Attachment–4 - Budget

Table 7: City of Firebaugh - Well Replacement Project - Budget

	Budget Category	(a) Non-State Share (Funding Match)	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) % Funding Match
(a)	Direct Project Administration Costs	$0	$15,000	$0	$15,000	**0%**
(b)	Land Purchase/Easement	$140,000	$0	$0	$140,000	**0%**
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$170,000	$0	$170,000	**0%**
(d)	Construction/Implementation	$0	$400,000	$0	$400,000	**0%**
(e)	Construction Administration	$0	$40,000	$0	$40,000	**0%**
(f)	Other Costs	$0	$0	$0	$0	**0%**
(g)	Construction/Implementation Contingency	$0	$40,000	$0	$40,000	**0%**
(h)	**Grand Total (Sum rows (a) through (g) for each column)**	**$140,000**	**$665,000**	**$0**	**$805,000**	**17%**

Additional Information

(b) Land Purchase/ Easement- The proposed project site is already owned in fee simple by the City. No other acquisition easements will be necessary. The estimated land value is $140,000, which the City is demonstrating as “funding match”.

City of San Joaquin Water Meter Installation Project

		(a)	(b)	(c)	(d)	(e)
Budget Category		**Non-State Share (Funding Match)**	**Requested Grant Funding**	**Other State Funds Being Used**	**Total**	**% Funding Match**
(a)	Direct Project Administration Costs	$0	$9,000	$0	$9,000	**0%**
(b)	Land Purchase/Easement	$0	$0	$0	$0	**0%**
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$60,000	$0	$60,000	**0%**
(d)	Construction/Implementation	$0	$812,000	$0	$812,000	**0%**
(e)	Environmental Compliance/Mitigation/Enhancement	$0	$0	$0	$0	**0%**
(f)	Construction Administration	$0	$25,400	$0	$25,400	**0%**
(g)	Other Costs	$0	$5,000	$0	$5,000	**0%**
(h)	Construction/Implementation Contingency	$0	$81,200	$0	$81,200	**0%**
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$0.00**	**$992,600**	**$0**	**$992,600**	**0%**

City of San Joaquin – Budget Detail

Row (a) Project Administration Costs – Includes cost to submit project reports and invoices for funding to DWR,

Program Manager	24 hrs @ $120	=	$2,880
Accountant	24 hrs @ $90	=	2,160
Public Works Dir.	40 hrs @ $80	=	3,200
Clerical	16 hrs @ $45	=	720
Supplies and Equipment		=	40
	Sub-total	=	$9,000

Row (c) Environmental Documentation – Preparation of Initial Study, Negative Declaration and NEPA documentation, Publication Fees and Preparation of Staff Reports for City Council

Program Manager	4 hrs @ $120	=	$480
Planning Technician	7 hrs @ $90	=	630
Clerical	4 hrs @ $45	=	90
Supplies and Equipment		=	90
	Sub-total	=	$1,290

10% Conceptual Design – Prepare standards for water meters, fittings, meter boxes, Automatic Reading equipment and software.

Principal Engineer	8 hrs @ $120	=	$960
Civil Engineer	12 hrs @ $90	=	1,800
Assistant Engineer	24 hrs @ $80	=	1,920
Drafter	10 hrs @ $65	=	650
Clerical	2 hrs @ $45	=	90
Supplies and Equipment		=	10
	Sub-total	=	$4,710

30% Concept Design – Inventory of existing water services, meters (if any). Prepare listing by address of all residences to receive meters. Prepare outline specifications and preliminary engineer's estimate.

Principal Engineer	14 hrs @ $120	=	$1,680
Civil Engineer	26 hrs @ $90	=	2,340
Assistant Engineer	48 hrs @ $80	=	3,840
Drafter	60 hrs @ $65	=	3,900
Clerical	4 hrs @ $45	=	180
Supplies and Equipment		=	60
	Sub-total	=	$12,000

60% Design – Complete listing of residences to receive meters. Determine size required for each use. Create map of lots included within the project and determine locations for remote transmitters. Confirm compatibility of Automatic Reading equipment and software with current City billing system. Prepare technical specifications for meters, boxes, curb stops and fittings for connection to existing piping.

Principal Engineer	32 hrs @ $120	=	$3,840
Civil Engineer	46 hrs @ $90	=	4,140
Assistant Engineer	68 hrs @ $80	=	5,440
Drafter	64 hrs @ $65	=	4,160
Clerical	8 hrs @ $45	=	360
Supplies and Equipment		=	60
	Sub-total	=	$18,000

90% Design – Complete plans and specifications. Prepare final engineer's estimate.

Principal Engineer	24 hrs @ $120	=	$2,880
Civil Engineer	56 hrs @ $90	=	5,040
Assistant Engineer	70 hrs @ $80	=	5,600
Drafter	62 hrs @ $65	=	4,030
Clerical	6 hrs @ $45	=	270
Supplies and Equipment		=	180
	Sub-total	=	$18,000

100% Design – Final plans and specifications for advertisement and bids. Obtain bids, tabulate bid results and make recommendation for award of bid.

Principal Engineer	12 hrs @ $120	=	$1,440
Civil Engineer	20 hrs @ $90	=	1,800
Assistant Engineer	24 hrs @ $80	=	1,920
Drafter	8 hrs @ $65	=	520
Clerical	4 hrs @ $45	=	180
Supplies and Equipment		=	140
	Sub-total	=	$6,000

Row (d) Construction

1" Water Meters	640	ea @	$400	=	$256,000
Installation Labor	640	ea @	$650	=	416,000
Automatic Reading System		Lump Sum		=	140,000
			Total Construction	=	$812,000

Row (f) Construction Management

Administer the contract, process progress payments, review requests for information and change orders, and perform labor compliance duties. Prepare final project close-out documentation. Provide inspection for compliance with plans and specifications.

Principal Engineer	20 hrs @ $120	=	$2,400
Civil Engineer	34 hrs @ $90	=	3,060
Assistant Engineer	36 hrs @ $80	=	2,880
Inspector	200 hrs @ $65	=	15,000
Clerical	24 hrs @ $45	=	1,080
Supplies and Equipment		=	980
	Sub-total	=	$25,400

Row (g) Other costs – Legal services estimated at $5,000.

Row (h) Construction Contingency

Costs for unforeseen circumstances during construction due to underground conditions that will not be known until excavation. Contingency is estimated at 10% of construction cost based on experience with other utility projects.

City of Tracy Recycled Water Phase I and Phase II

Table 7 – Project Budget Phase I

Project Title: CITY OF TRACY RECYCLED WATER PROJECT

	Budget Category	(a) Non-State Share* (Funding Match)	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) % Funding Match
(a)	Direct Project Administration Costs	$0	$79,886	$0	$79,886	**0%**
(b)	Land Purchase/Easement	$0	$90,000	$0	$90,000	**0%**
(c)	Planning/Design/Engineering/ Environmental Documentation	$300,000	$188,624	$0	$488,624	**61%**
(d)	Construction/Implementation	$0	$1,072,000	$0	$1,072,000	**0%**
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$0	$0	$0	**0%**
(f)	Construction Administration	$0	$86,296	$0	$86,296	**0%**
(g)	Other Costs	$925,000	$0	$0	$925,000	**100%**
(h)	Construction/Implementation Contingency	$0	$160,800	$0	$160,800	**0%**
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$1,225,000**	**$1,677,606**	**$0**	**$2,902,606**	**42%**

Project Title: CITY OF TRACY RECYCLED WATER PROJECT						
		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share* (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$0	$654,907	$0	$654,907	**0%**
(b)	Land Purchase/Easement	$0	$90,000	$0	$90,000	**0%**
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$902,827	$0	$902,827	**0%**
(d)	Construction/Implementation	$0	$9,813,333	$0	$9,813,333	**0%**
(e)	Environmental Compliance/ Mitigation/Enhancement	$0	$0	$0	$0	**0%**
(f)	Construction Administration	$0	$789,973	$0	$789,973	**0%**
(g)	Other Costs	$61,577,129	$0	$0	$61,577,129	**100%**
(h)	Construction/Implementation Contingency	$0	$1,472,000	$0	$1,472,000	**0%**
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$61,577,129**	**$13,723,040**	**$0**	**$75,300,169**	**82%**

***List sources of funding:** *Use as much space as required.*

WSID and DPWD Water Supply Enhancement Project

Table 7A – PROJECT BUDGET
Westside-San Joaquin Implementation Grant Application
West Stanislaus Irrigation District & Del Puerto Water District
Water Supply Enhancement Project
Phase I – Element I – Pump Station 5a and Main Canal-Delta Mendota Canal Intertie Pipeline

	Budget Category	(a) Non-State Share (Funding Match)	(b) Requested Grant Funding	(c) Other State Funds Being Used	(d) Total	(e) % Funding Match
(a)	Direct Project Administration Costs	$38,000	$114,000	-	$152,000	25%
(b)	Land Purchase/Easement	$6,663	$19,990	-	$26,653	25%
(c)	Planning/Design/Engineering/ Environmental Documentation[1]	$199,266	$164,984	-	$364,250	55%
(d)	Construction/Implementation	$1,635,820	%5,448,477	-	$7,084,297	23%
(e)	Environmental Compliance/ Mitigation/Enhancement[2]	-	-	-	-	-
(f)	Construction Administration	$174,402	$523,207	-	$697,609	25%
(g)	Other Costs	$37,125	$111,375	-	$148,500	25%
(h)	Construction/Implementation Contingency	$348,805	$1,046,414	-	$1,395,219	25%
(i)	**Grand Total**	**$2,440,081**	**$7,428,447**	**$0**	**$9,868,528**	25%

1.The Planning/Design/Engineering/Environmental Documentation budget includes costs already expended by WSID. A detailed engineering services budget in the amount of $350,000 is attached. Invoices totaling $10,750 for Geotechnical Investigation services incurred are also attached. A Negative Declaration has been prepared, as the environmental documentation for this project in accordance with CEQA, at a cost of $3,500. Supporting cost documentation for the environmental documentation services were part of multiple legal services provided for WSID concurrently and itemized invoicing showing those costs separately are not available.

2. No environmental mitigation measures or enhancements were required as part of the findings of the CEQA Initial Study/Negative Declaration

Table 7B – PROJECT BUDGET
Westside-San Joaquin Implementation Grant Application
West Stanislaus Irrigation District & Del Puerto Water District
Water Supply Enhancement Project
Phase I – Element II – Fish Screen Intake Final Design, Environmental Compliance and Permitting

		(a)	(b)	(c)	(d)	(e)
Budget Category		Non-State Share (Funding Match)	Requested Grant Funding	Other State Funds Being Used	Total	% Funding Match
(a)	Direct Project Administration Costs	$10,000	$30,000	-	$40,000	**25%**
(b)	Land Purchase/Easement	-	-	-	-	-
(c)	Planning/Design/Engineering/ Environmental Documentation	$550,000	$1,650,000	-	$2,200,000	**25%**
(d)	Construction/Implementation	-	-	-	-	-
(e)	Environmental Compliance/ Mitigation/Enhancement	-	-	-	-	-
(f)	Construction Administration	-	-	-	-	-
(g)	Other Costs	-	-	-	-	-
(h)	Construction/Implementation Contingency	-	-	-	-	-
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	**$560,000**	**$1,680,000**	**-**	**$2,240,000**	**25%**

Detailed Engineering Services Budget per Table 7A

Project Budget
Engineering Services

Main Canal-Delta Mendota Canal Intertie Project — **West Stanislaus Irrigation District**

Task Description	Personnel Hours										Budget		
	Principal Eng.	Senior Eng.	Assoc. Eng	Eng. Tech.II	Eng. Tech.I	CADD Supervisor	CADD Operator	Clerical	PW Inspector	Total Hours	Labor	Non-Labor Fee	Total
Task Group 100-Project Initiation													
Preparation of Workplan and Schedule	4		16	8	1					29	$ 3,130		$ 3,130
Site Visit	8		12		2			2		24	$ 2,944		$ 2,944
Kickoff Meeting	4	4	8	2						18	$ 2,300		$ 2,300
Subtotal	**16**	**4**	**36**	**10**	**3**	**-**	**-**	**2**	**-**	**71**	**$ 8,374**	**$ -**	**$ 8,374**
Task Group 200-Develop Design Concept													
Review Site Conditions and Features	4	4	8							16	$ 2,120		$ 2,120
Research and Collect Relevent Data	8		16	4						28	$ 3,440		$ 3,440
Locate Existing Utilities and Water Conveyance Features	2		12			4				18	$ 1,950		$ 1,950
Import and Adjust Topographic Mapping	1		4			16				21	$ 2,105		$ 2,105
Analyze System Hydraulics	60	24	40							124	$ 18,580		$ 18,580
Develop Project Design Concepts	12		40							52	$ 6,220		$ 6,220
Coordinate with ITRC and WAVE Eng.	12		4							16	$ 2,620		$ 2,620
Prepare Estimate of Project Cost	4		16							20	$ 2,340		$ 2,340
Prepare Letter Report-Summarize Design Bases and Project Concept	16		24	8		16				64	$ 7,600		$ 7,600
Meet with Client and ITRC to Discuss Design Concept and Assumptions	4		4							8	$ 1,140		$ 1,140
Incorporate Applicable Design Considerations from Comments	2		4			4				10	$ 1,150		$ 1,150
QA/QC Review	4	16	4							24	$ 3,460		$ 3,460
										-	$ -		$ -
Subtotal	**129**	**44**	**176**	**12**	**-**	**40**	**-**	**-**	**-**	**401**	**$ 52,725**	**$ -**	**$ 52,725**
Task Group 300-Develop PS&Es and Contract Documents													
Preparation of 30% Plans	69	-	104	28	-	277	-	-	-	478	$ 52,007		$ 52,007
Preparations of 30% Technical Specifications	35	-	28	28	-	-	-	-	-	90	$ 11,669		$ 11,669
QA/AC	7	28	14	-	-	-	-	-	-	48	$ 6,683		$ 6,683
Client Review	28	-	28	-	-	-	-	-	-	55	$ 7,895		$ 7,895
Preparation of 90% Plans	139	21	277	7	-	554	-	-	-	997	$ 109,588		$ 109,588
Preparations of 90% Technical Specifications	55	-	83	42	-	-	-	-	-	180	$ 22,299		$ 22,299
Preparation of Contract Documents	28	-	55	55	-	-	-	-	-	139	$ 15,651		$ 15,651
Prepare Engineers Cost Estimate	28	-	55	-	-	-	-	-	-	83	$ 10,665		$ 10,665
Client Review	28	-	28	-	-	-	-	-	-	55	$ 7,895		$ 7,895
QA/QC	7	55	14	-	-	-	-	-	-	76	$ 10,699		$ 10,699
Finilize Documents	28	-	42	28	-	55	-	-	-	152	$ 17,036		$ 17,036
Subtotal	**450**	**104**	**727**	**187**	**-**	**886**	**-**	**-**	**-**	**2,355**	**$ 272,087**	**$ -**	**$ 272,087**
Task Group 400-Project Management/Administration													
General Project Management	7	-	21	7	7	-	-	-	-	42	$ 4,467		$ 4,467
Progress Meetings and Reports	21	-	42	-	7	-	-	3	-	73	$ 8,698		$ 8,698
Project Close Out	3	3	7	14	3	3	-	-	-	35	$ 3,653		$ 3,653
	-	-	-	-	-	-	-	-	-	-	$ -		$ -
	-	-	-	-	-	-	-	-	-	-	$ -		$ -
Subtotal	**31**	**3**	**69**	**21**	**17**	**3**	**-**	**3**	**-**	**149**	**$ 16,818**	**$ -**	**$ 16,818**
Total	**626**	**155**	**1,008**	**230**	**20**	**930**	**-**	**5**	**-**	**2,975**	**$ 350,004**	**$ -**	**$ 350,004**

Personnel Category	$/HR
Principal Eng.	$185.00
Senior Eng.	$145.00
Assoc. Eng.	$100.00
Eng. Tech.II	$90.00
Eng. Tech.I	$70.00
CADD Supervisor	$95.00
CADD Operator	$77.00
Clerical	$62.00
PW Inspector	$85.00

Moore Twining Associates, Inc.
P.O. Box 1472
Fresno, CA 93716
(800) 268-7021

Invoice

May 31, 2010
Project No: E57001.0100
Invoice No: 0034920

Mr. Robert Pierce
West Stanislaus Irrigation District
116 E. Street
Westley, CA 95387

Project: WSID Main Canal Intertie to DMC
Geotechnical Engineering Investigation
SW of Main Canal and West Stanislaus Road
Westley, CA

This invoice is for services outlined in MTP No. 4710-0334 as authorized by Mr. Robert Pierce via signed Professional Services Agreement dated April 20, 2010.

Professional services from May 1, 2010 to May 31, 2010

Obtain Drilling Permit	$250.00
Drilling Test Borings	$1,850.00
Field Engineer	$1,200.00
Total this invoice	**$3,300.00**

BP 6/15/10
552010-04
Station #7 design
ck # 609

Original Est. Fee:	$5,200.00
Billed to Date:	$ 0.00
This Invoice:	$3,300.00
Total Billed:	$3,300.00

Please call within 5 days if there are any discrepancies with this invoice. Fees are due and payable upon receipt of invoice. A service charge in the amount of 1.5% (18% per annum) will be charged on accounts 30 days past the invoice date.

Moore Twining Associates, Inc.
P.O. Box 1472
Fresno, CA 93716
(800) 268-7021

Invoice

June 30, 2010
Project No: E57001.0100
Invoice No: 0035116

Mr. Robert Pierce
West Stanislaus Irrigation District
116 E. Street
Westley, CA 95387

Project: WSID Main Canal Intertie to DMC
Geotechnical Engineering Investigation
SW of Main Canal and West Stanislaus Road
Westley, CA

This invoice is for services outlined in MTP No. 4710-0334 as authorized by Mr. Robert Pierce via signed Professional Services Agreement dated April 20, 2010.

Professional services from June 1, 2010 to June 30, 2010

Laboratory Testing	$750.00
Report Preparation	$1,150.00

Total this invoice $1,900.00

BP 7/16/10
SS2010-04

received 7/16/2010 dm

Original Est Fee:	$5,200.00
Billed to Date:	$3,300.00
This Invoice:	$1,900.00
Total Billed:	$5,200.00

Please call within 5 days if there are any discrepancies with this invoice. Fees are due and payable upon receipt of invoice. A service charge in the amount of 1.5% (18% per annum) will be charged on accounts 30 days past the invoice date.

Moore Twining Associates, Inc.
P.O. Box 1472
Fresno, CA 93716
(800) 268-7021

Invoice

October 31, 2010
Project No: E57001.0200
Invoice No: 0035980

Mr. Bobby Pierce
West Stanislaus Irrigation District
116 E. Street
Westley, CA 95387

#SS 2010-03

Project: Main Canal Intertie Extension & New Pump Station 5A
Geotechnical Engineering Investigation
Northeast of Main Canale at West Stanislaus Road
Westley, CA

This invoice is for services outlined in MTP No. 4710-0739 as authorized by Ms. Diana Markham via signed Purchase Order No. 5136 dated September 16, 2010.

Professional services from October 1, 2010 to October 31, 2010

Marking Soil Borings & Permitting	$444.00
Field Engineer	$804.00
Drilling Soil Borings	$2,330.00
Laboratory Testing	$1,045.00

Total this invoice **$4,623.00**

12/16/10
Diana Markham

Original Est Fee:	$5,550.00
Billed to Date:	$ 0.00
This Invoice:	$4,623.00
Total Billed:	$4,623.00

Please call within 5 days if there are any discrepancies with this invoice. Fees are due and payable upon receipt of invoice. A service charge in the amount of 1.5% (18% per annum) will be charged on accounts 30 days past the invoice date.

Moore Twining Associates, Inc.
P.O. Box 1472
Fresno, CA 93716
(800) 268-7021

Invoice

November 30, 2010
Project No: E57001.0200
Invoice No: 0036064

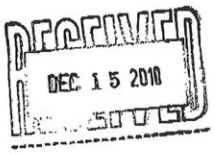
Mr. Bobby Pierce
West Stanislaus Irrigation District
116 E. Street
Westley, CA 95387

Project: Main Canal Intertie Extension & New Pump Station 5A
Geotechnical Engineering Investigation
Northeast of Main Canale at West Stanislaus Road
Westley, CA

This invoice is for services outlined in MTP No. 4710-0739 as authorized by Ms. Diana Markham via signed Purchase Order No. 5136 dated September 16, 2010.

Professional services from November 1, 2010 to November 30, 2010

Report Preparation	$927.00
Total this invoice	**$927.00**



12/16/10

Original Est Fee:	$5,550.00
Billed to Date:	$4,623.00
This Invoice:	$ 927.00
Total Billed:	$5,550.00

Please call within 5 days if there are any discrepancies with this invoice. Fees are due and payable upon receipt of invoice. A service charge in the amount of 1.5% (18% per annum) will be charged on accounts 30 days past the invoice date.

PROJECT CONSTRUCTION COST ESTIMATES

West Stanislaus Irrigation District & Del Puerto Water District

Water Supply Enhancement Project

Phase I-Element I-Pump Station 5a and Main Canal-Delta Mendota Canal Intertie Pipeline

Construction/Implementation Cost

Element	Quantity	Units	Cost per Unit	Cost
Mobilization/Demobilization	1	ea	$50,000	$50,000
Erosion Control/SWPPP	1	ea	$10,000	$10,000
Demolition (Existing Channel)	128	ton	$7.0	$896
Earthwork				
South Slope Setback/ Access Roads Excav	2,525	cuft	$1.80	$4,545
Channel/Building Pads Fill	15,750	cuft	$0.90	$14,175
Northern Slope Setback Excav	2,500	cuft	$1.80	$4,500
Bypass Pipeline				
Inlet Structure	11	cuyd	$1,450	$15,950
Outlet Structure	14	cuyd	$1,450	$20,300
72" RCP Pipe	280	lf	$350	$98,000
Pump Station Structure	390	cuyd	$1,457	$568,200
Valving & Manifolding	1	ea	$900,000	$900,000
Pumps				
80 cfs VFD Pumps	2	ea	$304,000	$608,000
45 cfs VFD Pumps	1	ea	$130,000	$130,000
45 cfs CSD Pumps	1	ea	$104,000	$104,000
Transient Control				
12'x7' Pressure Tank	1	ea	$75,000	$75,000
Concrete Foundation Pad	4	cuyd	$418	$1,672
24" Piping & Gate Valve	25	lf	$100	$2,500
Electrical Control Building				
12'x24' Concrete Foundation Pad	14	cuyd	$1,009	$14,132
Structure	1	ea	$183,868	$183,868
Electrical Controls	1	ea	$702,000	$702,000
Demolition (Existing Structures)				
USBR Tie In	72	ton	$7	$504
Box at Lateral 6	29	ton	$7	$203
72" Steel Pipe	117	feet	$750	$87,750
96" Concrete Pipe	5,081	feet	$610	$3,099,410
Turnout 5				
Excavation and Demolition	576	cuyd	$1.80	$1,037
96"x96"x24" Concrete to Steel Tee	1	ea	$8,800	$8,800
24" Steel Pipe	25	lf	$219	$5,475
Butterfly Valve	1	ea	$5,850	$5,850
Outlet Structure/Headwall	5	cuyd	$1,378	$6,890
Turnout 6				
Excavation and Demolition	576	cuft	$1.80	$1,037
96"x96"x24" Concrete to Steel Tee	1	ea	$8,800	$8,800
24" Steel Pipe	25	lf	$219	$5,475
Butterfly Valve	1	ea	$5,850	$5,850
Outlet Structure/Headwall	5	cuyd	$1,378	$6,890
DMC Tie-in				
Box	31	cuyd	$1,043	$32,326
Repair to USBR Box Culvert	2	cuyd	$275	$550
Lateral 6 Crossing				
Demolition	9	ton	$7	$63
Replacement of Concrete Lining	5	cuyd	$364	$1,820
Lateral 5 Crossing				
Demolition	9	ton	$7	$63
Replacement of Concrete Lining	5	cuyd	$364	$1,820
West Stanislaus Road				
Demolition and Removal of Old Pavement	1,742	ton	$7	$12,194
Earthwork Regrading of Road at Lateral 5	294	cuyd	$1.25	$368
Subtotal				$6,976,094
Engineering, Design, Environmental Documentation	1	ea	$364,250	$364,250
Environmental Compliance[1]	-	ea	-	-
Easement	2.22	ac	$12,000	$26,653
Construction Mgmt and Admin[2]	10%	of	$6,976,094	$697,609
Direct Administration	1520	Man-Hr	$100	$152,000
Other Costs	660	Man-Hr	$225	$148,500
Construction/Implementation Contingency[3]	20%	of	$6,976,094	$1,395,219
TOTAL PROJECT COST				**$9,760,325**

1. No environmental mitigation measures or enhancements were required as part of the CEQA Initial Study/Negative Declaration
2. Construction management and administration cost estimated based on experience as a percentage of the construction cost of the project
3. Contingency is based on professional experience with consideration given to the variability of labor and materials cost in current competitive markets, precision in preliminary estimates provided by suppliers and contractors, and cost for minor components not yet accurately established.

PROJECT OPERATIONS & MAINTENANCE COST ESTIMATES

West Stanislaus Irrigation District & Del Puerto Water District

Water Supply Enhancement Project

Phase I-Element I-Pump Station 5a and Main Canal-Delta Mendota Canal Intertie Pipeline

Replacement

Element	Quantity	Units	Cost per Unit	Cost
Pump Replacement Cost @ 20 yr interval	4	pumps	$210,500	$842,000
Butterfly Valving Replacement @ 10 yr interval	7	ea	$13,389	$93,722
Check Valving Replacement @ 10 yr interval	4	ea	$10,500	$42,000
Air Relief Valve Replacement @ 10 yr	6	ea	$5,500	$33,000
Electro-Mechanical Control Systems @ 15 yr	1	ea	$250,000	$250,000
Metering @ 10 yr	1	ea	$25,000	$25,000
ANNUALIZED REPLACEMENT COST				**$78,139**

Annual Operations

Element	Quantity	Units	Cost per Unit	Cost
Annual Electrical Cost[1,2,3]	13,910	MW-hr	$100.00	$1,390,962
Annual Labor	521	Man-hours	$52	$27,114
TOTAL OPERATION COST				**$1,418,076**

Annual Maintenance

Element	Quantity	Units	Cost per Unit	Cost
Annual Labor	260	Man-hours	$52	$13,520
Other Annual O&M Related Costs	0.30%	of	$6,976,094	$20,928
TOTAL MAINTENANCE COST				**$34,448**

Administration

Element	Quantity	Units	Cost per Unit	Cost
Annual Labor	104	Man-hours	$35	$3,640
TOTAL ADMINISTRATION COST				**$3,640**

TOTAL ANNUAL O&M COST **$1,534,303**

1. The annual electrical costs are estimated based on the unit cost of power multiplied by energy demand and the annual period of demand.
2. The energy demand is calculated as 1.3405γQH/550, where H is approximately 73 feet, Q is 250 cfs, and the long term efficiency is assumed to be about 80% on average during the life of the facility.
3. The annual period of demand estimates the equivalent period over which the pump station might operate at full capacity to meet the annual demand up stream of the facility. The value is calculated by dividing the annual demand by the flow rate.

AVOIDED PROJECT CONSTRUCTION COST ESTIMATES[1]
West Stanislaus Irrigation District & Del Puerto Water District
Water Supply Enhancement Project
Pump Stations and Reaches 5 and 6 Upgrades

Construction/Implementation Cost

Element	Quantity	Units	Cost per Unit	Cost
STATION 5				
Mobilization/Demobilization	1	ea	$50,000	$50,000
Erosion Control/SWPPP	1	ea	$10,000	$10,000
Demolition Existing Building	1	ea	$20,000	$20,000
Pump Station Structure	200	cuyd	$1,457	$291,386
Valving & Manifolding	1	ea	$175,000	$175,000
Pumps				
33 cfs VFD Pumps	2	ea	$47,700	$95,400
33 cfs CSD Pumps	2	ea	$38,160	$76,320
Electrical Control Building				
12'x18' Concrete Foundation Pad	10	cuyd	$1,010	$10,102
Structure	1	ea	$28,398	$28,398
Electrical Controls	1	ea	$136,500	$136,500
STATION 6				
Mobilization/Demobilization	1	ea	$50,000	$50,000
Erosion Control/SWPPP	1	ea	$10,000	$10,000
Demolition Existing Building	1	ea	$20,000	$20,000
Pump Station Structure	125	cuyd	$1,457	$182,117
Valving & Manifolding	1	ea	$175,000	$175,000
Pumps				
33 cfs VFD Pumps	2	ea	$47,700	$95,400
Electrical Control Building				
12'x12' Concrete Foundation Pad	7	cuyd	$1,011	$7,075
Structure	1	ea	$31,425	$31,425
Electrical Controls	1	ea	$136,500	$136,500
Subtotal				$1,600,623
Engineering, Design, Environmental Documentation	1	ea	$364,250	$364,250
Environmental Compliance[2]	-	ea	-	$0
Easement	-	ac	$12,000	$0
Construction Mgmt and Admin[3]	10%	of	$1,600,623	$160,062
Direct Administration	1000	Man-Hr	$100	$100,000
Other Costs	360	Man-Hr	$225	$81,000
Construction/Implementation Contingency[4]	20%	of	$1,600,623	$320,125
TOTAL PROJECT COST				**$2,626,060**

1. Avoided construction and implementation cost estimates represent those costs that may be avoided for replacement of existing Pump Stations 5 and 6, including removal of old facilities, and replacement with new pump stations, pumps, electrical controls and discharge piping.
2. No environmental mitigation measures or enhancements were required as part of the findings of the CEQA Initial Study/Negative Declaration
3. Construction management and administration cost estimated based on experience as a percentage of the construction cost of the project
4. Contingency is based on professional experience with consideration given to the variability of labor and materials cost in current competitive markets, precision in preliminary estimates provided by suppliers and contractors, and cost for minor components not yet accurately established.

AVOIDED PROJECT OPERATIONS & MAINTENANCE COST ESTIMATES
West Stanislaus Irrigation District & Del Puerto Water District
Water Supply Enhancement Project
Pump Stations and Reaches 5 and 6 Operation and Maintenance

Replacement

Element	Quantity	Units	Cost per Unit	Cost
Pump Replacement Cost @ 20 yr interval	6	pumps	$44,520	$267,120
Butterfly Valving Replacement @ 10 yr interval	6	ea	$9,474	$56,842
Check Valving Replacement @ 10 yr interval	6	ea	$5,500	$33,000
Air Relief Valve Replacement @ 10 yr	6	ea	$5,500	$33,000
Electro-Mechanical Control Systems @ 15 yr	2	ea	$250,000	$500,000
Metering @ 10 yr	2	ea	$25,000	$50,000
Other Ancillary Component				
ANNUALIZED REPLACEMENT COST				**$63,974**

Annual Operations

Element	Quantity	Units	Cost per Unit	Cost
STATION 5				
Annual Electrical Cost[2,3,4]	1,189	MW-hr	$100.00	$118,900
Annual Labor	520	Man-hours	$52	$27,040
STATION 6				
Annual Electrical Cost[2,3,4]	547	MW-hr	$100.00	$54,700
Annual Labor	520	Man-hours	$52	$27,040
TOTAL OPERATION COST				**$227,680**

Annual Maintenance

Element	Quantity	Units	Cost per Unit	Cost
Annual Labor	520	Man-hours	$52	$27,040
Other Annual O&M Related Costs	0.30%	of	$1,600,623	$4,802
TOTAL MAINTENANCE COST				**$31,842**

Administration

Element	Quantity	Units	Cost per Unit	Cost
Annual Labor	156	Man-hours	$35	$5,460
TOTAL ADMINISTRATION COST				**$5,460**

TOTAL ANNUAL O&M COST **$328,955**

1. The avoided operations, maintenance and replacement cost estimates represent those costs that may be avoided for the long term operations of Pump Stations 5 and 6 to supply water to meet existing WSID demands along those reaches of the Main Canal and associated This does not Laterals 5 and 6 only. This avoided cost does not include any cost for any conveyance/deliveries to the Delta Mendota Canal (DMC).
2. The annual electrical costs are estimated based on the unit cost of power multiplied by energy demand and the annual period of demand.
3. The energy demand is calculated as 1.3405γQH/550, where H is approximately 20 feet, Q is 120 and 60 cfs respectively, and the long term efficiency is assumed to be about 80% on average during the life of the facility.
4. The annual period of demand estimates the equivalent period over which the pump station might operate at full capacity to meet the annual demand up stream of the facility. The value is calculated by dividing the annual demand by the flow rate.

Table 8 - Summary Budget

Proposal Title: WEST SIDE SAN JOAQUIN IRWM IMPLEMENTATION GRANT PROPOSAL

	Individual Project Title	Non-State Share (Funding Match)	Requested Grant Funding (DWR Grant Amount)	Other State Funds Being Used	Total	% Funding Match
(a)		Grand Total (Sum rows (a) through (h) for each column in Table 7)	Grand Total (Sum rows (a) through (h) for each column in Table 7)	Grand Total (Sum rows (a) through (h) for each column in Table 7)	Grand Total (Sum rows (a) through (h) for each column in Table 7)	
(b)	City of Firebaugh	140000	$ 665,000	0	$ 805,000.00	**17%**
(c)	City of San Joaquin	0	$ 992,600	0	$ 992,600.00	
(b)	City of Tracy Phase 1	$1,225,000	$ 1,677,606.00	$0	$2,902,606	**42%**
(c)	*City of Tracy Phase 2*	*$61,577,129*	*$ 13,723,040.00*	*$0*	*$75,300,169*	***82%***
(d)	WSID & DPWD Water Supply	$2,440,081	$ 7,428,447.00	$0	$9,868,528	**25%**
	WSID & DPWD Fish Screen	$560,000	$ 1,680,000.00	$0	$2,240,000	**25%**
(i)	**Round 1 Grand Total**	**$4,365,081**	**$ 12,443,653.00**	**$0**	**$16,808,734**	**26%**
(i-1)	***Grand Total (Sum rows (a) through (h) for each column)***	***$65,942,210***	***$ 26,166,693.00***	***$0***	***$92,108,903***	***72%***

Note: Round 1 Grand Total does not include City of Tracy Phase II