

**APPENDIX E**

**COST ESTIMATES, CLEARANCE ALTERNATIVES**

**Table E-1**  
**Assumptions Regarding Costs Estimates**  
**for Removal Action Alternatives**  
**East Elliott**

**GENERAL ASSUMPTIONS:**

1. Work week is defined as 8 hours per day, 5 days a week, not to exceed 40 hours per week.
2. Cost estimates do not include stand-down time for weather, natural disasters, federal holidays, or denied access to any areas within the site.
3. Cost estimates do not include stand-down time due to the discovery of any threatened or endangered species or any archeologically significant sites.
4. Coordination between UXO Specialists and the USACE will be adequate so as to allow unlimited access to each area at the time that the work is scheduled to be performed.
5. Cost for equipment assumes no Government-Furnished Equipment.
6. The government will be documented as the waste generator for all UXO-related debris.

**INITIAL COSTS, RECURRING COSTS, AND MARKUP ASSUMPTIONS:**

- (a) Subtotals rounded up to the nearest \$100.
- (b) Totals rounded up to the nearest \$1,000.
- (c) Work Plans and Safety Plans will be prepared in accordance with USACE guidelines and shall conform to the U.S. EPA requirements. The cost estimate for Alternatives 3, 4 and 5 assumes the cost for the Work Plan, Health and Safety Plan, and Final report are the same for each alternative.
- (d) Environmental assessment will be conducted prior to mobilizing field teams and shall comply with the requirements of NEPA (Source: Mr. John Mouer, Ecologist, CESPL). A reduced scope of work for environmental assessments would be required for surface removals of roads and trails because disturbance of these areas is largely pre-existent.
- (e) Mobilization/demobilization costs assume UXO Specialists are not available locally, and will require transportation reimbursement for ground transportation or air travel.
- (f) Site facilities include a site trailer, two portable toilets, rental and dumping cost of the trash bin, and a flame-proof storage locker. Explosives required for UXO disposal will be kept in a secured area at MCAS Miramar or Sycamore Landfill.
- (g) Manual pruning costs estimated at \$6,000 per acre (Mr. Brad McCowan, CEHNC). Brush clearance for roads and trails is estimated at \$3,000 per acre because of reduced scope of work. Brush clearance areas (i.e., areas of dense brush where pruning is required to observe the ground surface) for surface removal are estimated to be 15% of the total OE removal area, based on observed brush density and the extent of brush clearance typically required for surface removal operations. Brush clearance areas for subsurface removals will be more extensive and are based on observations during site visits: Sector 1 - 60%, Sector 2 - 50%, Sector 4 - 40%. Vegetative waste will be chipped and spread on the ground in exposed areas to minimize erosion while natural re-vegetation occurs.

**Table E-1**  
**Assumptions Regarding Costs Estimates**  
**for Removal Action Alternatives**  
**East Elliott**  
**(Continued)**

- (h) Surface removal to be conducted by visual inspection of the ground surface and removal of all anomalies. In areas where ground surface visibility is reduced by brush, rocks, etc., magnetometers will be employed. Cost estimated at \$1,000 per acre (Source: Mr. Brad McCowan, CEHNC). UXO teams (one UXO supervisor and 6 UXO-qualified personnel) can clear approximately 3 acres per day on level terrain. Multiple teams to be deployed to lower project costs and compress the schedule. The cost estimate assumes that four teams will be used.
- (i) Subsurface removal includes surveys of removal grids, visual and magnetometer sweeps, flagging of all surface OE and subsurface anomalies, excavation of all anomalies to a depth of 1 foot bgs, and detonation of any UXO encountered. Cost estimated at \$6,000 per acre (Source: Mr. Brad McCowan, CEHNC). UXO teams (one UXO supervisor and 6 UXO-qualified personnel) can clear approximately 0.8 acres per day (3.5 100-foot x 100-foot grids) on level terrain. Multiple teams to be deployed to lower project costs and compress the schedule. The cost estimate assumes that eight teams will be used.
- (j) One construction phase consists of the construction of two landfill cells consisting of 25 acres; removal of adjacent undeveloped property is included outside of the landfill footprints. Estimated landfill sizes are 700 and 500 acres for Sectors 1 (750 acres total) and 2 (650 acres total), respectively; . No additional construction support will be performed for those areas already cleared and/or occupied by the Sycamore Canyon Landfill (i.e., 185 acres)
- (k) Assumes that drilling, grading, and excavation activities to a depth of 1 foot bgs will take 2 months for each construction phase; investigation (drilling) and minor access road improvements are estimated to take 5 days per phase. Each construction support UXO team will consist of 1 UXO supervisor and three UXO-qualified personnel (4-person teams) for excavation activities, and 2-person teams for drilling and minor access road improvements.
- (l) One-time OE transportation and disposal at the end of the project. No costs assumed for disposing OE beyond recycling scrap. No costs are incurred by disposing of recovered scrap and debris, other than the cost of obtaining an on-site trash bin.
- (m) Recurring costs includes visual checks of site conditions as re-vegetation occurs, monitoring changes in land use, and periodic removal of OE from the site. Additional OE response teams will consists of one UXO supervisor and one UXO-qualified person.
- (n) Contingency allowances are added to direct costs to account for unforeseen circumstances that may result in additional costs. Examples include variable site conditions (degree of brush removal required, impacts of steep terrain, limited vehicle access, etc.), adverse weather, and uncertainty of site characterization. According to the Remedial Action Costing Procedures Manual ([USEPA, 1987](#)), contingency allowances typically range from 15 to 25 percent of the total capital costs. Because site conditions at East Elliott are variable, a contingency allowance of 25 percent was assumed for the purposes of these estimates.
- (o) Project administration includes costs for legal services, procurement, contract oversight, and administration incurred by CEHNC and/or CESPL during the implementation of each action. Based on Montgomery Watson's previous experience with remedial actions and construction projects, project administration costs are assumed to be 15 percent of the total capital costs.

**TABLE E-2**

**ESTIMATED COST FOR SECTOR 1  
ALTERNATIVE 3 - SURFACE CLEARANCE**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
<b>Initial Cost</b>					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$40,000	1	\$40,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	75	\$39,000	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	75	\$3,000	
Brush Removal (g)	acre	\$6,000	113	\$678,000	
Surface Clearance (h)	acre	\$1,000	750	\$750,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$1,606,000</b>
<b>RECURRING COSTS</b>					
Periodic Monitoring (m)	acre	\$200	750	\$150,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,992,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$1,606,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,992,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$899,500
Project Administration (15% of Initial and Recurring Costs) (o)					\$539,700
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$719,600
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$5,757,000</b>

**TABLE E-3**

**ESTIMATED COST FOR SECTOR 2  
ALTERNATIVE 3 - SURFACE CLEARANCE**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
<b>Initial Cost</b>					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$35,000	1	\$35,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	50	\$26,000	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	50	\$2,000	
Brush Removal (g)	acre	\$6,000	71	\$426,000	
Surface Clearance (h)	acre	\$1,000	470	\$470,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$1,055,000</b>
<b>RECURRING COSTS</b>					
Periodic Monitoring (m)	acre	\$200	437	\$87,400	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,161,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$1,055,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,161,000</b>
Contingency (25% of Initial and Recurring Costs) (k)					\$554,000
Project Administration (15% of Initial and Recurring Costs) (l)					\$332,400
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$443,200
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$3,546,000</b>

TABLE E-4

**ESTIMATED COST FOR SECTOR 4  
ALTERNATIVE 3 - SURFACE CLEARANCE**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
Initial Cost					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$50,000	1	\$50,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	100	\$52,000	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	100	\$4,000	
Brush Removal (g)	acre	\$6,000	158	\$948,000	
Surface Clearance (h)	acre	\$1,000	1,050	\$1,050,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$2,200,000</b>
RECURRING COSTS					
Periodic Monitoring (m)	acre	\$200	1,050	\$210,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$2,789,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$2,200,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$2,789,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$1,247,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$748,400
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$997,800
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$7,983,000</b>

TABLE E-5

**ESTIMATED COST FOR SECTOR 1  
ALTERNATIVE 4 - SUBSURFACE CLEARANCE TO 1 FOOT DEPTH**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
Initial Cost					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$40,000	1	\$40,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	130	\$67,600	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	130	\$5,200	
Brush Removal (g)	acre	\$6,000	450	\$2,700,000	
Subsurface Clearance to 1 Foot (i)	acre	\$6,000	750	\$4,500,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$7,409,000</b>
RECURRING COSTS					
Periodic Monitoring (m)	acre	\$200	750	\$150,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,992,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$7,409,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,992,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$2,350,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$1,410,200
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$1,880,200
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$15,042,000</b>

**TABLE E-6**

**ESTIMATED COST FOR SECTOR 2  
ALTERNATIVE 4 - SUBSURFACE CLEARANCE TO 1 FOOT DEPTH**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
<b>Initial Cost</b>					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$30,000	1	\$30,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	85	\$44,200	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	85	\$3,400	
Brush Removal (g)	acre	\$6,000	235	\$1,410,000	
Subsurface Clearance to 1 Foot (i)	acre	\$6,000	470	\$2,820,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$4,404,000</b>
<b>RECURRING COSTS</b>					
Periodic Monitoring (m)	acre	\$200	437	\$87,400	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,161,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$4,404,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,161,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$1,391,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$834,800
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$1,113,000
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$8,905,000</b>

TABLE E-7

**ESTIMATED COST FOR SECTOR 4  
ALTERNATIVE 4 - SUBSURFACE CLEARANCE TO 1 FOOT DEPTH\***

Item/Description	Unit	Unit Cost	Quantity	Subtotal (a)	Total (b)
Initial Cost					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$50,000	1	\$50,000	
Mobilization/Demobilization (e)	lump	\$25,000	1	\$25,000	
Site Security	day	\$520	175	\$91,000	
Site Set-Up (f)	lump	\$5,000	1	\$5,000	
Site Facilities Maintenance (f)	day	\$40	175	\$7,000	
Brush Removal (g)	acre	\$6,000	300	\$1,800,000	
Surface Clearance	acre	\$1,000	300	\$300,000	
Subsurface Clearance to 1 Foot (i)	acre	\$6,000	750	\$4,500,000	
OE Transportation/Disposal (l)	lump	\$1,000	1	\$1,000	
Project Report	lump	\$50,000	1	\$50,000	
<b>TOTAL INITIAL COST</b>					<b>\$6,844,000</b>
RECURRING COSTS					
Periodic Monitoring (m)	acre	\$200	1,050	\$210,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$2,789,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$6,844,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$2,789,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$2,408,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$1,445,000
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$1,926,600
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$15,413,000</b>

\* Excluding the area north and west of Quail Canyon, which only requires surface clearance.

TABLE E-8

**ESTIMATED COST FOR SECTOR 1  
ALTERNATIVE 5 - CONSTRUCTION SUPPORT**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
Initial Cost					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$40,000	1	\$40,000	
Mobilization/Demobilization (e)	phase (j)	\$25,000	14	\$350,000	
Site Set-Up (f)	phase (j)	\$2,000	14	\$28,000	
Landfill Construction Support (k)	team-day (2 person)	\$5,000	70	\$350,000	
Landfill Construction Support (k)	team-day (4 person)	\$5,000	840	\$4,200,000	
Brush Removal outside Landfill (j, g)	acre	\$6,000	30	\$180,000	
Subsurface Clearance to 3 Feet (j, i)	acre	\$6,000	50	\$300,000	
OE Transportation/Disposal (l)	phase (j)	\$1,000	14	\$14,000	
Project Report	phase (j)	\$50,000	14	\$700,000	
<b>TOTAL INITIAL COST</b>					<b>\$6,177,000</b>
RECURRING COSTS					
Periodic Monitoring (m)	acre	\$200	750	\$150,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,992,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$6,177,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,992,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$2,042,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$1,225,400
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$1,633,800
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$13,071,000</b>

TABLE E-9

**ESTIMATED COST FOR SECTOR 2  
ALTERNATIVE 5 - CONSTRUCTION SUPPORT**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
<b>Initial Cost</b>					
Work Plans & Safety Plans (c)	lump	\$15,000	1	\$15,000	
Environmental Assessment (d)	lump	\$40,000	1	\$40,000	
Mobilization/Demobilization (e)	phase (j)	\$25,000	7	\$175,000	
Site Set-Up (f)	phase (j)	\$2,000	7	\$14,000	
Landfill Construction Support (k)	team-day (2 person)	\$5,000	35	\$175,000	
Landfill Construction Support (k)	team-day (4 person)	\$5,000	420	\$2,100,000	
Brush Removal outside Landfill (j, g)	acre	\$6,000	75	\$450,000	
Subsurface Clearance to 3 Feet (j, i)	acre	\$6,000	150	\$900,000	
OE Transportation/Disposal (l)	phase (j)	\$1,000	7	\$7,000	
Project Report	phase (j)	\$50,000	7	\$350,000	
<b>TOTAL INITIAL COST</b>					<b>\$4,226,000</b>
<b>RECURRING COSTS</b>					
Periodic Monitoring (m)	acre	\$200	465	\$93,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$1,235,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$4,226,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$1,235,000</b>
Contingency (25% of Initial and Recurring Costs) (n)					\$1,365,300
Project Administration (15% of Initial and Recurring Costs) (o)					\$819,200
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$1,092,200
<b>TOTAL COST OF REMEDIAL ALTERNATIVE</b>					<b>\$8,738,000</b>

TABLE E-10

ESTIMATED COSTS FOR RESIDUAL RISK MANAGEMENT  
 ALL SECTORS  
 FORMER CAMP ELLIOTT (EAST ELLIOTT)  
 (Page 1 of 2)

Item/Description	Unit	Unit Cost	Quantity	Subtotal (a)	Total (b)
Initial Costs					
Development of Memoranda of Agreement	lump	\$50,000	1	\$50,000	
<u>Warning Signs (c)</u>					
Development of Content (d)	lump	\$800	1	\$800	
Procurement of Signs (e)	lump	\$200	1	\$200	
Manufacture (f)	each	\$30	46	\$1,400	
Installation (g)	each	\$113	46	\$5,200	
UXO Avoidance (h)	day	\$1,060	6	\$6,400	
Warning Sign Easement (z)	each	\$13,000	46	\$598,000	
<u>Display Boards (i)</u>					
Development of Content (j)	lump	\$4,000	1	\$4,000	
Procurement (k)	lump	\$400	1	\$400	
Manufacture (l)	each	\$1,200	1	\$1,200	
Installation (m)	each	\$540	1	\$600	
UXO Avoidance (n)	day	\$1,060	1	\$1,100	
UXO Avoidance Procure. and Coord. (o)	lump	\$2,000	1	\$2,000	
Display Board Easement (z)	each	\$13,000	1	\$13,000	
<u>Awareness Training</u>					
Development (p)	lump	\$4,000	2	\$8,000	
Production of Visual Aids (q)	lump	\$1,000	5	\$5,000	
<u>Deed Notification (ab)</u>					
	parcel	\$37	165	\$6,200	
<u>Establish Baseline for Erosion Monitoring (ac)</u>					
	lump	\$15,000	1	\$15,000	
TOTAL INITIAL COST					\$719,000

**TABLE E-10**

**ESTIMATED COSTS FOR SELECTED INSTITUTIONAL CONTROLS  
TIME-CRITICAL REMOVAL ACTION - ALL SECTORS  
FORMER CAMP ELLIOTT (EAST ELLIOTT)  
(Page 2 of 2)**

<b>Item/Description</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Subtotal (a)</b>	<b>Total (b)</b>
<b>RECURRING COSTS (Period of 30 Years)</b>					
Repl. of Warning Signs (r)	3 events/sign/30 yr	\$495	46	\$22,800	
Repl. of Display Board Covers (s)	6 events/board/30 yr	\$1,950	1	\$2,000	
Repl. of Display Boards (t)	3 events/board/30 yr	\$5,220	1	\$5,300	
Publ. of Awareness Training Materials (u)	year	\$200	30	\$6,000	
Coord. of Awareness Train. Mtgs (v)	year	\$500	30	\$15,000	
Presentation of Awareness Meetings (w)	year	\$1,000	30	\$30,000	
Fee for Board and Sign Easements (aa)	1 fee/item/30 yrs	\$2,000	47	\$94,000	
Distribute Questionnaire (ad)	1 event/5 yr	\$3,560	6	\$21,400	
Legal Notice in Newspaper (ae)	event	\$3,360	17	\$57,200	
Brochure Distribution (af)	event	\$3,940	17	\$67,000	
<b>NET PRESENT WORTH OF RECURRING COSTS (30 YEARS, 7% DISCOUNT RATE)</b>					<b>\$133,000</b>
<b>INITIAL COST SUBTOTAL</b>					<b>\$719,000</b>
<b>RECURRING COST SUBTOTAL (NET PRESENT WORTH)</b>					<b>\$133,000</b>
Contingency (25% of Initial and Recurring Costs) (x)					\$213,000
Project Administration (15% of Initial, Recurring, and Contingency Costs) (y)					\$159,800
Contractor's Overhead and Profit (20% of Initial and Recurring Costs)					\$170,400
<b>TOTAL COST OF REMEDIAL ALTERNATIVE (NET PRESENT WORTH)</b>					<b>\$1,396,000</b>

Notes: Assumptions are presented in [Appendix D](#).  
 Total number of sign for all four sectors as a whole is less than sum of individual sectors.  
 Monitoring costs are included as recurring costs for clearance alternatives.