

Attachment 4 - Budget

Table 8 for the project has been prepared in accordance with the Grant PSP showing a breakdown by each category and included within this attachment. Included below is a Detailed Budget and Cost breakdown; associated construction and staffing/labor costs for all tasks are considered reasonable because they were based, primarily, on the District's recently completed DWR IRWM-funded South and Highland Basin. The project is not anticipated to include costs other than those described below. On-going Monitoring and Reporting costs will be borne by the District utilizing existing staff. CID is requesting a funding match waiver because the project will provide direct benefit to the City of Parlier, a Disadvantaged Community (see Attachment 7). The project had been determined as eligible for DAC Waiver funding by DWR during the 2014 Drought Solicitation, as well as verified recently with DWR staff.

Category A – Direct Project Administration

Task 1 Administration: The budget includes time for CID's engineering consultant for project administration costs including conference calls, meetings and minutes, subconsultant management, stakeholder coordination, overall project coordination, and some grant application preparation costs (included in "Other Direct" below).

Task 2 Labor Compliance: The labor hours for this task are expected to be similar to the costs associated with a similar District project. The District will contract for labor compliance services with a consultant. A copy of a portion of the District's recent contract showing the fees is included in **Attachment 4a**.

Task 3 Reporting: This task includes two subtasks: **3.1 – Quarterly Progress Reports** and **3.2 – Draft and Final Project Report**. The labor hour budget for Subtask 3.1 includes hours KRCD staff (representing KBWA) to prepare grant progress reports to DWR; Subtask 3.2 includes hours to prepare a Draft and Final Project Report, including DWR review.

Category B – Land Purchase / Easement

Task 4 Land Purchase: This task includes three subtasks: **4.1 – Execute Option on Property**, **4.2 – PRT and Appraisal**, and **4.3 – Land Purchase/Close Escrow**. The land acquisition is based on the actual agreed upon price (\$26,000/acre) with the landowner. Real estate comparables obtained for nearby parcels, show an average per acre price of \$28,939 (see **Attachment 4c**). Subtask 4.1 includes \$75,000 already expended to initially execute and then extend the option through February 2016. Subtask 4.2 includes obtaining an updated preliminary title report and appraisal (appraisal cost estimate provided by Peter S. Cooper, MAI) in support of Subtask 4.3 which entails purchase of the property at the agreed price less the option payments made.

Category C - Planning/Design/Engineering/Environmental Documentation

Task 5 Assessment and Evaluation: This task contains three subtasks: **5.1 – Feasibility Study and Preliminary Design**, **5.2 – Baseline Groundwater Network Development**, and **5.3 – Surveying**. The costs for water quality testing are based on recent tests on samples from the District's monitoring network at another basin (see **Attachment 4a**). Costs for water sampling are included in "Other Direct"; a copy of the sample invoice for the water quality testing is included in **Attachment 4a**.

Task 6 Final Design: This task contains five subtasks: **6.1 – Geotechnical Investigation**, **6.2 – Earthwork and Structures Documents**, **6.3 – Monitoring Well Documents**, **6.4 – Recovery Well Documents**, and **6.5 – Well Equipping Documents**. The budget estimate includes the staff required to complete the work, including geotechnical engineering, surveying and electrical engineering staff. Excerpts from the geotechnical and electrical engineering contracts for a similar project are included in **Attachment 4a**.

Task 7 Environmental Documentation: Staffing labor hours and rates for this task were provided by the District's consultant who recently completed similar work for the District's South and Highland Basin project. The costs include time associated with CEQA document preparation including biological and cultural surveys as required.

Task 8 Permitting: Labor hours for this task were based on local experience from the District's consultant in obtaining these permits. Other Direct costs include the actual permit costs for a Storm Water Pollution Prevention Plan, Dust Control Plan, Indirect Source Review (ISR) and ISR Mitigation, and PG&E electrical service connection.

Category D – Construction/Implementation

Task 9 Construction Contracting: This task contains four subtasks: **9.1 – Earthwork and Structures Bidding**, **9.2 – Monitoring Well Bidding**, **9.3 – Recovery Well Bidding**, and **9.4 – Well Equipping Bidding**. The budget for this task was based on the need to conduct four different bids for contractors to complete the various construction elements.

Task 10 Construction: This task contains four subtasks: **10.1 – Earthwork and Structures Construction**, **10.2 – Monitoring Well Construction**, **10.3 – Recovery Well Construction**, and **10.4 – Well Equipping Construction**. Construction and implementation fees are based on conceptual engineer's estimates developed in the project's feasibility study (**Attachment 3b**); the quantities were estimated from preliminary topographic survey and project plans. See **Attachment 4a** for the four different contract types Bid canvasses. The construction costs, including prevailing wages, are detailed in the table below, including a breakdown of items, quantities and unit costs; a 15% contingency was used.

Task 11 Environmental Compliance: The budget includes \$5,600 for monitoring and minor reporting; the estimate is included as a placeholder if required and is based on similar efforts and expenditures for similar banking projects in the region that had minor to no mitigation measures.

Task 12 Construction Administration: This task includes five subtasks: **12.1 – Earthwork and Structures Construction Observation**, **12.2 – Monitoring Well Construction Observation**, **12.3 – Recovery Well Construction Observation**, **12.4 – Well Equipping Construction Observation**, and **12.5 – Record Drawings**. Construction administration costs are based actual fees incurred for similarly sized banking projects to observe construction and administer the construction contract.

KBWA 2015 IRWM IMPLEMENTATION GRANT

DETAILED BUDGET AND COST BREAKDOWN FOR CID's ADAMS AND ACADEMY BASIN

TASK CATEGORY / DESCRIPTION	PE \$180	SE/CI \$140	Tech \$110	PA \$90	KRCD \$100	LCP \$75	Survey \$150	Geotec \$100	EE \$135	Subtotal	Other Direct	Total Fee		
CATEGORY A: DIRECT PROJECT ADMINISTRATION														
Task 1: Administration	40	100	20	8						\$24,120	\$3,247	\$27,367		
Task 2: Labor Compliance		32		56		150				\$20,770		\$20,770		
Task 3: Reporting														
Subtask 3.1: Quarterly Progress Reports	4	24	48	72	96					\$25,440		\$25,440		
Subtask 3.2: Draft and Final Project Report	16	40	12	8	56					\$16,120		\$16,120		
CATEGORY B: LAND PURCHASE / EASEMENT														
Task 4: Land Acquisition														
Subtask 4.1: Execute Option on Property	<i>(Other Direct Costs for Option Payments per Option Agreement, Attachment 3a)</i>									\$0	\$75,000	\$75,000		
Subtask 4.2: PTR and Appraisal	8	<i>(Other Direct Costs shown are for appraisal)</i>									\$1,440	\$3,000	\$4,440	
Subtask 4.3: Land Purchase/Close Escrow	16	12	<i>(Other Direct Costs= Purchase Price less Option Payments)</i>									\$4,560	\$1,347,200	\$1,351,760
CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL														
Task 5: Assessment and Evaluation														
Subtask 5.1: Feasibility Study and Preliminary Design	120	198	340	92						\$95,000		\$95,000		
Subtask 5.2: Baseline Groundwater Network Development	24	86	20	20	<i>(Other Direct Costs for Water Quality Testing)</i>					\$25,085	\$4,725	\$25,085		
Subtask 5.3: Surveying	4	20	9	5			120			\$22,960		\$22,960		
Task 6: Final Design														
Subtask 6.1: Geotechnical Investigation	4	16	20	4				150		\$20,520		\$20,520		
Subtask 6.2: Earthwork and Structures Documents	120	230	173	36					30	\$80,120		\$80,120		
Subtask 6.3: Monitoring Well Documents	8	60	12	8					30	\$15,930		\$15,930		
Subtask 6.4: Recovery Well Documents	40	80	40	25					30	\$29,100		\$29,100		
Subtask 6.5: Well Equipping Documents	80	140	120	32					30	\$54,130		\$54,130		
Task 7: Environmental Documentation	36	88	68	40						\$29,880		\$29,880		
Task 8: Permitting	4	28	56	12	<i>(Other Direct Costs are Permit Fees)</i>					\$11,880	\$25,014	\$36,894		
CATEGORY D: CONSTRUCTION / IMPLEMENTATION														
Task 9: Construction Contracting														
Subtask 9.1: Earthwork and Structures Bidding	8	18	6	16						\$6,060		\$6,060		
Subtask 9.2: Monitoring Well Bidding	1	2	16	2						\$2,400		\$2,400		
Subtask 9.3: Recovery Well Bidding	4	2	4	4						\$1,800		\$1,800		
Subtask 9.4: Well Equipping Bidding	7	14	6	10						\$4,780		\$4,780		
Task 10: Construction (Includes 15% Contingency)														
Subtask 10.1: Earthwork and Structures Construction	<i>(See attached detailed Engineer's Opinion of Probable Construction Cost showing detailed bid items for each bid. Costs based on actual bids from CID South/Highland Basin, Attachment 4a)</i>										\$1,436,129	\$1,436,129		
Subtask 10.2: Monitoring Well Construction											\$58,029	\$58,029		
Subtask 10.3: Recovery Well Construction											\$261,418	\$261,418		
Subtask 10.4: Well Equipping Construction											\$365,907	\$365,907		
Task 11: Environmental Compliance	4	12	16	16						\$5,600		\$5,600		
Task 12: Construction Administration														
Subtask 12.1: Earthwork and Structures Construction Observation	16	480		16						\$71,520		\$71,520		
Subtask 12.2: Monitoring Well Construction Observation	2	80		8						\$12,280		\$12,280		
Subtask 12.3: Recovery Well Construction Observation	4	120		8						\$18,240		\$18,240		
Subtask 12.4: Well Equipping Construction Observation	10	180		24						\$29,160		\$29,160		
Subtask 12.5: Record Drawings	8	20	40	8				30	60	\$20,460		\$20,460		
Total units	588	2082	1026	530	152	150	120	180	180	\$649,355	\$3,574,944	\$4,149,299		

Notes: Labor Compliance, water quality testing, geotech and electrical engineering costs based on actual costs for similar work at South and Highland Basin (see contract excerpt in Attachment 4a)

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST FOR CID's ADAMS AND ACADEMY BASIN

Item No.	Bid Item Description	Estimated Quantity		Unit Price	Subtotal	15% Cont.	Total
Subtask 10.1: Earthwork and Structures Construction					\$1,248,808	\$187,321	\$1,436,129
1	Mobilization/demobilization, bonds & insurance	1	LS	\$47,648	\$47,648		
2	Worker Protection	1	LS	\$10,000	\$10,000		
3	Clearing and Grubbing	50	AC	\$700	\$35,000		
4	Site Demolition	1	LS	\$20,000	\$20,000		
5	Cell 1 Levee Earthwork (Fill)	18,000	CY	\$5	\$90,000		
6	Cell 2 Levee Earthwork (Fill)	15,000	CY	\$5	\$75,000		
7	Settling Channel	9,000	CY	\$5	\$45,000		
8	Excavate and Export Surplus Earthwork	57,000	CY	\$9	\$513,000		
9	Basin Turnout Structure, Slide Gate, Canal Lining, & Outfall	2	EA	\$91,030	\$182,060		
	Flow Measurement (Flow Meter and Control at Basin Turnout)	2	EA	\$32,500	\$65,000		
11	Construct Diversion Check Structure & Appurtenances	1	LS	\$108,600	\$108,600		
12	Furnish and Install Perimeter Wire Fence and Gates	5,750	LF	\$10	\$57,500		
Subtask 10.2: Monitoring Wells Construction					Cost for 3 wells = \$50,460	\$7,569	\$58,029
1	Mobilization/demobilization, bonds & insurance	1	LS	\$3,000	\$3,000		
2	Worker Protection	1	LS	\$1,000	\$1,000		
3	Drill 9-inch Diameter Borehole	175	LF	\$39	\$6,825		
4	Electric Log (If Mud Rotary Equipment is Used)	1	LS	\$1,800	\$1,800		
5	Furnish and Install 2-inch (nominal) Diameter Blank Casing	85	LF	\$3	\$255		
6	Furnish and Install 2-inch Nom. Diameter Perforated Casing	85	LF	\$4	\$340		
7	Furnish and Install Monterey Sand Gravel Pack	100	LF	\$6	\$550		
8	Construct Cement Grout Seal	65	LF	\$6	\$390		
9	Construct Bentonite Seal	10	LF	\$6	\$60		
10	Preliminary Well Development	1	LS	\$400	\$400		
11	Well Development by Pumping	1	LS	\$1,600	\$1,600		
12	Construct Above Ground Wellhead Facilities	1	LS	\$600	\$600		
					Cost Per Monitoring Well: \$16,820		
Subtask 10.3: Recovery Well Construction					\$227,320	\$34,098	\$261,418
1	Mobilization/demobilization, bonds, protection & insurance	1	LS	\$35,000	\$35,000		
2	Furnish & Install 36-inch Diameter Conductor Casing	50	LF	\$460	\$23,000		
3	Drill Pilot Hole (to 500-feet total depth)	450	LF	\$75	\$33,750		
4	Perform Electric and Deviation Logs	1	LS	\$4,000	\$4,000		
5	Open Hole to 30-inch diameter (to 500-feet total depth)	450	LF	\$40	\$18,000		
6	Furnish & Install 18-inch Diameter Blank Casing	180	LF	\$58	\$10,440		
7	Furnish & Install 18-inch Diameter Perforated Casing	310	LF	\$90	\$27,900		
8	Furnish & Install 2-inch Diameter Sounding Tube	395	LF	\$12	\$4,740		
9	Furnish & Install 3-inch Diameter Gravel Fill Pipe	125	LF	\$12	\$1,500		
10	Furnish & Install Gravel Pack	380	LF	\$47	\$17,860		
11	Furnish & Install Annular Seal	120	LF	\$50	\$6,000		
12	Preliminary Development	36	HR	\$380	\$13,680		
13	Mob/Demob Development Pump and Pump up to 40hrs	1	LF	\$20,700	\$20,700		
14	Additional Pump Development and Test Pumping	20	HR	\$250	\$5,000		
15	Perform Video Log	1	LS	\$950	\$950		
16	Construct Well Pump Foundation	1	LS	\$4,800	\$4,800		
Subtask 10.4: Well Equipping Construction					\$318,180	\$47,727	\$365,907
1	Mobilization/demobilization, bonds & insurance	1	LS	\$15,000	\$15,000		
2	Worker Protection	1	LS	\$500	\$500		
3	Miscellaneous Facilities & Operations	1	LS	\$20,000	\$20,000		
4	Furnish & Install Gas Line and Pressure Regulator	1	LS	\$15,600	\$15,600		
5	Furnish & Install Pump and Discharge Head	1	LS	\$60,000	\$60,000		
6	Furnish & Install Natural Gas Motor	1	LS	\$78,000	\$78,000		
7	Furnish & Install Column, Tube and Shaft	400	LF	\$5.70	\$2,280		
8	Furnish & Install Well Discharge Manifold	1	LS	\$29,500	\$29,500		
9	Site Electrical	1	LS	\$62,300	\$62,300		
10	Site Integration	1	LS	\$35,000	\$35,000		

Notes: Construction costs taken from 2013 and 2014 Bid Results for similar project within CID (See Bid Canvasses included in Attachment 4a. 15% Contingency includes anticipated cost increases since prior bid results).

Table 8 – Project Budget

Proposal Title: Kings Basin Water Authority 2015 IRWM Implementation Grant

Project Title: Consolidated Irrigation District - Adams and Academy Basin

Project serves a need of a DAC?: YES

Funding Match Waiver request?: YES

Category		(a)	(b)	(c)	(d)
		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost
(a)	Direct Project Administration	\$89,697	\$0	\$0	\$89,697
(b)	Land Purchase/Easement	\$1,431,200	\$0	\$0	\$1,431,200
(c)	Planning/Design/Engineering/ Environmental Documentation	\$314,619	\$0	\$95,000	\$409,619
(d)	Construction/Implementation	\$2,218,783	\$0	\$0	\$2,218,783
(e)	Grand Total (Sum rows (a) through (d) for each column)	\$4,054,299	\$0	\$95,000	\$4,149,299

*List sources of funding: CID will cashflow the project construction using its Water Sales Fund (See Attachment 4b). The \$95,000 is for the previously completed feasibility study and preliminary design that were a portion of a project funded through a Local Groundwater Assistance Fund Grant from DWR. Those costs have been expended and were only included in the Workplan, Budget and Schedule at the request of DWR to show the total project associated activities.

Table 9 – Proposal Budget

Proposal Title: Kings Basin Water Authority IRWM 2015 Implementation Grant

		(a)	(b)	(c)	(d)	(e)
Individual Project Title		Requested Grant Amount	Cost Share: Non-State Fund Source* (Funding Match)	Cost Share: Other State Fund Source*	Total Cost	% Funding Match (col. b/col. d)
(a)	Consolidated Irrigation District - Adams and Academy Basin	\$4,054,299	\$0	\$95,000	\$4,149,299	0%
(b)						
(c)						
(d)						
(e)	Proposal Total <i>Sum rows (a) through (e) for each column</i>	\$4,054,299	\$0	\$95,000	\$4,149,299	
(f)	DAC Funding Match Waiver Total <i>Sum column (d) only for projects seeking DAC funding match waiver in rows (a) through (d)</i>				\$4,149,299	
(g)	Grand Total <i>Subtract row (f) from row (e) for column (d) and recalculate column (e))</i>				\$0	0%