

DEPARTMENT OF THE ARMY
Office of the Assistant Chief of Staff for Installation Management
BRAC Division
Seneca Army Depot, Seneca, NY

MEMORANDUM FOR RECORD

05 May 2016

SUBJECT: Environmental Liabilities for site SEAD-025, Fire Training Area at Seneca Army Depot

- 1. Background:** This memorandum serves as formal documentation of the information used to develop the Cost-To-Complete (CTC) estimate for Site SEAD 025. Estimators experience is documented on the Estimator Experience Form, per the Federal Accounting Standards Advisory Board (FASAB) Handbook Technical Release 2 (Enclosure 1). The Remedial Action Cost Engineering and Requirements (RACER) 11.2 system was used to estimate the cost of well abandonment and site close out and is updated with the 2015 escalation factor per 29 March 2016 Data Call Memorandum for Ground Water sampling FY16. Site Closeout and well decommissioning is expected to take place in FY 21 when GW testing is expected to be terminated. The LUC monitoring cost and the five-year review requirements are based upon contract number W912DS-09-D-0062 Task Order 0023 (enclosed). Perfluorinated Compounds (PFCs) will be sample for in existing wells as emerging contaminants; the cost estimate is included in SEAD 009 due to the special sampling is combined with other sites as one SI.
- 2. Site History:** SEAD-25, Fire Training Area is located in the east-central portion of SEAD covering roughly 7.6 acres and was in use from the late-1960s to the late-1980s. During the 1980s the pad was used for firefighting demonstrations. Results of the 1998 RI indicated the site soil had been impacted by VOCs and SVOCs due to past fire training activities. The presence of VOCs in the soil is considered to be the source of GW impacts that will be mitigated through the removal of the soil. The 2003 ROD (Encl 2) required the removal of impacted soil, monitored natural attenuation of the GW contamination and institute LUCs. The removal of soils was completed in 2005. GW monitoring and LUCs began in May 2007. The GW monitoring was expected to last ten years as identified in the ROD, or through 2016. The concentrations have decreased but have not yet met standards. The five year review has not yet been submitted; EPA has not agreed with discontinuing the groundwater monitoring as of April 18, 2016.
- 3. Current Condition:** SEAD 25 is in RA(O) phase where GW is being sampled annually and Natural Attenuation of the contamination is being monitored. Benzene and Ethyl Benzene concentrations remain above the groundwater standards. 99% reduction has occurred. Perfluorinated Compounds are to be analyzed in groundwater as an emerging contaminant

Environmental Liabilities for site SEAD-025, Fire Training Area at Seneca Army Depot

IAW DODI, Emerging Contaminants, certified current through 11 June 2016. The costs for perfluorinated compounds analysis is included in SEAD 009 to avoid duplication of costs for work plans and the UFP-QAPP.

4. Exit Strategy: Upon demonstration that GW has met the established cleanup goal, GW sampling will be eliminated and LUC restriction will be eliminated. Monitoring is expected to end in 2016 the Annual Report will document the end of monitoring. EPA will review this status in the Five Year Review Report, to be submitted FY16. Groundwater monitoring can be discontinued only with EPA concurrence. CTC costs are included if EPA requires continued monitoring. Perfluorinated compounds will require no further action due to existing LUCs, including no-residential and no-groundwater use restrictions.

5. Enclosures:

1. Estimator Experience Form
2. Final Record of Decision, Fire Training and Demonstration Pad (SEAD 25) and the Fire Training Pit and Area (September 2004)
3. Estimate Summary Table
4. Contract W912DY-08-D-0003 Task Order 15 Date 2012 Jun 26
5. RACER Cost To Owner Default description

6. RACER Assumptions:

Site Closeout Documentation (LTM):

1. Site Closeout is low complexity
2. Kick-off, review and regulatory meetings included
3. Work Plans and reports to include all RACER default values
4. Two boxes of documents will be stored for 30 years

Well Abandonment (LTM):

1. Number of wells: 30
2. Depth of wells: 15 feet
3. Diameter of wells: 2 inches
4. Formation type: Unconsolidated
5. Method: overdrill/removal

Cost to Owner: The US Army Corps of Engineers the contracting and oversight Agency for the remaining Ground water sampling. Their cost is assumed to be the 11% default value that is used in RACER to be consistent with the contract close out rates. This default rate is consistent with Seneca Army Depot oversight costs and the Corps has not required additional costs to cover contract closeouts for Seneca Army Depot task orders.

Environmental Liabilities for site SEAD-025, Fire Training Area at Seneca Army Depot

7. Cost Summary SEAD-025

Ground Water sampling FY16 (Encl 4) CLIN 0004a \$26,049.47 (Rounded to \$26,050)	\$26,050
Cost to Owner for Contract management \$26,050 X .11 = \$2,865.50 (Rounded to \$2,866)	\$2,866
Well Abandonment/Site Closeout (2015 RACER) \$112,585 x escalation factor (1.0157) = \$114,352.58 (Rounded to \$114,353)	\$114,353
Total Site Cost	\$143,269 (\$143K)

8. Material Change: The CTC for FY15 was \$184K the CTC for FY16 is \$143K. The calculated percentage change was 23%. This is a Material Change. FY17 Sampling required for 10 year effort and not previously programmed. There are decreased sampling and analysis costs based upon new contract amount and scope.

Material Change = absolute value of (indexed prior year CTC – current CTC – current obligations)/indexed prior year CTC

$$MC = ((\$184K * 1.0157) - \$143K - 0) / (\$184K * 1.0157) = 23\%$$

Prepared by: Randall Battaglia
Cost Estimator

BATTAGLIA.RANDALL.W.1228816724
L.W.1228816724

Digitally signed by
BATTAGLIA.RANDALL.W.1228816724
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USA, cn=BATTAGLIA.RANDALL.W.1228816724
Date: 2016.05.05 13:52:27 -04'00'

Signature

Date

Reviewed by: Bill Millar
Cost Estimate Reviewer

MILLAR.WILLIAM.WIN
STON.SR.1391460309

Digitally signed by
MILLAR.WILLIAM.WIN
DN: c=US, o=U.S. Government, ou=DoD,
ou=PKI, ou=CONTRACTOR,
cn=MILLAR.WILLIAM.WIN
Date: 2016.05.05 13:17:00 -04'00'

05 May 2016

Signature

Date

ESTIMATOR EXPERIENCE

ESTIMATOR NAME: Randall Battaglia	POSITION: Project Manager
LOCATION: USACE NY Seneca Proj. Ofc	YEARS OF EXPERIENCE: 31
EMAIL: Randy.W.Battaglia@usace.army.mil	PHONE NUMBER: 607-869-153

SCANNED
on
Uploading

DESCRIPTION: (Insert description of experience here, such as educational background, training) B.S. Chemical Engineering, 1982; Certified Project Manager, 2007;

Work Experience: Project Manager, USACE, 1995-Present: Prepare and manage Life-Cycle Co project management business process & establishing a project management plan with a project interdisciplinary, regional or other agencies teams to execute & ensure all projects meet customer, budgetary, safety, 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.

COE

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.

Process Engineer, IEC Electronics, 1983-1985 Process engineering for production, product development, personnel, process & quality control

Relevant Continuing Education: Network Systems Analysis; Project Management for Military Projects & HTRW projects; Environmental Auditing; Economic Assessment; Various Project Management & environmental remediation courses; Cost Estimating

SITE TYPE REVIEWED: Insert site number(s) at which experience gained for each site type to the maximum extent possible.

SITE TYPE	SITE NUMBER	SITE TYPE	SITE NUMBER
Above Ground Storage Tank	SEAD 5,59,71	Open Burn	SEAD 23, 24, 006-R-01, 003-R-01, 007-R-01
Burn Area	SEAD 24,45,25,26	Plating Shop	
Chemical Disposal	SEAD 13,72,4	POL (Petroleum/Lubricant Lines	SEAD 9
Contaminated Buildings	SEAD 12, 16,17, 3	Radioactive Waste Area	SEAD 012,48,72, 63, NRC License closeout
Contaminated Fill	SEAD 3, 9,4	Sewage Treatment Plant	SEAD 20,21,22
Contaminated Groundwater	SEAD 025,006, 001-R-01, 023, 064B&D, 041	Small Arms Range	SEAD 57, 46, 120B,122A,122B
Contaminated Sediments	SEAD 4, 3,	Soil Contamination After Tank Removal	SEAD 59,
Contaminated Soil Piles	SEAD 5	Spill Site Area	SEAD 122
Dip Tank		Storage Area	SEAD 123
Disposal Pit/Dry Well		Surface Disposal Area	SEAD 023, 006-R-01, 024,
Explosive Ordnance Disposal Area	SEAD 23, 24, 006-R-01, 003-R-01, 007-R-01	Training and Maneuver Area	
Fire/Crash Training Area	SEAD 025,026	Underground Storage Tank	SEAD 27
Firing Range	SEAD 122	Underground Tank Farm	
Incinerator	SEAD 006, 001-R-01,019, 018	Unexploded Munitions/Ordnance	SEAD 006-R-01, 001-R-01,003-R-01, 007-R-01
Industrial Discharge		Wash rack	
Landfill	SEAD 006, 064 A,B&D, 011,	Waste Lines	
Maintenance Yard	SEAD 122	Waste Treatment Plant	
Oil Water Separator	SEAD 27,		



**US Army Corps
of Engineers®**



Certificate of Completion

Randall w Battaglia

has successfully completed

**Environmental Liability (EL)/Cost to
Complete (CTC) Training**

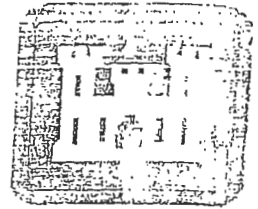
Nov 09, 2015 - Web/Audio Teleconference

Sandi Zebrowski, P.E.
Director, USACE Environmental and
Munitions Center of Expertise,

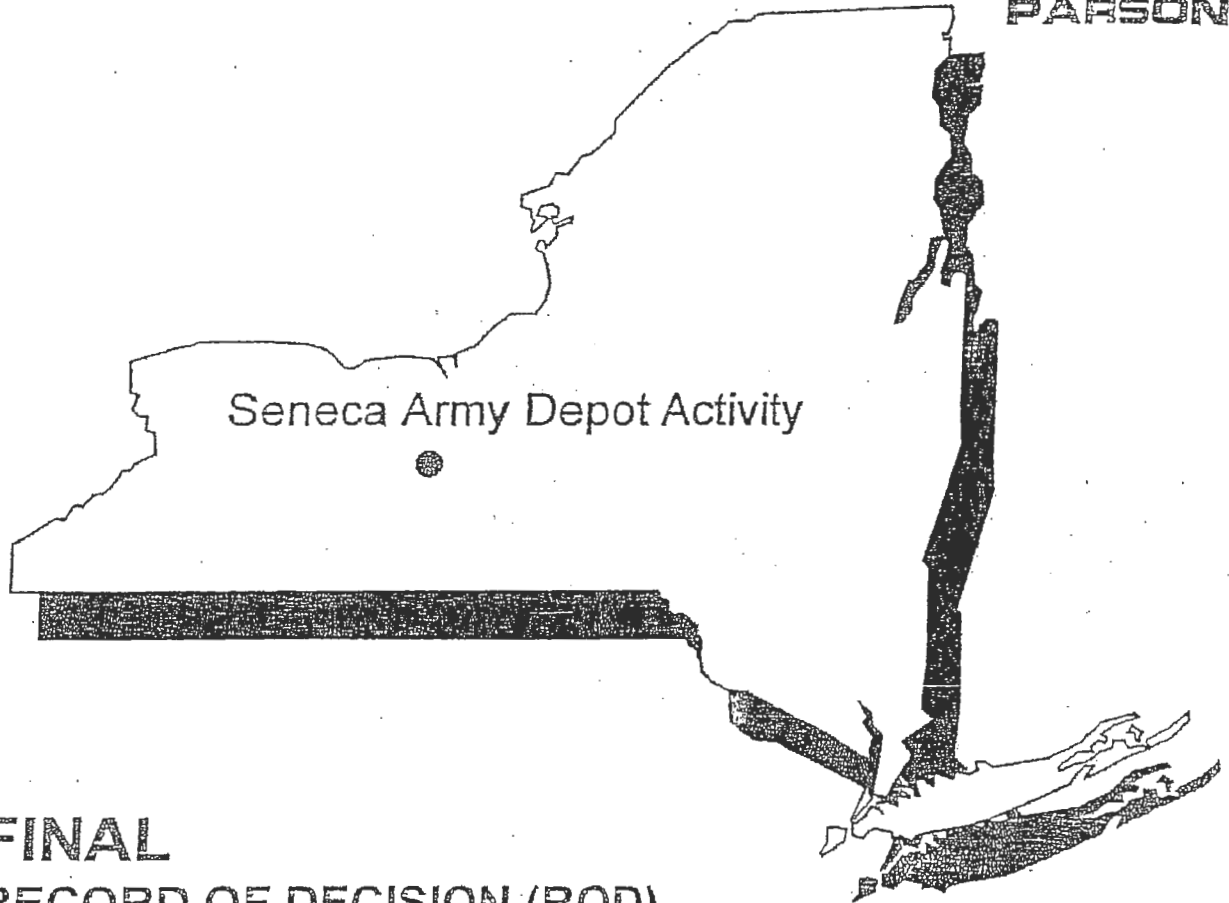
FUDS Training Services
fudstraining@usace.army.mil



Seneca Army Depot Activity
Romulus, NY



PARSONS



FINAL
RECORD OF DECISION (ROD)
THE FIRE TRAINING AND DEMONSTRATION
PAD (SEAD 25) AND THE FIRE TRAINING PIT
AND AREA (SEAD 26)
SENECA ARMY DEPOT ACTIVITY

EPA Site ID# NY0213820830
NY Site ID# 8-50-006
CONTRACT NO. DACA87-95-D-0031
DELIVERY ORDER NO. 0029

September 2004

ENCL 2

1.0 DECLARATION OF THE RECORD OF DECISION

Site Name and Location

SITE

The Fire Training and Demonstration Pad (SEAD-25) and the Fire Training Pit and Area (SEAD-26)
Seneca Army Depot Activity
CERCLIS ID# NY0213820830
Romulus, Seneca County, New York

Statement of Basis and Purpose

This decision document presents the U.S. Army's and EPA's selected remedy for soil and groundwater at SEAD-25 and SEAD-26, located at the Seneca Army Depot Activity (SEDA) near Romulus, New York. The decision was developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended, 42 U.S.C. §9601 et seq. and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. The Base Realignment and Closure (BRAC) Environmental Coordinator; the Director of the National Capital Region Field Office, and the U.S. Environmental Protection Agency (USEPA) Region II have been delegated the authority to approve this Record of Decision (ROD); New York State Department of Environmental Conservation (NYSDEC) has concurred with the selected remedial action.

This ROD is based on the Administrative Record that has been developed in accordance with Section 113(k) of CERCLA. The Administrative Record is available for public review at the Seneca Army Depot Activity, Building 123, Romulus, NY. The Administrative Record Index identifies each of the items considered during the selection of the remedial action. This index is included in Appendix A.

The State of New York, through the NYSDEC and the New York State Department of Health (NYSDOH), has concurred with the Selected Remedy. The NYSDEC Declaration of Concurrence is provided in Appendix B of this ROD.

Site Assessment

The response action selected in this ROD is necessary to protect the public welfare and the environment from actual or threatened releases of hazardous substances into the environment or from actual or threatened releases of pollutants or contaminants from this site that may present an imminent and substantial endangerment to public health or welfare.

11.0 SELECTED REMEDY

SEAD-25

Site

While the goal of the remedial action is to have no residual contamination in soils above TAGM levels, remedial action success will be achieved when soils have been remediated to the level that eliminates an unacceptable risk to human health. Based on the evaluation of the various options, the U.S. Army recommends Alternative RA25-4R (Source Removal, Off-site Disposal, Long-Term Monitoring of Plume, and Sediment Removal) (Figures 6-1 and 6-2). The elements that compose the remedy include:

- Remedy
- Excavate soil at the source in an area approximately 60 feet by 100 feet to a depth of 6 feet (approximately 1,350 CY), as depicted in Figure 6-2;
 - Excavate a volume of sediment approximately 780 feet long, 3 feet wide and 2 feet deep (approximately 175 CY) from the northwest ditch, as depicted in Figure 6-2;
 - Dispose of excavated soils in an appropriate off-site facility;
 - Dewater the excavation pit;
 - Treat groundwater that is recovered during excavation and during dewatering of excavation pit with an on-site air stripper;
 - Replace excavated soil with clean backfill and establish a ground cover to avoid soil erosion;
 - Conduct groundwater monitoring of the plume until NYSDEC Class GA groundwater standards are achieved (approximately 10 years); — Time
 - Establish and maintain land use controls to prevent access to or use of groundwater until cleanup standards are met;
 - Complete a review of the selected remedy every five-years (at minimum), in accordance with Section 121(c) of the CERCLA;
-
- Prepare a contingency plan that may include additional monitoring and air sparging of the plume, as necessary; and
 - Once groundwater cleanup standards are achieved, the groundwater use restriction may be eliminated.
- AC

The frequency of long-term monitoring will be detailed in the RD plan. The cleanup standards for groundwater at the site are NYSDEC Class GA groundwater standards, presented in Table I-1B. Until the contaminant levels in the groundwater meet the cleanup standards, a land use control (or institutional control) in the form of a groundwater use restriction will be a part of the remedy, as specified in the discussion of the remedy for SEAD-25.

A summary of the SEAD-25 and SEAD-26 Land Use Controls is provided below.

The present worth cost of this alternative is \$922,200. The capital cost and the O&M cost of RA25-4R are \$701,000 and \$221,200, respectively.

ORDER FOR SUPPLIES OR SERVICES

1. CONTRACT PURCH. ORDER/ AGREEMENT NO. W912DY-09-D-0062		2. DELIVERY ORDER/ CALL NO. 0023		3. DATE OF ORDER CALL (YYYYMMDD), 2016 Mar 30		4. REQ. PURCH REQUEST NO. W31RYO00838003		5. PRIORITY			
6. ISSUED BY CODE W912DY US ARMY ENGINEERING & SUPPORT CENTER CEHNC-CT 4820 UNIVERSITY SQUARE HUNTSVILLE AL 35816-1822				7. ADMINISTERED BY (if other than 6) CODE W912DY DIRECTORATE OF CONTRACTING - HNC ATTN: MICHELLE BLACKMON 256-895-2531 HUNTSVILLE AL 35816				8. DELIVERY FOB <input checked="" type="checkbox"/> DESTINATION <input type="checkbox"/> OTHER (See Schedule if other)			
9. CONTRACTOR CODE 1BVK6 PARSONS GOVERNMENT SERVICES INC. NAME MICHELLE SMITH AND 100 W WALNUT ST ADDRESS PASADENA CA 91124-0001				FACILITY		10. DELIVER TO FOB POINT BY (Date) (YYYYMMDD) SEE SCHEDULE		11. MARK IF BUSINESS IS <input type="checkbox"/> SMALL <input type="checkbox"/> SMALL DISADVANTAGED <input type="checkbox"/> WOMEN-OWNED			
						12. DISCOUNT TERMS Net 30 Days		13. MAIL INVOICES TO THE ADDRESS IN BLOCK See Item 15			
14. SHIP TO CODE W912DY SEE SCHEDULE SEE SCHEDULE SEE SCHEDULE SEE SCHEDULE AA				15. PAYMENT WILL BE MADE BY CODE 964145 US ARMY ENG & SUP CENTER - FINANCE OFFIC US ARMY CORPS OF ENGRS FINANCE CTR 5722 INTEGRITY DRIVE MILLINGTON TN 38054-5005				MARK ALL PACKAGES AND PAPERS WITH IDENTIFICATION NUMBERS IN BLOCKS 1 AND 2.			
16. TYPE OF ORDER		DELIVERY/ CALL PURCHASE <input checked="" type="checkbox"/>		This delivery order call is issued on another Government agency, or in accordance with and subject to terms and conditions of above numbered contract. Reference your quote dated _____ Furnish the following on terms specified herein, REF: _____							
<p>ACCEPTANCE, THE CONTRACTOR HEREBY ACCEPTS THE OFFER REPRESENTED BY THE NUMBERED PURCHASE ORDER AS IT MAY PREVIOUSLY HAVE BEEN OR IS NOW MODIFIED, SUBJECT TO ALL OF THE TERMS AND CONDITIONS SET FORTH, AND AGREES TO PERFORM THE SAME.</p> <p><i>Parsons Gov Services</i> NAME OF CONTRACTOR <i>[Signature]</i> SIGNATURE <i>Don Silberstein, VP</i> TYPED NAME AND TITLE <i>3/30/16</i> DATE SIGNED (YYYYMMDD)</p> <p><input checked="" type="checkbox"/> If this box is marked, supplier must sign Acceptance and return the following number of copies: <i>3/30/16</i></p>											
17. ACCOUNTING AND APPROPRIATION DATA/ LOCAL USE See Schedule											
18. ITEM NO.		19. SCHEDULE OF SUPPLIES/ SERVICES				20. QUANTITY ORDERED/ ACCEPTED		21. UNIT	22. UNIT PRICE	23. AMOUNT	
		SEE SCHEDULE									
* If quantity accepted by the Government is same as quantity ordered, indicate by X. If different, enter actual quantity accepted below quantity ordered and encircle.		24. UNITED STATES OF AMERICA TEL: MULLADY.RICHARD.J.1090040282 EMAIL: _____ BY: _____		Digitally signed by MULLADY RICHARD J 1090040282 DN: c=US, o=U.S. Government, ou=DoD, ou=PR, ou=USA, cn=MULLADY RICHARD J 1090040282 Date: 2016.03.30 15:39:53 -0500 CONTRACTING , ORDERING OFFICER				25. TOTAL 5637,951.85		26. DIFFERENCES	
27a. QUANTITY IN COLUMN 20 HAS BEEN <input type="checkbox"/> INSPECTED <input type="checkbox"/> RECEIVED <input type="checkbox"/> ACCEPTED, AND CONFORMS TO THE CONTRACT EXCEPT AS NOTED											
b. SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE						c. DATE (YYYYMMDD)		d. PRINTED NAME AND TITLE OF AUTHORIZED GOVERNMENT REPRESENTATIVE			
e. MAILING ADDRESS OF AUTHORIZED GOVERNMENT REPRESENTATIVE						28. SHIP NO.		29. DO VOUCHER NO.	30. INITIALS		
f. TELEPHONE NUMBER		g. E-MAIL ADDRESS				<input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		32. PAID BY		33. AMOUNT VERIFIED CORRECT FOR	
36. I certify this account is correct and proper for payment.						31. PAYMENT <input type="checkbox"/> COMPLETE <input type="checkbox"/> PARTIAL <input type="checkbox"/> FINAL		34. CHECK NUMBER			
a. DATE (YYYYMMDD)		b. SIGNATURE AND TITLE OF CERTIFYING OFFICER						35. BILL OF LADING NO.			
37. RECEIVED AT		38. RECEIVED BY		39. DATE RECEIVED (YYYYMMDD)		40. TOTAL CONTAINERS		41. SR ACCOUNT NO.		42. SR VOUCHER NO.	

Section A - Solicitation/Contract Form

AWARD NARRATIVE

Task Order 0023, which contains Firm Fixed-Price (FFP) tasks, is being issued to Parsons Government Services, Inc for Remedial Action at Seneca Army Depot Activity, Romulus, NY, EPA Site ID# NY0213820830, NY Site ID# 8-50-006 in accordance with Performance Work Statement Revision 2, dated March 24, 2016.

The period of performance is date of award through March 30, 2018.

US Department of Labor Wage Determination Number 15-2381, Revision 1, dated March 1, 2016 shall be used with project task order.

The Terms and Conditions of the basic contract, W912DY-09-D-0062 takes precedence in the case of any ambiguity or conflict.

This task order is awarded in the amount of \$1,211,190.20 of which \$637,951.83 is being funded at the time of award.

Task	Description	Type	Amount	Total
1	UFP-QAPP and QASP	FFP	7,063.20	7,063.20
2	GIS	FFP	3,908.96	3,908.96
2a	Optional, Additional GIS per FY	FFP	1,525.90	
3	Long Term Monitoring of The OB Grounds	FFP		
3a	(FY17) First Annual Groundwater Monitoring	FFP	21,453.84	21,453.84
3b	Optional, (FY18) Second Annual Groundwater Monitoring	FFP	21,457.76	
3c	Optional, (FY19) Third Annual Groundwater Monitoring	FFP	21,461.68	
3d	Optional, (FY20) Fourth Annual Groundwater Monitoring	FFP	21,465.59	
3e	Optional, (FY21) Fifth Annual Groundwater Monitoring	FFP	21,469.51	
4	Long Term Monitoring of the Fire Training and Demonstration Pad Area	FFP		
4a	(FY17) First Annual Groundwater Monitoring	FFP	26,049.47	26,049.47
4b	Optional, (FY18) Second Annual Groundwater Monitoring	FFP	26,080.17	
4c	Optional, (FY19) Third Annual Groundwater Monitoring	FFP	26,110.87	
4d	Optional, (FY20) Fourth Annual Groundwater Monitoring	FFP	26,141.57	
4e	Optional, (FY21) Fifth Annual Groundwater Monitoring	FFP	26,172.27	
5	Long Term Monitoring of the Ash Landfill Operable Unit	FFP		
5a	(FY17) First Annual Groundwater Monitoring	FFP	51,594.03	51,594.03
5b	Optional, (FY18) Second Annual Groundwater Monitoring	FFP	51,686.28	
5c	Optional, (FY19) Third Annual Groundwater Monitoring	FFP	51,778.54	
5d	Optional, (FY20) Fourth Annual Groundwater Monitoring	FFP	51,870.79	
5e	Optional, (FY21) Fifth Annual Groundwater Monitoring	FFP	51,963.04	
6	Ash Landfill Operable Unit Biowall Recharge	FFP	440,038.65	440,038.65
7	Long Term Monitoring of the Deactivation Furnaces Operable Unit	FFP		
7a	(FY17) First Annual Groundwater Monitoring	FFP	23,146.49	23,146.49
7b	Optional, (FY18) Second Annual Groundwater Monitoring	FFP	23,178.47	
7c	Optional, (FY19) Third Annual Groundwater Monitoring	FFP	23,210.46	
7d	Optional, (FY20) Fourth Annual Groundwater Monitoring	FFP	23,242.44	
7e	Optional, (FY21) Fifth Annual Groundwater Monitoring	FFP	23,274.43	
8	Monitoring of LUCs at Various Sites	FFP		
8a	(FY17) First Annual Monitoring Event	FFP	17,934.42	17,934.42

8b	Optional, (FY18) Second Annual Monitoring Event	FFP	17,934.42	
8c	Optional, (FY19) Third Annual Monitoring Event	FFP	17,934.42	
8d	Optional, (FY20) Fourth Annual Monitoring Event	FFP	17,934.42	
9	Monitoring of LUCs at Various Munition Sites	FFP		
9a	(FY17) First Annual Monitoring Event	FFP	5,895.00	5,895.00
9b	Optional, (FY18) Second Annual Monitoring Event	FFP	5,895.28	
9c	Optional, (FY19) Third Annual Monitoring Event	FFP	5,895.28	
9d	Optional, (FY20) Fourth Annual Monitoring Event	FFP	5,895.28	
10	Five-year Review	FFP	27,488.41	27,488.41
11	Community Relations Support	FFP	13,379.36	13,379.36
11a	Optional, Additional Meetings	FUP	8,646.02	
12	Optional, Administrative Record	FFP	1,013.48	
	Totals		\$1,211,190.20	\$637,951.83

- Restore all areas to their original condition; all access/excavation/detonation holes shall be backfilled.
- **Hazardous Waste (HW) / Investigative-Derived Waste (IDW) Disposal:** The Contractor shall collect, secure, store, and arrange for disposal of hazardous waste, and decontamination wastes, etc. generated as a result of field activities. The HW/IDW containers shall be staged, secured, labeled, sampled and analyzed (if required) IAW the approved work plan. The Contractor shall recommend appropriate disposal actions for all waste items. The Contractor shall perform the HW disposal in a timely manner.
- The contractor shall propose on the sampling rationale, and methods that will be utilized to ensure that data generated are of an acceptable quality for its intended use. The contractor shall also propose on the quantity, quality and the methods used to verify adherence to the PARCCS parameters for sample collection, handling, laboratory analysis, verification and validation. The contractor shall propose processes that will be utilized to address the corrective actions when established criteria are not being met. Any deviations from the accepted SAP shall be documented in the Daily Quality Control Reports (DQCR) and conveyed to USAESCH personnel immediately.
- Inspection of vegetative cap, drainage swales and Reeder Creek should assess if there is evidence that soil/sediment/or debris from the OB Grounds is migrating to Reeder Creek.
- Assess the physical condition of each water well.
- The Contractor shall sample and analyze the water quality at all wells
- Recommendation of any changes (e.g. changing frequency of data collection for the OB Grounds LTM Plan, development of a sediment monitoring program, etc.) that are proposed for implementation for the OB Grounds LTM Plan.
- **Project Management:** The contractor shall manage the delivery order in accordance with the basic contract statement of work. All project management associated with the delivery order, with the exception of the direct technical oversight of the work described in the preceding tasks, shall be accounted for in this task.

3.4 Task 4, (CLIN 0004) DESCRIPTION OF SERVICES FOR LONG TERM MONITORING OF THE FIRE TRAINING AND DEMONSTRATION PAD AREA: This is a firm fixed price task.

Objective: Conduct a RA in accordance with the accepted UFP-QAPP, SAP, Seneca LTM Plan and all applicable standards such that the objective of this PWS is met. The RA shall include annual ground water monitoring to include water level and water quality monitoring and preparation of annual report summarizing the results of each annual event.

3.4.1 Task 4a, CLIN 0004a (FY17) FIRST ANNUAL GROUNDWATER MONITORING EVENT. Refer to historical project documentation of site location, historical information, and boundaries.

3.4.2 Task 4b, (Optional) (CLIN 0004b (FY18) SECOND ANNUAL GROUNDWATER MONITORING EVENT. Refer to historical project documentation of site location, historical information, and boundaries.

3.4.3 Task 4c, (Optional) (CLIN 0004c, (FY19) THIRD ANNUAL GROUNDWATER MONITORING EVENT. Refer to historical project documentation of site location, historical information, and boundaries.

3.4.4 Task 4d, (Optional) (CLIN 0004d, (FY20) FOURTH ANNUAL GROUNDWATER MONITORING EVENT. Refer to historical project documentation of site location, historical information, and boundaries.

3.4.5 Task 4e, (Optional) (CLIN 0004e, (FY21) FIFTH ANNUAL GROUNDWATER MONITORING EVENT. Refer to historical project documentation of site location, historical information, and boundaries.

3.4.6 All subtasks listed above shall meet the following:

3.4.7 Performance Standard: Field work, quality, and analysis of said data shall meet the following standards:

- QC deliverables and QA inspections/review demonstrate that the work was performed in accordance with the UFP-QAPP, SAP, Seneca LTM Plan, applicable laws, regulations, and guidance documents.

3.4.8 AC: Conduct the RA in accordance with the accepted/approved UFP-QAPP, and Seneca LTM Plan. QC data submitted meets requirements described in the most recent geophysics and chemistry DIDs.

- No more than 3-4 CARs/948s for non-critical violations and/or 1 CAR/948 for critical violation. No unresolved corrective action requests.

- All final data and QC tests/documentation submitted. Government QA acceptance of QC tests/documentation gained.

- No Class "A" Safety accidents, contractor at fault; No Class "B", contractor at Fault, no more than 1 non-explosive Class "C" accident; and <2 non-explosive related Class "D" accidents, IAW AR 385-40.

- Major safety violations, no more than 1 non-explosive related safety violation.

- Minor safety violations, no more than 2 safety violations.

- Zero letters of reprimand, grievances, or formal complaints

3.4.9 Measurement / Monitoring: Periodic inspection/review of field work. Verify compliance with accepted UFP-QAPP and SAP and Seneca LTM Plan. Quality control tests/documentation submitted per the QASP for government review.

3.4.10 Task specific Incentives/Disincentives: Satisfactory or greater CPARS rating/poor CPARS rating and/or re-performance of work at contractor's expense.

3.4.11 Specific Task Requirements:

- Restore all areas to their original condition; all access/excavation/detonation holes shall be backfilled.

- **Hazardous Waste (HW) / Investigative-Derived Waste (IDW) Disposal:** The Contractor shall collect, secure, store, and arrange for disposal of hazardous waste, and decontamination wastes, etc. generated as a result of field activities. The HW/IDW containers shall be staged, secured, labeled, sampled and analyzed (if required) IAW the approved work plan. The Contractor shall recommend appropriate disposal actions for all waste items. The Contractor shall perform the HW disposal in a timely manner.

- The contractor shall propose on the sampling rationale, and methods that will be utilized to ensure that data generated are of an acceptable quality for its intended use. The contractor shall also propose on the quantity, quality and the methods used to verify adherence to the PARCCS parameters for sample collection, handling, laboratory analysis, verification and validation. The contractor shall propose processes that will be utilized to address the corrective actions when established criteria are not being met. Any deviations from the accepted SAP shall be documented in the Daily Quality Control Reports (DQCR) and conveyed to USAESCH personnel immediately.

- Assess the physical condition of each water well.

- The Contractor shall sample and analyze the water quality at all wells

- Prepare annual report that summarizes data and analyses data for trends.

- Recommendation of any changes (e.g. changing frequency of data collection for the LTM Plan, groundwater well repairs, etc.) that are proposed for implementation for the LTM Plan.

- **Project Management:** The contractor shall manage the delivery order in accordance with the basic contract statement of work. All project management associated with the delivery order, with the exception of the direct technical oversight of the work described in the preceding tasks, shall be accounted for in this task.

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%.

DEFAULT COST

Estimate Summary Table

Site # SEAD-025

Site Number	Phase	CTC Subtotal (\$K)	Estimate Type	Assumption	Basis of Assumption	Basis of Assumption Document Name	Location of Basis of Assumption Document
SEAD 025	LTM	26	Contract Price	Contract for GW monitoring	TO 0023, CLIN 0004a	Contract #: W912DY-09-D-0062, D.O. 0023 dated 30 June 2016	HNC 1600 University Square Huntsville Al
	LTM	114	IGE	RACER	RACER	RACER 11.2	USACE NY 5786 State Route 96 Romulus, NY 14541
				Escalation factor 2015	\$112,585 x 1.0157 = \$114,352 (\$114K)	USAEC ACSIM FY16 Data Call Memo, 29 March 2016	
	LTM	3	IGE	COE Oversight of Contract	RACER Cost to Owner 11% of Contract cost	RACER 11.2	USACE NY 5786 State Route 96 Romulus, NY 14541
Total cost to complete		143					
Does the CTC estimate include work through site closure? (Yes/No)		yes					

SEAD 25

Phase	2016	2017	2018	2019	2020	2021	2022	2023	Out Years
L7th		26							
Class or Scientific				114					
		3							
		29		114					143