

Appendix I

Capital Project Cost Breakdown

CMP Replacement Cost Breakdown

Project	Pipe ID	Length (ft)	Diameter (in)	Pipe Unit Cost	Pipe Cost	MHs	MH Cost	Total	Project Cost w/o Contingency	Project Cost w/ 70% Contingency
CMP Replacement	PIPE_390	36	48	\$590	\$21,240	1	\$14,185	\$35,425	\$40,000	\$50,000
CMP Replacement	PIPE_106	258	18	\$280	\$72,240	1	\$13,260	\$85,500	\$90,000	\$130,000
CMP Replacement	PIPE_389	36	18	\$280	\$10,080	1	\$13,260	\$23,340	\$20,000	\$30,000
Total:		330			\$103,560	3	\$40,705	\$144,265	\$150,000	\$210,000

10-Year CP Cost Breakdown

Project	Pipe ID	Length (ft)	Diameter (in)	Pipe Unit Cost	Pipe Cost	MHs	MH Cost	Total	Project Cost w/o Contingency	Project Cost w/ 70% Contingency
Claire 1	impPIPE_149	76	18	\$300	\$22,800	1	\$13,345	\$36,145		
Claire 1	impPIPE_150	33	18	\$300	\$9,900	1	\$13,345	\$23,245		
Claire 1	impPIPE_151	150	15	\$280	\$42,000	1	\$13,260	\$55,260		
Add'l MH			18			1	\$13,345	\$13,345		
Total:		259			\$74,700	4	\$53,295	\$127,995	\$130,000	\$195,000
Claire 2	impPIPE_333	29	27	\$390	\$11,310	1	\$13,600	\$24,910		
Claire 2	impPIPE_145	51	27	\$390	\$19,890	1	\$13,600	\$33,490		
Add'l MH			27			1	\$13,600	\$13,600		
Total:		80			\$31,200	3	\$40,800	\$72,000	\$70,000	\$120,000
Field 1	impPIPE_138	124	24	\$365	\$45,260	1	\$13,515	\$58,775		
Field 1	impPIPE_139	62	24	\$365	\$22,630	1	\$13,515	\$36,145		
Field 1	impPIPE_191	341	18	\$300	\$102,300	1	\$13,345	\$115,645		
Add'l MH			24			1	\$13,515	\$13,515		
Total:		527			\$170,190	4	\$53,890	\$224,080	\$220,000	\$370,000
Field 2	impPIPE_140	159	18	\$300	\$47,700	1	\$13,345	\$61,045		
Field 2	impPIPE_141	40	12	\$255	\$10,200	1	\$13,145	\$23,345		
Add'l MH			18			1	\$13,345	\$13,345		
Total:		159			\$47,700	3	\$39,835	\$97,735	\$100,000	\$170,000
								Total:	\$520,000	\$880,000

25-Year CP Cost Breakdown

Project	Pipe ID	Length (ft)	Diameter (in)	Pipe Unit Cost	Pipe Cost	MHs	MH Cost	Total	Project Cost w/o Contingency	Project Cost w/ 70% Contingency
Claire 1	impPIPE_149	76	18	\$300	\$22,800	1	\$13,345	\$36,145		
Claire 1	impPIPE_150	33	18	\$300	\$9,900	1	\$13,345	\$23,245		
Claire 1	impPIPE_151	150	15	\$280	\$42,000	1	\$13,260	\$55,260		
Add'l MH			18			1	\$13,345	\$13,345		
Total:		259			\$74,700	4	\$53,295	\$127,995	\$130,000	\$220,000
Claire 2	impPIPE_333	29	27	\$390	\$11,310	1	\$13,600	\$24,910		
Claire 2	impPIPE_145	51	27	\$390	\$19,890	1	\$13,600	\$33,490		
Claire 2	impPIPE_146	114	15	\$280	\$31,920	1	\$13,260	\$45,180		
Add'l MH			27			1	\$13,600	\$13,600		
Total:		194			\$63,120	4	\$54,060	\$117,180	\$120,000	\$210,000
Field 1	impPIPE_138	124	27	\$390	\$48,360	1	\$13,600	\$61,960		
Field 1	impPIPE_139	62	27	\$390	\$24,180	1	\$13,600	\$37,780		
Field 1	impPIPE_191	341	18	\$300	\$102,300	1	\$13,345	\$115,645		
Add'l MH			27			1	\$13,600	\$13,600		
Total:		527			\$174,840	4	\$54,145	\$228,985	\$230,000	\$390,000
Field 2	impPIPE_140	159	18	\$300	\$47,700	1	\$13,345	\$61,045		
Field 2	impPIPE_141	40	12	\$255	\$10,200	2	\$13,145	\$23,345		
Add'l MH			18			1	\$13,345	\$13,345		
Total:		199			\$57,900	4	\$39,835	\$97,735	\$100,000	\$170,000
								Total:	\$580,000	\$990,000

Automatic Trash Rack Cost Breakdown

Item No.	Description	Unit	Quantity	Unit Cost	Total
1	Mob/Demob	LS	1	\$25,000	\$25,000
2	Remove Existing Trash Rack	LS	1	\$2,000	\$2,000
3	Install Automatic Trash Rack	LS	1	\$210,000	\$210,000
4	Install trash chute	LS	1	\$5,000	\$5,000
5	Install electrical controls	LS	1	\$10,000	\$10,000
6	Install new fencing & gates	LF	90	\$60	\$5,400
Total Without Contingency and Soft Costs:					\$260,000
Total with 70% Contingency and Soft Costs:					\$440,000

Short Term Pump Station Improvements Cost Breakdown

Item No.	Description	Unit	Quantity	Unit Cost	Total
1	Replace PLC	LS	1	\$25,000	\$25,000
2	Install Backup Control System	LS	1	\$15,000	\$15,000
3	Integrate SCADA	LS	1	\$15,000	\$15,000
4	Install Arc Flash Labels	LS	1	\$2,000	\$2,000
5	Replace Meter/Main Breaker	LS	1	\$15,000	\$15,000
6	Replace MCC	LS	1	\$150,000	\$150,000
7	Remove Pump 4 and Piping	LS	1	\$4,000	\$4,000
8	Install roof and pump anchorage	LS	1	\$2,000	\$2,000
9	Modify Wetwell	LS	1	\$20,000	\$20,000
10	Modify Pump Set Levels	LS	1	\$1,000	\$1,000
Total Without Contingency and Soft Costs:					\$260,000
Total with 70% Contingency and Soft Costs:					\$440,000

Long Term Pump Station Improvements with Existing Level of Service Cost Breakdown

Item No.	Description	Unit	Quantity	Unit Cost	Total
1	Mob/Demob	LS	1	\$93,000	\$93,000
2	New MCC	LS	1	\$140,000	\$140,000
3	Backup Generator and ATS	LS	1	\$110,000	\$110,000
4	New Pumps, tubes, discharge	EA	3	\$70,000	\$210,000
5	New Electrical Service (if required)	LS	1	\$30,000	\$30,000
6	Misc. Electrical Imp.	LS	1	\$50,000	\$50,000
7	Modify Pump Bays	LS	1	\$40,000	\$40,000
8	Add wetwell access hatches	EA	3	\$30,000	\$90,000
9	Automatic Trash Rack	LS	1	\$230,000	\$230,000
10	Misc. Site Items	LS	1	\$30,000	\$30,000
Total Without Contingency and Soft Costs:					\$1,030,000
Total with 70% Contingency and Soft Costs:					\$1,750,000

This Cost Estimate Includes the Following:

Includes minor modifications to the existing wetwell, existing wetwell layout to remain.

Pumps to be replaced to match existing level of service

New MCC placed outside of building, does not include building expansion

Long Term Pump Station Improvements with 100-Year Storm Event, 10-Year CIPs, and Modified Wetwell Cost Breakdown

Item No.	Description	Unit	Quantity	Unit Cost	Total
1	Mob/Demob	LS	1	\$124,000	\$124,000
2	New MCC	LS	1	\$160,000	\$160,000
3	Backup Generator and ATS	LS	1	\$130,000	\$130,000
4	New Pumps, tubes, discharge	EA	3	\$80,000	\$240,000
5	New Electrical Service (if required)	LS	1	\$30,000	\$30,000
6	Misc. Electrical Imp.	LS	1	\$60,000	\$60,000
7	Modify Wetwell	LS	1	\$200,000	\$200,000
8	Add wetwell access hatches	EA	3	\$30,000	\$90,000
9	Automatic Trash Rack	LS	1	\$280,000	\$280,000
10	Misc. Site Items	LS	1	\$50,000	\$50,000
Total Without Contingency and Soft Costs:					\$1,370,000
Total with 70% Contingency and Soft Costs:					\$2,330,000

This Cost Estimate Includes the Following:

Includes modifying the wetwell layout to meet HI requirements

New Pumps to convey 100-Year inflow with 10-Year storm network CIP

New MCC placed outside of building, does not include building expansion

Floodwall Cost Breakdown

Project	Length (ft)	Height (ft)	Depth (ft)	Unit Cost (per SF)	Project Cost w/o Contingency	Project Cost w/ 70% Contingency
Floodwall	120	4	12	\$40	\$80,000	\$140,000