

Merced Integrated Regional Water Management Implementation Grant Proposal

Attachment 4: Budget



Attachment 4 consists of the following items:

✓ **Summary Budget**

A summary budget of each project in the proposal is provided using the format of Table 8 from the Proposal Solicitation Package

✓ **Project Budgets**

For each project contained in the Proposal, a project budget is provided using the format of Table 7 from the Proposal Solicitation Package. Detailed budget documentation supporting the project budgets is also provided.

The proposal budget provides detailed budget documentation to support each cost shown in Table 4-1, the Summary Budget for the Merced IRWM Implementation Grant Proposal (Table 8 per the Proposal Solicitation Package). Table 4-1 presents the proposed funding match for each project within the proposal. Following Table 4-1 are detailed descriptions of individual project budgets; there may be several tasks and sub-tasks that are included in project budget descriptions.

As noted below and detailed in Attachment 10, the following projects are requesting either full or partial Funding Match Waivers as these project serve DACs:

- *Black Rascal Flood Control Project*
- *Planada Community Services District Water Conservation Project*
- *El Nido Area Recharge*
- *Merced River Education and Enhancement Program*

Total Proposal Cost Estimate

As described in Attachment 3, the Merced IRWM Implementation Grant Proposal involves implementation of four high priority projects to meet the region's water management needs. The total cost to implement this proposal is \$3,372,672. Of this amount, \$3,190,335 (95%) is being requesting grant funding from the IRWM Grant Program and \$182,336 (5%) is provided as funding match by the local agencies.



Table 4-1: Summary Budget for the Merced IRWM Implementation Grant Proposal
(Table 8 per the Proposal Solicitation Package)

Proposal Title: Merced IRWM Implementation Grant Proposal					
Individual Project Title	(a)	(b)	(c)	(d)	(e)
	Requested Grant Amount	Cost Share: Non-State Fund Source (Funding Match)	Cost Share: Other State Fund Source	Total Cost	% Funding Match
Black Rascal Flood Control Project	\$1,000,000	\$32,718	\$0	\$1,032,718	3%
Planada Community Services District Water Conservation Project	\$861,120	\$0	\$0	\$861,120	0%
El Nido Area Recharge	\$584,262	\$0	\$0	\$584,262	0%
Merced River Education and Enhancement Program	\$744,953	\$149,618	\$0	\$894,572	17%
Proposal Total	\$3,190,335	\$182,336	\$0	\$3,372,672	5%
DAC Funding Match* Waiver Total				\$3,372,672	
Grand Total ¹	\$3,190,335	\$182,336	0	\$6,745,343	3%

* See Attachment 10 for a detailed discussion of the DAC Funding Match Waiver.

Detailed budgets for each of the projects included within this proposal, including a summary budget and supporting cost information are provided in the following sections.



Project Budget - Black Rascal Flood Control Project

The total cost associated with the *Black Rascal Flood Control Project* is \$1,032,718. This cost is for completion of tasks within Budget Category (a) - Direct Project Administration and Budget Category (c) – Planning / Design / Engineering / Environmental Documentation.

Of the total \$1,032,718 costs, \$1,000,000 is being requested for grant funding through the IRWM Implementation Grant Program. The remaining \$32,718 will be provided by the County of Merced. In total, this amount constitutes 3% of the total project cost, meaning that the non-State share of the total project cost (funding match) is 3% for this project. This project serves the needs of a DAC and a Funding Match Waiver is being requested.

Table 4-2 below provides a more detailed breakdown of the total project budget.

Table 4-2: Project Budget - Black Rascal Flood Control Project
(Table 7 per the Proposal Solicitation Package)

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: <i>Black Rascal Flood Control Project</i>					
Project serves a need of a DAC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Funding Match Waiver request?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
		(a)	(b)	(c)	(d)
	Category	Requested Grant Amount	Cost Share: Non-State Fund Source ¹ (Funding Match)	Cost Share: Other State Fund Sources*	Total
(a)	Direct Project Administration	\$0	\$19,483	\$0	\$19,483
(b)	Land Purchase/Easement*	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/Environmental Documentation	\$1,000,000	\$13,235	\$0	\$1,013,235
(d)	Construction/Implementation*	\$0	\$0	\$0	\$0
(e)	Environmental Compliance/Mitigation/Enhancement*	\$0	\$0	\$0	\$0
(f)	Construction Administration*	\$0	\$0	\$0	\$0
(g)	Other Costs*	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency*	\$0	\$0	\$0	\$0
(i)	Grand Total	\$1,000,000	\$32,718	\$0	\$1,032,718

*Grey shading indicates Budget Categories where no grant funding is requested. Activities under these categories are either not needed for this project or will be funded at later time.

1. Sources of funding: The non-state share funding match will be provided by the County of Merced

The following sections describe how cost estimates for each of the tasks or rows were calculated.



Category (a) Direct Project Administration Costs

This category involves the direct project administration tasks related to the *Black Rascal Flood Control Project*. Grant funds are being requested for Administration (Task 1) and Reporting (Task 3). Because the proposed project is limited to planning and design work and does not include construction, a Labor Compliance Program (Task 2) is not included as part of the proposal for this project.

The total Category (a) Direct Project Administration Costs for the program are \$19,483. The table below lists the applicable costs for each task. These Direct Project Administration tasks will be conducted by staff from the implementing agency (County of Merced).

Table 4-3: Category (a) Direct Project Administration Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Black Rascal Flood Control Project						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (a) Direct Project Administration						
Task 1: Project Administration	\$67.65	188	\$0	\$12,718	\$0	\$12,718
Task 2: Labor Compliance Program*	--	--	--	--	--	--
Task 3: Reporting	\$67.65	100	\$0	\$6,765	\$0	\$6,765
Total			\$0	\$19,483	\$0	\$19,483

*As indicated by the grey shading, no grant funds are being requested for Task 2 within Budget Category (a) Direct Project Administration. See discussion above.

Category (b) Land Purchase/Easement

There is no land purchase or easement acquisition required for the proposed project. Funding for land acquisition and/or securing of easements will be secured as part of a subsequent project once the exact location and number of acres required for the preferred project are determined. For the phase of the project included in this proposal, no costs are associated with this budget category.

Category (c) Planning/Design/Engineering/Environmental Documentation

This category consists of engineering and environmental documentation tasks related to the *Black Rascal Flood Control Project*. As shown in the table below, grant funds are being requested for Final Design (Task 5) for preliminary design and Environmental Documentation for completion of the EIS/EIR (Task 6). Grant funds are not being requested for Assessment and Evaluation (Task 4) or Permitting (Task 7), as these activities are not part of the proposed project. The assessment and evaluation needs for this project have been fulfilled through the Feasibility Study and Addendum 1, Black Rascal Flood Control report completed in February 2009. Permitting will be completed in a later phase of the project once the necessary permits have been identified.

The total Category (c) Planning/Design/Engineering/Environmental Documentation costs for the program are \$1,013,235.05. The table below lists the applicable costs for each task. The majority of Task 5 and Task 6 will be contracted out to professional consultants; the cost estimates for these professional services



are estimated based on experience from previous efforts. Task 5 and Task 6 also include staff time for review of the design and environmental documents to be produced by consultants.

Table 4-4: Category (c) Planning/Design/Engineering/Environmental Documentation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: <i>Black Rascal Flood Control Project</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (c) Planning/Design/Engineering/Environmental Documentation						
Task 4 - Assessment and Evaluation*	--	--	--	--	--	--
Task 5 - Final Design	\$67.65	96	\$0	\$6,470	\$0	\$6,470
	--	--	\$250,000	\$0	\$0	\$250,000
Task 6 - Environmental Documentation	\$67.65	100	\$0	\$6,765		\$6,765
	--		\$750,000	\$0	\$0	\$750,000
Task 7 – Permitting*	--	--	--	--	--	--
Total			\$1,000,000	\$13,235	\$0	\$1,013,235

*As indicated by the grey shading, completion of Task 4 and Task 7 are not included in the scope of this project, therefore neither grant request or funding match are attributed to these tasks. See discussion above.

Category (d) Construction/Implementation

Work items within this category Construction Contracting (Task 8) and Construction (Task 9) are not included in the scope of this project and therefore; no costs are associated with this budget category.

Category (e) Environmental Compliance/Mitigation/Enhancement

Environmental compliance/mitigation/enhancement (Task 10) is not within the scope of this project; no costs are associated with this budget category.

Category (f) Construction Administration

Completion of Category (f) Task 11 – Construction Administration is not within the scope of this project; no costs are associated with this budget category.

Category (g) Other Costs

No other costs will be required for implementation of this program.

Category (h) Construction/Implementation Contingency

No construction/implementation contingency costs are included as part of this budget since construction/implementation is not within the scope of the *Black Rascal Flood Control Project* at this point in time.



Project Budget – Planada Community Services District Water Conservation Project

The total cost associated with the *Planada Community Services District Water Conservation Project* is \$861,120. This cost is to complete tasks within Budget Category (a) - Direct Project Administration, Budget Category (c) - Planning/Design/Engineering/ Environmental Documentation, Budget Category (d) – Construction/Implementation, Budget Category (f) – Construction Administration, and Budget Category (h) – Construction/Implementation Contingency.

Of the total \$861,120, \$861,120 is being requested for grant funding through the IRWM Implementation Grant Program. This project serves the needs of a DAC and a Funding Match Waiver is being requested.

Table 4-5 below provides a more detailed break-down of the total project budget.

Table 4-5: Project Budget
(Table 7 per the Proposal Solicitation Package)

Proposal Title: Merced IRWM Implementation Grant Proposal					
Project Title: Planada Community Services District Water Conservation Project					
Project serves a need of a DAC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Funding Match Waiver request?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source (Funding Match)	(c) Cost Share: Other State Fund Sources*	(d) Total
(a)	Direct Project Administration	\$35,000	\$0	\$0	\$35,000
(b)	Land Purchase/Easement*	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/ Environmental Documentation	\$61,000	\$0	\$0	\$61,000
(d)	Construction/Implementation	\$691,200	\$0	\$0	\$691,200
(e)	Environmental Compliance/ Mitigation/Enhancement*	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$5,100	\$0	\$0	\$5,100
(g)	Other Costs*	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$68,820	\$0	\$0	\$68,820
(i)	Grand Total	\$861,120	\$0	\$0	\$861,120

* Grey shading indicates that grant funds are not being requested for activities under this budget category.

The following sections describe how cost estimates for each of the categories were calculated.



Category (a) Direct Project Administration Costs

This task involves the direct project administration tasks related to the *Planada Community Services District Water Conservation Project*. Grant funds are being requested for Administration (Task 1), Labor Compliance Program (Task 2), and Reporting (Task 3).

The total Category (a) Direct Project Administration Costs for the program are \$35,000. The table below lists the applicable costs for each task. These Direct Project Administration tasks will be conducted by staff from the implementing agency (Planada Community Services District) and/or staff from its partner agencies.

Table 4-6: Category (a) Direct Project Administration Costs

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: <i>Planada Community Services District Water Conservation Project</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (a) Direct Project Administration						
Task 1: Administration ¹	\$250	75	\$18,750	\$0	\$0	\$18,750
Task 2: Labor Compliance Program ²	--	--	\$10,000	\$0	\$0	\$10,000
Task 3: Reporting ¹	\$250	25	\$6,250	\$0	\$0	\$6,250
Total			\$35,000	\$0	\$0	\$35,000

1. Administration and Reporting will be conducted by Lee Fremming, District Engineer of Fremming, Parson & Pecchenino.

2. The Labor Compliance Program will be conducted by consultants (Self-Help Enterprises). Self-Help Enterprises provided the lump sum estimate of \$10,000 to prepare the LCP for the County.

Category (b) Land Purchase/Easement

No land purchase or easements will be needed as part of the *Planada Community Services District Water Conservation Project*.



Category (c) Planning/Design/Engineering/Environmental Documentation

This task involves the primary engineering and environmental documentation tasks related to the *Planada Community Services District Water Conservation Project*. As shown in the table below, grant funds are being requested for Final Design (Task 5).

The Assessment and Evaluation (Task 4) needs for this project have already been fulfilled with the completion of the Preliminary Engineering Report in October 2012. This project requires only a Notice of Exemption to comply with CEQA. As such, no grant funds are requested under Task 6 – Environmental Documentation.

The total Category (c) Planning/Design/Engineering/Environmental Documentation costs for the program are \$61,000. The final design will be completed by a consultant. The table below lists the applicable costs for each task.

Table 4-7: Category (c) Planning/Design/Engineering/Environmental Documentation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: Planada Community Services District Water Conservation Project						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (c) Planning/Design/Engineering/Environmental Documentation						
Task 4 - Assessment and Evaluation*	--	--	--	--	--	--
Task 5 - Final Design	\$250	244	\$61,000	\$0	\$0	\$61,000
Task 6 - Environmental Documentation*	--	--	--	--	--	--
Task 7 – Permitting*	--	--	--	--	--	--
Total			\$61,000	\$0	\$0	\$61,000

* There are no associated costs with Task 4, Task 6, or Task 7. See discussion above.



Category (d) Construction/Implementation

Grant funds are requested for both Task 8 - Construction Contracting and Task 9 - Construction within Category (d) Construction/Implementation. Costs for Task 8 – Construction Contracting were estimated as \$3,000. As shown in the table below, the \$691,200 cost for Task 9 – Construction has been broken out into three subtasks. The cost for Task 9 is based on the cost estimate included in the October 2012 Preliminary Engineering Report.

Table 4-8: Category (d) Construction/Implementation

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: Planada Community Services District Water Conservation Project						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (d) Construction/Implementation						
Task 8 - Construction Contracting ¹	\$250	12	\$3,000	\$0	\$0	\$3,000
Task 9 - Construction	--	--	\$688,200	\$0	\$0	\$688,200
Subtask 9.1 – Mobilization and Site Preparation	See discussion and tables below		\$12,500	\$0	\$0	\$12,500
Subtask 9.2 – Project Construction			\$668,700	\$0	\$0	\$668,700
Subtask 9.3 – Performance Testing and Demobilization			\$7,000	\$0	\$0	\$7,000
Total			\$691,200	\$0	\$0	\$691,200

1. Construction contracting will be conducted by Lee Fremming, District Engineer of Fremming, Parson & Pecchenino.

Additional details about the cost estimates for subtasks under Tasks 9 are provided below:



Subtask 9.1 - Mobilization and Site Preparation: Mobilization costs were estimated in the October 2012 Preliminary Engineering Report (PER) as lump sum (LS) of \$10,000. Additionally the PER included an estimate of \$2,500 for surveying and staking. This work would be conducted by the construction contractor. For both the mobilization and surveying/staking, the lump sum cost estimates include costs for labor and equipments (such as construction vehicles and surveying equipment).

Table 4-9: Subtask 9.1 – Mobilization and Site Preparation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal				
Project Title: Planada Community Services District Water Conservation Project				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Labor/Equipment				
Mobilization	1	LS	\$10,000	\$10,000
Surveying & Staking	1	LS	2,500	\$2,500
Labor/Equipment Subtotal for Subtask 9.1				\$12,500
Total Subtask 9.1				\$12,500

Subtask 9.2 - Construction: Project construction involves the following activities:

- *Demolition:* Demolition activities will include the removal of existing manual-read water meters and the abandonment of existing water lines to be replaced by this project.
- *Shoring, Sheeting & Bracing:* Shoring, sheeting and bracing will be needed for the trenching to be conducted for replacing the dilapidated section of existing pipe with an 8” PVC water main.
- *Install replacement water main with gate valves and fire hydrants.* 2,990 feet of 8” PVC water main will be installed to replace the dilapidated water main. Eight new gate valves, seven new fire hydrants, and a backflow preventer will also be installed in association with the replacement water main.
- *Connect to Existing Water Line:* Three structures will be connected to an existing water line as part of this project.
- *Replace Existing Water Service Lines:* Fifty-two structures along the replacement water main will have their water service connections replaced as part of this project.

Cost estimates for these construction activities were included in the PER and are listed in the table below. These activities will be conducted by the construction contractor and includes costs for labor and construction equipment.

Materials needs to complete the project include 2,990 feet of 8” PVC water main to replace an dilapidated existing pipe, eight 8” gate valve for controlling flow along the replacement water main, seven new fire hydrants and 6” pipe to connect them the replacement water main, and a backflow preventer. Additionally, 330 new radio-read water meters and associated fittings will be purchased as part of this project as well as one new backup generator for Well #5.



The table below summarizes construction costs (Subtask 9.2).

Table 4-10: Subtask 9.2 –Construction Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Planada Community Services District Water Conservation Project				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Labor/Equipment				
Demolition	1	LS	\$15,000	\$15,000
Shoring, Sheeting & Bracing	1	LS	\$2,000	\$2,000
Connect to Existing Water Line	3	EA	\$1,500	\$4,500
Replace Existing Water Service	52	EA	\$1,500	\$78,000
Trench Resurfacing	3,900	LF	\$10	\$39,000
Labor/Equipment Subtotal for Subtask 9.2				\$138,500
Materials				
8" PVC Water Main	2,990	LF	\$30	\$89,700
8" Gate Valve	8	EA	\$1,500	\$12,000
Fire Hydrant, Valve, 6" Pipe	7	EA	\$4,500	\$31,500
Backflow Preventer	1	EA	\$2,000	\$2,000
Radio-Read Meter, Box, Meter Stop, Fittings, Etc.	330	EA	\$1,000	\$330,000
New back-up generator for Well #5	1	EA	\$65,000	\$65,000
Materials Subtotal for Subtask 9.2				\$530,200
Total Subtask 9.2				\$668,700

Subtask 9.3 – Performance Testing: Performance testing activities will include geotechnical/compaction testing for the soils replaced in the trench dug for the 8” water main and associated water service connections. Costs for this testing are shown in the table below.

Table 4-11: Subtask 9.3 –Performance Testing

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Planada Community Services District Water Conservation Project				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Geotechnical/Compaction Testing	1	LS	\$7,000	\$7,000
Labor/Equipment Subtotal for Subtask 9.3				\$7,000
Total Subtask 9.3				\$7,000



Category (e) Environmental Compliance/Mitigation/Enhancement

No grant funds are requested for the Category (e) Environmental Compliance/Mitigation/Enhancement (Task 10). As this project is exempt from CEQA and replaces existing infrastructure in developed areas, environmental mitigation or enhancement are not applicable to this project.

Category (f) Construction Administration

Grant funds are requested for the Category (f) Construction Administration (Task 11). As shown in the October 2012 Preliminary Engineering Report, construction administration activities include resident engineering inspection services of an estimated 60 hours at an hourly rate of \$82/hour plus \$180 in mileage costs (approximately 16 site visits, 20 mile round trip at \$0.56/mile).

Table 4-12: Category (f) Construction Administration Costs

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: <i>Planada Community Services District Water Conservation Project</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (f) Construction Administration						
Task 11 – Construction Administration	\$82	60	\$5,100 ¹	\$0	\$0	\$5,100
Total			\$5,100	\$0	\$0	\$5,100

1. The cost includes \$180 in mileage charges in addition to the labor costs. See discussion above.

Category (g) Other Costs

No other costs will be required for implementation of this program.

Category (h) Construction/Implementation Contingency

A 10% contingency cost of \$68,820 is included at the recommendation of the District Engineer.



Project Budget - El Nido Area Recharge Project

The total cost associated with the *El Nido Area Recharge Project* is \$584,262. This cost is for tasks within Budget Category (a) - Direct Project Administration, Budget Category (c) – Planning / Design / Engineering / Environmental Documentation, and Budget Category (d) – Construction/Implementation, and Budget Category (f) – Construction Administration.

Of the total cost, \$584,262 is being requested for grant funding through the IRWM Implementation Grant Program.

Table 4-13 below provides a more detailed breakdown of the total project budget.

Table 4-13: Project Budget
(Table 7 per the Proposal Solicitation Package)

Proposal Title: Merced IRWM Implementation Grant Proposal					
Project Title: <i>El Nido Area Recharge Project</i>					
Project serves a need of a DAC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Funding Match Waiver request?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Cost Share: Non-State Fund Source ¹ (Funding Match)	Cost Share: Other State Fund Sources	Total
(a)	Direct Project Administration	\$4,480	\$0	\$0	\$4,480
(b)	Land Purchase/Easement*	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/ Environmental Documentation	\$16,920	\$0	\$0	\$16,920
(d)	Construction/Implementation	\$553,294	\$0	\$0	\$553,294
(e)	Environmental Compliance/ Mitigation/Enhancement*	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$9,568	\$0	\$0	\$9,568
(g)	Other Costs*	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency*	\$0	\$0	\$0	\$0
(i)	Grand Total	\$584,262	\$0	\$0	\$584,262

*Grey shading indicates Budget Categories where no grant funding is requested.

The sections below provide detailed descriptions of each of the categories shown in the summary table above. In addition, each section below describes how cost estimates for each of the categories were calculated.



Category (a) Direct Project Administration Costs

This task involves the direct project administration tasks related to the *El Nido Area Recharge Project*. Grant funds are being requested for Administration (Task 1) and Labor Compliance Program (Task 2). Grant funds are not requested for Reporting (Task 3).

The total Category (a) Direct Project Administration Costs for the program are \$4,480 and the total Category (a) grant request is \$4,480. The table below lists the applicable costs for each task. These Direct Project Administration tasks will be conducted by staff from the implementing agency (Merced Irrigation District) and/or staff from its partner agencies.

Table 4-14: Category (a) Direct Project Administration

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: <i>El Nido Area Recharge Project</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (a) Direct Project Administration						
Task 1: Administration	\$44.80	40	\$1,792	\$0	\$0	\$1,792
Task 2: Labor Compliance Program	\$44.80	30	\$1,344	\$0	\$0	\$1,344
Task 3: Reporting	\$44.80	30	\$1,344	\$0	\$0	\$1,344
Total			\$4,480	\$0	\$0	\$4,480

Category (b): Land Purchase/Easement

There is no land purchase or easement acquisition associated with the *El Nido Area Recharge Project*. The recharge basin that water will be directed to is an existing recharge basin. Water conveyance will be provided via an existing canal.

Category (c) Planning/Design/Engineering/Environmental Documentation

As discussed in Attachment 3, work under Category (c) Planning/Design/Engineering/Environmental Documentation for the *El Nido Area Recharge Project* will consist of:

- *Task 4* – Assessment and Evaluation: Subsurface groundwater levels will be monitored and recorded to evaluate the effectiveness of the regulating basin, and a technical report will be prepared and distributed as needed.
- *Task 5* – Final Design: Final design will consist of the production of a Conceptual Design Report, a Preliminary Design Report and a Final Design Report
- *Task 6* – Environmental Documentation: It is anticipated that the El Nido Recharge Project will pass through the CEQA process with a Negative Declaration or a Mitigated Negative Declaration.
- *Task 7* – Permitting: It is anticipated that a Section 1600 Streambed Alteration Agreement with the California Department of Fish and Wildlife will be needed for this project.



It is anticipated that the work in these tasks will be completed by qualified consultants to be contracted by the Merced Irrigation District.

The total Category (c) Planning/Design/Engineering/Environmental Documentation costs for the program are \$16,920. The table below lists the applicable costs for each task.

Table 4-15: Category (c) Planning/Design/Engineering/Environmental Documentation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal						
Project Title: <i>El Nido Area Recharge</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (c) Planning/Design/Engineering/Environmental Documentation						
Task 4 - Assessment and Evaluation	\$120	20	\$2,400	\$0	\$0	\$2,400
Task 5 - Final Design	\$120	95	\$11,400	\$0	\$0	\$11,400
Task 6 - Environmental Documentation	\$120	16	\$1,920	\$0	\$0	\$1,920
Task 7 – Permitting	\$120	10	\$1,200	\$0	\$0	\$1,200
Total			\$16,920	\$0	\$0	\$16,920



Category (d) Construction/Implementation

Grant funds are requested for both Task 8 (Construction Contracting) and Task 9 (Construction) within Category (d) Construction/Implementation. Costs for Task 8 (Construction Contracting) were estimated at \$1,792 based on an estimate of 40 hours for an MID staff member (\$44.80/hr) to prepare the bid packages and to conduct bid solicitation and award. As shown in the table below, the \$551,502 cost for Task 9 – Construction has been broken out into four subtasks.

Table 4-16: Category (d) Construction/Implementation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: El Nido Area Recharge						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (d) Construction/Implementation Costs						
Task 8 - Construction Contracting ¹	\$44.80	40	\$1,792	\$0	\$0	\$1,792
Task 9 - Construction	--	--	\$551,502	\$0	\$0	\$551,502
Subtask 9.1 – Mobilization and Site Preparation	See discussion below		\$10,000	\$0	\$0	\$10,000
Subtask 9.2 – Civil Construction			\$202,057	\$0	\$0	\$202,057
Subtask 9.3 – Gate Installation			\$299,316	\$0	\$0	\$299,316
Subtask 9.4 – SCADA and Commissioning			\$40,129	\$0	\$0	\$40,129
Total			\$553,294	\$0	\$0	\$553,294

Additional details about the cost estimates for subtasks under Task 9 are provided below:

Subtask 9.1 - Mobilization and Site Preparation: It is estimated the mobilization and site preparation costs for the construction contractor will be approximately \$10,000.

Table 4-17: Subtask 9.1 – Mobilization and Site Preparation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: El Nido Area Recharge				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
<i>Labor/Equipment</i>				
Construction Contractor Mobilization & Site Preparation	1	LS	\$10,000	\$10,000
Total Subtask 9.1				\$10,000



Subtask 9.2 – Civil Construction: Civil construction will be conducted by contractors qualified to conduct the work and will involve the following activities:

- *Monitoring Well Installation:* Nine monitoring wells will be constructed in order to better quantify recharge and its anticipated destination in the aquifer. The nine wells will be arranged in three clusters of three well each. At each of these three sites, there will a shallow well (~30 ft. deep), an intermediate depth well (~60 ft. deep) and a deep well (~120 ft. deep). The monitoring wells will be equipped with level sensors to trace impact of recharge. The monitoring well costs shown in the table below are based an average of three cost quotes provided by drillers qualified to conduct this work and include costs for labor, equipment (such as the drill rig), and materials (such as the well screen).
- *Recharge Basin Conditioning:* The Recharge basin will be ripped to insure maximum recharge rates. The cost estimate in the table below for recharge basin conditioning includes labors costs and costs for usage of the needed heavy equipment.
- *El Nido Dam Modifications:* Reinforced concrete will be used to modify the existing El Nido dam structure in order to accept the new diversion gates. The \$8,400 cost shown in the table below includes labor, equipment and materials (40 cubic yards of concrete at an estimated cost of \$3,400). The table below summarizes the civil construction costs (Subtask 9.2).

Table 4-18: Subtask 9.2–Civil Construction Costs

Proposal Title: Merced IRWM Implementation Grant Proposal				
Project Title: El Nido Area Recharge				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Monitoring Well Installation :				\$163,657
<i>Setup and Mobilization to/from Drilling Site</i>	1	Each Site	\$6,400	\$6,400
<i>Setup and Mobilization between sites</i>	2	Each Site	\$3,067	\$6,133
<i>Crew per diem</i>	25	Day	\$325	\$8,125
<i>Surface Seal Casing and Grout</i>	450	LF	\$53	\$24,000
<i>Sonic Drilling</i>	630	LF	\$58	\$36,540
<i>Neat Cement Grout (as needed)</i>	465	LF	\$12	\$5,735
<i>Soil Cuttings Handling and Disposal</i>	7.5	CY	\$2,367	\$17,750
<i>4-inch Schedule 40 20 slot PVC Screen and Gravel Pack</i>	165	LF	\$36	\$5,995
<i>4-inch Schedule 40 PVC Blank Casing and Well Construction</i>	465	LF	\$33	\$15,190
<i>Well Development Mob/Demob</i>	1	Each Site	\$917	\$917
<i>Well Development</i>	85	HR	\$217	\$18,417
<i>Flush Christy Box and Finish</i>	9	Each	\$633	\$5,700
<i>Geophysics - Gamma</i>	630	LF	\$9	\$5,880
<i>Standby Time</i>	15	HR	\$458	\$6,875
Recharge Basin Conditioning	1	LS	\$30,000	\$30,000
El Nido Dam Modifications	1	LS	\$8,400	\$8,400
Total Subtask 9.2				\$202,057



Subtask 9.3 – Gate Installation: A labor cost of \$40,000 is estimated for the construction contractor to install two new automated gates on the El Nido Dam. Each of the gates will have a materials cost of approximately of \$129,658 each or \$249,316 in total materials costs. These costs are based on a quote from a vendor for the gates.

Table 4-19: Subtask 9.3 –Gate Installation

Proposal Title: Merced IRWM Implementation Grant Proposal				
Project Title: El Nido Area Recharge				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Labor/Equipment				
Gate Installation	1	LS	\$40,000	\$40,000
Labor/Equipment Subtotal for Subtask 9.3				\$40,000
Materials				
Diversion Gates for El Nido Dam	2	EA	\$129,658	\$259,316
Materials Subtotal for Subtask 9.3				\$249,316
Total Subtask 9.3				\$299,316

Subtask 9.4 – SCADA and Commissioning: Based on a quote from a SCADA vender, labor cost of \$3,450 is estimated for the construction contractor to configure an existing SCADA system to accommodate for the gate installation improvements. The materials cost for the SCADA system improvements is estimated at \$36,679.

Table 4-20: Subtask 9.4 – SCADA and Commissioning

Proposal Title: Merced IRWM Implementation Grant Proposal				
Project Title: El Nido Area Recharge Project				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Labor/Equipment				
SCADA Installation and Commissioning	1	LS	\$3,450	\$3,450
Labor/Equipment Subtotal for Subtask 9.3				\$3,450
Materials				
SCADA System	1	LS	\$36,670	\$36,679
Materials Subtotal for Subtask 9.3				\$36,679
Total Subtask 9.3				\$40,129

Category (e) Environmental Compliance/Mitigation/Enhancement

No grant funds are requested for the Category (e) Environmental Compliance/Mitigation/Enhancement (Task 10).



Category (f) Construction Administration

Grant funds are requested for the Category (f) Construction Administration (Task 11). The total estimated construction administration costs are \$9,568. Construction administration activities include 100 hours for an MID engineer to manage the construction contractor and to review submittals at an hourly rate of \$57/hour as well as 10 hours for an MID staff member to facilitate construction closeout activities at a rate of \$44.80/hour.

Table 4-21: Category (f) Construction Administration Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: El Nido Area Recharge Project						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (f) Construction Administration						
Task 11 – Construction Administration	-- ¹	110	\$9,568	\$0	\$0	\$9,568

1. See discussion above.

Category (g) Other Costs

No other costs will be required for implementation of this program.

Category (h) Construction/Implementation Contingency

No construction/implementation contingency costs are included as part of this budget.



Project Budget - Merced River Education and Enhancement Program

The *Merced River Education and Enhancement Program* consists of three related components:

- *Lower Merced River Stewardship* – This program includes restoration activities along Lower Merced River (e.g., invasive plant removal and streambank stabilization), education efforts, and community building (e.g., school and community outreach, agricultural workshops, etc.).
- *Merced Region Climate Change Awareness* – This initiative will involve real-time streamflow and water-cycle measurements to better understand climate change effects on water supplies. This work also includes climate change education and outreach.
- *Lower Merced River Recreational Boating Public Access* – This work will construct a public boat launch for safe access as well as other recreational amenities.

The total cost associated with the *Merced River Education and Enhancement Program* is \$881,307. This cost is for tasks within Budget Category (a) - Direct Project Administration, Budget Category (c) - Planning/Design/Engineering/ Environmental Documentation, and Budget Category (d) – Construction/Implementation, Budget Category (g) – Other Costs, and Budget Category (h) – Construction Contingency.

Of these total \$881,307 costs, \$756,753 is being requested for grant funding through the IRWM Implementation Grant Program. The remaining \$124,554 will be provided by the project partners. In total, this amount constitutes 14% of the total program cost, meaning that the non-State share of the total project cost (funding match) is 14% for this program. This project serves the needs of a DAC and a Funding Match Waiver is being requested.



The table below provides a more detailed break-down of the total project budget.

Table 4-22: Project Budget
(Table 7 per the Proposal Solicitation Package)

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program					
Project serves a need of a DAC?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
Funding Match Waiver request?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		
		(a)	(b)	(c)	(d)
Category		Requested Grant Amount	Cost Share: Non-State Fund Source ¹ (Funding Match)	Cost Share: Other State Fund Sources	Total
(a)	Direct Project Administration	\$15,785	\$13,265	\$0	\$29,049
(b)	Land Purchase/Easement*	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/Environmental Documentation	\$61,320	\$17,480	\$0	\$78,800
(d)	Construction/Implementation	\$637,511	\$33,174	\$0	\$670,685
(e)	Environmental Compliance/Mitigation/Enhancement*	\$0	\$0	\$0	\$0
(f)	Construction Administration*	\$0	\$33,700	\$0	\$33,700
(g)	Other Costs*	\$0	\$52,000	\$0	\$52,000
(h)	Construction/Implementation Contingency	\$30,338	\$0	\$0	\$30,338
(i)	Grand Total	\$744,953	\$149,618	\$0	\$894,572

1. Sources of funding: Non-state funding will be provided by the project partners.

*Grey shading indicates Budget Categories where no grant funding is requested.

Category (a) Direct Project Administration Costs

This task involves the direct project administration tasks related to the *Merced River Education and Enhancement Program*. Grant funds are being requested for Administration (Task 1), Labor Compliance Program (Task 2), and Reporting (Task 3).

As discussed in Attachment 3, Category (a) Direct Project Administration tasks include:

- **Task 1- Administration:** For each of the three components of the Merced River Education and Enhancement Program, administration activities such as preparation of invoices and backup documentation will be required. The estimated administration costs for each of the three components are shown in the table below. Invoicing to DWR will be completed by MID. Project partners will provide backup documentation to MID for the purpose of preparing these invoices.



- *Task 2- Labor Compliance Program:* Grant funds will be used for contract work to construct a boat ramp/river public access point as part of the Lower Merced River Recreational Boating Public Access component, and for installation of streamflow and snow pack monitoring equipment as part of the UC Merced led Merced Region Climate Change Awareness component. As such, MID and UC Merced who are the implementing agencies will be required to comply with a Labor Compliance Program. UC Merced has a blanket labor compliance program that can be used for their portion of the project, as such funds are not shown for their Merced River Education and Enhancement Program.
- *Task 3- Reporting:* Reporting to DWR will be conducted by MID. Project partners will provide information to MID for the purpose of preparing these reports.

The total Category (a) Direct Project Administration Costs for the program are \$29,049 and the total Category (a) grant request is \$15,785. The table below lists the applicable costs for each task. These Direct Project Administration tasks will be conducted by staff from the implementing agency and/or staff from its partner agencies.

Table 4-23: Category (a) Direct Project Administration

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (a) Direct Project Administration						
Task 1: Administration	--	--	\$5,400	\$4,665	\$0	\$10,065
• Lower Merced River Stewardship	\$30.00	180	\$5,400	\$0	\$0	\$5,400
• Merced Region Climate Change Awareness	--	--	\$0	\$4,185	\$0	\$4,185
• Lower Merced River Recreational Boating Public Access	\$15.00	32	\$0	\$480	0	\$480
Task 2: Labor Compliance Program	--	--	\$5,000	\$0	\$0	\$5,000
• Lower Merced River Stewardship*	--	--	\$0	\$0	\$0	\$0
• Merced Region Climate Change Awareness*	--	--	\$0	\$0	\$0	\$0
• Lower Merced River Recreational Boating Public Access	--	--	\$5,000	\$0	0	\$5,000
Task 3: Reporting	--	--	\$5,385	\$8,600	\$0	\$13,985
• Lower Merced River Stewardship	\$40.00	160	\$4,200	\$2,200	\$0	\$6,400
• Merced Region Climate Change Awareness			\$1,185	\$3,000	\$0	\$4,185
• Lower Merced River Recreational Boating Public Access	\$85.00	\$40.00	\$0	\$3,400	0	\$3,400
Total			\$15,785	\$13,265	\$0	\$29,049

*Grey shading indicates that no grant funding is requested for this aspect of the project.



Category (b): Land Purchase/Easement

There is no land purchase or easement acquisition associated with the *Merced River Education and Enhancement Program*.

Category (c) Planning/Design/Engineering/Environmental Documentation

Grant funds are requested for Task 4 (Assessment and Evaluation), Task 5 (Final Design), Task 6 (Environmental Documentation), and Task 7 (Permitting) within Category (c) Planning/Design/Engineering/Environmental.

As discussed in Attachment 3, Category (c) Planning/Design/Engineering/Environmental Documentation tasks include:

- *Task 4 – Assessment and Evaluation:* This task includes the ongoing conceptual design for the Lower Merced River Recreational Boating Public Access component. The conceptual design will be completed over 120 hours at an average hourly rate of \$105/hour. The \$11,800 total for this task is funding by MID.
- *Task 5 – Final Design:* This task includes the development design drawings and specifications for the Lower Merced River Recreational Boating Public Access component. The final design will be completed over 290 hours at an average hourly rate of \$115/hour. This task also includes an estimate of \$5,000 to complete the design of the monitoring network associated with the Merced Region Climate Change Awareness component. The \$36,050 total for this task is requested for grant funding.
- *Task 6 – Environmental Documentation:* This task includes preparation of a Mitigated Negative Declaration for the Lower Merced River Recreational Boating Public Access component. The Mitigated Negative Declaration will be prepared by professional consultants over 180 hours at an average rate of \$125/hour. Grant funds are requested for these costs.
- *Task 7 – Permitting:* This task includes the acquisition of permits for Lower Merced River Stewardship (Bureau of Reclamation Encroachment Permit) and Lower Merced River Recreational Boating Public Access (Section 1600 Streambed Alteration Agreement and a County of Merced Encroachment Permit). For Lower Merced River Stewardship, permit acquisition will be coordinated by East Merced Resource Conservation District staff over 6 hours at an average rate of \$45/hour. An additional \$4,500 (\$2,500 as grant request, \$2,000 in funding match) is included for consulting for streamlined permitting for the Stewardship initiative. For Lower Merced River Recreational Boating Public Access, permit acquisition will be coordinated by Merced Irrigation District staff over 32 hours at an average rate of \$105/hour. These \$3,680 in costs will borne by MID, the implementing agency.



The table below summarizes the Tasks 4 through 7 costs for the *Merced River Education and Enhancement Program*.

Table 4-24: Category (c) Planning/Design/Engineering/Environmental Documentation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: <i>Merced River Education and Enhancement Program</i>						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (c) Planning/Design/Engineering/Environmental Documentation						
Task 4 - Assessment and Evaluation	--	--	\$0	\$11,800	\$0	\$11,800
• Lower Merced River Stewardship	--	--	\$0	\$0	\$0	\$0
• Merced Region Climate Change Awareness	--	--	\$0	\$0	\$0	\$0
• Lower Merced River Recreational Boating Public Access	\$105.00	120	\$0	\$11,800	0	\$11,800
Task 5 - Final Design	--	--	\$36,050	\$0	\$0	\$36,050
• Lower Merced River Stewardship	--	--	\$0	\$0	\$0	\$0
• Merced Region Climate Change Awareness			\$5,000	\$0	\$0	\$5,000
• Lower Merced River Recreational Boating Public Access	\$115.00	290	\$31,050	\$0	0	\$31,050
Task 6 – Environmental Documentation	--	--	\$22,500	\$0	\$0	\$22,500
• Lower Merced River Stewardship	--	--	\$0	\$0	\$0	\$0
• Merced Region Climate Change Awareness	--	--	\$0	\$0	\$0	\$0
• Lower Merced River Recreational Boating Public Access	\$125.00	180	\$22,500	\$0	0	\$22,500
Task 7 – Permitting	--	--	\$2,770	\$5,680	\$0	\$8,450
• Lower Merced River Stewardship	--	--	\$2,770	\$2,000	\$0	\$4,770
• Merced Region Climate Change Awareness	--	--	\$0	\$0	\$0	\$0
• Lower Merced River Recreational Boating Public Access	\$105.00	32	\$0	\$3,680	0	\$3,680
Total			\$61,320	\$17,480	\$0	\$78,800

*Grey shading indicates that no grant funding is requested for this aspect of the project.



Category (d) Construction/Implementation

Grant funds are requested for both Task 8 (Construction Contracting) and Task 9 (Construction) within Category (d) Construction/Implementation for the *Merced River Education and Enhancement Program*. As discussed in Attachment 3, Category (c) Planning/Design/Engineering/Environmental Documentation tasks include:

- *Task 8 – Construction Contracting:* All construction contracting costs will be covered by MID via in-kind support. For the *Merced Region Climate Change Awareness* component, MID staff will provide up to \$6,000 construction contracting in-kind support for setting up contracts to supply monitoring equipment. For the *Lower Merced River Recreational Boating Public Access* component, construction contracting costs were estimated at \$3,520 based on an estimate of 32 hours for MID staff to prepare the bid packages and to conduct bid solicitation at an average rate of \$98.33/hour.
- *Task 9–Construction:* Total construction costs for the Merced River Education and Enhancement Program are estimated at \$667,165. This cost includes labor and materials. The construction costs are detailed in the tables below.

The table below summarizes the Task 8 and Task 9 costs for the *Merced River Education and Enhancement Program*.

Table 4-25: Category (d) Construction/Implementation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (c) Planning/Design/Engineering/Environmental Documentation						
Task 8 - Construction Contracting	--	--	\$0	\$9,520	\$0	\$9,520
• <i>Lower Merced River Stewardship</i>	--	--	\$0	\$0	\$0	\$0
• <i>Merced Region Climate Change Awareness</i>	--	--	\$0	\$6,000	\$0	\$6,000
• <i>Lower Merced River Recreational Boating Public Access</i>	\$98.33	32	\$0	\$3,520		\$3,520
Task 9 - Construction	--	--	\$637,511	\$23,654	\$0	\$661,165
• <i>Lower Merced River Stewardship</i>	--	--	\$172,630	\$11,100	0	\$183,730
• <i>Merced Region Climate Change Awareness</i>	--	--	\$262,631	\$12,554	\$0	\$275,185
• <i>Lower Merced River Recreational Boating Public Access</i>	--	--	\$202,250	\$0	0	\$202,250
Total			\$637,511	\$33,174	\$0	\$670,685

*Grey shading indicates that no grant funding is requested for this aspect of the project.

The construction costs for the three components of the *Merced River Education and Enhancement Program* are detailed below.



Lower Merced River Stewardship Construction/Implementation Costs

Lower Merced River Stewardship component of the Merced River Education and Enhancement Program will be conducted by staff from East Merced Resource Conservation District at an average rate of \$40/hour. The table below outlines the labor level of effort as well as materials needed for this work.

Table 4-26: Lower Merced River Stewardship Construction/Implementation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Labor				
Riparian River Restoration	652	HR	\$40	\$30,080
School Education	512	HR	\$40	\$30,240
Community Outreach	1218	HR	\$40	\$52,720
Agricultural Workshops	540	HR	\$40	\$21,700
Streamlined Permitting Workgroup	217	HR	\$40	\$8,680
Life Jacket Loan and Training	36	HR	\$40	\$1,440
Labor Subtotal for Lower Merced River Stewardship				\$144,860
Materials				
Riparian River Restoration				
<i>Kayaks w/gear, kayak trailer, GPS for citizen mapping</i>	1	LS	\$18,500	\$18,500
<i>Native Plants</i>	1,700	EA	\$2.40	\$4,080
<i>Seed</i>	60	CY	\$36	\$2,160
School Education				
<i>Curriculum/supplies for teachers and students</i>	1	EA	\$600	\$600
<i>Portable Toilet Rentals</i>	1	EA	\$1,200	\$1,200
<i>Miscellaneous Supplies (easels, pads, water monitoring kits)</i>	1	EA	\$2,000	\$2,000
Community Outreach				
<i>Presentation Supplies</i>	1	LS	\$800	\$800
<i>Bus rental (2x900)</i>	2	EA	\$900	\$1800
<i>Merced River Watershed Model</i>	1	EA	\$3,900	\$3,900
Agricultural Workshops				
<i>Large PA, DC/AC inverter, 4 folding tables, 1 pop-up shelter</i>			\$750	\$750
<i>Portable Toilet Rental</i>	1	EA	\$2,000	\$2,000
Life Jacket Loan and Training				
<i>Life Jackets</i>	36	EA	\$30	\$1,080
Materials Subtotal for Lower Merced River Stewardship				\$38,870
Total Construction/Implementation Costs for Lower Merced River Stewardship				\$183,730



Merced Region Climate Change Awareness Construction/Implementation Costs

The *Merced Region Climate Change Awareness* component includes three interrelated initiatives to be carried out by the University of California, Merced with support from the Merced Irrigation District. The initiatives are as follows:

- *Real-time streamflow measurements in the upper Merced River watershed* - Installation of a weir to measure flows on Big Sandy Creek, a tributary to the Merced River in the Sierra Nevada including mobilization and site preparation, project construction and performance testing and demobilization
- *Real-time water-cycle measurements and prediction in the upper Merced River watershed* - Expansion of snow and soil-moisture measurements sites in the upper Merced River basin plus adaptation of an existing watershed model to enhance streamflow and water-yield forecasting.
- *Climate change education* focusing on the climate-water nexus.

Table 4-27: Merced Region Climate Change Awareness Construction/Implementation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program				
ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT
Real-time streamflow measurements				
Mobilization and site preparation	1	LS	\$4,990	\$4,990
Project Construction – cost for labor/equipment and materials for weir installation and associated project elements	1	LS	\$80,000	\$80,000
Performance Testing – collection and analysis of streamflow measurements by the project scientific assistant	323	HR	\$23.69	\$7,641
Real-time streamflow measurements				\$92,631
Real-time water cycle measurements				
Telemetry and sensor installation materials	1	LS	\$31,618.75	\$31,619
Performance Testing – Collection snow and soil-moisture measurements by a graduate student researcher assisted by a student worker. Development of a watershed model for data analysis.	1	LS	\$48,435	\$48,435
Travel costs	1	LS	\$2,500	\$2,500
Real-time water cycle measurements				\$82,554
Climate change education				
Preparation for and conductance of public workshops by the project scientist	3,068	HR	\$30	\$92,040
Public workshop materials	1	LS	\$4,960	\$4,960
Travel to workshops	1	LS	\$3,000	\$3,000
Climate change education total				\$100,000
Total Construction/Implementation Costs for Merced Region Climate Change				\$275,185



Merced River Recreational Boating Public Access Construction/Implementation Costs

The Lower Merced River Recreational Boating Public Access will be constructed by a private contractor. The table below outlines construction/implementation costs as provided by a construction contractor qualified to perform the work. The costs provided include labor, equipment and materials.

Table 4-28: Lower Merced River Recreational Boating Public Access Construction/Implementation Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program				
ITEM	QUANTITY	UNIT	PRICE	AMOUNT
Storm Water Pollution Prevention Plan (SWPPP) preparation	1	LS	\$2,000	\$2,000
SWPPP implementation	1	LS	\$5,000	\$5,000
Mobilization	1	LS	\$9,500	\$9,500
Field engineering	1	LS	\$1,500	\$1,500
Barriers and temporary service	1	LS	\$1,500	\$1,500
Temporary fencing	200	LF	\$5	\$1,000
Clearing and grubbing	1	LS	\$3,500	\$3,500
Boat ramp excavation and embankment	1	LS	\$3,000	\$3,000
Bollard (folding)	3	EA	\$1,100	\$3,300
Bollard (fixed)	4	EA	\$950	\$3,800
Aggregate base (for parking lot)	5,500	SF	\$1	\$5,500
Slope protection (1/2 ton rock)	30	CY	\$95	\$2,850
Boat ramp concrete				
a. armoring mat	75	LF	\$350	\$26,250
b. concrete armoring mat anchor	5	CY	\$450	\$2,250
c. accessible parking space and path (6")	800	SF	\$10	\$8,000
d. restroom plaza (6")	600	SF	\$10	\$6,000
e. picnic table pad (6")	500	SF	\$10	\$5,000
Signs				
a. project sign	1	EA	\$2,000	\$2,000
b. direction and regulatory	1	LS	\$1,000	\$1,000
c. interpretive signage	1	LS	\$1,500	\$1,500
d. interpretive kiosk	1	LS	\$3,000	\$3,000
Pre-cast concrete 2-unit vault restroom	1	EA	\$75,000	\$75,000
Picnic table	1	EA	\$2,000	\$2,000
Benches	2	EA	\$2,000	\$4,000
Trash container	1	EA	\$1,800	\$1,800
Lighting				
a. security lights	2	EA	\$2,500	\$5,000
b. boat ramp light	1	EA	\$5,000	\$5,000
c. electrical service and distribution	1	EA	\$7,000	\$7,000
Demobilization	1	LS	\$5,000	\$5,000
Total Construction/Implementation Costs for Lower Merced River Recreational Boating Public Access				\$202,250



Category (e) Environmental Compliance/Mitigation/Enhancement

No grant funds are requested for the Category (e) Environmental Compliance/Mitigation/Enhancement (Task 10).

Budget Category (f): Construction Administration

Grant funds not are requested for the Category (f) Construction Administration (Task 11) for the *Merced Region Climate Change Awareness Program*. For the *Merced Region Climate Change Awareness* and the *Lower Merced River Recreational Boating Public Access* components, construction administration activities will be conducted by MID staff.

The total estimated construction administration costs are \$33,700. Construction administration activities include managing the construction contractor, reviewing submittals, and conducting site inspections.

Table 4-29: Category (f) Construction Administration Costs

Proposal Title: Merced IRWM Implementation Grant Proposal Project Title: Merced River Education and Enhancement Program						
			(a)	(b)	(c)	(d)
Task	Hourly Wage (\$/hr)	# of Hours	Grant Request	Funding Match	Other State Funds	Total
Category (f) Construction Administration						
Task 11 – Construction Administration	--	--	\$0	\$33,700	\$0	\$33,700
• Lower Merced River Stewardship	--	--	\$0	\$0	\$0	\$0
• Merced Region Climate Change Awareness	--	--	\$0	\$13,500	\$0	\$13,500
• Lower Merced River Recreational Boating Public Access	--	--	\$0	\$20,200	\$0	\$20,200
Total			\$0	\$33,700	\$0	\$33,700

*Grey shading indicates that no grant funding is requested for this aspect of the project.

Category (g): Other Costs

For the *Merced River Education and Enhancement Program*, other costs include the UC Merced Facilities and Administration (F&A) costs. Facilities and Administrative costs (F&A) are the basic expenses incurred while conducting research at universities. F&A cost rates are based on a university's actual operating costs. Using guidelines provided by the federal government, an institution assesses its F&A costs on a regular basis and allocates these costs to different activities, such as instruction and research. The F&A costs are applied to all grants awarded to UC Merced and other institutions in the University of California system. For the purposes of this proposal, UC Merced will pay \$52,000 in applicable F&A costs using non-grant funds in order to meet the funding match requirements

Budget Category (h): Construction/Implementation Contingency

In association with the *Lower Merced River Recreational Boating Public Access* component of the *Merced River Education and Enhancement Program* has a construction contingency of \$30,338. This constitutes 15% of the \$202,250 construction budget for this project component (see Task 9, Category (d)).