642
	17	\$ -	\$ 59,642	\$ -	\$ 60,894
	18	\$ -	\$ 60,894	\$ -	\$ 62,173
	19	\$ -	\$ 62,173	\$ -	\$ 63,479
	20	\$ -	\$ 63,479	\$ -	\$ 64,812

Next, annual benefits are determined by multiplying the annual base year user days by the annual percentage growth rate to give the project user days per year. The project user days per year are multiplied by a user day value (Table 3) plus the expected annual percentage increase in the U.S. Bureau of Labor Statistics Consumer Price Index (CPI) (Table 3) to give annual benefits.

Project operating costs and project benefits per year are then discounted to yield their net present value. Since the value of a dollar is considered to be of greater value in the present year than in some future year, a discount rate is applied in order to deflate the future dollars and to convert the costs and benefits occurring over the 20-year grant period to a present day value. Utilizing this formula, the present day value may be comparable to other values in the present.

The sum of the present costs, including capital costs, and the discounted future costs is the net present cost of the project (Table 4). The sum of the present benefits and the discounted future benefits is the net present value benefits of the project (Table 5).



**TABLE 3  
ANNUAL BENEFITS**

**USER DAY VALUE  
CPI**

**\$ 21.58  
2.0%**

**PROJECT USER DAYS**

**EXISTING PROJECTED**

-	23,942
-	24,445
-	24,959
-	25,483
-	26,018
-	26,564
-	27,122
-	27,692
-	28,273
-	28,867
-	29,473
-	30,092
-	30,724
-	31,369
-	32,028
-	32,701
-	33,387
-	34,088
-	34,804
-	35,535

**EXISTING PROJECTED**

ANNUAL BENEFITS	1	-	516,678
	2	-	538,079
	3	-	549,379
	4	-	560,915
	5	-	572,695
	6	-	584,721
	7	-	597,000
	8	-	609,537
	9	-	622,338
	10	-	635,407
	11	-	648,750
	12	-	662,374
	13	-	676,284
	14	-	690,486
	15	-	704,986
	16	-	719,791
	17	-	734,906
	18	-	750,340
	19	-	766,097
	20	-	782,185

The net present value of costs is then divided into the net present value of benefits to yield the cost-benefit ratio. The cost-benefit ratio must be greater than unity (1.00) before public investment in a project is justifiable (Table 6).

**ANNUAL LAUNCHES**

The average number of users per vessel for the Sacramento Basin region was estimated as 3.35 users per vessel. Annual launches for this project are projected to be 7,000 with project improvements in place. The completed project will benefit both local and regional boaters.

**COSTS**

There will be no boat launching fee at the new BLF. Base annual operation and maintenance costs (including routine dredging) are estimated at \$42,770. Annual cost escalation is 2.10%, and the annual percentage growth rate is 2.10% (Table 1B). Annual costs are shown in Table 2, and the net present value of costs is shown in Table 4.

**BENEFITS**

Annual base year user days for this project are projected at 23,450 user days (Table 1A). The User Day Value is \$21.58. The CPI is 2.0%. Annual benefits are shown in Table 3, and the net present value of benefits is shown in Table 5.

**TABLE 4**  
**NET PRESENT VALUE OF COSTS**

COSTS				NET PRESENT VALUE	
Year	Capital Costs	Annual Existing Costs	Annual Projected Costs	Discount Factor	Cost
0	\$1,676,000	\$0	\$43,668	1.000	1,719,670
1		\$0	\$44,585	1.045	42,670
2		\$0	\$45,521	1.092	41,690
3		\$0	\$46,477	1.141	40,730
4		\$0	\$47,453	1.193	39,790
5		\$0	\$48,450	1.246	38,880
6		\$0	\$49,467	1.302	37,990
7		\$0	\$50,506	1.361	37,110
8		\$0	\$51,567	1.422	36,260
9		\$0	\$52,650	1.486	35,430
10		\$0	\$53,755	1.553	34,610
11		\$0	\$54,884	1.623	33,820
12		\$0	\$56,037	1.696	33,040
13		\$0	\$57,214	1.772	32,280
14		\$0	\$58,415	1.852	31,540
15		\$0	\$59,642	1.935	30,820
16		\$0	\$60,894	2.022	30,110
17		\$0	\$62,173	2.113	29,420
18		\$0	\$63,479	2.208	28,740
19		\$0	\$64,812	2.308	28,080
<b>Total Present Value of Costs:</b>					<b>\$2,382,680</b>

The discount rate being used is 4.50%. This is equivalent to the interest rate being charged by the Department of Boating and Waterways on its public loans. Present value is determined by dividing future benefits by  $(1+r)^n$ , where  $r$  is the discount rate and  $n$  is the number of years into the future.

**TABLE 5  
NET PRESENT VALUE OF BENEFITS**

Year	BENEFITS			NET PRESENT VALUE	
	Existing Benefits	Projected Benefits	Project Benefits	Discount Rate	Benefits
0	\$0	\$516,678	\$516,678	1.00	\$516,680
1	\$0	\$538,079	\$538,079	1.05	\$514,910
2	\$0	\$549,379	\$549,379	1.09	\$503,080
3	\$0	\$560,915	\$560,915	1.14	\$491,530
4	\$0	\$572,695	\$572,695	1.19	\$480,240
5	\$0	\$584,721	\$584,721	1.25	\$469,210
6	\$0	\$597,000	\$597,000	1.30	\$458,430
7	\$0	\$609,537	\$609,537	1.36	\$447,910
8	\$0	\$622,338	\$622,338	1.42	\$437,620
9	\$0	\$635,407	\$635,407	1.49	\$427,570
10	\$0	\$648,750	\$648,750	1.55	\$417,750
11	\$0	\$662,374	\$662,374	1.62	\$408,150
12	\$0	\$676,284	\$676,284	1.70	\$398,780
13	\$0	\$690,486	\$690,486	1.77	\$389,620
14	\$0	\$704,986	\$704,986	1.85	\$380,670
15	\$0	\$719,791	\$719,791	1.94	\$371,930
16	\$0	\$734,906	\$734,906	2.02	\$363,390
17	\$0	\$750,340	\$750,340	2.11	\$355,040
18	\$0	\$766,097	\$766,097	2.21	\$346,890
19	\$0	\$782,185	\$782,185	2.31	\$338,920

**Total Net Present Value of Benefits: \$8,518,320**

The discount rate being used is 4.50%. This is equivalent to the interest rate being charged by the Department of Boating and Waterways on its public loans. Present value is determined by dividing future benefits by  $(1+r)^n$ , where r is the discount rate and n is the number of years into the future.

**COST-BENEFIT RATIO**

Net costs are estimated at \$2,382,680. Net benefits for this project are estimated at \$8,518,320. The cost-benefit ratio for this project is estimated at 3.58 (Table 6). This means that estimated costs are exceeded by estimated benefits. The construction of this project is, therefore, economically justified.

**TABLE 6  
COST-BENEFIT RATIO**

NET PRESENT VALUE OF BENEFITS	\$8,518,320
NET PRESENT VALUE OF COSTS	\$2,382,680
COST/BENEFIT RATIO	3.58

## \* BOAT LAUNCHING FEES AND FACILITY MAINTENANCE

FEE { The completed project must be open to all on an equal and reasonable basis. The maximum fee that can be charged for boat launching for the 20-year grant period is currently \$13.00. The maximum fee includes, but is not limited to, fees for vessel launching and retrieval, parking, entry, day use, and water use. The total fee charged may be increased annually in accordance with percentage changes in the CPI, with the grant contract effective date as the base for any such adjustment. Any adjustment exceeding the annual percentage change in the CPI must be submitted to Cal Boating. Cal Boating will review the request for increased fees, and will consider submittal of the request to the Boating and Waterways Commission for their consideration.

After the project is completed, the grantee must maintain the facility for 20 years at no additional cost to Cal Boating. Cal Boating will supply the grantee with guidelines for minimum maintenance standards for the operation and maintenance of publicly owned boat launching facilities that are funded by Cal Boating. Each grantee must submit their facility maintenance schedule to Cal Boating within 60 days of the effective date of their grant contract. Failure to maintain the facility according to the maintenance schedule is a breach of the grant contract, and will preclude the grantee from receiving any future Cal Boating grant funds.

### RECOMMENDATION

In view of the foregoing demonstration of the project's engineering and financial feasibility, Cal Boating recommends that the Boating and Waterways Commission consent to the proposed \$716,000 phase II grant (total grant amount of \$1,676,000) to the County of Sutter for improvements to the Tisdale Boat Launching Facility.