

## Attachment 5 Supplemental Documentation

- 5a CID Detailed Staffing Plan and Budget
- 5b CID Engineer's Opinion of Probable Construction Costs
- 5c Recent Groundwater Project Bid Canvass
- 5d City of Fresno Detailed Staffing Plan and Budget
- 5e City of Fresno Engineer's Opinion of Probable Construction Costs
- 5f FMFCD Detailed Staffing Plan and Budget
- 5g FMFCD Engineer's Opinion of Probable Construction Costs
- 5h East Oroshi CSD Detailed Staffing Plan and Budget
- 5i East Oroshi CSD Engineer's Opinion of Probable Construction Costs
- 5j Water Meter Quotation
- 5k Sultana CSD Detailed Staffing Plan and Budget
- 5l Sultana CSD Engineer's Opinion of Probable Construction Costs

**Attachment 5a**  
**CID Detailed Staffing Plan and Budget**

**ATTACHMENT 5a**  
**Estimated Staffing Plan and Cost Breakdown**

Consolidated Irrigation District  
 Adams and Academy Basin

	Project Manager	Senior Engineer	Assistant Engineer	Admin	KRCD Staff	Labor Comp.	Survey	Geotech	Electrical Engineer	Subtotal Labor	Other Direct Costs	Total Fee
<b>TASK CATEGORY / DESCRIPTION</b>	<b>\$180</b>	<b>\$140</b>	<b>\$110</b>	<b>\$90</b>	<b>\$100</b>	<b>\$75</b>	<b>\$150</b>	<b>\$100</b>	<b>\$100</b>			
<b>CATEGORY A: DIRECT PROJECT ADMINISTRATION</b>												
Task 1: Project Administration (See Note 1)	40	280	50	8						\$52,620	\$26,078	\$78,698
Task 2: Labor Compliance	0	32	0	56	0	200		0	0	\$24,520	\$0	\$24,520
Task 3: Reporting	44	92	80	80	152	0		0	0	\$52,000	\$0	\$52,000
<b>CATEGORY B: LAND PURCHASE / EASEMENT</b>												
Task 4: Land Acquisition (See Note 2)	8	16	16	8						\$6,160	\$1,391,000	\$1,397,160
<b>CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL</b>												
Task 5: Assessment and Evaluation	16	32	28	24						\$12,600		\$12,600
Task 6: Final Design	160	560	560	60			120	150	300	\$237,200		\$237,200
Task 7: Environmental Documentation	36	88	68	40						\$29,880		\$29,880
Task 8: Permitting (See Note 3)	4	28	56	12						\$11,880	\$14,250	\$26,130
<b>CATEGORY D: CONSTRUCTION / IMPLEMENTATION</b>												
Task 9: Construction Contracting	20	36	32	32						\$15,040		\$15,040
Task 10: Construction (Includes 15% Contingency)	<i>(See Attachment 5b for Detailed Construction Cost Estimate)</i>									\$0	\$2,429,881	\$2,429,881
Task 11: Environmental Compliance	4	12	16	16						\$5,600		\$5,600
Task 12: Construction Administration (See Note 4)	40	800	0	80						\$126,400		\$126,400
<b>Total units</b>	<b>372</b>	<b>1976</b>	<b>906</b>	<b>416</b>								
<b>Total \$</b>	<b>\$66,960</b>	<b>\$276,640</b>	<b>\$99,660</b>	<b>\$37,440</b>						<b>\$573,900</b>	<b>\$3,861,209</b>	<b>\$4,435,109</b>

Notes:

- 1 Other Direct Costs are for the grant application preparation costs.
- 2 Land acquisition of 53.5 acres at \$26,000 per acre (see attached property option document, Attachment 4a).
- 3 Permitting Direct Costs include \$3200 SWPPP Fee, \$350 DCP Application Fee, \$700 ISR Application Fee and \$10000 ISR Offsite Mitigation Fee
- 4 Assumes 20 weeks of construction observation at 40 hours per week

**Attachment 5b**

**CID Engineer's Opinion of Probable Construction Costs**

**ATTACHMENT 5b**

**ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

**Consolidated Irrigation District  
Adams and Academy Basin**

<b>Item No.</b>	<b>Bid Item Description</b>	<b>Estimated Quantity</b>		<b>Unit Price</b>	<b>Subtotal</b>
1	Mobilization/demobilization, bonds & insurance (5%)	1	LS	\$100,140	\$100,140
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	71,000	CY	\$9	\$639,000
9	Furnish and Install Basin Turnout Structure w/ 54" Slide Gate, Canal Lining, Standpipe Outfall	2	EA	\$108,600	\$217,200
10	Flow Measurement (Flow Meter and Control at Basin Turnout)	2	EA	\$32,500	\$65,000
11	Construct Project Diversion Check Structure and Apurtenances (Misc Metals, Stilling Well, etc.)	1	LS	\$108,600	\$108,600
12	Construct Recovery Well (flow meter, well, well head, and discharge)	1	EA	\$375,000	\$375,000
13	Construct Shallow Monitoring Wells	3	EA	\$12,500	\$37,500
14	Furnish and Install Perimeter Wire Fence and Gates	5,750	LF	\$10	\$57,500
15	Furnish and Install 3/4" Crushed Gravel for Levees (15' Wide, 12,600 LF, 3" Thick, 105 lb/cf)	2,700	TON	\$40	\$108,000
16	Construct Overhead Electric Lines for Recovery Well	2,000	LF	\$25	\$50,000
17	Misc Site Electrical	1	LS	\$80,000	\$80,000
				<b>Subtotal:</b>	<b>\$2,112,940</b>
Contingency				15%	\$316,941
<b>PRELIMINARY COST ESTIMATE:</b>					<b>\$2,429,881</b>

Notes: Construction costs taken from 2013 and 2014 Bid Results for similar project within CID.

**Attachment 5c**  
**Recent Groundwater Project Bid Canvass**

**CANVASS OF BIDS**  
**CONSOLIDATED IRRIGATION DISTRICT**  
**SOUTH & HIGHLAND BASIN PROJECT - EARTHWORK & STRUCTURES CONTRACT**

Bid Opening Date 8/27/2013 Project Manager ASC  
 Prevailing Wages Required YES Project Engineer ASC

**APPARENT LOW BIDDER**

Item	Description	Quantity	Unit	ENGINEER'S ESTIMATE		Clark Bros. Inc		Avison Construction Inc		Don Berry Construction		Mass X Inc.		Emmett's Excavation	
				Unit Cost	Total	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total	Unit Cost	Total
<b>Base Bid</b>															
1	Mobilization/Demobilization, Bonds, Insurance, and Permits	1	LS	\$99,000	\$ 99,000	\$ 27,700	\$ 27,700	\$ 50,000	\$ 50,000	\$ 108,432	\$ 108,432	\$ 150,000	\$ 150,000	\$ 70,000	\$ 70,000
2	Worker Protection	1	LS	\$5,500	\$ 5,500	\$ 6,720	\$ 6,720	\$ 2,800	\$ 2,800	\$ 2,700	\$ 2,700	\$ 2,000	\$ 2,000	\$ 250	\$ 250
3	Miscellaneous Facilities & Operations	1	LS	\$22,000	\$ 22,000	\$ 31,300	\$ 31,300	\$ 1,500	\$ 1,500	\$ 10,000	\$ 10,000	\$ 5,000	\$ 5,000	\$ 2,500	\$ 2,500
4	SWPPP BMP Installation and Maintenance	1	LS	\$22,000	\$ 22,000	\$ 22,530	\$ 22,530	\$ 4,000	\$ 4,000	\$ 32,000	\$ 32,000	\$ 30,000	\$ 30,000	\$ 42,000	\$ 42,000
5	Clearing and Grubbing	69	AC	\$770	\$ 53,130	\$ 1,515	\$ 104,535	\$ 675	\$ 46,575	\$ 175	\$ 12,075	\$ 700	\$ 48,300	\$ 362	\$ 24,978
6	Abandon and Destroy Existing On-Site Well	1	LS	\$11,000	\$ 11,000	\$ 9,980	\$ 9,980	\$ 5,000	\$ 5,000	\$ 4,900	\$ 4,900	\$ 5,000	\$ 5,000	\$ 10,000	\$ 10,000
7	Construct Levee Keyways (F)	79,800	CY	\$3.85	\$ 307,230	\$ 2.29	\$ 182,742	\$ 2.50	\$ 199,500	\$ 3.70	\$ 295,260	\$ 3.00	\$ 239,400	\$ 2.48	\$ 197,904
8	Construct Reservoir Levees (F)	55,100	CY	\$3.58	\$ 196,983	\$ 1.96	\$ 107,996	\$ 4.25	\$ 234,175	\$ 5.30	\$ 292,030	\$ 6.00	\$ 330,600	\$ 10.00	\$ 551,000
9	Construct Kirby Ditch Turnout Structure	1	LS	\$74,800	\$ 74,800	\$ 94,785	\$ 94,785	\$ 110,000	\$ 110,000	\$ 110,000	\$ 110,000	\$ 103,000	\$ 103,000	\$ 126,000	\$ 126,000
10	Construct Project Distribution Structure	1	LS	\$366,300	\$ 366,300	\$ 285,570	\$ 285,570	\$ 330,000	\$ 330,000	\$ 322,000	\$ 322,000	\$ 308,000	\$ 308,000	\$ 345,000	\$ 345,000
11	Construct Basin Staff Gauge	3	EA	\$5,500	\$ 16,500	\$ 1,690	\$ 5,070	\$ 5,000	\$ 15,000	\$ 5,000	\$ 15,000	\$ 4,500	\$ 13,500	\$ 1,900	\$ 5,700
12	Construct Stilling Well	1	EA	\$5,500	\$ 5,500	\$ 13,740	\$ 13,740	\$ 4,200	\$ 4,200	\$ 4,300	\$ 4,300	\$ 4,000	\$ 4,000	\$ 8,000	\$ 8,000
13	Construct Well Discharge Standpipes and Pipelines	1	LS	\$33,000	\$ 33,000	\$ 36,935	\$ 36,935	\$ 44,000	\$ 44,000	\$ 47,000	\$ 47,000	\$ 43,500	\$ 43,500	\$ 46,000	\$ 46,000
14	Construct Concrete Canal Lining at Well Discharges	3,140	SF	\$12.60	\$ 39,564	\$ 9.81	\$ 30,803	\$ 13.00	\$ 40,820	\$ 12.50	\$ 39,250	\$ 12.00	\$ 37,680	\$ 14.00	\$ 43,960
15	Construct Box Culvert Canal Crossing	1	LS	\$73,700	\$ 73,700	\$ 43,960	\$ 43,960	\$ 114,000	\$ 114,000	\$ 120,000	\$ 120,000	\$ 110,500	\$ 110,500	\$ 90,000	\$ 90,000
16	Furnish and Install Perimeter Wire Fence	7,448	LF	\$9.90	\$ 73,735	\$ 7.56	\$ 56,307	\$ 5.50	\$ 40,964	\$ 5.75	\$ 42,826	\$ 5.50	\$ 40,964	\$ 6.75	\$ 50,274
17	Furnish and Install Single 16' Drive Gates	3	EA	\$5,500	\$ 16,500	\$ 896	\$ 2,688	\$ 900	\$ 2,700	\$ 750	\$ 2,250	\$ 700	\$ 2,100	\$ 800	\$ 2,400
18	Furnish and Install Double 16' Drive Gates	3	EA	\$9,900	\$ 29,700	\$ 1,344	\$ 4,032	\$ 1,400	\$ 4,200	\$ 1,100	\$ 3,300	\$ 1,000	\$ 3,000	\$ 1,200	\$ 3,600
19	Furnish & Install Class II Aggregate Base 3" Driveway Surface (F)	211	TN	\$55	\$ 11,605	\$ 76.90	\$ 16,226	\$ 32	\$ 6,752	\$ 80	\$ 16,880	\$ 40	\$ 8,440	\$ 100	\$ 21,100
<b>Total Base Bid</b>				<b>Subtotal</b>	<b>\$ 1,457,747</b>	<b>Subtotal</b>	<b>\$ 1,083,619</b>	<b>Subtotal</b>	<b>\$ 1,256,186</b>	<b>Subtotal</b>	<b>\$ 1,480,203</b>	<b>Subtotal</b>	<b>\$ 1,484,984</b>	<b>Subtotal</b>	<b>\$ 1,640,666</b>
<b>Additive Bid Items</b>															
20	Furnish & Install Class II Aggregate Base 3" Levee Road Surface (F)	4,480	TN	\$33	\$ 147,840	\$ 25.12	\$ 112,538	\$ 19.00	\$ 85,120	\$ 23.70	\$ 106,176	\$ 20.00	\$ 89,600	\$ 29.15	\$ 130,592
21	Construct Perimeter Irrigation Ditches	8,700	CY	\$5.50	\$ 47,850	\$ 4.05	\$ 35,235	\$ 4.88	\$ 42,456	\$ 3.50	\$ 30,450	\$ 1.50	\$ 13,050	\$ 5.25	\$ 45,675
22	Construct Perimeter Irrigation Ditch Turnouts & Pipe Culverts	1	LS	\$41,800	\$ 41,800	\$ 73,110	\$ 73,110	\$ 60,000	\$ 60,000	\$ 66,500	\$ 66,500	\$ 60,000	\$ 60,000	\$ 36,700	\$ 36,700
				<b>Subtotal</b>	<b>\$ 237,490</b>	<b>Subtotal</b>	<b>\$ 220,883</b>	<b>Subtotal</b>	<b>\$ 187,576</b>	<b>Subtotal</b>	<b>\$ 203,126</b>	<b>Subtotal</b>	<b>\$ 162,650</b>	<b>Subtotal</b>	<b>\$ 212,967</b>
<b>Total Base Bid + Additive Bid Items</b>				<b>Subtotal</b>	<b>\$ 1,695,237</b>	<b>Subtotal</b>	<b>\$ 1,304,502</b>	<b>Subtotal</b>	<b>\$ 1,443,762</b>	<b>Subtotal</b>	<b>\$ 1,683,329</b>	<b>Subtotal</b>	<b>\$ 1,647,634</b>	<b>Subtotal</b>	<b>\$ 1,853,633</b>
<b>Notes:</b>															
<b>(1)</b>															
<b>Bid Completeness</b>															
				Section 00310 - Bidders Proposal		X		X		X		X		X	
				Section 00313 - List of Subcontractors		X		X		X		X		X	
				Section 00314 - Materials Supplier Information		X		X		X		X		X	
				Section 00315 - Preliminary Construction Schedule		X		X		X		X		X	
				Section 00316 - Non-Collusion Affidavit		X		X		X		X		X	
				Section 00317 - P.C.C. Quest. On Disqual.		X		X		X		X		X	
				Section 00318 - P.C.C Statement on Contempt		X		X		X		X		X	
				Section 00324 - Workers Comp. Certificate		X		X		X		X		X	
				Section 00329 - Labor and Other Code Req. Cert.		X		X		X		X		X	
				Section 00340 - Pre-Qual Statement		X		X		X		X		X	
				(form of deposit)		X		X		X		X		X	
				Executed Addendum No. 1		X		X		X		X		X	

**Attachment 5d**  
**City of Fresno Detailed Staffing Plan and Budget**

**ATTACHMENT 5d**  
**Estimated Staffing Plan and Cost Breakdown**

City of Fresno  
Nielsen Recharge Basin

	Project Manager	Senior Engineer	Assistant Engineer	Admin	KRCD Staff	Labor Comp.	Survey	Geotech	Electrical Engineer	Subtotal Labor	Other Direct Costs	Total Fee
<b>TASK CATEGORY / DESCRIPTION</b>	<b>\$180</b>	<b>\$140</b>	<b>\$110</b>	<b>\$90</b>	<b>\$100</b>	<b>\$75</b>	<b>\$150</b>	<b>\$100</b>	<b>\$100</b>			
<b>CATEGORY A: DIRECT PROJECT ADMINISTRATION</b>												
Task 1: Project Administration (See Note 1)	120	50	25	80						\$38,550	\$49,000	\$87,550
Task 2: Labor Compliance	20	0	10	10		175				\$18,725	\$0	\$18,725
Task 3: Reporting	60	50	115	80	140					\$51,650	\$0	\$51,650
<b>CATEGORY B: LAND PURCHASE / EASEMENT</b>												
Task 4: Land Acquisition (See Note 2)	8	16	16	8						\$6,160	\$1,804,900	\$1,811,060
<b>CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL</b>												
Task 5: Assessment and Evaluation	100	180	160	40						\$64,400		\$64,400
Task 6: Final Design	100	200	240	40			100	150	150	\$121,000		\$121,000
Task 7: Environmental Documentation	36	88	68	40						\$29,880		\$29,880
Task 8: Permitting (See Note 3)	10	0	60	10						\$9,300	\$14,250	\$23,550
<b>CATEGORY D: CONSTRUCTION / IMPLEMENTATION</b>												
Task 9: Construction Contracting	16	18	24	24						\$10,200		\$10,200
Task 10: Construction (Includes 15% Contingency)	<i>(See Attachment 5e for Detailed Construction Cost Estimate)</i>									\$0	\$2,271,308	\$2,271,308
Task 11: Environmental Compliance	8	16	26	16						\$7,980		\$7,980
Task 12: Construction Administration	58	20	300	40						\$49,840	\$17,500	\$67,340
<b>Total units</b>	<b>536</b>	<b>638</b>	<b>1044</b>	<b>388</b>								
<b>Total \$</b>	<b>\$96,480</b>	<b>\$89,320</b>	<b>\$114,840</b>	<b>\$34,920</b>						<b>\$407,685</b>	<b>\$4,156,958</b>	<b>\$4,564,643</b>

Notes:

- \$25,000 included for City Attorney legal services plus \$24,000 for grant application preparation.
- City has already purchased property. Property purchase price was \$1,804,900.
- Permitting Direct Costs include \$3200 SWPPP Fee, \$350 DCP Application Fee, \$700 ISR Application Fee and \$10000 ISR Offsite Mitigation Fee

**Attachment 5e**

**City of Fresno Engineer's Opinion of Probable Construction Costs**

**ATTACHMENT 5e**

**ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

**City of Fresno  
Nielsen Recharge Basin**

<b>Item No.</b>	<b>Bid Item Description</b>	<b>Estimated Quantity</b>		<b>Unit Price</b>	<b>Subtotal</b>
1	Mobilization/demobilization, bonds & insurance, worker protection, miscellaneous facilities and operations (5%)	1	LS	\$94,050	\$94,050
2	Performance Testing & Demobilization	1	LS	\$10,000	\$10,000
3	Clearing & Grubbing	34	AC	\$650	\$22,100
4	Export	54,800	CY	\$9	\$493,200
5	Deep Ripping	20	AC	\$550	\$11,000
6	General Site Grading (Basin Excavation to Ultimate Grade)	60,250	CY	\$3	\$180,750
7	Levees With Keyway Per Geotech	33,750	CY	\$5	\$168,750
8	Remove Tree	1	LS	\$500	\$500
9	Demo Existing Check Structure	1	LS	\$15,000	\$15,000
10	Demo Miscellaneous(Standpipe, Concrete Box, Fence, etc..)	1	LS	\$5,000	\$5,000
11	Modify Project Turnout	1	LS	\$30,000	\$30,000
12	42" DIA RGRCP Inlet Pipe	260	LF	\$250	\$65,000
13	Settling Channel Inlet Structure	1	LS	\$70,000	\$70,000
14	Settling Channel Distribution Structure	1	LS	\$95,000	\$95,000
15	27" Cell Turnout Gates (Cell 2 & 3)	2	LS	\$3,000	\$6,000
16	21" Cell Turnout Gates (Cell 1)	1	LS	\$2,500	\$2,500
17	Cell 1 Distribution Pipeline (21" PVC)	160	LF	\$45	\$7,200
18	Cell 2 & 3 Distribution Pipeline (27" PVC)	70	LF	\$60	\$4,200
19	Cell 1, 2, 3 Rip Rap	765	TN	\$80	\$61,200
20	Cell 1,2,3 and Settling Channel Stilling Wells w/ Level Sensors	4	LS	\$10,000	\$40,000
21	Stilling Well	4	EA	\$8,000	\$32,000
22	FID Canal Realignment	7,600	CY	\$10	\$76,000
23	FID Canal Rip Rap	2,700	TN	\$80	\$216,000
24	Replogle Flume Stilling Well	1	LS	\$8,000	\$8,000
25	New FID Replogle Measurement Flume w/ catwalk	1	LS	\$45,000	\$45,000
26	6' Chain Link Perimeter Fence	6,200	LF	\$18	\$111,600
27	New PG&E Service	1	LS	\$20,000	\$20,000
28	Inlet Doppler Flow Meter	1	LS	\$5,000	\$5,000
29	Site Electrical/SCADA	1	LS	\$80,000	\$80,000
				<b>Subtotal</b>	\$1,975,050
Contingency				15%	\$296,258

**PRELIMINARY COST ESTIMATE: \$2,271,308**

**Attachment 5f**  
**FMFCD Detailed Staffing Plan and Budget**

**ATTACHMENT 5f**  
**Estimated Staffing Plan and Cost Breakdown**

Fresno Metropolitan Flood Control District  
Regional Groundwater Recharge Project

	Project Manager	Senior Engineer	Assistant Engineer	Admin	KRCD Staff	Labor Comp.	Survey	Geotech	Electrical Engineer	Subtotal Labor	Other Direct Costs	Total Fee
<b>TASK CATEGORY / DESCRIPTION</b>	<b>\$180</b>	<b>\$140</b>	<b>\$110</b>	<b>\$90</b>	<b>\$100</b>	<b>\$75</b>	<b>\$150</b>	<b>\$100</b>	<b>\$100</b>			
<b>CATEGORY A: DIRECT PROJECT ADMINISTRATION</b>												
Task 1: Project Administration (See Note 1)	125	125	30	16						\$44,740	\$8,400	\$53,140
Task 2: Labor Compliance	0	32	0	36	0	235				\$25,345	\$0	\$25,345
Task 3: Reporting	25	75	60	100	100					\$40,600	\$0	\$40,600
<b>CATEGORY B: LAND PURCHASE / EASEMENT</b>												
Task 4: Land Acquisition (See Note 2)	8	80	72	90						\$28,660	\$27,818	\$56,478
<b>CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL</b>												
Task 5: Assessment and Evaluation	64	80	56	48						\$33,200		\$33,200
Task 6: Final Design	320	1220	1120	80			325	400	400	\$487,550		\$487,550
Task 7: Environmental Documentation	85	200	140	100						\$67,700		\$67,700
Task 8: Permitting (see note 3)	16	61	112	32						\$26,620	\$14,250	\$40,870
<b>CATEGORY D: CONSTRUCTION / IMPLEMENTATION</b>												
Task 9: Construction Contracting	24	50	52	52						\$21,720		\$21,720
Task 10: Construction (Includes 15% Contingency)	<i>(See Attachment 5g for Detailed Construction Cost Estimate)</i>									\$0	\$3,637,249	\$3,637,249
Task 11: Environmental Compliance	4	12	16	16						\$5,600		\$5,600
Task 12: Construction Administration (See Note 4)	200	1000	135	200						\$208,850		\$208,850
<b>Total units</b>	<b>871</b>	<b>2935</b>	<b>1793</b>	<b>770</b>								
<b>Total \$</b>	<b>\$156,780</b>	<b>\$410,900</b>	<b>\$197,230</b>	<b>\$69,300</b>						<b>\$990,585</b>		<b>\$4,678,302</b>

Notes:

- 1 The Other Direct Costs include \$8,400 for grant application preparation costs.
- 2 Land acquisition of \$50678 is estimated for transfer of ownership and purchase of storm drain easements
- 3 Permitting Direct Costs include \$3200 SWPPP Fee, \$350 DCP Application Fee, \$700 ISR Application Fee and \$10000 ISR Offsite Mitigation Fee
- 4 Assumes 25 weeks of construction observation at 40 hours per week for primary inspection plus administrative support

**Attachment 5g**

**FMFCD Engineer's Opinion of Probable Construction Costs**

ATTACHMENT 5g

**ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

Fresno Metropolitan Flood Control District  
Regional Groundwater Recharge Project

Item No.	Bid Item Description	Estimated Quantity		Unit Price	Subtotal
<b>Basin "AN"</b>					
1	Traffic Control	1	LS	5000.00	\$5,000.00
2	Dust Control	1	LS	1325.00	\$1,325.00
3	Worker Protection	1	LS	1300.00	\$1,300.00
4	18" Reinforced Concrete Pipe, Class III	760	LF	60.00	\$45,600.00
5	Type "A" Case I Manhole	1	EA	3500.00	\$3,500.00
6	Permanent Trench Resurfacing	700	LF	50.00	\$35,000.00
7	48" Metering Stand	1	EA	10000.00	\$10,000.00
8	48" Standpipe and 18" Gate Valves	1	EA	7500.00	\$7,500.00
9	Miscellaneous	1	LS	9035.00	\$9,035.00
<b>Basin "AN" Subtotal</b>					<b>\$118,260.00</b>
<b>Basin "BG"</b>					
1	24" RCP, Class III	40	LF	\$80.00	\$3,200.00
2	18" Plastic Pipe	160	LF	\$100.00	\$16,000.00
3	Temporary Outfall Structure	1	EA	\$2,500.00	\$2,500.00
4	48" Meter Stand	1	LS	\$10,000.00	\$10,000.00
5	Canal Turnout	1	LS	\$10,000.00	\$10,000.00
6	Outfall Excavation	20000	CY	\$2.00	\$40,000.00
7	Channel Excavation	25000	CY	\$2.00	\$50,000.00
8	Dust Control	1	LS	\$1,000.00	\$1,000.00
9	Worker Protection	1	LS	\$2,000.00	\$2,000.00
10	Miscellaneous	1	LS	\$15,800.00	\$15,800.00
<b>Basin "BG" Subtotal</b>					<b>\$150,500.00</b>
<b>Basin "BK"</b>					
1	18" RCP, Class III	700	LF	\$60.00	\$42,000.00
2	Type "A" Case I Manhole	1	EA	\$3,500.00	\$3,500.00
3	48" Meter Stand	1	EA	\$10,000.00	\$10,000.00
4	Canal Turnout Structure	1	EA	\$15,000.00	\$15,000.00
5	Temporary Trench Resurfacing	200	LF	\$10.00	\$2,000.00
6	Permanent Trench Resurfacing	700	LF	\$50.00	\$35,000.00
7	Traffic Control	1	LS	\$7,500.00	\$7,500.00
8	Dust Control	1	LS	\$1,000.00	\$1,000.00
9	Worker Protection	1	LS	\$2,000.00	\$2,000.00
10	Miscellaneous	1	LS	\$12,500.00	\$12,500.00
<b>Basin "BK" Subtotal</b>					<b>\$130,500.00</b>

Item No.	Bid Item Description	Estimated Quantity		Unit Price	Subtotal
<b>Basin "BQ"</b>					
1	Pump Station Facilities	1	LS	\$500,000.00	\$500,000.00
2	PG&E Rule 16 Facilities and Fee	1	LS	\$35,000.00	\$35,000.00
3	24" RCP, Class III Relief Line	112	LS	\$70.00	\$7,840.00
4	24" RCP, Class III Relief Line w/ Trench Resurfacing	405	LF	\$110.00	\$44,550.00
5	Type "A" Case I Manhole	4	EA	\$3,500.00	\$14,000.00
6	18" RCP, Class III	130	LF	\$60.00	\$7,800.00
7	36" RCP, Class III	101	LF	\$90.00	\$9,090.00
8	Outfall Structure	2	EA	\$8,500.00	\$17,000.00
9	Basin Excavation	20000	CY	\$5.00	\$100,000.00
10	Remove and Replace Existing Irrigation	1	LS	\$10,000.00	\$10,000.00
11	18" Tideflex Valve	1	EA	\$5,000.00	\$5,000.00
12	24" Tideflex Valve	1	EA	\$6,000.00	\$6,000.00
13	Raise Existing Overflow and Gate Valve	1	LS	\$5,000.00	\$5,000.00
14	Traffic Control	1	LS	\$5,000.00	\$5,000.00
15	Dust Control	1	LS	\$1,000.00	\$1,000.00
16	Worker Protection	1	LS	\$2,000.00	\$2,000.00
17	Miscellaneous	1	LS	\$41,220.00	\$41,220.00
<b>Basin "BQ" Subtotal</b>					<b>\$810,500.00</b>
<b>Basin "BS"</b>					
1	24" RCP, Class III	50	LF	\$70.00	\$3,500.00
2	18" Plastic Pipe	160	LF	\$100.00	\$16,000.00
3	Temporary Outfall Structure	1	EA	\$2,500.00	\$2,500.00
4	Metering Stand and 18" Valve	1	LS	\$10,000.00	\$10,000.00
5	Canal Turnout	1	LS	\$15,000.00	\$15,000.00
6	Excavation for Outfall	20000	CY	\$2.00	\$40,000.00
7	Excavation for Channel	30000	CY	\$2.00	\$60,000.00
8	Dust Control	1	LS	\$1,000.00	\$1,000.00
9	Worker Protection	1	LS	\$2,000.00	\$2,000.00
10	Miscellaneous	1	LS	\$10,500.00	\$10,500.00
<b>Basin "BS" Subtotal</b>					<b>\$160,500.00</b>
<b>Basin "CI"</b>					
1	36" Reinforced Concrete Pipe, Class III	300	LF	80.00	\$24,000.00
2	Basin Finish Grading	1	LF	10000.00	\$10,000.00
3	Basin Hydroseed	3	AC	1000.00	\$3,000.00
4	Dust Control	1	LS	500.00	\$500.00
5	Worker Protection	1	LS	700.00	\$700.00
6	Miscellaneous	1	LS	4865.00	\$4,865.00
<b>Basin "CI" Subtotal</b>					<b>\$43,065.00</b>

Item No.	Bid Item Description	Estimated Quantity		Unit Price	Subtotal
<b>Basin "DE"</b>					
1	18" RCP, Class III	490	LF	\$60.00	\$29,400.00
2	Type "A" Case I Manhole	3	EA	\$3,500.00	\$10,500.00
3	48" Stand and 18" Valves	1	EA	\$10,000.00	\$10,000.00
4	Dust Control	1	LS	\$1,000.00	\$1,000.00
5	Worker Protection	1	LS	\$2,000.00	\$2,000.00
6	Miscellaneous	1	LS	\$7,600.00	\$7,600.00
<b>Basin "DE" Subtotal</b>					<b>\$60,500.00</b>
<b>Basin "DO"</b>					
1	24" RCP, Class III	40	LF	\$80.00	\$3,200.00
2	18" Plastic Pipe	160	LF	\$100.00	\$16,000.00
3	Temporary Outfall Structure	1	EA	\$2,500.00	\$2,500.00
4	48" Meter Stand and 18" Valve	1	LS	\$10,000.00	\$10,000.00
5	Canal Turnout	1	LS	\$10,000.00	\$10,000.00
6	Dust Control	1	LS	\$1,000.00	\$1,000.00
7	Worker Protection	1	LS	\$2,000.00	\$2,000.00
8	Miscellaneous	1	LS	\$10,800.00	\$10,800.00
<b>Basin "DO" Subtotal</b>					<b>\$55,500.00</b>
<b>Basin "PP"</b>					
1	18" RCP, Class III	950	LF	\$60.00	\$57,000.00
2	Type "A" Case I Manhole	2	EA	\$3,500.00	\$7,000.00
3	48" Meter Stand	1	EA	\$10,000.00	\$10,000.00
4	Canal Turnout	1	EA	\$15,000.00	\$15,000.00
5	Temporary Trench Resurfacing	200	EA	\$10.00	\$2,000.00
6	Permanent Trench Resurfacing	950	EA	\$50.00	\$47,500.00
7	Traffic Control	1	LS	\$5,000.00	\$5,000.00
8	Dust Control	1	LS	\$1,000.00	\$1,000.00
9	Worker Protection	1	LS	\$2,000.00	\$2,000.00
10	Miscellaneous	1	LS	\$14,000.00	\$14,000.00
<b>Basin "PP" Subtotal</b>					<b>\$160,500.00</b>
<b>Armstrong Basin</b>					
1	Pump Station Facilities	1	LS	\$500,000.00	\$500,000.00
2	PG&E Rule 16 Facilities and Fee	1	EA	\$50,000.00	\$50,000.00
3	Basin Finish Grading	1	EA	\$10,000.00	\$10,000.00
4	24" RCP, Class III	510	EA	\$100.00	\$51,000.00
5	Outfall Structure	1	EA	\$8,500.00	\$8,500.00
8	Dust Control	1	LS	\$1,500.00	\$1,500.00
9	Worker Protection	1	LS	\$2,000.00	\$2,000.00
10	Miscellaneous	1	LS	\$33,000.00	\$33,000.00
<b>Armstrong Basin Subtotal</b>					<b>\$656,000.00</b>

Item No.	Bid Item Description	Estimated Quantity		Unit Price	Subtotal
<b>Briggs Basin</b>					
1	Pump Station Facilities	1	LS	\$500,000.00	\$500,000.00
2	PG&E Rule 16 Facilities and Fee	1	LS	\$35,000.00	\$35,000.00
3	Basin Grading	1	LS	\$10,000.00	\$10,000.00
4	24" RCP, Class III	926	LF	\$70.00	\$64,820.00
5	Type "A" Case I Manhole	4	EA	\$3,500.00	\$14,000.00
6	Private Driveway Repaving	173	TN	\$100.00	\$17,300.00
7	Recharge Diversion Structure	1	EA	\$75,000.00	\$75,000.00
8	Magnetic Flow Meter	2	EA	\$25,000.00	\$50,000.00
9	Dust Control	1	LS	\$2,500.00	\$2,500.00
10	Worker Protection	1	LS	\$2,000.00	\$2,000.00
11	Miscellaneous	1	LS	\$46,380.00	\$46,380.00
<b>Briggs Basin Subtotal</b>					<b>\$817,000.00</b>
<b>Project Subtotal</b>					<b>\$3,162,825.00</b>
Contingency				15%	\$474,423.75
<b>PRELIMINARY COST ESTIMATE:</b>					<b>\$3,637,249</b>

**Attachment 5h**  
**East Orosi CSD Detailed Staffing Plan and Budget**

**ATTACHMENT 5h**  
**Estimated Staffing Plan and Cost Breakdown**

East Orsi Community Service District  
Water Conservation and Meter Project

	Project Manager	Senior Engineer	Assistant Engineer	Admin	KRCD Staff	Labor Comp.	Survey	Geotech	Electrical Engineer	Subtotal Labor	Other Direct Costs	Total Fee
<b>TASK CATEGORY / DESCRIPTION</b>	<b>\$180</b>	<b>\$140</b>	<b>\$110</b>	<b>\$90</b>	<b>\$100</b>	<b>\$75</b>	<b>\$150</b>	<b>\$100</b>	<b>\$100</b>			
<b>CATEGORY A: DIRECT PROJECT ADMINISTRATION</b>												
Task 1: Project Administration (See Note 1)	14		40	48						\$11,240	\$2,500	\$13,740
Task 2: Labor Compliance	6	6		24		80				\$10,080	\$0	\$10,080
Task 3: Reporting		8	4	4	80					\$9,920	\$0	\$9,920
<b>CATEGORY B: LAND PURCHASE / EASEMENT</b>												
Task 4: Land Acquisition										\$0	\$0	\$0
<b>CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL</b>												
Task 5: Assessment and Evaluation	4	24	72	24						\$14,160	\$0	\$14,160
Task 6: Final Design	4	16	40	8						\$8,080	\$0	\$8,080
Task 7: Environmental Documentation		1	2	1						\$450	\$0	\$450
Task 8: Permitting												
<b>CATEGORY D: CONSTRUCTION / IMPLEMENTATION</b>												
Task 9: Construction Contracting	8	9	12	12						\$5,100		\$5,100
Task 10: Construction (Includes 15% Contingency)	<i>(See Attachment 5i for Detailed Construction Cost Estimate)</i>									\$0	\$204,240	\$204,240
Task 11: Environmental Compliance										\$0		\$0
Task 12: Construction Administration	40	100	0	20						\$23,000		\$23,000
<b>Total units</b>	76	164	170	141								
<b>Total \$</b>	<b>\$13,680</b>	<b>\$22,960</b>	<b>\$18,700</b>	<b>\$12,690</b>						<b>\$82,030</b>		<b>\$288,770</b>

Notes:

1 The Other Direct Costs includes \$2,500 for grant application preparation costs.

**Attachment 5i**

**East Orosi CSD Engineer's Opinion of Probable Construction Costs**

**ATTACHMENT 5i  
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

**East Orosi Community Service District  
Water Conservation and Meter Project**

<b>Item No.</b>	<b>Bid Item Description</b>	<b>Estimated Quantity</b>		<b>Unit Price</b>	<b>Subtotal</b>
1	Purchase and install billing software	1	LS	\$4,900.00	\$4,900.00
2	Radio read meter reader and accessories	1	LS	\$12,800.00	\$12,800.00
3	ULFTs and Appurtenances (All Dwelling Units)	115	EA	\$190.00	\$21,850.00
4	ULFT Installation Labor	115	EA	\$240.00	\$27,600.00
5	Meters and fittings	115	EA	\$330.00	\$37,950.00
6	Meter Installation Labor (Replacement)	100	EA	\$200.00	\$20,000.00
7	Meter Installation Labor (New)	15	EA	\$500.00	\$7,500.00
8	New service line & box (right-of-way)	15	EA	\$2,000.00	\$30,000.00
9	New service line (private property)	15	EA	\$1,000.00	\$15,000.00
<b>Subtotal</b>					\$177,600
Contingency					15%
					\$26,640
<b>PRELIMINARY COST ESTIMATE:</b>					<b>\$204,240</b>

**Attachment 5j**  
**Water Meter Quotation**



EQUARIUS Waterworks  
 20655 S. Western Ave., #108  
 Torrance, CA 90501-1800

# Quote

Phone # 888.253.1191  
 Fax # 310.318.1843  
 Website www.equariusww.com

Date	5/19/2014
Quote #	15362
Valid Until	6/30/2015

Ship To Self-Help Enterprises  
 8445 W. Elowin Court  
 Visalia, CA 93290

559.802.1681

Salesperson

MCT

Payment Terms

Due On Shipment

Qty	Item #	Description	Unit Price	Total
		Manual Read		
0	ED2B22R8G2SA51	T-10 5/8" X 3/4" Meter: Standard: Brz Btm, Brz Top, Gal: Street Read	87.00	0.00T
0	ED2C22R8G2SA51	T-10 3/4" X 3/4" Meter: Standard: Brz Btm, Brz Top, Gal: Street Read	139.00	0.00T
0	ED2F22R8G2SA51	T-10 1" Meter: Standard: Brz Btm, Brz Top, Gal: Street Read	219.00	0.00T
		Radio Read		
0	ED2B22RWG1	T-10 5/8" X 3/4" Meter: E-Coder R900i Pit: Brz Btm, Gal	217.00	0.00T
0	ED2C22RWG1	T-10 3/4" X 3/4" Meter: E-Coder R900i Pit: Brz Btm, Gal	269.00	0.00T
0	ED2F22RWG1	T-10 1" Meter: E-Coder R900i Pit: Brz Btm, Gal	349.00	0.00T
0	13193-001	Trimble Nomad 900B (Bluetooth)	2,500.00	0.00T
0	13245-001	Trimble Nomad Charging & Communications Cradle	450.00	0.00T
0	13253-000	R900 Belt Clip Receiver	2,200.00	0.00T
0	13120-000	MRX920 Mobile Data Collector	6,660.00	0.00T
0	13275-100	Software: ARB N SIGHT Mobile Cat 1	4,550.00	0.00T
0	Maint. Mobile Software	Maintenance ARB N_Sight Mobile Software (Annual)	1,000.00	0.00
		Applicable Sales Tax	8.25%	0.00

Does not include sales tax.

Does not include freight.

**Total** \$0.00

**Attachment 5k**  
**Sultana CSD Detailed Staffing Plan and Budget**

**ATTACHMENT 5k**  
**Estimated Staffing Plan and Cost Breakdown**

Sultana Community Service District  
Water Conservation and Meter Project

	Project Manager	Senior Engineer	Assistant Engineer	Admin	KRCD Staff	Labor Comp.	Survey	Geotech	Electrical Engineer	Subtotal Labor	Other Direct Costs	Total Fee
<b>TASK CATEGORY / DESCRIPTION</b>	<b>\$180</b>	<b>\$140</b>	<b>\$110</b>	<b>\$90</b>	<b>\$100</b>	<b>\$75</b>	<b>\$150</b>	<b>\$100</b>	<b>\$100</b>			
<b>CATEGORY A: DIRECT PROJECT ADMINISTRATION</b>												
Task 1: Project Administration (See Note 1)	12		40	48						\$10,880	\$2,500	\$13,380
Task 2: Labor Compliance		16		8		100				\$10,460	\$0	\$10,460
Task 3: Reporting		8	4	4	80					\$9,920	\$0	\$9,920
<b>CATEGORY B: LAND PURCHASE / EASEMENT</b>												
Task 4: Land Acquisition										\$0	\$0	\$0
<b>CATEGORY C: PLANNING/DESIGN/ENGINEERING/ENVIRONMENTAL</b>												
Task 5: Assessment and Evaluation	8	25	40	20						\$11,140	\$0	\$11,140
Task 6: Final Design	4	16	25	8						\$6,430	\$0	\$6,430
Task 7: Environmental Documentation		2		2						\$460	\$0	\$460
Task 8: Permitting												
<b>CATEGORY D: CONSTRUCTION / IMPLEMENTATION</b>												
Task 9: Construction Contracting	8	9	12	12						\$5,100	\$0	\$5,100
Task 10: Construction (Includes 15% Contingency)	<i>(See Attachment 5k for Detailed Construction Cost Estimate)</i>									\$0	\$434,424	\$434,424
Task 11: Environmental Compliance										\$0	\$0	\$0
Task 12: Construction Administration (See Note 1)	24	48	132	40						\$29,160	\$0	\$29,160
<b>Total units</b>	<b>56</b>	<b>124</b>	<b>253</b>	<b>142</b>								
<b>Total \$</b>	<b>\$10,080</b>	<b>\$17,360</b>	<b>\$27,830</b>	<b>\$12,780</b>						<b>\$83,550</b>		<b>\$520,474</b>

Notes:

1 Assumes 40 weeks of construction observation at 20 hours per week

**Attachment 51**

**Sultana CSD Engineer's Opinion of Probable Construction Costs**

**ATTACHMENT 5I  
ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

**Sultana Community Service District  
Water Conservation and Meter Project**

<b>Item No.</b>	<b>Bid Item Description</b>	<b>Estimated Quantity</b>		<b>Unit Price</b>	<b>Subtotal</b>	
1	Purchase and install billing software	1	LS	\$4,900.00	\$4,900.00	
2	Radio read meter reader and accessories	1	LS	\$12,800.00	\$12,800.00	
3	ULFTs and Appurtenances (All Dwelling Units)	242	EA	\$190.00	\$45,980.00	
4	ULFT Installation Labor	242	EA	\$240.00	\$58,080.00	
5	Meters and fittings	200	EA	\$330.00	\$66,000.00	
6	Meter Installation Labor (Replacement)	150	EA	\$200.00	\$30,000.00	
7	Meter Installation Labor (New)	50	EA	\$400.00	\$20,000.00	
8	New service line & box (right-of-way)	50	EA	\$1,800.00	\$90,000.00	
9	New service line (private property)	50	EA	\$1,000.00	\$50,000.00	
<b>Subtotal</b>					\$377,760	
Contingency					15%	\$56,664
<b>PRELIMINARY COST ESTIMATE:</b>					<b>\$434,424</b>	