

MEMORANDUM FOR RECORD**Date:** 24 February 2015**SUBJECT:** Environmental Liabilities for site SEAD-12, Radioactive Waste Burial Pits including SEAD-72, Building 803 at Seneca Army Depot

This memorandum serves as formal documentation of the information used to develop the Cost-To-Complete (CTC) estimate for SEAD 012 during the 2015 data call. Estimators experience is documented on the Estimator Experience Form, enclosure; per the Financial Accounting Standards Board Handbook (FASB) Technical Release 2. The Draft Record of Decision identifies CERCLA requirements for LTM (Source 1).

Site History:

This site consists of the former special weapons storage area at the north end of the installation. Three areas within the special weapons area were used to bury classified components.

Buildings 813 and 814 were constructed in the 1950s and primarily used for painting operations. A supplemental remedial investigation (SRI) was conducted based on the recommendations from the RI/FS conducted from 1995 through 1999 due to elevated trichloroethylene (TCE) in groundwater adjacent to the building, and further investigation of EM-5, miscellaneous material burial pit, was recommended to further evaluate elevated levels of lead-210 (Pb-210) detected in soil samples.

In FY05 a soil removal action was conducted at the northeast corner of Building 813 with confirmatory samples indicating no VOC concentrations above soil screening criteria. Additional soil samples collected at EM-5 showed Pb-210 to be within screening criteria. Results of the RI indicate no unacceptable risk to human health and the environment.

In FY09 an interim remedial measure (IRM) was performed to remove military items that had be previously buried. As part of this action, SEAD-072 was closed in accordance with (IAW) Resource Conservation and Recovery Act (RCRA) requirements.

The third area, SEAD-072 Mixed Waste Storage Building, regulated under the Interim Status Hazardous Waste Permit was closed in accordance with (IAW) Resource Conservation and Recovery Act (RCRA) requirements and incorporated into the ROD for SEAD-012.

Current Site Status: The ROD for this site is in the DRAFT Final stage of review and will signed upon completion of this review.

Exit Strategy: The LUC will be in perpetuity however costing is estimated for 30 years. Upon approval/acceptance of the ROD, this site will be incorporated into SEAD 009 as part of the installation LUC review and the 5 Year review.

Enclosure:

1. Estimator's Experience Form
2. Draft Record of Decision, SEAD 12 and SEAD 72, February 2012 (CERCLA Action)
3. Owner cost from RACER
4. Bureau of Economic Analysis for Escalation Factors

Owner Support Cost Assumptions:

Owner support costs, which are not included in CERCLA Decision Documents, are calculated to be 11% of Project Cost as described in RACER.

Cost Summary SEAD-12

LUC Costs (Source 1) \$6000/year x 30 years	
Escalation of FY 2012 Costs with Rate of 1.0388 (Source 3), \$6,000X1.0388 X30= \$186,984	\$186,984
LTM (Source 2)	
Owner Support Cost	
\$186,984 x 11% = \$20,568.24	
(rounded to \$20,568)	\$20,568
Total Site Cost	\$207,552

Material Change: No

Reason:

Prepared by: Randall Battaglia
Cost Estimator

Signature

Date

Reviewed by: Stephen M. Absolom
Cost Estimate Reviewer

Signature

Date

DRAFT
RECORD OF DECISION

FOR

THE RADIOACTIVE WASTE BURIAL SITES (SEAD-12) AND
THE MIXED WASTE STORAGE FACILITY (SEAD-72)

SENECA ARMY DEPOT ACTIVITY
ROMULUS, NEW YORK

Prepared for:

SENECA ARMY DEPOT ACTIVITY
5786 STATE ROUTE 96
ROMULUS, NEW YORK 14541

and

UNITED STATES ARMY CORPS OF ENGINEERS
4820 UNIVERSITY SQUARE
HUNTSVILLE, ALABAMA 35816

Prepared By:

Parsons
100 High Street, 4th Floor
Boston, Massachusetts 02110

Contract Number: DACA87-02-D-0005

Delivery Orders: 0031

EPA Site ID: NY0213820830

NY Site ID: 8-50-006

February 2012

since extensive coordination with local, state, and regional agencies would be required in the attempt to support and justify no remedial action at SEAD-12.

Alternative 2 would be slightly more difficult to implement than Alternative 1 because it requires the implementation, maintenance, oversight, and annual reporting of the continuing effectiveness of the environmental easement and the preparation, submittal, and approval of an environmental easement implementation plan.

Alternative 3 would be more difficult to implement than Alternative 2. Nonetheless, technologies for the building demolition, soil excavation, and characterization, transport, and disposal of excavated soil under Alternative 2 are mature and readily available. In addition, a licensed off-site landfill capable of accepting the building debris and soil from SEAD-12 would be needed for Alternative 3.

10.6 COST

Capital costs, operating costs, and administrative costs were estimated for Alternatives 1, 2, and 3. Capital costs include those costs for professional labor, construction and equipment, field work, monitoring and testing, and treatment and disposal. Operating costs include costs for administrative and professional labor, monitoring, and utilities. Administrative costs include the costs for land use restrictions. The present worth cost associated with all alternatives is calculated using a discount rate of seven percent (7%) and a 30-year time interval for Alternative 2 and five years for Alternative 3. The estimated capital, operation, maintenance, and monitoring, and the present-worth costs are presented below.

Alternative	Capital Cost	Annual LTM Costs	Total Present-Worth Costs
1	\$0	\$0	\$0
2	\$0	\$6,000	\$160,767
3	\$440,000	\$20,000	\$522,000

ANNUAL COST

Alternative 1 (no action) is the least costly alternative and incurs no cost for SEAD-12. The costs for the Buildings 813/814 area remediation are \$160,767 and \$522,000 for Alternative 2 and Alternative 3, respectively.

10.8 STATE ACCEPTANCE

NYSDEC concurs with the preferred remedial alternative (i.e., Alternative 2) for SEAD-12.

EXPECTED Alternative

10.9 COMMUNITY ACCEPTANCE

Community acceptance of the preferred alternative for SEAD-12 and SEAD-72 will be assessed in the ROD following review of the public comments received on the Proposed Plan.

11.0 SELECTED REMEDY

SEAD-12 is suitable for unrestricted use, exclusive of the area shown in **Figure 1-1**, where data are needed to assess potential hazards and risks that may exist due to VOC vapor intrusion into buildings or re-contamination of soil and groundwater due to VOC migration from beneath the building slabs. Since TCE and other VOCs were detected in the soil underlying Buildings 813/814, the Army is proposing to reduce potential risks, if any in fact exist, that may be associated with the potential outward migration of these hazardous substances.

Both the environmental easement (Alternative 2) and the Buildings 813/814 vapor intrusion study and building demolition (Alternative 3) alternatives were evaluated together with the no-action alternative (Alternative 1) for SEAD-12. Based on the comparative alternative analysis, Alternatives 2 and 3 both satisfy the requirements of CERCLA Section 121, 42 U.S.C. Section 9621, and have similar performance with respect to the NCR's nine evaluation criteria, 40 CFR Section 300.430(e)(9). The costs are \$160,767 and \$522,000 for Alternative 2 and Alternative 3, respectively. The cost of Alternative 3 is approximately seven times larger than the cost for Alternative 2. Alternative 2 is comparatively cost effective in reducing potential risks associated with indoor air exposure. As a result, Alternative 2 is the recommended alternative.

In summary, the preferred remedy at SEAD-12 is to establish an environmental easement to prohibit access to, and use of, Buildings 813/814, or any newly constructed building overlying the footprint of the existing buildings, until such time as data are provided to show that potential risks from volatile organic compound, including trichloroethene, intrusion do not pose unacceptable risks to future receptors within the building(s). Additionally, a separate LUC that prohibits access to and use of groundwater in the vicinity of Buildings 813/814 (as shown in **Figure 1-1**) would also be implemented and maintained.

The vapor intrusion easement will state that an investigation of vapor intrusion potential and indoor air quality must be performed, and the results of the surveys must be reviewed and approved by the Army, EPA, and NYSDEC before the buildings, or any newly constructed buildings in the designated area, are occupied. The groundwater access and use restriction will be maintained until new analytical data are provided to, and approved by, the Army, EPA, and NYSDEC to indicate that groundwater in the vicinity of Building 813 and 814, and former well MW12-37 meets GA groundwater standards.

For SEAD-72, the selected remedy is No Further Action, as this facility has been successfully closed in accordance with an approved RCRA Closure Plan.

To implement the selected remedy for SEAD-12, which includes the imposition of LUCs at SEAD-12, an LUC RD Plan will be prepared which is consistent with Paragraphs (a) and (c) of the New York State ECL Article 27, Section 1318: Institutional and Engineering Controls. The LUC RD Plan will include: a Site Description; the Institutional Control (IC) Land Use Restrictions; the LUC Mechanism to ensure that the land use restrictions are not violated in the future; implementation and maintenance actions, including periodic inspections; periodic certifications that the institutional engineering controls are in-place and being maintained by the owner or persons implementing the remedy; and, Reporting/Notification requirements. In addition, the Army will prepare an environmental easement for SEAD-12, consistent

Owner Cost

In RACER, Owner Cost is the owner's workforce cost to initiate, contract, oversee, direct, implement and closeout the project. Owner costs may include the following categories or items:

- Supervision, Inspection, and Overhead (SIOH);
- Construction management and "Owner's Representative" services;
- Laboratory quality assurance;
- Operations and maintenance manual; and
- Other costs (e.g. technical, real estate, administrative, contracting, accounting, etc.).

The system default percentage for Owner Cost is 11%. The valid range for the Owner Cost markup factor is 0% to 20%.



Direct Costs
Professional Labor Overhead / G&A
Field Office Overhead / G&A
Prime Contractor Profit
Subcontractor Profit
Contingency
Markup Calculations
Applying Markup Percentages
Adjusting Markups for Each Technology
Creating Custom Markup Templates
Markups Report

00
CE

SOURCE 2

Source 3



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
600 ARMY PENTAGON
WASHINGTON, DC 20310-0600

DAIM-IS

JAN 29 2014

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: FY14 Army Environmental Database-Restoration (AEDB-R) and Army Environmental Database - Compliance-Related Cleanup (AEDB-CC) Data Calls

1. Reference Memorandum, ODUSD(AT&L), 11 Oct 13, subject: Environmental, Safety and Occupational (ESOH) Management Information for Fiscal Year (FY) 2013.
2. The official start of the FY14 Data Call for the semi-annual updates to AEDB-R and AEDB-CC was 2 Dec 13. Enclosures 1-3 provide a timeline for Spring and Fall data submissions based on installation type. Enclosure 1 contains the Base Realignment and Closure (BRAC) (BRAC 88, 91, 93, 95, and 05) submittal schedule. Enclosure 2 includes the Active and non-BRAC Excess schedule, and Enclosure 3 includes the schedule for Partial BRAC installations (combination of Active and BRAC). Users are strongly encouraged to run the data submission readiness checklists before starting the update and upon data submission.
3. BRAC installation update (refer to Enclosure 1 for the schedule):
 - a. Spring Submission: Installations are responsible for updating the Army's database of record (AEDB-R) for all BRAC Installation Restoration [IR], Munitions Response [MR] and Compliance sites. Installations must update the cost-to-complete (CTC) estimates, cost requirements spread, phase schedules and the programmed funding spread prior to 11 Apr 14. Enclosure 4 contains escalation factors for updating previous year CTC estimates to the current year costs. All CTC estimates must be released before the Spring data submission. The OACSIM BRAC Division performs Quality Control review of financial data for all BRAC installations.
 - b. Fall Submission: Installations must update all non-cost site-level data (IR, MR and Compliance), including phase schedules prior to 29 Aug 14.
 - c. BRAC Installation Action Plans (BIAP): Installations must update and finalize the BIAP for FY15 by 1 Oct 14 using the Installation Action Plan (IAP) tool located on Army Environmental Reporting Online (AERO). If all sites at an installation are in the remedial action – operations (RA-O) or long term management (LTM) phase, the BIAP may be updated every 5 years.

DAIM-IS

SUBJECT: FY14 Army Environmental Database-Restoration (AEDB-R) and Army Environmental Database-Compliance-Related Cleanup (AEDB-CC) Data Calls

4. Active and non-BRAC Excess installations update (refer to Enclosure 2 for the schedule):

a. Spring Submission: Installations are responsible for updating the Army's database of record (AEDB-R and AEDB-CC). Installations must update CTC estimates, cost requirements spread, phase schedules, and programmed funding spread prior to 11 Apr 14.

b. Fall Submission: Installations must update all non-cost site-level data (IR, MR and Compliance), including phase schedules prior to 29 Aug 14.

c. The Installation Action Plan (IAP) data gathering is the primary forum through which IR/MR site-level data, to include CTC estimates with requirements, and phase schedules are collected for input to AEDB-R and AEDB-CC. The IAP must accurately reflect the installation cleanup program. Installations must coordinate with USAEC to establish validation dates for AEDB-R and set process schedules. The AEDB-R (and AEDB-CC where appropriate) must be updated and submitted within 20 working days following each installation's IAP validation call. The IAP, and therefore AEDB-R and AEDB-CC, must reflect supportable CTC requirements with proper supporting documentation. The process for including an Estimate Summary Table as part of each Memorandum for the Record shall continue when developing or updating FY15 CTC estimates. Enclosure 4 contains escalation factors for bringing previous year CTC estimates to the current year. The IAP process schedule is located on AERO. The FY15 IAP will be generated using the IAP tool on AERO. If all sites at an installation are in the RA-O or LTM phase, the IAP may be updated every five years.

5. Partial BRAC installations update: BRAC sites will follow the same requirements as discussed in paragraph 3, and Environmental Restoration, Army (ER,A) funded sites will follow the requirements outlined in paragraph 4. The BRAC and Active installation points of contact (POC) should coordinate installation submission for the Spring data submission. The installation must be aware of the schedule provided in Enclosure 3 for partial BRAC installations.

6. Suspense Dates:

Suspense	Action
11 Apr 14	Spring data Active, CC, non-BRAC Excess/BRAC Installation submit to Oversight level
18 Apr 14	Spring data Oversight level submit to Army Reviewing level, USAEC/DAIM-ISE (for CC submit to Command level for approval)
29 Aug 14	Fall data Active, CC, non-BRAC Excess/BRAC Installation submit to Oversight level
05 Sep 14	Fall data Oversight level submit to Army Reviewing level, USAEC/DAIM-ISE (for CC

DAIM-IS

SUBJECT: FY14 Army Environmental Database-Restoration (AEDB-R) and Army Environmental Database-Compliance-Related Cleanup (AEDB-CC) Data Calls

	submit to Command level for approval)
01 Oct 14	Final update to FY15 BIAP or IAP via AERO.

7. The FY14 Environmental Cleanup Reporting Training schedule to include course descriptions, can be found on the AERO AEDB-R web page under the Documents portal at the following URL (<https://www.us.army.mil/suite/page/587588>). Information regarding implementation milestones and training for HQAES is being developed and will be announced under a separate memorandum.

8. The OACSIM POC for Active sites is Mr. Kevin Roughgarden, 571-256-9705; e-mail: Kevin.Roughgarden@us.army.mil. The OACSIM POC for BRAC sites is Mr. Richard Ramsdell, 703-545-2504, e-mail: richard.c.ramsdell2.civ@mail.mil. Enclosure 5 provides specific contacts for technical, reporting, and program management assistance.



CARLA K. COULSON
Director, Installation Services

5 Encls

1. AEDB-R FY14
Data Call Schedule - BRAC
2. AEDB-R and AEDB-CC FY14
Data Call Schedule - Active,
CC and Non-BRAC Excess
3. AEDB-R FY14 Data Call Schedule –
Partial BRAC
4. Escalation Rates
5. AEDB-R Specific Contracts for
Technical, Reporting, and Program
Management Assistance

DISTRIBUTION:

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US ARMY MATERIEL COMMAND
MILITARY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND
US ARMY SPACE AND MISSILE DEFENSE COMMAND/ARMY STRATEGIC
COMMAND

ESCALATION RATES

Constant Year (FY14) Dollars

The CTC estimates shall be reported on a current cost basis (unadjusted for inflation). The following factors should be used to bring previous year costs to the current year.

Base Fiscal Year	Escalation Rate
FY09	1.0888
FY10	1.0706
FY11	1.0504
FY12	1.0388
FY13	1.0189

MEMORANDUM FOR RECORD

Date: 14 March 2014

SUBJECT: Environmental Liabilities for site SEAD-12, Radioactive Waste Burial Pits including SEAD-72, Building 803 at Seneca Army Depot

This memorandum serves as formal documentation of the information used to develop the Cost-To-Complete (CTC) estimate for the 2014 data call. The Draft Record of Decision identifies CERCLA requirements for LTM (Source 1).

Site: SEAD-12, Radioactive Waste Burial Pits including SEAD-72, Building 803. The AOC encompasses the former Special Weapons Storage site. Classified components were buried on site after demilitarization. Painting activity within the AOC resulted in soil and ground water contamination. Exit strategy is to restrict use of building 813/814 until a vapor intrusion study is performed by a future reuser and restrict the use of ground water until cleanup standards are met. LUC duration is estimated to be 30 years.

Source:

1. Draft Record of Decision, SEAD 12 and SEAD 72, February 2012 (CERCLA Action)
2. Owner cost from RACER
3. Ltr, HQ ACSIM Subject FY 14 Environmental Database-Restoration (AEDB-R) and the Army Environmental Database-Compliance-Related Cleanup (AEDB-CC) Data Calls; Escalation Rates

Owner Support Cost Assumptions:

Owner support costs, which are not included in CERCLA Decision Documents, are calculated to be 11% of Project Cost as described in RACER.

Cost Summary SEAD-12

LUC Costs (Source 1) \$6000/year x 30 years	
Escalation of FY 2012 Costs with Rate of 1.0388 (Source 3), \$6,000X1.0388 X30= \$186,984	\$186,984
LTM (Source 2)	
Owner Support Cost	
\$186,984 x 11% = \$20,568.24	
(rounded to \$20,568)	\$20,568
Total Site Cost	\$207,552

Material Change: No

Reason:

Prepared by: Randall Battaglia
Cost Estimator

Signature

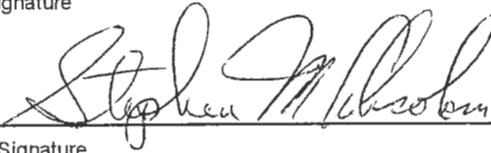


Date

3 Apr 14

Reviewed by: Stephen M. Absolom
Cost Estimate Reviewer

Signature



Date

5 Apr 14

Estimate Documentation Report

System:

RACER Version: RACER® Version 11.2.16.0
Database Location: C:\Users\le3pperwb\Documents\RACER 11.2\Racer.mdb

Folder:

Folder Name: Seneca Army Depot

Project:

ID: SEAD 12
Name: Radioactive Waste Burial Pits
Category: None

Location

State / Country: NEW YORK
City: SENECA ARMY DEPOT

<u>Location Modifier</u>	<u>Default</u>	<u>User</u>	<u>Reason for changes</u>
	1.100	1.100	

Options

Database: System Costs
Cost Database Date: 2015
Report Option: Fiscal

Description

SEAD 12, Radioactive Waste Burial Pits includes SEAD 72, Building 803. The AOC encompasses the former Special Weapons Storage Site. Classified components were buried on site after demilitarization. Painting activity within the AOC resulted in soil and ground water contamination. Exit strategy is to restrict use of building 813/814 until a vapor intrusion study is performed by a future reuser and restrict the use of ground water until cleanup standards are met. LUC duration is estimated to be 30 years.

Estimate Documentation Report

Site:

ID: SEAD 12
Name: Radioactive Waste Burial Pits
Type: None

Media/Waste Type

Primary: N/A
Secondary: N/A

Contaminant

Primary: None
Secondary: None

Phase Names

Pre-Study
Study
Design
Removal/Interim Action
Remedial Action
Operations & Maintenance
Long Term Monitoring
Site Closeout

Documentation

Description: SEAD 12, Radioactive Waste Burial Pits includes SEAD 72, Building 803. The AOC encompasses the former Special Weapons Storage Site. Classified components were buried on site after demilitarization. Painting activity within the AOC resulted in soil and ground water contamination. Exit strategy is to restrict use of building 813/814 until a vapor intrusion study is performed by a future reuser and restrict the use of ground water until cleanup standards are met. LUC duration is estimated to be 30 years.

This RACER estimate is to provide Owner Costs.

Support Team: Work Experience: Project Manager, USACE, 1995-Present: Prepare and manage Life-Cycle Cost for HTRW projects; executes the COE project management business process & establishing a project management plan with a project development team consisting of interdisciplinary, regional or other agencies teams to execute & ensure all projects meet customer, budgetary, safety, scope and schedule requirements during the life cycle of the project, under changing management parameters. Represents the Army as an Alternate for the installation manager in all customer/sponsor, congressional, public contacts, including public meetings, organizations, property transfers with the state, EPA, county, & independent organizations interested in the projects. Environmental Coordinator, Seneca Army Depot, 1985-1995; performed all program management, cost estimation, budget regulatory, permitting, and other management for the environmental program at the active Seneca Army Depot for hazardous waste, TSDF, air, wetlands, CERCLA, RCRA, engineering projects, etc.

References: Source:
1. Draft Final ROD, February 2015.
2. Owner Cost from RACER.
3. Letter, HQ ACSIM Subject: FY14 Environmental Database-Restoration (AEDB-R) and the Army Environmental Database-Compliance-Related Cleanup (AEDB-CC) data calls, Escalation Rates.

Estimate Documentation Report

Estimator Information

Estimator Name: Randall W. Battaglia

Estimator Title: Project Manager

Agency/Org./Office: USACE- New York District

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Building 125
Seneca Army Depot
5786 Route 96
Romulus NY 14541

Telephone Number: 607-869-1523

Email Address: randy.w.battaglia@usace.army.mil

Estimate Prepared Date: 03/23/2015

Estimator Signature: _____

Date: _____

Reviewer Information

Reviewer Name: Stephen M. Absolom

Reviewer Title: Installation Manager

Agency/Org./Office: BRACD

Business Address: Building 123
Seneca Army Depot
5786 Route 96
Romulus, NY 14541

Telephone Number: 607-869-1309

Email Address: stephen.m.absolom.civ@mail.mil

Date Reviewed: 03/23/2015

Reviewer Signature: _____

Date: _____

Estimate Costs:

<u>Phase Names</u>	<u>Direct Cost</u>	<u>Marked-Up Cost</u>
LTM for LUCs	\$144,694	\$398,300
Site Closeout Documentation	\$17,150	\$47,698
Total Cost:	\$161,844	\$445,998
Total Project Cost:	\$161,844	\$445,998

Phase Documentation:

Phase Type: Long Term Monitoring

Phase Name: LTM for LUCs

Description: Land Use Control LTM

Estimate Documentation Report

Approach: Ex Situ

Start Date: March, 2015

Labor Rate Group: System Labor Rate

Analysis Rate Group: System Analysis Rate

Phase Markup Template: System Defaults

Technology Markups

Markup % Prime % Sub.

ADMINISTRATIVE LAND USE CONTROLS True 100 0

Total Marked-up Cost: \$398,300.11

Technologies:

Technology Name: **Administrative Land Use Controls (#1)**

User Name: **ADMINISTRATIVE LAND USE CONTROLS**

Description	Default	Value	UOM
<i>System Definition</i>			
<u>Required Parameters</u>			
Rename Model		ADMINISTRATIVE LAND USE CONTROLS	n/a
Planning Documents		False	n/a
Planning Documents: Start Date		2015	n/a
Implementation		False	n/a
Implementation: Start Date		2015	n/a
Monitoring & Enforcement		True	n/a
Monitoring & Enforcement: Start Date		2015	n/a
Modification/Termination		False	n/a
Modification/Termination: Start Date		2015	n/a
Type of Site		Former Government Site	n/a
<i>Monitoring & Enforcement</i>			
<u>Required Parameters</u>			
Duration of Monitoring/Enforcement		30	Years
Notice Letters		False	n/a
Notice Letters: Number		0	EA
Guard Service/Security		False	n/a
Guard Service/Security: Number		0	EA
Reports & Certifications		True	n/a
Reports & Certifications: Frequency		Annually	n/a
Site Visits/Inspections		False	n/a
Site Visits/Inspections: Number		0	EA
Site Visits/Inspections: Safety Level		D	n/a

Estimate Documentation Report

Technology Name: **Administrative Land Use Controls (#1)**

User Name: **ADMINISTRATIVE LAND USE CONTROLS**

Description	Default	Value	UOM
Monitoring & Enforcement			
<u>Secondary Parameters</u>			
Site Visits/Inspections: Duration		0	Days
Site Visits/Inspections: Number of People		0	EA
Site Visits/Inspections: Airfare		0	\$ Per Ticket
Site Visits/Inspections: Mileage		0	MI

Comments:

Phase Documentation:

Phase Type: Site Closeout
Phase Name: Site Closeout Documentation
Description: Site Closeout Documentation
Approach: Ex Situ
Start Date: March, 2015
Labor Rate Group: System Labor Rate
Analysis Rate Group: System Analysis Rate
Phase Markup Template: System Defaults

Technology Markups

	<u>Markup</u>	<u>% Prime</u>	<u>% Sub.</u>
Site Close-Out Documentation	True	100	0

Total Marked-up Cost: \$47,697.66

Technologies:

Technology Name: **Site Close-Out Documentation (#1)**

User Name: **Site Close-Out Documentation**

Description	Default	Value	UOM
System Definition			
<u>Required Parameters</u>			
Meetings		True	n/a
Work Plans and Reports		True	n/a
Documents		True	n/a
Site Close-Out Complexity		Low	n/a

Estimate Documentation Report

Technology Name: **Site Close-Out Documentation (#1)**

User Name: **Site Close-Out Documentation**

Description	Default	Value	UOM
Meetings			
<u>Required Parameters</u>			
Kick Off/Scoping Meetings		True	n/a
Kick Off/Scoping Meetings: Number of Meetings	1	1	EA
Kick Off/Scoping Meetings: Travel		False	n/a
Kick Off/Scoping Meetings: Travelers		0	EA
Kick Off/Scoping Meetings: Days		0	Days
Kick Off/Scoping Meetings: Air Fare		0.00	\$
Review Meetings		True	n/a
Review Meetings: Number of Meetings	1	1	EA
Review Meetings: Travel		False	n/a
Review Meetings: Travelers		0	EA
Review Meetings: Days		0	Days
Review Meetings: Air Fare		0.00	\$
Regulatory Review Meetings		True	n/a
Regulatory Review Meetings: Number of Meetings	1	1	EA
Regulatory Review Meetings: Travel		False	n/a
Regulatory Review Meetings: Travelers		0	EA
Regulatory Review Meetings: Days		0	Days
Regulatory Review Meetings: Air Fare		0.00	\$
Work Plans & Reports			
<u>Required Parameters</u>			
Work Plans		True	n/a
Draft Work Plan		True	n/a
Final Work Plan		True	n/a
Reports		True	n/a
Draft Close-Out Report		True	n/a
Draft Final Close-Out Report		True	n/a
Final Close-Out Report		True	n/a
Progress Reports		True	n/a
Project Duration	8	8	months
Documents			
<u>Required Parameters</u>			
Draft Decision Document		True	n/a
Draft Final Decision Document		True	n/a
Final Decision Document		True	n/a
Long Term Document Storage		False	n/a
Number of Boxes		0	EA
Duration of Storage		0	Yrs

Comments: