



DEPARTMENT OF THE NAVY
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
ENVIRONMENTAL DIVISION
1220 PACIFIC HIGHWAY, RM 18
SAN DIEGO, CALIFORNIA 92132-5181

M60050.001060
MCAS EL TORO
SSIC # 5090.3

5090
Ser 09E/1032
September 19, 1995

Mr. William R. Mills, Jr., P.E.
General Manager
Orange County Water District
P.O. Box 8300
Fountain Valley, CA 92728-8300

Dear Mr. Mills:

We received your August 18, 1995, letter requesting draft Feasibility Study alternative descriptions and associated cost estimates. You also asked that we submit, in writing, a list of questions/clarifications we have that would facilitate resolving our outstanding interim remedial action cost reimbursement issue last discussed at our March 22, 1995, meeting.

To bring you up to date, the draft Feasibility Study is currently being reviewed. Our technical staff is validating both the appropriateness of the alternatives, the modeling results, and the conceptual cost estimates. We have enclosed summaries of our early (draft) cost estimates of the four Department of the Navy (DON) stand-alone project alternatives (2A, 2B, 2C, and 2D), as well as the two hybrid DON/Orange County Water District (OCWD) joint project alternatives (6A and 6B). Please note that our review of the cost estimates is not complete. To date, we have identified two significant cost elements that will impact the enclosed estimates. One is the elimination of redundant Volatile Organic Compounds (VOC) treatment systems, and the other is the inclusion of equipment replacement costs. Even though work is still progressing and the draft Feasibility Study becomes available October 15, 1995, we would like to present the alternatives with cost estimates to you and your staff the week of October 9, 1995.

We think it would also be appropriate at an early October meeting to discuss some of the interim remedial action expenditures (past ET-1 production well costs) issues. Let me express some of our general concerns regarding the incomplete past cost package presented to us on March 22, 1995. Costs noted as "Back-up Search not yet completed" will not be considered for payment until proper verification of these undocumented costs are provided as well as supporting documentation for all requested costs. Any ET-1 expenditure already reimbursed to OCWD by others should not be requested from DON. In addition, costs incurred by other parties (e.g. Irvine Ranch Water District [IRWD]) should be excluded from the request. The value of water produced by ET-1 should be factored into any OCWD request for reimbursement by DON by deducting it from the amount requested.

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Replenishment Assessment costs paid to OCWD by IRWD should not be included as reimbursable costs. In addition, as with all state and local fee issues such as the replenishment assessment fee, the three-prong standard of Massachusetts v. U.S., 435 U.S. 444 (1978) test must be satisfied to demonstrate that the fees are "reasonable service charges" for which Congress waived sovereign immunity. First, the regulation implementing the fees must not discriminate against the federal government by authorizing a fee waiver for some state or local government entities. Second, the fees must be a reasonable approximation of the benefits or services available. Finally, the fees must not generate excess revenue. Consequently, before we could discuss payment of the replenishment assessment fee to any governmental entity, we must obtain additional information so that DON can analyze the fee.

Our understanding from the March 22, 1995, meeting is that OCWD had taken the position that the air stripper for ET-1 was not required by law and was not necessary as a risk reduction measure. We were informed that OCWD had developed supporting documentation for this position, including a risk assessment addressing potential health effects. Please provide us with this supporting documentation. DON is concerned that the funded activities appear to have been inconsistent with Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)(40 CFR Part 308). If the activities funded were inconsistent with CERCLA and the NCP (40 CFR Part 308), the associated costs should be excluded from any reimbursement request.

Also discussed in the March 22, 1995, meeting was the use of OCWD's "Investment Yield History" used to convert ET-1 related expenditures, including real estate, into current "adjusted invoice" dollars. For real estate, market value is appropriate. If cost adjustments are warranted, CERCLA Section 107(a) allows recovery of interest, but only at the Hazardous Substances Superfund Trust Fund investment rates. Interest is calculated from the date of a written demand for a specified payment amount or the date of the expenditure, whichever is later.

Please use the Superfund interest rates listed below to recalculate interest on your request for reimbursement, along with a copy of OCWD's earliest written demand to DON for a specified payment amount.

Superfund Trust Fund Investment

<u>Year</u>	<u>Rate</u>	<u>Year</u>	<u>Rate</u>	<u>Year</u>	<u>Rate</u>
1988	6.99%	1991	7.99%	1994	3.36%
1989	8.39%	1992	5.70%	1995	5.63%
1990	8.47%	1993	3.49%		

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We sincerely look forward to successful resolution of these difficult issues in the months ahead and a "win-win" outcome for all concerned. Please let us know if there are any more specific reimbursement concerns, or points of clarification, needed to enable you to resubmit your March 22, 1995, package.

Sincerely,



W. A. DOS SANTOS
Commander, CEC, U.S. Navy
Environmental Officer
By direction of
the Commanding Officer

Encl:
(1) Summary Cost Estimates

Copy to:
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Assistant Chief of Staff, Environmental
Marine Corps Air Station El Toro
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Santa Ana, CA 92709-5001

Commander
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Counsel, Western Area
Attn: Major Patrick Uetz
Box 555231
Camp Pendleton, CA 92055-5231

Commandant of the Marine Corps
Headquarters, U.S. Marine Corps (CL)
Washington, D.C. 20380

Commandant of the Marine Corps
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Mr. Pete Kushner
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Washington, D.C. 20360-5110

Table E-2A (V)
Variable Cost Estimate for Alternative 2A—
MCAS El Toro Project Without 18_ET1
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Order-of-Magnitude Estimate		
	Division Total	VOC-Related Percent	VOC-Related Cost
CAPITAL COSTS			
Principal Aquifer			
Extraction System	\$584,000	100%	\$584,000
Conveyance	\$2,101,500	100%	\$2,101,500
VOC Treatment System	\$1,237,725	100%	\$1,237,725
Injection System	\$2,931,000	100%	\$2,931,000
<i>Subtotal - Principal Aquifer</i>			\$6,854,225
Shallow Groundwater Unit			
Extraction System	\$2,193,200	100%	\$2,193,200
Conveyance	\$1,985,500	100%	\$1,985,500
Treatment System	\$2,252,300	100%	\$2,252,300
Injection System	\$2,464,000	100%	\$2,464,000
<i>Subtotal - Shallow Groundwater Unit</i>			\$8,895,000
Groundwater Monitoring			
Monitoring	\$1,012,500	100%	\$1,012,500
<i>Subtotal - Groundwater Monitoring</i>			\$1,012,500
<i>Capital Cost Subtotal</i>			\$16,761,725
Capital Cost Total			\$16,761,725
ANNUAL O&M COSTS			
Principal Aquifer			
Extraction System	\$4,700	100%	\$4,700
Conveyance	\$103,260	100%	\$103,260
Treatment System	\$367,150	100%	\$367,150
Injection System	\$8,400	100%	\$8,400
<i>Subtotal - Principal Aquifer</i>			\$483,510
Shallow Groundwater Unit			
Extraction System	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250
Treatment System	\$385,100	100%	\$385,100
Injection System	\$25,500	100%	\$25,500
<i>Subtotal - Shallow Groundwater Unit</i>			\$537,000
Groundwater Monitoring			
Monitoring	\$76,542	100%	\$76,542
<i>Subtotal - Groundwater Monitoring</i>			\$76,542
<i>O&M Cost Subtotal</i>			\$1,097,052
O&M Cost Total (10% Contingency)			\$1,207,000
PRESENT WORTH			
Capital Costs with Allowances			\$29,700,000
O&M Costs (PW 40 years)			\$24,100,000
Present Worth Total			\$53,800,000

Working Draft

Table E-2B (V)
Variable Cost Estimate for Alternative 2B—
MCAS El Toro Project With 18_ET1
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Order-of-Magnitude Estimate		
	Division Total	VOC-Related Percent	VOC-Related Cost
CAPITAL COSTS			
Principal Aquifer			
Extraction System	\$584,000	100%	\$584,000
Conveyance	\$2,273,500	100%	\$2,273,500
Treatment System	\$1,330,520	100%	\$1,330,520
Injection System	\$4,395,250	100%	\$4,395,250
<i>Subtotal - Principal Aquifer</i>			\$8,583,270
Shallow Groundwater Unit			
Extraction System	\$2,193,200	100%	\$2,193,200
Conveyance	\$1,985,500	100%	\$1,985,500
Treatment System	\$2,252,200	100%	\$2,252,200
Injection System	\$2,464,000	100%	\$2,464,000
<i>Subtotal - Shallow Groundwater Unit</i>			\$8,894,900
Groundwater Monitoring			
Monitoring	\$1,012,500	100%	\$1,012,500
<i>Subtotal - Groundwater Monitoring</i>			\$1,012,500
<i>Subtotal MCAS El Toro Components</i>			\$18,490,670
<i>Subtotal MCAS El Toro Components with Allowances</i>			\$32,700,000
OCWD Components			
Existing Well ET-1 and VOC Treatment	\$1,900,000	100%	\$1,900,000
<i>Subtotal OCWD Components</i>			\$1,900,000
Capital Cost Total			\$34,600,000
ANNUAL O&M COSTS			
Principle Aquifer			
Extraction System	\$4,700	100%	\$4,700
Existing Well 18_EXT1D, 18_EXT2D	\$72,500	100%	\$72,500
Conveyance	\$149,200	100%	\$149,200
Treatment System	\$494,850	100%	\$494,850
Injection System	\$8,400	100%	\$8,400
<i>Subtotal - Principle Aquifer</i>			\$729,650
Shallow Groundwater Unit			
Extraction System	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250
Treatment System	\$385,100	100%	\$385,100
Injection System	\$25,500	100%	\$25,500
<i>Subtotal - Shallow Groundwater Unit</i>			\$537,000
Groundwater Monitoring			
Monitoring	\$76,542	100%	\$76,542
<i>Subtotal - Groundwater Monitoring</i>			\$76,542
<i>O&M Cost Subtotal</i>			\$1,343,192
O&M Cost Total (10% Contingency)			\$1,478,000
PRESENT WORTH			
Capital Costs With Allowances			\$34,600,000
O&M Costs (PW 40 years)			\$29,500,000
Present Worth Total			\$64,100,000

Working Draft

Table E-2C (V)
Variable Cost Estimate for Alternative 2C—
MCAS El Toro Project With Seasonal Use
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Order-of-Magnitude Estimate		
	Division Totals	VOC-Related Percent	VOC-Related Cost
CAPITAL COSTS			
Principal Aquifer			
Extraction System	\$584,000	100%	\$584,000
Conveyance	\$3,002,500	100%	\$3,002,500
Treatment System	\$1,330,520	100%	\$1,330,520
Injection System	\$4,395,250	100%	\$4,395,250
<i>Subtotal - Principal Aquifer</i>			<i>\$9,312,270</i>
Shallow Groundwater Unit			
Extraction System	\$2,193,200	100%	\$2,193,200
Conveyance	\$1,985,500	100%	\$1,985,500
Treatment System	\$2,224,650	100%	\$2,224,650
Injection System	\$2,464,000	100%	\$2,464,000
<i>Subtotal - Shallow Groundwater Unit</i>			<i>\$8,867,350</i>
Groundwater Monitoring			
Monitoring	\$1,012,500	100%	\$1,012,500
<i>Subtotal - Groundwater Monitoring</i>			<i>\$1,012,500</i>
<i>Subtotal MCAS El Toro Components</i>			<i>\$19,192,120</i>
<i>Subtotal MCAS El Toro Components with Allowances</i>			<i>\$34,000,000</i>
OCWD Components			
Existing Well ET-1 and VOC Treatment	\$1,900,000	100%	\$1,900,000
<i>Subtotal OCWD Components</i>			<i>\$1,900,000</i>
Capital Cost Total			\$35,900,000
ANNUAL O&M COSTS			
Principal Aquifer			
Extraction System	\$4,700	100%	\$4,700
Existing Well 18_ET1 & VOC Treatment	\$72,500	100%	\$72,500
Conveyance	\$149,180	100%	\$149,180
Treatment System	\$494,850	100%	\$494,850
Injection System	\$8,400	100%	\$8,400
<i>Subtotal - Principal Aquifer</i>	<i>\$729,630</i>		<i>\$729,630</i>
Shallow Groundwater Unit			
Extraction System	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250
Treatment System	\$385,150	100%	\$385,150
Injection System	\$25,500	100%	\$25,500
<i>Subtotal - Shallow Groundwater Unit</i>	<i>\$537,050</i>		<i>\$537,050</i>
Groundwater Monitoring			
Monitoring	\$76,542	100%	\$76,542
<i>Subtotal - Groundwater Monitoring</i>			<i>\$76,542</i>
<i>O&M Cost Subtotal</i>			<i>\$1,343,222</i>
O&M Cost Total (10% Contingency)			\$1,478,000
PRESENT WORTH			
Capital Costs With All Allowances			\$35,900,000
O&M Costs (PW 40 years)			\$29,500,000
Present Worth Total			\$65,400,000

Working Draft

Table E-2D (V)
Variable Cost Estimate for Alternative 2D—
MCAS El Toro Project With Continuous Use
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Order-of-Magnitude Estimate		
	Division Totals	VOC-Related Percent	VOC-Related Cost
CAPITAL COSTS			
Principal Aquifer			
Extraction System	\$584,000	100%	\$584,000
Conveyance	\$1,730,000	100%	\$1,730,000
Treatment System	\$1,330,600	100%	\$1,330,600
Discharge to Water Purveyor	\$26,000	100%	\$26,000
<i>Subtotal - Principal Aquifer</i>			\$3,670,600
Shallow Groundwater Unit			
Extraction System	\$2,193,200	100%	\$2,193,200
Conveyance	\$1,985,500	100%	\$1,985,500
Treatment System	\$2,252,250	100%	\$2,252,250
Injection System	\$2,464,000	100%	\$2,464,000
<i>Subtotal - Shallow Groundwater Unit</i>			\$8,894,950
Groundwater Monitoring			
Monitoring	\$900,000	100%	\$900,000
<i>Subtotal - Groundwater Monitoring</i>			\$900,000
<i>Subtotal MCAS El Toro Components</i>			\$13,465,550
<i>Subtotal MCAS El Toro Components with Allowances</i>			\$23,900,000
OCWD Components			
Existing Well ET-1 and VOC Treatment	\$1,900,000	100%	\$1,900,000
<i>Subtotal OCWD Components</i>			\$1,900,000
Capital Cost Total			\$25,800,000
ANNUAL O&M COSTS			
Principal Aquifer			
Extraction System	\$4,700	100%	\$4,700
Existing Well 18_ET1 and VOC Treatment	\$72,500	100%	\$72,500
Conveyance	\$102,710	100%	\$102,710
Treatment System	\$494,850	100%	\$494,850
<i>Subtotal - Principal Aquifer</i>			\$674,760
Shallow Groundwater Unit			
Extraction System	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250
Treatment System	\$385,100	100%	\$385,100
Injection System	\$25,500	100%	\$25,500
<i>Subtotal - Shallow Groundwater Unit</i>			\$537,000
Groundwater Monitoring			
Monitoring	\$62,288	100%	\$62,288
<i>Subtotal - Groundwater Monitoring</i>			\$62,288
<i>O&M Cost Subtotal</i>			\$1,274,048
<i>O&M Cost Total (10% Contingency)</i>			\$1,401,000
PRESENT WORTH			
Capital Costs with Allowances			\$25,800,000
O&M Costs (PW 40 years)			\$28,000,000
Present Worth Total			\$53,800,000

Working Draft

Table E-6A (V)
Variable Cost Estimate for Alternative 6A—
IDP/MCAS El Toro Project and Reduced IDP With Discharge to Use Only
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Division Totals	Order-of-Magnitude Estimates			Cost
		0%	VOC-Related Cost	50%	
CAPITAL COSTS					
MCAS El Toro Components					
Principal Aquifer					
Discharge to Remainder of IDP Treatment System	\$13,000	100%	\$13,000	100%	\$13,000
Extraction System	\$584,000	100%	\$584,000	100%	\$584,000
Conveyance	\$2,169,500	100%	\$2,169,500	100%	\$2,169,500
<i>Subtotal—Principal Aquifer</i>			<i>\$2,766,500</i>		<i>\$2,766,500</i>
Shallow Groundwater Unit					
Extraction System	\$2,199,600	100%	\$2,199,600	100%	\$2,199,600
Conveyance	\$1,511,500	100%	\$1,511,500	100%	\$1,511,500
VOC Treatment System	\$1,214,300	100%	\$1,214,300	100%	\$1,214,300
<i>Subtotal—Shallow Groundwater Unit</i>			<i>\$4,925,400</i>		<i>\$4,925,400</i>
Groundwater Monitoring Wells					
Monitoring Wells	\$900,000	100%	\$900,000	100%	\$900,000
<i>Subtotal MCAS El Toro Components</i>			<i>\$8,591,900</i>		<i>\$8,591,900</i>
<i>Subtotal MCAS El Toro Components With All Allowances</i>			<i>#####</i>		<i>\$15,200,000</i>
OCWD Components					
Land and Easements - Well Site Acquisitions	\$1,149,500	0%	\$0	50%	\$574,750
Extraction System (Well Construction Costs)					
IDP Wells (18_IDP1, 18_IDP3, 18_IDP4)	\$1,080,000	0%	\$0	50%	\$540,000
Existing Well 18_ET1 and VOC Treatment	\$1,900,000	100%	\$1,900,000	100%	\$1,900,000
Conveyance	\$4,378,250	0%	\$0	50%	\$2,189,125
VOC Treatment System	\$1,753,000	100%	\$1,753,000	100%	\$1,753,000
Treatment Equipment Building/Site Work/Telemetry	\$3,383,900	0%	\$0	50%	\$1,691,950
<i>Subtotal OCWD Components</i>			<i>\$3,653,000</i>		<i>\$8,648,825</i>
Capital Cost Total			\$18,850,000		\$23,850,000
ANNUAL O&M COSTS					
Principal Aquifer					
OCWD Components					
Extraction System	\$117,200	0%	\$0	50%	\$58,600
VOC Treatment System	\$240,000	100%	\$240,000	100%	\$240,000
Existing Well 18_ET1 and VOC Treatment	\$72,500	100%	\$72,500	100%	\$72,500
Lab Analysis of Finished Water	\$127,700	0%	\$0	50%	\$63,850
<i>Subtotal - OCWD Component Principal Aquifer</i>			<i>\$312,500</i>		<i>\$434,950</i>
MCAS El Toro Components					
Extraction System	\$4,700	100%	\$4,700	100%	\$4,700
Conveyance	\$322,790	100%	\$322,790	100%	\$322,790
<i>Subtotal - MCAS El Toro Component Principal Aquifer</i>			<i>\$327,490</i>		<i>\$327,490</i>

Working Draft

Table E-6A (V)
 Variable Cost Estimate for Alternative 6A—
 IDP/MCAS El Toro Project and Reduced IDP With Discharge to Use Only
 MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Division Totals	Order-of-Magnitude Estimates			Cost
		0%	VOC-Related Cost	50%	
Shallow Groundwater Unit					
Extraction System	\$37,150	100%	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250	100%	\$89,250
Treatment	\$278,150	100%	\$278,150	100%	\$278,150
<i>Subtotal - Shallow Groundwater Unit</i>			<i>\$404,550</i>		<i>\$404,550</i>
Groundwater Monitoring Wells					
Monitoring Wells	\$62,288	100%	\$62,288	100%	\$62,288
<i>O&M Cost Subtotal</i>			<i>\$1,106,828</i>		<i>\$1,229,278</i>
O&M Cost Total (10% Contingency on non-OCWD Components)			\$1,218,000		\$1,340,000
PRESENT WORTH					
Capital Costs with Allowances			\$18,850,000		\$23,850,000
O&M Costs (PW 40 years)			\$24,300,000		\$26,800,000
Present Worth Total			\$43,150,000		\$50,650,000

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Table E-6B (V)
Variable Cost Estimate for Alternative 6B—
IDP/MCAS El Toro Project and Reduced IDP with Injection of Shallow Groundwater
MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Division Totals	Order-of-Magnitude Estimates			
		0%	Cost	VOC-Related 50%	Cost
CAPITAL COSTS					
MCAS El Toro Components					
Principal Aquifer					
Discharge to Remainder of IDP Treatment System	\$13,000	100%	\$13,000	100%	\$13,000
Extraction System	\$584,000	100%	\$584,000	100%	\$584,000
Conveyance	\$2,169,500	100%	\$2,169,500	100%	\$2,169,500
<i>Subtotal--Principal Aquifer</i>			\$2,766,500		\$2,766,500
Shallow Groundwater Unit					
Extraction System	\$2,193,200	100%	\$2,193,200	100%	\$2,193,200
Conveyance	\$1,985,500	100%	\$1,985,500	100%	\$1,985,500
VOC Treatment System	\$2,252,300	100%	\$2,252,300	100%	\$2,252,300
Injection System	\$2,464,000	100%	\$2,464,000	100%	\$2,464,000
<i>Subtotal--Shallow Groundwater Unit</i>			\$8,895,000		\$8,895,000
Groundwater Monitoring Wells					
Monitoring Wells	\$900,000	100%	\$900,000	100%	\$900,000
<i>Subtotal MCAS El Toro Components</i>			\$12,561,500		\$12,561,500
<i>Subtotal MCAS El Toro Components With All Allowances</i>			\$22,300,000		\$22,300,000
OCWD Components					
Land and Easements - Well Site Acquisitions	\$1,149,500	0%	\$0	50%	\$574,750
Extraction System (Well Construction Costs)					
IDP Wells (18_IDP1, 18_IDP3, 18_IDP4)	\$1,080,000	0%	\$0	50%	\$540,000
Existing Well 18_ET1 and VOC Treatment	\$1,900,000	100%	\$1,900,000	100%	\$1,900,000
Conveyance	\$4,378,250	0%	\$0	50%	\$2,189,125
VOC Treatment System	\$1,753,000	100%	\$1,753,000	100%	\$1,753,000
Treatment Equipment Building/Site Work/Telemetry	\$3,383,900	0%	\$0	50%	\$1,691,950
<i>Subtotal OCWD Components</i>			\$3,653,000		\$8,648,825
Capital Cost Total			\$25,950,000		\$30,950,000
ANNUAL O&M COSTS					
Principal Aquifer					
OCWD Components					
Extraction System	\$117,200	0%	\$0	50%	\$58,600
VOC Treatment System	\$240,000	100%	\$240,000	100%	\$240,000
Existing Well 18_ET1 and VOC Treatment	\$72,500	100%	\$72,500	100%	\$72,500
Lab Analysis of Finished Water	\$127,700	0%	\$0	50%	\$63,850
<i>Subtotal - OCWD Component Principal Aquifer</i>			\$312,500		\$434,950
MCAS El Toro Components					
Extraction System	\$4,700	100%	\$4,700	100%	\$4,700
Conveyance	\$322,950	100%	\$322,950	100%	\$322,950
<i>Subtotal - MCAS El Toro Component Principal Aquifer</i>			\$327,650		\$327,650

Working Draft

Table E-6B (V)

Variable Cost Estimate for Alternative 6B—

IDP/MCAS El Toro Project and Reduced IDP with Injection of Shallow Groundwater
 MCAS El Toro OU-1 Interim-Action FS Report

Working Draft

Description	Division Totals	Order-of-Magnitude Estimates			
		0%	VOC-Related Cost	50%	Cost
Shallow Groundwater Unit					
Extraction System	\$37,150	100%	\$37,150	100%	\$37,150
Conveyance	\$89,250	100%	\$89,250	100%	\$89,250
Treatment	\$385,100	100%	\$385,100	100%	\$385,100
Injection System	\$25,500	100%	\$25,500	100%	\$25,500
<i>Subtotal - Shallow Groundwater Unit</i>			<i>\$537,000</i>		<i>\$537,000</i>
Groundwater Monitoring Wells					
Monitoring Wells	\$62,288	100%	\$62,288	100%	\$62,288
<i>O&M Cost Subtotal</i>			<i>\$1,239,438</i>		<i>\$1,361,888</i>
O&M Cost Total (10% Contingency on non-OCWD Components)			\$1,363,000		\$1,486,000
PRESENT WORTH					
Capital Costs with Allowances			\$25,950,000		\$30,950,000
O&M Costs (PW 40 years)			\$27,200,000		\$29,700,000
Present Worth Total			\$53,200,000		\$60,700,000

Working Draft