

## SECTION 8

# Updated Cost Estimate

DTSC's remedy decision letter dated January 31, 2011 (DTSC 2011b) contains a condition of approval that requires PG&E to refine the cost estimate with each iteration of the remedy design (preliminary [30%], intermediate [60%], pre-final [90%], and final [100%]) for DTSC approval and to update the financial assurance annually for the life of the project. In compliance with this condition of approval, this section presents the updated cost estimate and Appendix H of this report contains the detailed cost information including the basis for the estimates. The capital, O&M, and post-remediation deconstruction costs presented in Table D-6 (Alternative E – Remedial Alternative Cost Summary – In-Situ Treatment with Freshwater Flushing) of the Corrective Measures Study/Feasibility Study (CMS/FS) Report (CH2M HILL 2009d), the preliminary (30%) design, the intermediate (60%) design, and the pre-final (90%, including the Supplemental 90%) design, have been updated to reflect current information presented in the final (100%) design. Exhibit 8-1 summarizes the updated costs.

## EXHIBIT 8-1

**SUMMARY OF COST ESTIMATES—PRESENT VALUE ANALYSIS**  
*Groundwater Remedy Basis of Design Report/Final (100%) Design*  
*PG&E Topock Compressor Station, Needles, California*

Period	Cost Type	Total Cost	Total Cost Per Year	Discount Factor <sup>1</sup>	Present Value
<b>COSTS IN CMS/FS REPORT<sup>2</sup></b>					
0	Capital Cost, Year 0	\$51,600,000	-	1.000	\$51,600,000
29	Annual O&M Cost, Year 1-30	-	\$4,000,000	18.785	\$75,138,196
10	Long Term Monitoring, Year 31-40	-	\$900,000	3.421	\$3,078,878
41	Post-Remediation Deconstruction, Year 41	\$7,300,000	-	0.278	\$2,030,637
<b>Total Present Value Of Alternative</b>					<b>\$132,000,000</b>
<b>COSTS IN PRELIMINARY (30%) DESIGN<sup>3</sup></b>					
0	Capital Cost, Year 0	\$65,900,000	-	1.000	\$65,900,000
29	Annual O&M Cost, Year 1-30	-	\$5,130,000	18.785	\$96,364,737
10	Long Term Monitoring, Year 31-40	-	\$900,000	3.421	\$3,078,878
41	Post-Remediation Deconstruction, Year 41	\$10,800,000	-	0.278	\$3,004,229
<b>Total Present Value Of Alternative</b>					<b>\$168,000,000</b>
<b>COSTS IN INTERMEDIATE (60%) DESIGN<sup>4</sup></b>					
0	Capital Cost, Year 0	\$103,527,563	-	1.000	\$104,000,000
29	Annual O&M Cost, Year 1-30	-	\$6,780,174	18.785	\$127,365,568
10	Long Term Monitoring, Year 31-40	-	\$885,537	3.421	\$3,029,422
41	Post-Remediation Deconstruction, Year 41	\$20,800,000	-	0.278	\$5,782,400
<b>Total Present Value Of Alternative</b>					<b>\$240,000,000</b>

EXHIBIT 8-1  
SUMMARY OF COST ESTIMATES—PRESENT VALUE ANALYSIS  
*Groundwater Remedy Basis of Design Report/Final (100%) Design  
PG&E Topock Compressor Station, Needles, California*

Period	Cost Type	Total Cost	Total Cost Per Year	Discount Factor <sup>1</sup>	Present Value
<b>COSTS IN PRE-FINAL (90%) DESIGN<sup>5</sup></b>					
0	Capital Cost, Year 0	\$122,765,883	-	1.000	\$122,765,883
29	Annual O&M Cost, Year 1-30	-	\$4,843,312	18.785	\$90,981,623
20	Long Term Monitoring, Year 31-50	-	\$374,599	5.925	\$2,219,501
51	Post-Remediation Deconstruction, Year 51	\$19,978,825	-	0.21	\$4,195,553
<b>Total Present Value Of Alternative</b>					<b>\$220,000,000</b>
<b>COSTS IN FINAL (100%) DESIGN<sup>6</sup></b>					
0	Capital Cost, Year 0	\$160,398,033	-	1.000	\$160,398,033
29	Annual O&M Cost, Year 1-30	-	\$5,085,253	24.36	\$123,875,497
20	Long Term Monitoring, Year 31-50	-	\$496,000	11.43	\$5,667,208
51	Post-Remediation Deconstruction, Year 51	\$20,228,825	-	0.49	\$9,954,855
<b>Total Present Value Of Alternative</b>					<b>\$299,895,594</b>

**Notes:**

<sup>1</sup> A discount factor of 3.17% per year was used in the Corrective Measures Study/Feasibility Study (CMS/FS), Preliminary (30%), Intermediate (60%), and Pre-Final (90%) Design estimates. A discount factor of 1.4% is being used in the Final (100%) Design estimate per Response to Comment DTSC-117 (see Appendix I).

<sup>2</sup> See Table D-6 of the CMS/FS Report (CH2M HILL 2009d).

<sup>3</sup> See Appendix H of the Preliminary (30%) Design (CH2M HILL 2011l).

<sup>4</sup> See Appendix H of the Intermediate (60%) Design (CH2M HILL 2013k).

<sup>5</sup> See Appendix H of the Pre-Final (90%) Design (CH2M HILL 2014u).

<sup>6</sup> See Appendix H of this Final (100%) Basis of Design document for detailed cost estimates.