

M & T Ranch Intake Improvements

No Mitigation Costs

2008 Dollars

Ducks Unlimited
OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
9-Dike Option

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION - GC	1	LS	\$ 225,000	\$ 225,000
2	EROSION CONTROL	1	LS	\$ 20,000	\$ 20,000
3	SITE ACCESS DEVELOPMENT	1	LS	\$ 25,000	\$ 25,000
4					
5	DIKES				
6	SITE CLEARING AND PREP	5	ACRE	\$ 1,500.00	\$ 7,500
7	EXCAVATION- SOIL	27,000	CY	\$ 10.00	\$ 270,000
8	EXCAVATION- SOIL, IN-WATER	5,000	CY	\$ 19.00	\$ 95,000
9	DIKE FILTER ROCK, DELIVERED TO SITE FROM QUARRY	27,000	TON	\$ 29.00	\$ 783,000
10	DIKE FILTER ROCK, PLACEMENT	15,882	CY	\$ 7.50	\$ 119,118
11	DIKE RIP RAP, DELIVERED TO SITE FROM QUARRY	40,000	TON	\$ 29.00	\$ 1,160,000
12	DIKE RIP RAP, PLACEMENT	20,000	CY	\$ 16.00	\$ 320,000
13					
14					
15	ENVIRONMENTAL				
16	REVEGETATION	1	LS	\$ 20,000.00	\$ 20,000
17	MITIGATION, OFF SITE	0	LF	\$	\$
18					
19	UNLISTED ITEMS	10	PCT		\$ 280,000
	SUBTOTAL (ROUNDED)				\$ 3,325,000
	CONTINGENCY	25%			\$ 831,000
	TOTAL CONSTRUCTION YEAR 2008				\$ 3,605,000
	ENGINEERING/CONSTRUCTION MGMT/PERMITTING	30%			\$ 1,080,000
	TOTAL PROJECT YEAR 2008				\$ 4,685,000
	TOTAL PROJECT YEAR 2008 (ROUNDED)				\$ 4,700,000

AACE International **CLASS 4 Cost Estimate** - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spend preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

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Ducks Unlimited
OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
Pump Station Relocation

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION - GC	1	L.S.	\$ 475,000	\$ 475,000
2	EROSION CONTROL	1	L.S.	\$ 20,000	\$ 20,000
3	SITE ACCESS DEVELOPMENT	1	L.S.	\$ 25,000	\$ 25,000
4	COFFERDAM AND DEWATERING	1	L.S.	\$ 800,000	\$ 800,000
5					
6	EARTHWORK				
7	SITE CLEARING AND PREP	10.5	ACRE	\$ 1,800.00	\$ 18,750
8	EXCAVATION- SOIL	74,800	CY	\$ 10.00	\$ 743,000
9	EXCAVATION- SOIL, IN WATER	540	CY	\$ 25.00	\$ 13,500
10	BACKFILL AND COMPACTION	69,000	CY	\$ 5.00	\$ 345,000
11	ACCESS ROAD	11,000	SF	\$ 5.00	\$ 55,000
12					
13	INTAKE AND PUMP STATION				
14	FORM SCREEN PANELS	480	SF	\$ 200.00	\$ 96,000
15	CONCRETE, SLAB	270	CY	\$ 600.00	\$ 162,000
16	CONCRETE, WALLS	370	CY	\$ 600.00	\$ 222,000
17	CONCRETE, ELEVATED SLAB	24	CY	\$ 1,000.00	\$ 24,000
18	2'-DIA REINFORCED CONCRETE PIPE	360	L.F.	\$ 600.00	\$ 216,000
19	2'-X2' STAINLESS STEEL SLUICE GATE	1	EA	\$ 25,000.00	\$ 25,000
20	1/4" ALUMINUM GRATING ON GATE STRUCTURE	40	SF	\$ 30.00	\$ 1,200
21	2'-12" EXPANSION PIPE	1	EA	\$ 6,000.00	\$ 6,000
22	12"-DIA REINFORCED CONCRETE PIPE	30	L.F.	\$ 1,600.00	\$ 48,000
23	48"-DIA PRECAST CONCRETE PIPE	22	L.F.	\$ 500.00	\$ 11,000
24	34"-DIA RCP PUMP BARREL	30	L.F.	\$ 650.00	\$ 19,500
25	1-STAGE V/S VERT. TURBINE PUMPS	3	EA	\$ 200,000.00	\$ 600,000
26	30" DOUBLE LEAF CHECK VALVE	3	EA	\$ 40,000.00	\$ 120,000
27	30" BUTTERFLY VALVE	3	EA	\$ 20,000.00	\$ 60,000
28	SITE ELECTRICAL	1	L.S.	\$ 65,000.00	\$ 65,000
29	EXTERIOR BUILDING	1	L.S.	\$ 100,000.00	\$ 100,000
30					
31					
32	CONNECTION PIPE				
33	2'-DIA REINFORCED CONCRETE PIPE	3,600	L.F.	\$ 700.00	\$ 2,520,000
34	2'-TEE CONNECTION TO EXISTING TRANSMISSION PIPE	1	EA	\$ 8,000.00	\$ 8,000
35	2'-BLIND FLANGE	2	EA	\$ 2,000.00	\$ 4,000
36					
37	ROCK REVETMENT				
38	ROCK, DELIVERED TO SITE FROM QUARRY	14,400	TON	\$ 29.00	\$ 417,600
39	ROCK PLACEMENT	9,000	CY	\$ 16.00	\$ 144,000
40					
41	ENVIRONMENTAL				
42	REVEGETATION	1	L.S.	\$ 6,150.00	\$ 6,150
43	MITIGATION, OFF SITE	1	L.S.	\$	\$
44					
45	UNLISTED ITEMS	15	PCT		\$ 1,000,000
	SUBTOTAL (ROUNDED)				\$ 8,750,000
	CONTINGENCY	25%			\$ 2,187,500
	TOTAL CONSTRUCTION YEAR 2008				\$ 10,937,500
	ENGINEERING/CONSTRUCTION MGMT/PERMITTING	30%			\$ 2,940,000
	TOTAL PROJECT YEAR 2008				\$ 13,877,500
	TOTAL PROJECT YEAR 2008 (ROUNDED)				\$ 13,880,000

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Ducks Unlimited
OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
Pump Station Relocation

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION / GC	1	LS	\$ 475,000	\$ 475,000
2	EROSION CONTROL	1	LS	\$ 20,000	\$ 20,000
3	SITE ACCESS DEVELOPMENT	1	LS	\$ 25,000	\$ 25,000
4	COFFERDAM AND DEWATERING	1	LS	\$ 800,000	\$ 800,000
5					
6	EARTHWORK				
7	SITE CLEARING AND PREP	75	ACRE	\$ 1,600.00	\$ 117,500
8	EXCAVATION: SOIL	52.35	CY	\$ 10.00	\$ 523,000
9	EXCAVATION: SOIL, R/WATER	7.69	CY	\$ 25.00	\$ 40,000
10	BACKFILL AND COMPACTION	48.10	CY	\$ 5.00	\$ 240,500
11	ACCESS ROAD	7.69	SF	\$ 5.00	\$ 38,000
12					
13	INTAKE AND PUMP STATION				
14	FISH SCREEN PANELS	48	SF	\$ 250.00	\$ 12,000
15	CONCRETE, SLAB	27	CY	\$ 600.00	\$ 162,000
16	CONCRETE, WALLS	312	CY	\$ 800.00	\$ 249,600
17	CONCRETE, ELEVATED SLAB	94	CY	\$ 1,000.00	\$ 94,000
18	24" DIA REINFORCED CONCRETE PIPE	258	LF	\$ 800.00	\$ 206,400
19	24"X24" STAINLESS STEEL SLUICE GATE	7	EA	\$ 25,000.00	\$ 275,000
20	1/4" ALUMINUM GRATING ON GATE STRUCTURE	45	SF	\$ 30.00	\$ 1,350
21	24"X12" EXPANSION PIPE	7	EA	\$ 6,000.00	\$ 42,000
22	1200" DIA REINFORCED CONCRETE PIPE	36	LF	\$ 1,500.00	\$ 54,000
23	48" DIA PRECAST CONCRETE PIPE	22	LF	\$ 500.00	\$ 11,000
24	84" DIA RCP PUMP BARREL	90	LF	\$ 650.00	\$ 58,500
25	1-STAGE V/S VERT. TURBINE PUMPS	3	EA	\$ 200,000.00	\$ 600,000
26	8" DOUBLE LEAF CHECK VALVE	3	EA	\$ 40,000.00	\$ 120,000
27	8" BUTTERFLY VALVE	3	EA	\$ 20,000.00	\$ 60,000
28	SITE ELECTRICAL	1	LS	\$ 65,000.00	\$ 65,000
29	EXTERIOR BUILDING	1	LS	\$ 100,000.00	\$ 100,000
30					
31					
32	CONNECTION PIPE				
33	24" DIA REINFORCED CONCRETE PIPE	7,200	LF	\$ 700.00	\$ 5,040,000
34	24" TEE CONNECTION TO EXISTING TRANSMISSION PIPE	7	EA	\$ 8,000.00	\$ 56,000
35	24" BLIND FLANGE	7	EA	\$ 2,000.00	\$ 14,000
36					
37	ROCK REVEITEMENT				
38	ROCK REMOVAL OF EXISTING REVEITEMENT	475	CY	\$ 16.00	\$ 7,600
39					
40	ENVIRONMENTAL				
41	REVEGETATION	7	LS	\$ 5,150.00	\$ 36,050
42	MITIGATION, OFF SITE	0	LF	\$	\$
43					
44	UNLISTED ITEMS	15	PCT		\$ 780,000
	SUBTOTAL (ROUNDED)				\$ 6,488,000
	CONTINGENCY	25%			\$ 1,622,000
	TOTAL CONSTRUCTION YEAR 2008				\$ 7,288,000
	ENGINEERING/CONSTRUCTION MGMT/PERMITTING	30%			\$ 2,180,000
	TOTAL PROJECT YEAR 2008				\$ 9,448,000
	TOTAL PROJECT YEAR 2008 (ROUNDED)				\$ 9,448,000

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Estimated O&M Costs

M&T Ranch Pump Station Relocation

2007 M&T Costs for Existing Pump Station

Gas	\$165,000
Electricity	\$4,000
Maintenance & Repair	\$27,000
Misc	\$10,000
	\$206,000

Total Acre-ft pumped	40,500
\$/A-F (2007)	\$5.09

Assumptions for New Pump Station

Avg Annual Pumped Flow	40,500 Acre-ft/year
Efficiency	80 %
Electricity Cost	\$0.18 \$/kW-hr

Replacement Costs

\$130,000 to replace pump once every 15 years

\$70,000 to replace motor once every 25 years

Avg Head (ft)	22	22	25.5	27.2
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Proposed Pump Station	Location of Pump Station			
	Existing Pump Station	Groin Option	New P.S. 2200-ft DS	New P.S. 3600-ft DS
Electricity, pumping	206,000	206,000	238,000	254,000
Electricity, other	\$4,000	\$4,000	\$6,000	\$6,000
General Maint & Repair	\$30,000	\$30,000	\$30,000	\$30,000
Pump Replacement, Amortized	\$26,000	\$26,000	\$26,000	\$26,000
Motor Replacement, Amortized	\$8,400	\$8,400	\$8,400	\$8,400
Misc	\$10,000	\$10,000	\$10,000	\$10,000
Rock Maintenance & Repair	\$0	\$100,000	\$0	\$0
Total	\$284,400	\$384,400	\$318,400	\$334,400
\$/Acre-ft	\$7.02	\$9.49	\$7.86	\$8.26
Increase	\$0.00	\$100,000	\$34,000	\$50,000
Increment (\$/Acre-Ft)	+\$0.00	+\$2.47	+\$0.84	+\$1.23

Alternative	O&M Increase	Increment
	(\$)	(\$/Acre-Ft)
Dike Option	\$100,000	+\$2.47
Pump Station 3600' DS	\$34,000	+\$0.84
Pump Station 2200' DS	\$50,000	+\$1.23

M & T Ranch Intake Improvements

No Mitigation Costs

2011 Dollars

Ducks Unlimited
OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
9-Dike Option

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION - GC	1	LS	\$ 225,000	\$ 225,000
2	EROSION CONTROL	1	LS	\$ 20,000	\$ 20,000
3	SITE ACCESS DEVELOPMENT	1	LS	\$ 25,000	\$ 25,000
4					
5	DIKES				
6	SITE CLEARING AND PREP	5	ACRE	\$ 1,500.00	\$ 7,500
7	EXCAVATION- SOIL	27,000	CY	\$ 10.00	\$ 270,000
8	EXCAVATION- SOIL, IN-WATER	5,000	CY	\$ 19.00	\$ 95,000
9	DIKE FILTER ROCK, DELIVERED TO SITE FROM QUARRY	27,000	TON	\$ 29.00	\$ 783,000
10	DIKE FILTER ROCK, PLACEMENT	15,882	CY	\$ 7.50	\$ 119,118
11	DIKE RIP RAP, DELIVERED TO SITE FROM QUARRY	40,000	TON	\$ 29.00	\$ 1,160,000
12	DIKE RIP RAP, PLACEMENT	20,000	CY	\$ 16.00	\$ 320,000
13					
14					
15	ENVIRONMENTAL				
16	REVEGETATION	1	LS	\$ 20,000.00	\$ 20,000
17	MITIGATION, OFF SITE	0	LF	\$ -	\$ -
18					
19	UNLISTED ITEMS	10	PCT		\$ 280,000
SUBTOTAL (ROUNDED)					\$ 3,325,000
CONTINGENCY		25%			\$ 831,000
TOTAL CONSTRUCTION YEAR 2008					\$ 3,605,000
ENGINEERING/CONSTRUCTION MGMT/PERMITTING		30%			\$ 1,080,000
TOTAL PROJECT YEAR 2008					\$ 4,685,000
TOTAL PROJECT YEAR Oct 2011 (ROUNDED)					\$ 5,000,000

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Ducks Unlimited
OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
Pump Station Relocation

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION - GC	1	LS	\$ 475,000	\$ 475,000
2	EROSION CONTROL	1	LS	\$ 20,000	\$ 20,000
3	SITE ACCESS DEVELOPMENT	1	LS	\$ 25,000	\$ 25,000
4	COFFERDAM AND DEWATERING	1	LS	\$ 800,000	\$ 800,000
5					
6	EARTHWORK				
7	SITE CLEARING AND PREP	10	ACRE	\$ 1,500.00	\$ 15,750
8	EXCAVATION, SOIL	74,300	CY	\$ 10.00	\$ 743,000
9	EXCAVATION, SOIL, IN-WATER	540	CY	\$ 25.00	\$ 13,500
10	BACKFILL AND COMPACTION	69,000	CY	\$ 5.00	\$ 345,000
11	ACCESS ROAD	11,000	SF	\$ 5.00	\$ 55,000
12					
13	INTAKE AND PUMP STATION				
14	75W SCREEN PANELS	400	SF	\$ 250.00	\$ 100,000
15	CONCRETE, SLAB	270	CY	\$ 800.00	\$ 216,000
16	CONCRETE, WALLS	315	CY	\$ 800.00	\$ 252,000
17	CONCRETE, ELEVATED SLAB	84	CY	\$ 1,000.00	\$ 84,000
18	22" DIA REINFORCED CONCRETE PIPE	345	L.F.	\$ 800.00	\$ 276,000
19	22"X2' STAINLESS STEEL SLUICE GATE	1	EA	\$ 25,000.00	\$ 25,000
20	1/4" ALUMINUM GRATING ON GATE STRUCTURE	40	SF	\$ 30.00	\$ 1,200
21	22"X2' EXPANSION PIPE	1	EA	\$ 6,000.00	\$ 6,000
22	120" DIA REINFORCED CONCRETE PIPE	30	L.F.	\$ 1,500.00	\$ 45,000
23	48" DIA PRECAST CONCRETE PIPE	25	L.F.	\$ 500.00	\$ 12,500
24	64" DIA RCP PUMP BARREL	90	L.F.	\$ 850.00	\$ 76,500
25	1-STAGE VS VERT. TURBINE PUMPS	3	EA	\$ 200,000.00	\$ 600,000
26	30" DOUBLE LEAF CHECK VALVE	3	EA	\$ 40,000.00	\$ 120,000
27	30" BUTTERFLY VALVE	3	EA	\$ 20,000.00	\$ 60,000
28	SITE ELECTRICAL	1	LS	\$ 65,000.00	\$ 65,000
29	EXTERIOR BUILDING	1	LS	\$ 100,000.00	\$ 100,000
30					
31					
32	CONNECTION PIPE				
33	22" DIA REINFORCED CONCRETE PIPE	3,600	L.F.	\$ 700.00	\$ 2,520,000
34	22" TEE CONNECTION TO EXISTING TRANSMISSION PIPE	1	EA	\$ 6,000.00	\$ 6,000
35	22" BLIND FLANGE	1	EA	\$ 4,000.00	\$ 4,000
36					
37	ROCK REVETMENT				
38	ROCK, DELIVERED TO SITE FROM QUARRY	14,400	TON	\$ 29.00	\$ 417,600
39	ROCK, PLACEMENT	9,000	CY	\$ 16.00	\$ 144,000
40					
41	ENVIRONMENTAL				
42	REVEGETATION	1	LS	\$ 5,150.00	\$ 5,150
43	MITIGATION, OFF SITE	1	L.F.	\$	\$
44					
45	UNLISTED ITEMS	15	PCT		\$ 1,080,000
	SUBTOTAL (ROUNDED)				\$ 8,730,000
	CONTINGENCY	25%			\$ 2,183,000
	TOTAL CONSTRUCTION YEAR 2008				\$ 9,913,000
	ENGINEERING/CONSTRUCTION MGMT/PERMITTING	30%			\$ 2,943,000
	TOTAL PROJECT YEAR 2008				\$ 12,756,000
	TOTAL PROJECT YEAR - Oct 2011 (ROUNDED)				\$ 13,600,000

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OPINION OF PROBABLE COST
M&T Ranch / Llano Seco Intake Project
Pump Station Relocation

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	MOBILIZATION - GC		L.S.	\$ 475,000	\$ 475,000
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3	SITE ACCESS DEVELOPMENT		L.S.	\$ 25,000	\$ 25,000
4	COFFERDAM AND DEWATERING		L.S.	\$ 800,000	\$ 800,000
5					
6	EARTHWORK				
7	SITE CLEARING AND PREP	7.5	ACRE	\$ 1,500,000	\$ 11,250,000
8	EXCAVATION, SOIL	88,300	CY	\$ 104.00	\$ 9,183,000
9	EXCAVATION, SOIL, IN-WATER	1,800	CY	\$ 25.00	\$ 45,000
10	BACKFILL AND COMPACTION	48,100	CY	\$ 5.00	\$ 2,405,000
11	ACCESS ROAD	7,000	SF	\$ 5.00	\$ 35,000
12					
13	INTAKE AND PUMP STATION				
14	FISH SCREEN PANELS	400	SF	\$ 250.00	\$ 100,000
15	CONCRETE, SLAB	270	CY	\$ 600.00	\$ 162,000
16	CONCRETE, WALLS	310	CY	\$ 900.00	\$ 279,000
17	CONCRETE, ELEVATED SLAB	90	CY	\$ 1,000.00	\$ 90,000
18	24" DIA REINFORCED CONCRETE PIPE	250	LF	\$ 900.00	\$ 225,000
19	24"x24" STAINLESS STEEL SLUICE GATE	1	EA	\$ 25,000.00	\$ 25,000
20	1/4" ALUMINUM GRATING ON GATE STRUCTURE	40	SF	\$ 30.00	\$ 1,200
21	24"x10" EXPANSION PIPE	1	EA	\$ 6,000.00	\$ 6,000
22	18"x24" DIA REINFORCED CONCRETE PIPE	30	LF	\$ 1,500.00	\$ 45,000
23	18"x24" DIA PRECAST CONCRETE PIPE	20	LF	\$ 500.00	\$ 10,000
24	36" DIA PCP PUMP BARREL	90	LF	\$ 650.00	\$ 58,500
25	1-STAGE VS. VERT. TURBINE PUMPS	5	EA	\$ 200,000.00	\$ 1,000,000
26	8" DOUBLE LEAF CHECK VALVE	5	EA	\$ 40,000.00	\$ 200,000
27	8" BUTTERFLY VALVE	5	EA	\$ 20,000.00	\$ 100,000
28	SITE ELECTRICAL		L.S.	\$ 95,000.00	\$ 95,000
29	EXTERIOR BUILDING		L.S.	\$ 100,000.00	\$ 100,000
30					
31					
32	CONNECTION PIPE				
33	24" DIA REINFORCED CONCRETE PIPE	2,800	LF	\$ 700.00	\$ 1,960,000
34	24" TEE CONNECTION TO EXISTING TRANSMISSION PIPE	1	EA	\$ 8,000.00	\$ 8,000
35	24" BLIND FLANGE	1	EA	\$ 4,000.00	\$ 4,000
36					
37	ROCK REVETMENT				
38	ROCK REMOVAL OF EXISTING REVETMENT	470	CY	\$ 16.00	\$ 7,520
39					
40	ENVIRONMENTAL				
41	REVEGETATION		L.S.	\$ 5,150.00	\$ 5,150
42	MITIGATION, OFF SITE		LF	\$	\$
43					
44	UNLISTED ITEMS	15	PCT		\$ 280,000
	SUBTOTAL (ROUNDED)				\$ 6,488,000
	CONTINGENCY	25%			\$ 1,622,000
	TOTAL CONSTRUCTION YEAR 2008				\$ 7,288,000
	ENGINEERING/CONSTRUCTION MGMT/PERMITTING	30%			\$ 2,180,000
	TOTAL PROJECT YEAR 2008				\$ 9,468,000
	TOTAL PROJECT YEAR, Oct 2014 (ROUNDED)				\$ 10,100,000

AACE International CLASS 4 Cost Estimate - Class 4 estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. Typically, engineering is 10% to 40% complete. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Virtually all Class 4 estimates use stochastic estimating methods such as cost curves, capacity factors, and other parametric and modeling techniques. Expected accuracy ranges are from -15% to -30% on the low side and +20% to 50% on the high side, depending on the technological complexity of the project, appropriate reference information, and the inclusion of an appropriate contingency determination. Ranges could exceed those shown in unusual circumstances. As little as 20 hours or less to perhaps more than 300 hours may be spent preparing the estimate depending on the project and estimating methodology (AACE International Recommended Practices and Standards).

MWH OPCC Disclaimer - The client acknowledges that MWH has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect the OPCC of this project, all of which are and will unavoidably remain in a state of change, especially in light of the high volatility of the market attributable to Act of Gods and other market event beyond the control of the parties. Client further acknowledges that this OPCC is a "snapshot in time" and that the reliability of this OPCC will degrade over time. Client agrees that MWH cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, project construction costs, or cost of O&M functions will not vary significantly from MWH's good faith Class 2 OPCC.

Estimated O&M Costs

M&T Ranch Pump Station Relocation

2007 M&T Costs for Existing Pump Station

Gas	\$165,000
Electricity	\$4,000
Maintenance & Repair	\$27,000
Misc	\$10,000
	\$206,000

Total Acre-ft pumped	40,500
\$/A-F (2007)	\$5.09

Assumptions for New Pump Station

Avg Annual Pumped Flow	40,500 Acre-ft/year
Efficiency	80 %
Electricity Cost	\$0.18 \$/kW-hr

Replacement Costs

\$130,000 to replace pump once every 15 years

\$70,000 to replace motor once every 25 years

Avg Head (ft)	22	22	25.5	27.2
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Proposed Pump Station	Location of Pump Station			
	Existing Pump Station	Groin Option	New P.S. 2200-ft DS	New P.S. 3600-ft DS
Electricity, pumping	220,000	220,000	255,000	272,000
Electricity, other	\$4,280	\$4,280	\$6,420	\$6,420
General Maint & Repair	\$32,100	\$32,100	\$32,100	\$32,100
Pump Replacement, Amortized	\$27,820	\$27,820	\$27,820	\$27,820
Motor Replacement, Amortized	\$8,988	\$8,988	\$8,988	\$8,988
Misc	\$10,700	\$10,700	\$10,700	\$10,700
Rock Maintenance & Repair	\$0	\$107,000	\$0	\$0
Total	\$303,888	\$410,888	\$341,028	\$358,028
\$/Acre-ft	\$7.50	\$10.15	\$8.42	\$8.84
Increase	\$0.00	\$107,000	\$37,140	\$54,140
Increment (\$/Acre-Ft)	+\$0.00	+\$2.64	+\$0.92	+\$1.34

Alternative	O&M Increase	Increment
	(\$)	(\$/Acre-Ft)
Dike Option	\$107,000	+\$2.64
Pump Station 3600' DS	\$37,140	+\$0.92
Pump Station 2200' DS	\$54,140	+\$1.34