

TABLE 1A

NO ACTION
 CHLORAMINE SYSTEM CONSTRUCTION COST ESTIMATE
 Revised 3/5/08

Item	Quantity	Units	Unit Cost	Cost
UV System	Omit			
CI2/ Chloramine System Revised Cost				
Excavation	340	CY	\$6.25	\$2,125
Structural Fill	300	CY	\$32.00	\$9,600
Concrete				
Footings	24	CY	\$500.00	\$12,000
Stem Walls	52	CY	\$750.00	\$39,000
Floor Slab	80	CY	\$750.00	\$60,000
Stairs	11	CY	\$440.00	\$4,840
Building				
Chemical Room Areas	2070	SF	\$180.00	\$372,600
CI2 System				
CI2 Injectors	2	EA	\$5,500.00	\$11,000
Clorinators (250 lb units)	3	Ea	\$32,500.00	\$97,500
CI2 Equip, Pipe Valves, Etc	1	LS	\$253,500.00	\$253,500
CI2 Scrubber	1	Ea	\$154,000.00	\$154,000
Electr/ Instrumentation	1	LS	\$182,000.00	\$182,000
Yard Pipe, Sitework Misc.	1	LS	\$100,000.00	\$100,000
NH4 System				
Containment Walls/ Access	1	LS	\$12,000.00	\$12,000
HVAC in Storage Room	1	LS	\$25,000.00	\$25,000
Storage Tank & Fill System	1	LS	\$104,000.00	\$104,000
Meters, Pumps, Valves, Pipe	1	LS	\$78,000.00	\$78,000
Misc. Equip/ Diffusers	1	LS	\$39,000.00	\$39,000
Electr/ Instrumentation	1	LS	\$125,000.00	\$125,000
Wet Well/Contactor at 50%	1	LS	\$919,000.00	\$919,000
			Subtotal	\$2,600,165
Mobilization and Insurance At 7%				\$182,012
			Subtotal	\$2,782,177
Construction Contingency At 30%				\$834,653
Chloramination (Only) System Total Construction Cost				\$3,616,830

TABLE 2A

NO ACTION

CLEARWELL/CONTACTOR CONSTRUCTION COST ESTIMATE

Revised 12/27/08

3/5/08

Item	Quantity	Units	Unit Cost	Cost
Excavation	3500	CY	\$6.25	\$21,875
Structural Fill	1372	CY	\$32.00	\$43,904
Concrete				
Base Slab	300	CY	\$750.00	\$225,000
Valve Vault Slab	46	CY	\$750.00	\$34,500
Walls	420	CY	\$800.00	\$336,000
Elevated Slab	200	CY	\$1,050.00	\$210,000
Overflow Box	6	CY	\$1,300.00	\$7,800
Entrance Pipe & Fittings				
36x24 T's	5	Ea	\$10,000.00	\$50,000
36 " Pipe	50	LF	\$350.00	\$17,500
Pipe & Wall Spools	22	Ea	\$5,000.00	\$110,000
24" BF Valves	3	Ea	\$15,000.00	\$45,000
24" BF Valves W/ MO	3	Ea	\$25,000.00	\$75,000
16" BF Valves	2	Ea	\$7,000.00	\$14,000
16" BF Valves W/ MO	2	Ea	\$12,000.00	\$24,000
Pipe Supports	10	Ea	\$1,100.00	\$11,000
30" Flap Gates	2	Ea	\$5,500.00	\$11,000
6" BF Valves & Pipe Spools	4	Ea	\$2,000.00	\$8,000
Misc. Metals & Baffles				
Al Ladders	1	LS	\$8,000.00	\$8,000
Floor Hatches	7	Ea	\$6,600.00	\$46,200
Redwood Baffles	5	Ea	\$4,400.00	\$22,000
			Subtotal	\$1,320,779
Mobilization and Insurance At 7%				\$92,455
			Subtotal	\$1,413,234
Construction Contingency At 30%				\$423,970
			Total	\$1,837,204

Note: 50% Percent Of CW/Contractor Cost To Be Applied In Tables 1and 3 at

\$918,602

TABLE 3A
NO ACTION
BOOSTER PUMP STATION CONSTRUCTION COST ESTIMATE
Revised 3/5/08

Item	Quantity	Units	Unit Cost	Cost
Excavation	710	CY	\$ 6.25	\$4,438
Structural Fill	1750	CY	\$ 32.00	\$56,000
Concrete				
Footings	31	CY	\$ 500.00	\$15,500
Stem Walls	128	CY	\$ 750.00	\$96,000
Floor Slab	180	CY	\$ 750.00	\$135,000
Building				
General Area	4215	SF	\$ 150.00	\$632,250
Room Areas w/HVAC	715	SF	\$ 185.00	\$132,275
Mechanical				
9 MGD Pumps	3	Ea	\$ 175,500.00	\$526,500
5 MGD Pumps	2	Ea	\$ 162,500.00	\$325,000
Pump Control Valves (16")	3	Ea	\$ 26,000.00	\$78,000
Pump Control Valves (12")	2	Ea	\$ 19,500.00	\$39,000
Pipe, Fittings, Misc.	1	LS	\$ 140,000.00	\$140,000
Valves & meters	1	LS	\$ 155,000.00	\$155,000
Surge Tank/Compressor	1	LS	\$ 91,000.00	\$91,000
Electrical	1	LS	\$ 1,060,000.00	\$1,060,000
Instrumentation	1	LS	\$ 306,000.00	\$306,000
Wet Well/Contactor at 50%	1	LS	\$918,602	\$918,602
Yard Piping / Site Work	1	LS	\$ 150,000.00	\$150,000
Overflow Basin	1	LS	\$ 50,000.00	\$50,000
Pig Retrieval/Piping & Valves	1	LS	\$ 111,000.00	\$111,000
			Subtotal	\$5,021,565
Mobilization and Insurance At 7%				\$351,510
			Subtotal	\$5,373,074
Construction Contingency At 30%				\$1,611,922
Booster PS Total Construction Cost				\$6,984,996

TABLE 4A
No Action
Summary of Project Cost Max Booster Pump Station
 Revised 3/5/08

<u>Description</u>		<u>Cost Opinion \$</u>
Influent Structure and Chloramination (Only)	(Table 1A)	\$3,617,000
Booster Pump Station	(Table 3A)	\$6,985,000
	Subtotal	\$10,602,000
Engineering and Admin. @ 13%		\$1,378,260
	Total Project Cost	\$11,980,260