

Appendix F

Cost Summary for Centralized Scenarios 3B and 3C from Draft CWMP/DEIR, December 2009

TABLE 4-8 (Revised October 7, 2010)
Summary of Costs for Scenario 3B
Treatment at the Otis WWTF/MMR Site with
MBR and GAC Treatment, and Well Injection Recharge at Rt 151 Corridor

Cost Component	Phase 1 and 2	Addl. Costs for Phase 3
Capital Costs		
<i>Collection System</i>		
Major PS and FM	\$200,000,000	\$110,000,000
Peninsular Main Lines and Pump Stations	\$39,000,000	
Right-of-Way Laterals, Pump Stations, and Collection Lines	\$35,000,000	
Allowance for Land Purchase for Pump Stations	\$123,000,000	
	\$1,000,000	
<i>Treatment Site and Systems</i>		
Site Development	\$51,000,000	\$16,000,000
WW Treatment Systems	\$8,900,000	
Sludge Management System	\$38,000,000	
	\$3,600,000	
<i>Recharge System</i>		
Pump Station and Injection Well System	\$8,000,000	\$1,500,000
Treated Water Force Main to Injection Wells	\$2,900,000	
Backup 0.5 mgd Infiltration Bed System at FCC or MMR Site & FM	\$4,600,000	
	\$530,000	
Total Construction Costs	\$259,000,000	\$128,000,000
Contingency (25%)	\$65,000,000	\$32,000,000
Fiscal, Legal and Engineering (25%)	\$65,000,000	\$32,000,000
Total Capital Costs ⁽³⁾	\$390,000,000	\$190,000,000
Cost Component	Phase 1 and 2	Addl. Costs for Phase 3
O&M Costs		
<i>Electrical Costs</i>		
Collection System Lift Stations	\$210,000	\$100,000
Treatment Site	\$310,000	\$160,000
WWTF operations & repairs	\$2,700,000	\$1,200,000
Collection system operations & repairs	\$1,500,000	\$560,000
Sludge Disposal	\$300,000	\$160,000
Treated Water Recharge System	\$130,000	\$34,000
Marine Water Quality Monitoring Allowance	\$100,000	\$100,000
Total O&M Costs per year	\$5,300,000	\$2,300,000
Discount Rate of 5% (P/A for 5% and 20 yr = 12.4622)		
Present Worth of O&M Costs	\$66,000,000	\$29,000,000
Total Present Worth Costs	\$460,000,000	\$220,000,000
Notes:		
1. All costs are rounded to two significant digits except total construction costs which are rounded to three to reduce rounding error		
2. All cost are referenced to January 2010 costs (Engineering News Record Index 8660) and will need to be adjusted for inflation in the future		
3. These costs would be decreased by approximately \$19 M if sewers were not extended to Falmouth Heights		
4. These costs do not include house connection cost observed at \$2,000 to \$5,000 per connection at the New Silver beach Project.		

TABLE 4-9 (Revised October 7, 2010)
Summary of Costs for Scenario 3C
Treatment at the Otis WWTF/MMR Site with
MBR, RO and GAC Treatment, and Well Injection Recharge at Rt 151 Corridor

Cost Component	Phase 1 and 2	Addl. Costs for Phase 3
Capital Costs		
<i>Collection System</i>	\$200,000,000	\$110,000,000
Major PS and FM	\$39,000,000	
Peninsular Main Lines and Pump Stations	\$35,000,000	
Right-of-Way Laterals, Pump Stations, and Collection Lines	\$123,000,000	
Allowance for Land Purchase for Pump Stations	\$1,000,000	
<i>Treatment Site and Systems</i>	\$54,000,000	\$17,000,000
Site Development	\$8,900,000	
WW Treatment Systems	\$41,000,000	
Sludge Management System	\$3,600,000	
<i>Recharge System</i>	\$8,000,000	\$1,500,000
Pump Station and Injection Well System	\$2,900,000	
Treated Water Force Main to Injection Wells	\$4,600,000	
Backup 0.5 mgd Infiltration Bed System at FCC or MMR Site & FM	\$530,000	
Total Construction Costs	\$262,000,000	\$129,000,000
Contingency (25%)	\$66,000,000	\$32,000,000
Fiscal, Legal and Engineering (25%)	\$66,000,000	\$32,000,000
Total Capital Costs ⁽³⁾	\$390,000,000	\$190,000,000

Cost Component	Phase 1 and 2	Addl. Costs for Phase 3
O&M Costs		
<i>Electrical Costs</i>		
Collection System Lift Stations	\$210,000	\$100,000
Treatment Site	\$1,600,000	\$900,000
WWTF operations & repairs	\$2,500,000	\$1,200,000
Collection system operations & repairs	\$1,500,000	\$620,000
Sludge Disposal	\$300,000	\$160,000
Treated Water Recharge System	\$130,000	\$36,000
Marine Water Quality Monitoring Allowance	\$100,000	\$100,000
Total O&M Costs per year	\$6,300,000	\$3,100,000
Discount Rate of 5% (P/A for 5% and 20 yr = 12.4622)		
Present Worth of O&M Costs	\$79,000,000	\$39,000,000
Total Present Worth Costs	\$470,000,000	\$230,000,000

Notes:

1. All costs are rounded to two significant digits except total construction costs which are rounded to three to reduce rounding error
2. All cost are referenced to January 2010 costs (News Record Index 8660) and will need to be adjusted for inflation in the future.
3. These costs would be decreased by approximately \$19 M if sewers were not extended to Falmouth Heights
4. These costs do not include house connection cost observed at \$2,000 to \$5,000 per connection at the New Silver beach Project.