

# ROCKY MOUNTAIN ARSENAL

## Remedial Action Summary Report for Rocky Mountain Arsenal Commerce City, Colorado

Prepared by:

Tetra Tech EC, Inc.

Prepared for:

Rocky Mountain Arsenal Remediation Venture Office  
Department of the Army  
Shell Oil Company  
U.S. Fish and Wildlife Service

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Revision	Prepared By	Reviewed By	Approved By	Date	Pages Affected
0	Lynn Stewart	Andy Todd <i>AKT</i>	Scott Ache <i>SA</i>	September 20, 2011	All



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## ACRONYMS AND ABBREVIATIONS

AMA	Army-Maintained Area
ARER	Aquatic Residual Ecological Risk
Army	U.S. Department of the Army
BAS	Biological Advisory Subcommittee
BBM	Biota Barrier Material
bcy	Bank Cubic Yards
BMP	Biomonitoring Program
CBSG	Colorado Basic Standard for Groundwater
CCR	Construction Completion Report
CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFS	Confined Flow System
CQA	Construction Quality Assurance
CSRG	Containment System Remediation Goal
CSS	Chemical Safety Submission
CSV	Contingent Soil Volume
CWM	Chemical Warfare Material
DCN	Design Change Notice
DIMP	diisopropylmethyl phosphonate
DNAPL	Dense Non Aqueous Phase Liquid
DWB	Denver Water Board
ELF	Enhanced Hazardous Waste Landfill
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Difference(s)
ESS	Explosives Safety Submission
FFA	Federal Facility Agreement
FS	Feasibility Study
ft	Foot/Feet
FY	Fiscal Year
HWL	Hazardous Waste Landfill
ICS	Integrated Cover System
IP	Implementation Project
IRA	Interim Response Action
LNAPL	Light Non Aqueous Phase Liquid
LTCP	Long-Term Care Plan
LTMP	Long-Term Monitoring Plan for Groundwater and Surface Water
LUC	Land Use Controls
MCR	Monitoring Completion Report
MEC	Munitions and Explosives of Concern
MPPEH	Material Potentially Presenting an Explosive Hazard
NBCS	North Boundary Containment System
NODp	Notice of Partial Deletion
NOIDp	Notice of Intent for Partial Deletion
NPL	National Priorities List



NWBCS	Northwest Boundary Containment System
O&F	Operational and Functional
O&M	Operations and Maintenance
OGITS	Off-Post Groundwater Intercept and Treatment System
OU	Operable Unit
P1	Priority 1
P2	Priority 2
PMC	Program Management Contractor
PMRMA	Program Manager Rocky Mountain Arsenal
RASR	Remedial Action Summary Report
RCRA	Resource Conservation and Recovery Act
RCWM	Recovered Chemical Warfare Materiel
RD/RA	Remedial Design/Remedial Action
REDIS	Remediation Design and Implementation Schedule
Refuge	Rocky Mountain Arsenal National Wildlife Refuge
Refuge Act	Rocky Mountain Arsenal National Wildlife Refuge Act
RER	Residual Ecological Risk
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RMA	Rocky Mountain Arsenal
ROD	Record of Decision
RS/S	Off-Post Remediation Scope and Schedule
RVO	Remediation Venture Office
SACWSD	South Adams County Water and Sanitation District
SAP	Sampling and Analysis Plan
SAR	Study Area Report
SEO	State Engineer's Office
SFS	Supplemental Field Study
Shell	Shell Oil Company
SQCSR	Soil Quantity Calculation Summary Report
SWAQMP	Site-Wide Air Quality Monitoring Program
SWOMP	Site-Wide Odor Monitoring Program
TCHD	Tri-County Health Department
TEU	Technical Escort Unit
TRER	Terrestrial Residual Ecological Risk
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UXO	Unexploded Ordnance
WBS	Work Breakdown Structure
WRCP	Well Retention and Closure Program

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## 1.0 Introduction

This Remedial Action Summary Report (RASR) was prepared to document completion of remedial action construction activities for the Rocky Mountain Arsenal (RMA) Federal Facility Site in Commerce City, Colorado. The RASR was prepared in accordance with the Remediation Design and Implementation Schedule (RDIS) (PMRMA 2010) and provides a summary and documentation of remedy and remedy support activities based on the Records of Decision (RODs) for both the On-Post Operable Unit (OU) (FWENC 1996a) and the Off-Post OU (HLA 1995).

The RASR provides (1) a summary of completion documentation for ROD requirements where the remedy is complete or remedy is in place, and (2) a summary of program or project activities for remedy support activities not covered by existing completion documents. For those elements of the ROD requirements that are under construction or are otherwise ongoing, the RASR provides a discussion of the remedy status and indicates the continuing operations and maintenance (O&M) requirements. The RASR will also be used as supporting documentation for development of the Preliminary Closeout Report and the Final Closeout Report.

The U.S. Army (Army) is the lead agency for remediation of RMA and is issuing this RASR pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendment and Reauthorization Act of 1986. For remedy support activities not included in previous completion documents, the summary provided herein was prepared consistent with the general guidelines from the U.S. Environmental Protection Agency (EPA) guidance document *Close Out Procedures for National Priorities List Sites* (EPA 2000).

Regulatory agency oversight is conducted by EPA, Colorado Department of Public Health and Environment (CDPHE), and Tri-County Health Department (TCHD). The TCHD oversees local public health and environmental issues in Adams, Arapahoe, and Douglas counties, Colorado.

### 1.1 RMA Site Location and Description

The RMA On-Post OU is a federally owned facility located in southern Adams County, Colorado, approximately 10 miles northeast of downtown Denver, directly north of the former Stapleton International Airport and west of Denver International Airport. The original extent of the On-Post OU included all of the property located within the fenced boundary of RMA, approximately 26.6 square miles. The Off-Post OU encompasses groundwater Containment System Remediation Goal (CSRG) exceedance areas that underlie approximately 2.4 square miles of area zoned rural, agricultural, commercial, residential, and industrial north and northwest of RMA. The Off-Post and On-Post OUs are depicted on Figure 1.1-1.

Surrounded by development, the On-Post OU provides a refuge for an abundant diversity of flora and fauna. For this reason, the site was designated as a future National Wildlife Refuge in the Rocky Mountain Arsenal National Wildlife Refuge Act (Refuge Act) of 1992 (Public Law 1992). The RMA Federal Facility Agreement (FFA) (EPA 1989) and the On-Post ROD restrict future land use and prohibit certain activities such as agriculture, use of on-post groundwater as a drinking source, and consumption of fish and game taken at RMA. Current and future land use of the Off-Post OU surface area has not been restricted; however, institutional controls identified in



the Off-Post ROD have been implemented to reduce the potential for exposure to groundwater exceeding remediation goals. In addition, the ROD requires a deed restriction for approximately 160 acres of surface area owned or previously owned by the Shell Oil Company (Shell), referred to as the Shell Property, that prohibits drilling new alluvial wells and use of shallow groundwater underlying the Shell Property for potable purposes until such groundwater no longer contains contamination in exceedance of groundwater remediation goals established in the Off-Post ROD. Site Background and Records of Decision

### 1.1.1 On-Post Operable Unit

The Army established RMA in 1942 to produce chemical warfare agents and incendiary munitions used in World War II. Following the war and through the early 1980s, the Army continued to use these facilities for manufacturing, storage, and demilitarization activities. Beginning in 1946, some RMA facilities were leased to private companies to manufacture industrial and agricultural chemicals. Shell, the principal lessee, manufactured primarily pesticides at RMA from 1952 to 1982. Throughout the operational period, solid and liquid wastes were disposed on site, resulting in contamination of structures, soil, surface water, and groundwater. Approximately 70 chemicals were the focus of the Remedial Investigation (RI) for the On-Post OU (Ebasco 1992). Of these, the principal contaminants are organochlorine pesticides, heavy metals, agent-degradation products and manufacturing by-products, and chlorinated and aromatic solvents.

The RI and subsequent investigations identified chemicals at more than 180 sites that included soil, ditches, stream and lakebed sediments, natural depressions and manmade basins, sewers, groundwater, surface water, biota, and structures. Unexploded ordnance (UXO) was identified at several locations. Contaminated areas identified in the RI included approximately 3,000 acres of soil, 15 groundwater plumes, and 798 structures. The most highly contaminated sites were located within or adjacent to the manufacturing areas or waste disposal areas in the central portion of the RMA.

Sites that posed potential immediate risks to human health and the environment were addressed through Interim Response Actions (IRAs) as discussed in Section 2. Following completion of the Integrated Endangerment Assessment/Risk Characterization and Remedial Investigation/Feasibility Study (RI/FS), the On-Post ROD (FWENC 1996a) was prepared and approved on June 11, 1996. The overall remedy required by the 1996 ROD for the On-Post OU includes the following:

- Intercept and treat contaminated groundwater.
- Construct a Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act-compliant Hazardous Waste Landfill (HWL) on-post.
- Demolish structures with no designated future use and dispose of the debris in either the new on-post HWL or the Basin A consolidation area, depending upon the degree of contamination.
- Address contaminated soil at RMA primarily through containment in the on-post HWL or under caps/covers or through treatment depending upon the type and degree of

contamination. Areas that have caps or covers require long-term maintenance and will be retained by the Army. These areas will not become part of the future wildlife refuge.

- Institutional controls which prohibit use of the property for residential or agricultural purposes, use of the groundwater or surface water as a source of potable water, consumption of fish or game taken at RMA, and provide access restrictions to capped or covered areas.

Specific components of the remedy for the On-Post OU are discussed in Section 3.

#### **1.1.2 Off-Post Operable Unit**

Groundwater contamination migrated off post prior to the implementation of groundwater pump-and-treat systems resulting in the need for the Off-Post OU. The Off-Post OU addresses groundwater contamination north and northwest of RMA and is defined by the RMA FFA as that portion of the Off-Post Study Area where hazardous substances, pollutants, or contaminants from RMA are found and are subject to remediation. The Off-Post ROD further defined the Off-Post OU as depicted on Figure 1.1-1. The location of the Off-Post Groundwater Intercept and Treatment System (OGITS) is also shown.

Contamination migrated to the Off-Post Study Area primarily by shallow groundwater and airborne pathways. Contaminant transport in shallow, or unconfined, groundwater has been controlled by construction of the boundary containment systems and improvements to these systems. Off-Post Study Area surface water was contaminated primarily by the natural interaction with off-post groundwater. Off-Post Study Area surface soil was contaminated by the deposition of airborne contaminants, non-RMA-related agricultural application of pesticides, and irrigation practices.

The risk assessment performed for the Off-Post OU indicated that only human exposure via contaminated groundwater needed to be addressed. As a result, an Off-Post ROD was prepared and approved on December 19, 1995 (HLA 1995). The Off-Post ROD identified the following remedial components for off-post groundwater:

- Operation (and improvement, if necessary) of the OGITS
- Continued operation (and improvement, if necessary) of the North Boundary Containment System (NBCS) and Northwest Boundary Containment System (NWBCS)
- Long-term groundwater and surface water monitoring
- Provision of alternative water supplies for domestic well owners in areas of the Off-Post OU with contaminated groundwater and implementation of institutional controls intended to prevent future use of contaminated groundwater

In addition, the Off-Post ROD identified approximately 160 acres of surface area owned by Shell for revegetation (specifically, tilling and seeding). As noted above, This area is referred to as the Shell Property and is included in the Off-Post OU. This property, purchased by Shell to facilitate treatment of groundwater off post, is located north of RMA as shown on Figure 1.1-1. Although contaminant concentrations indicated existing risk within EPA's acceptable risk range, the Army and Shell agreed to complete the revegetation as part of the remedy. Revegetation was completed



in April 1996. In September 2009, EPA completed a Ready for Reuse Determination for most of the Shell Property to document that the property is ready for use for any purpose allowed under local land use and zoning laws. The property remains subject to restrictions specified in the Off-Post ROD.

As part of the State of Colorado Natural Resource Damages settlement, 100 acres of the Shell Property was deeded to Commerce City for open space and to use as a stormwater retention area. A conservation easement has been placed on the property as part of the agreement, and the easement is held by Adams County. The conservation easement preserves the property's conservation values in perpetuity by prohibiting urban or agricultural development and opens the area for limited recreational use.

Specific components of the remedy for the Off-Post OU are discussed in Section 3.

## **1.2 Deletions from the National Priorities List**

As components of the On-Post OU remedy have been completed, administrative jurisdiction has been transferred to the U.S. Fish and Wildlife Service (USFWS) or other parties purchasing the land, except for the property and facilities continuing to be used for response actions. As of September 2010, five partial deletions have occurred that include the Western Tier Parcel, Selected Perimeter Area, Surface Deletion Area, Internal Parcel, and Central and Eastern Surface Area. Deletion areas are shown on Figure 1.3-1. Combined, these five deletions have reduced the area remaining on the National Priorities List (NPL) On-Post OU to approximately 1.7 square miles. Groundwater has also been deleted in the eastern and southern perimeter areas of the RMA. However, groundwater underlying the central and northwestern portions of the site has not met remediation goals and remains on the NPL. Surface media in the Off-Post OU has also been deleted. The following sections summarize the partial deletions completed at RMA.

The portions of the On-Post OU transferred to other parties remain subject to the FFA restrictions prohibiting residential development, use of groundwater on the site as a source of potable water, hunting and fishing for consumptive use, and agricultural use. In addition, because the completed remedial actions result in contaminants remaining above levels that allow for unlimited use and unrestricted exposure, the site remains subject to the five-year review requirements to ensure protection of human health and the environment.

### **1.2.1 Western Tier Parcel**

The Refuge Act stipulates that approximately 815 acres (subsequently more accurately defined as 917 acres) referred to as the Western Tier Parcel will be transferred to Commerce City for fair market value. The first step in the process was the partial deletion of the Western Tier Parcel from the NPL. In October 1998, a Notice of Intent for Partial Deletion (NOIDp) was published by EPA in the Federal Register to delete surface media and groundwater. Subsequently, the deletion was postponed to allow for additional soil sampling. During the soil sampling, a site reconnaissance was performed that identified eight areas requiring subsurface investigation. The investigation resulted in excavation of one of the eight areas. In addition, some members of the public expressed concern that RMA, and the Western Tier Parcel, might be contaminated with dioxins. To address this potential issue, EPA Region 8, working in cooperation with the State of Colorado and the RVO, completed a series of studies to characterize the levels of dioxins in on-

site and off-site soils, including the Western Tier Parcel. The results from the studies indicated that there is no specific source of dioxin release in the Western Tier Parcel, and that dioxins in surface soil at the Western Tier Parcel are not of human health concern (EPA 2001c).

Concurrently, RMA-wide evaluation of potential UXO and recovered chemical warfare materiel (RCWM) was being conducted in response to the discovery of chemical warfare agent-filled bomblets elsewhere at the RMA. This evaluation is discussed further in Section 5.11. These additional efforts resulted in the publication of a second NOIDp in September 2002. After public comment, the Notice of Partial Deletion (NODp) was published in January 2003. The ultimate sale of the property to Commerce City occurred in June 2004.

### **1.2.2 Selected Perimeter Area and Surface Deletion Area**

The Refuge Act requires that, upon certification by EPA that all response actions at RMA have been completed (i.e., NPL deletions have been made), the Army will transfer administrative jurisdiction over the property to USFWS. The Army first proposed deletion of the perimeter area in 1999, but the effort was suspended because bomblets were discovered as discussed above. Once the site-wide evaluation of UXO and RCWM had been completed, perimeter deletion efforts resumed, resulting in two NOIDps (Selected Perimeter Area and Surface Deletion Area) being published in the Federal Register in July 2003 for a total of approximately 5,000 acres. The Selected Perimeter Area included surface media (i.e., soil and surface water), structures, and groundwater while the Surface Deletion Area included surface media only. The corresponding NODps were published in the Federal Register in January 2004. The Selected Perimeter Area and Surface Deletion Area were transferred to USFWS on March 2, 2004, and USFWS officially established the Rocky Mountain Arsenal National Wildlife Refuge (Refuge) in April 2004.

The Refuge Act specifies that 100-foot (ft)-wide strips inside the RMA boundary on the northwest, northern, and southern sides be transferred to local governments, at no cost, to allow improvement of public roads. The approximately 11 miles of 100-ft-wide strips amount to approximately 126 acres. This property was included in the Selected Perimeter Area deletion described above. Following that deletion, the property was transferred to Commerce City, City and County of Denver, and Colorado Department of Transportation in September 2004.

### **1.2.3 Internal Parcel**

The NOIDp for the Internal Parcel at RMA was published in April 2006. Following public comment, the NODp for approximately 7,400 acres (11.5 square miles) was published in the Federal Register at the end of July 2006. The Internal Parcel deletion included surface media, structures, and groundwater in areas east of E Street (with the exception of a small area of contaminated groundwater located in the northwestern corner of Section 6) and surface media only for areas west of E Street. Most of the property was transferred to USFWS in September 2006 to expand the extent of the Refuge.

### **1.2.4 Central and Eastern Surface Area**

Another NOIDp was published in June 2010 for the Central and Eastern Surface Area. This partial deletion included approximately 2,500 acres (3.9 square miles) of surface media and structures in the central and eastern areas of RMA. No groundwater was included in this partial deletion. Following public review and comment, the NODp was published in the Federal



Register on September 13, 2010. This property was then transferred to USFWS on September 30, 2010.

#### **1.2.5 Off-Post OU Partial Deletion**

One partial deletion has been completed for the Off-Post OU. The NOIDp published in June 2010 included all surface media in the Off-Post OU (including the Shell Property). Also, in September 2009, EPA completed a Ready for Reuse Determination for most of the Shell Property to document that the property is ready for use for any purpose allowed under local land use and zoning laws. Following public review and comment on the NOIDp, the NODp was published in the Federal Register on September 13, 2010. Groundwater in the off-post area has not met remediation goals and remains on the NPL.

## **2.0 Summary of Interim Response Actions**

Beginning in 1975, early remedial actions and IRAs were implemented in the most highly contaminated sites to protect both on-post and off-post human health and environment. The IRAs were undertaken in advance of the ROD to stop the spread of, or eliminate, contamination and to begin the actual remediation. All IRAs that required the removal of material were carried out in accordance with applicable laws and regulations and were consistent with and contributed to the efficient performance of the selected alternatives for the On-Post and Off-Post OUs. Reports generated for the IRAs, including Site Investigation Reports, Technical Plans, Alternatives Assessment Reports, Decision Documents, Implementation Documents, Operational Reports, and IRA Summary Reports, can be accessed through the Joint Administrative Record Document Facility. IRA work not accomplished prior to the ROD, including continued operations, was incorporated into the ROD remedy, except in a few instances in which IRA work continued past the date of the ROD to completion (e.g., asbestos abatement).

Table 2.0-1 provides a summary of IRAs completed at RMA. A brief description of each IRA is provided along with references to the applicable IRA completion reports and the date of Regulatory Agency approval.

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### 3.0 ROD Requirements and Remedy Status

This section describes the remedy selected in both the On-Post and Off-Post RODs, administrative changes that have been made to the RODs, and summarizes completion documentation for each remedy component of the RODs.

Both the On-Post and Off-Post RODs included a requirement to provide a remediation schedule following issuance of the ROD. For the Off-Post ROD, the Remediation Scope and Schedule (RS/S) was completed in September 1996 (HLA 1996a) and describes activities to be performed to support implementation of the selected remedy specified in the Off-Post ROD. In December 1996, the Program Manager Rocky Mountain Arsenal (PMRMA) issued the RDIS to provide an implementation schedule for the On-Post ROD requirements (PMRMA 1996a). Major elements of the off-post remedy were incorporated into the RDIS to provide a single reference for an overall remedy schedule, as discussed in Section 4.0.

The selected remedy in the On-Post ROD was organized by medium group to allow sites or structures with similar contamination patterns or use history to be grouped together for remediation. However, to facilitate implementation, the soil and structure remedy components were reorganized into implementation projects (IPs) that represented a more efficient design/construction-oriented approach. The IPs were developed based on geographic proximity of ROD remedial actions and the logical execution of the work to be performed. The locations for areas included for each IP are shown on Figure 3.0-1. In addition, each water treatment system was included as a separate schedule project. Additional components of the selected remedy, such as monitoring or remedy support activities, were included as site-wide programs for both the On-Post and Off-Post OUs within the schedule structure.

The scheduled items are organized in six levels of detail defined by the work breakdown structure (WBS). The WBS allows efficient identification, summarizing, tracking, and reporting of groups, projects or types of activities for each stage of remediation. The schedule is structured at the following six WBS levels:

- WBS Level 0 - RMA

- WBS Level 1 - OU or Program Stage (Pre-ROD, Remedial Design/Remedial Action [RD/RA] or O&M)

- WBS Level 2 - Program Phase or Category

- WBS Level 3 - Implementation Project

- WBS Level 4 - Activity Type (e.g., design, construction)

- WBS Level 5 - Project-Specific Activity

Each ROD requirement, including IPs, site-wide programs, water treatment systems and program management, has a unique WBS number at Level 3. Throughout the RASR, WBS Level 3 is included on summary tables to provide cross-reference between the text sections. Table 3.0-1 lists the WBS Level 3 elements. The WBS includes elements for long-term operations and maintenance (WBS 4 Level 1). For project or program elements with long-term operations requirements, cost and schedule tracking is transitioned from the remedy construction stage to the long-term stage to allow for separate tracking of long-term operations and maintenance.

Table 3.0-2 provides a detailed list of the On-Post ROD project/program requirements and completion documentation organized by the WBS Level 3. Table 3.0-2 is organized as follows:

Column 1 – WBS Level 3.

Column 2 – WBS Description. Lists the IP, site-wide program, water treatment system, or other program element. For soil IPs, the ROD Study Area Report (SAR) sites and other site designation are listed for each IP.

Column 3 – ROD Medium Group. Provides cross-reference to the ROD medium group. (The selected remedy in the ROD is provided by medium group.)

Column 4 – ROD Requirement. Lists the ROD requirement for the project or program. The requirements are provided as modified by existing ROD Amendments or Explanation of Significant Differences (ESD) applicable to the project.

Column 5 – ROD Change Documentation. Provides citations for ROD Amendments, ESDs or relevant Fact Sheets.

Column 6 – Completion Documentation. Provides citations for existing Construction Completion Reports (CCRs), Monitoring Completion Reports (MCRs), IRA Summary Reports or other completion documentation. Where completion documentation has not been previously prepared, a cross-reference is provided to the section of the RASR that summarizes the activities for that program element.

Column 7 – Long-term O&M requirement. Indicates whether this IP or program element has a long-term O&M requirement. (O&M requirements are discussed in Section 7.)

Table 3.0-2 provides a crosswalk from ROD requirements to documentation that each requirement has been completed or is addressed as an ongoing action. For projects or programs where completion documentation already exists, there is no additional discussion provided in the RASR and reference to the appropriate CCR or MCR is provided on the table. For projects where completion documentation has not been previously prepared, the RASR provides a summary of the project or program activities in Section 5. The Section 5 reference is provided on the table.

For projects with constructed cover systems, the CCR reference provided is a CCR - Part 1, which documents completion of physical construction of the covers. This includes the following cover systems:

- Former Basin F RCRA-Equivalent Cover
- Integrated Cover System RCRA-Equivalent Covers
  - Basin A Consolidation Area
  - Complex (Army) Trenches
  - Section 36 Lime Basins
  - Shell Disposal Trenches
  - South Plants Central Processing Area

- Soil Covers
  - South Plants Balance of Areas 3-foot cover
  - Shell Trenches 2-foot cover

Following an evaluation of percolation control, soil loss due to erosion, establishment of vegetation on the covers, and the overall condition of the covers, a CCR - Part 2 will be prepared to document project completion and the Operational and Functional (O&F) status of the covers.

Table 3.0-3 provides a similar summary of remedy requirements and completion documentation for the Off-Post OU.

### 3.1 Soil Remediation

The ROD identified soil remediation volumes by medium group and the following soil classifications: human health exceedance soil, principal threat exceedance soil, biota risk soil, munitions debris and associated soil, and agent-contaminated soil. The ROD also identified sanitary landfill trash/debris volumes for the Existing Sanitary Landfill sites.

Although the ROD did not include a detailed breakdown of soil volumes for each remediation site, the ROD did require that the soil volume calculations be presented in another document to allow for independent confirmation that the required remediation volumes were removed. The *Soil Quantity Calculation Summary Report* (SQCSR) was completed in September 1996 to address this requirement (FWENC 1996c). The SQCSR includes detailed information related to remediation volumes identified in the ROD, both areal extent and depth, and provides soil remediation volumes for each site.

During remediation, soil volumes were calculated for each remediation area based on pre- and post-excavation surveys. Final remediation volumes are provided on a site-specific basis in each project CCR. For implementation, the principal threat soil volumes were combined with human health exceedance soil for volume tracking. Also during implementation, one soil classification was added for remediation volume tracking. Residual Ecological Risk (RER) soil was identified, as required by the ROD, based on refinement of surface soil areas requiring remediation. This soil is identified in various project documents and CCRs as Priority 1 (P1) soil, Priority 2 (P2) soil and Terrestrial Residual Ecological Risk (TRER) soil. For final volume tracking, these soils are all captured under the RER soil classification. Section 5.5 provides additional discussion on the identification of RER soils.

Table 3.1-1 provides a summary of soil remediation volumes for each IP and site, organized by WBS Level 3. The table includes ROD and actual volumes for human health exceedance soil, biota risk soil, munitions debris/soil and sanitary landfill trash/debris, and actual remediation volumes for RER soil (where no ROD volumes were specified). The table also provides a summary of contingent soil volumes removed at each site. Contingent soil volume is discussed further in Section 5.6.



### 3.2 Structures Remediation

The ROD identified three structures classifications for remediation; agent history, significant contamination history and other contamination history. These structures were remediated primarily under three IPs: South Plants Demolition, North Plants Demolition, and Miscellaneous RMA Structures Demolition. The CCRs for these projects include demolition lists for structures remediated by each project. In addition, several soil IPs performed structures demolition for structures located within the soil remediation project boundaries. Structures demolition is identified in each CCR as appropriate.

The ROD also identified a number of structures as having no contamination history and classified them as Future Use structures. However, because the long-term structure needs were not fully developed at that time, the ROD included a provision to revise the Future Use structure list during remedial design. As implementation progressed, the Future Use list was revised to reflect the long-term structure requirements.

Table 3.2-1 provides a listing of structures addressed through remedial design and implementation. The table includes the following information:

Column 1 – Structure ID.

Column 2 – RMA Section location for structure.

Column 3 – ROD Classification.

Column 4 – Use refinement. This column indicates any changes made to the ROD classification during remedial design or implementation.

Column 5 – Completion Documentation. Provides a citation for the CCR documenting demolition of the structure. In some cases, the foundation was removed separately and is documented in a different CCR. Also, some structures were determined to have been removed prior to implementation of the remedy. In these cases, the completion documentation reference provided is the design where the absence of the structure is noted.

Table 3.2-1 includes structures identified in the ROD as well as other structures not identified in the ROD that were added to the remediation scope during design or implementation. Several structures included in the ROD were actually demolished as part of an IRA prior to remedial design/remedial action. In these cases, the table includes a citation for the relevant IRA completion report. It should be noted that many other structures, particularly tanks, were demolished as part of IRAs. These structures are not listed on Table 3.2-1 since they were not included in the ROD structures listings.

Table 3.2-2 provides the final listing of Future Use structures with similar information provided. For Future Use structures, the completion documentation is a reference to the design where the Future Use classification was either confirmed or revised from the ROD.

### 3.3 Groundwater Remediation

The selected remedy in the On-Post ROD for groundwater includes as a primary component continued operation of the boundary treatment systems (NBCS, NWBCS, Irondale Containment System) and on-post treatment systems (Basin A Neck System, Rail Yard Extraction System, Motor Pool Extraction System). Other remedy components include installation of the Bedrock Ridge Extraction System, installation of the ultraviolet system for n-nitrosodimethylamine treatment at the NBCS, closure of confined flow system monitoring wells, south lakes plume management, and long-term groundwater monitoring. The Off-Post ROD specified continued operation of the OGITS for treatment of groundwater contamination located in the off-post OU and closure of wells that might represent pathways of migration for contaminants between aquifers. The Off-Post ROD also specified institutional controls intended to prevent future use of contaminated groundwater.

Groundwater remediation was tracked under WBS 2.08, Water Treatment/Monitoring for on-post activities and WBS 3.11 for off-post activities. Each treatment system or remedy component is identified as a separate project element or WBS. In addition, the Section 36 Bedrock Ridge Extraction System construction was identified as an implementation project and is included as WBS element 2.03.15. Site-wide monitoring, including confined flow system monitoring, were tracked under WBS 2.07, Site-Wide Programs.

Groundwater remediation elements are listed in Tables 3.0-2 and 3.0-3 with citations provided for the relevant CCRs where remedial actions are complete. Completed elements include Irondale Containment System, North of Basin F Well, Confined Flow System (CFS) Well Closure and Off-Post Well Closure. In addition, remedial actions including shut-off monitoring at the Motor Pool System are complete, although approval of the CCR (URS 2011a) is pending finalization of the post-shut-off monitoring Sampling and Analysis Plan (SAP).

During remedial design/remedial action, several new groundwater-related remedial actions were added to the remedy scope and the WBS was modified to incorporate them. The Groundwater Mass Removal Project was incorporated to provide contaminant reduction in the South Tank Farm Plume and Lime Basins contaminant source areas (TtEC 2006e). Although mass removal is complete, finalization of the CCR is pending resolution of issues associated with long-term groundwater monitoring for the South Tank Farm Plume. Two additional requirements, North Plants Light Non Aqueous Phase Liquid (LNAPL) Recovery and Lime Basins Dense Non Aqueous Phase Liquid (DNAPL) Remediation, have not been completed and are discussed in Sections 5.17 and 5.18 respectively.

As indicated on Tables 3.0-2 and 3.0-3, long-term O&M is ongoing for RMA treatment systems and will continue until shut-off criteria are met. The Long-Term Monitoring Plan for Groundwater and Surface Water (LTMP) (TtEC and URS 2010c) describes the specific monitoring objectives and monitoring networks for the site-wide plume monitoring. The LTMP documents revised shut-off criteria that rely on the consultative process and no longer include the hydraulic purposes criterion or the monitoring of extraction well criterion. An ESD is under preparation to document the revised criteria as changes to the RODs. Long-term O&M requirements are discussed in Section 7.0. Treatment system CCRs will be developed as groundwater reaches remediation goals and systems are shut down.

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#### 4.0 Schedule Summary

Both the On-Post and Off-Post RODs included a requirement to provide a remediation schedule following approval of each ROD. Specifically, the Off-Post ROD included the following regarding the requirements for ongoing groundwater and surface water monitoring:

*The Army will present the scope of these ongoing monitoring programs in an Implementation Plan to be submitted within 90 days following issuance of the ROD.*

The PMRMA issued the RS/S for the Off-Post OU in September 1996 to satisfy this requirement (HLA 1996a). The RS/S includes a summary of activities to be performed to support implementation of the selected remedy specified in the Off-Post ROD. The RS/S describes data collection and reporting requirements for operations and monitoring activities and presents methods that may be used to evaluate operations and monitoring data with respect to the cleanup goals established in the ROD.

Similarly, the On-Post ROD included an implementation schedule requirement:

*Within 180 days after issuance of the Notice of Availability for the ROD, the Army will append to the ROD a complete, detailed schedule for completion of activities associated with the selected remedy. The schedule will identify the enforceable project milestone dates for design activities. Future design documents will detail milestone dates for implementation activities. Revisions to this schedule will be initiated prior to the start of each fiscal year to allow adequate time for review and concurrence by the Parties (i.e., RVO and Regulatory Agencies).*

The RDIS was initially completed and submitted on December 9, 1996, meeting this ROD requirement. Following resolution of disputes related to enforceable milestones, the RDIS was amended to establish enforceable dates for issuance of Draft Design Scope of Work documents for remedial implementation projects, and to establish target dates and/or enforceable deadlines for Draft Final Designs. The amended RDIS complied with the requirements to append a design schedule to the ROD and to establish a process to modify the design schedule. As designs were completed, the RDIS was updated to include and track the implementation milestones. Annual updates were provided as addenda to the RDIS, starting with Fiscal Year (FY) 1998, through FY 2011.

The RDIS provided a comprehensive view of the overall remediation program and its status to the Regulatory Agencies and the public. Reporting capabilities range from summary level program overviews to detailed activity listings. The schedule was developed from the implementation group structure using Primavera Project Planner. The schedule incorporated the implementation project descriptions as described in Appendix B of the RDIS to provide a framework for planning the total remedy implementation. All elements with ROD requirements were included in the RDIS. Elements of the Off-Post remedy were also included.

The RDIS provided background information concerning the ROD and the major components of the selected remedy, the assumptions on which the design schedule was based, and the status of the fourteen IRAs. It also established a general process by which design documents were developed, including deliverable milestones for design documents. RA implementation activities

and reporting and closeout documentation requirements are described, along with schedule development, components, and the process by which the design schedule was modified. In the RDIS, Appendix A provides a detailed description of the 14 IRAs, and Appendix B provides a description of implementation projects, site-wide programs, water treatment and monitoring, program management, and off-post remedy. The annual schedule updates were added as Appendices C through P.

Annual updates included a revised detailed remediation schedule as well as updated project descriptions and enforceable milestones. The last RDIS update was issued in November 2010 and included the updated remediation schedule for FY 2011 (PMRMA 2010). The final remediation schedule, depicting remediation completed through August 2011, is attached to the RASR as Appendix A. Table 4.0-1 provides a summary of remediation start and finish dates for each remediation element (at WBS Level 3). The table includes the actual dates for completed remediation activities and forecast dates for activities that are ongoing as of issuance of the RASR. It should be noted that activities with long-term O&M requirements are shown as complete. In these cases, the completion date represents the close of cost and schedule tracking under the Remedial Design/Remedial Action stage (WBS 2, On-Post OU and WBS 3, Off-Post OU). Long-term activities will be tracked under the long-term O&M stage (WBS 4). The WBS 4 schedule elements are also shown on Table 4.0-1.

## **5.0 Site-Wide Program Completion Summary**

The following sections provide completion documentation for RMA site-wide programs and remedy support activities. Descriptions are included for ongoing activities and completed activities that have no previously issued CCRs or MCRs. A brief discussion of the scope of the program, description of activities, status if activities are ongoing, and schedule milestones are provided below, as is a comparison of actual costs to the original baseline estimate.

The baseline estimate represents original ROD cost estimates reorganized to reflect implementation project and site-wide program descriptions in the RDIS. All ROD costs were assigned to an appropriate WBS creating a baseline cost estimate for remedy implementation. Baseline estimates were also provided for some support programs where there were no specific ROD estimates (e.g., biomonitoring).

Remediation costs have been tracked according to the WBS organization defined in the RDIS. All remediation and remediation support costs are assigned to an appropriate WBS to allow for cost tracking by project or program. Costs provided in the RASR are Estimates at Completion and are based on costs through July 29, 2011. For completed projects, the Estimate at Completion represents the actual project cost. For ongoing projects, the estimate at completion represents costs projected through the forecast finish date provided on Table 4.0-1. These costs include Remediation Venture Office (RVO) costs, Program Management Contractor (PMC) and PMC subcontractor costs, and other Army performer costs. Costs for long-term O&M are not included and will be tracked under separate WBS (WBS 4 as shown on Table 3.0-1).

### **5.1 RCRA-Equivalent Cover Demonstration Project (2.07.34)**

#### **5.1.1 Scope**

The selected soil remedy in the On-Post ROD requires the construction of RCRA-equivalent covers in the Basin A, Complex (Army) Trenches, Lime Basins, Shell Disposal Trenches, South Plants Central Processing Area, and Basin F Project areas. The RCRA-Equivalent Cover Demonstration Project assessed alternate cover designs as compared to the typical RCRA Subtitle C cover designs recommended by EPA guidance. The focus of the effort was to develop alternate designs that were cost-effective and relied primarily on the natural materials in the vegetative cover and evapotranspiration to limit deep percolation and to demonstrate their RCRA-equivalence. The demonstration project consisted of a ROD-required comparative analysis and a field demonstration. Subsequent assessments and studies were then conducted as pre-design tasks for full-scale cover projects to incorporate the successful alternate design and lessons learned into the IP designs.

#### **5.1.2 Description of Activities**

Initial project activities involved hydrologic modeling to evaluate whether alternate designs could limit deep percolation based on theoretical considerations. Modeling results indicated that RCRA equivalence could likely be achieved for alternate designs. Beginning in March 1998, four test covers were constructed in accordance with the RCRA-Equivalent Cover Demonstration Project Final Design Package (MKC 1998c) and the Comparative Analysis and Field Demonstration Design Scope of Work (RVO 1998e). The Comparative Analysis and Field Demonstration Design Scope of Work was first issued in December 1997 with requirements for

the field demonstration. The document was then reissued in July 1998 to incorporate revisions documented in the *Agreement Summary on Comparative Analysis and Field Demonstration Design Scope of Work for the Rocky Mountain Arsenal RCRA-Equivalent Cover Demonstration Project* (RVO 1998d). The Agreement Summary identified design elements and requirements to be addressed in full-scale cover designs.

A final project inspection was completed following construction and three growing seasons for vegetation establishment. Results of the final inspection indicated that all four test covers were successful in meeting performance criteria and passing the field test. After the field demonstration test year, September 2000 through August 2001, the RVO issued the Draft *Rocky Mountain Arsenal RCRA-Equivalent Cover Demonstration Project - Final Project Report* (WGI 2001). The test covers were monitored quarterly through FY04. They continued to perform successfully and provided information to support full scale cover construction. A formal cover inspection for the 2004 operating year was conducted on August 31, 2004.

Work began in September 2008 to remove the test covers. Work crews removed all surface equipment and features (e.g., fence, storage tanks, irrigation system, etc.) as well as subsurface equipment (e.g., manholes, irrigation valve boxes), except for the lysimeter materials, which remain buried. Test cover removal was completed in December 2008. A final project report is being prepared to document completion of the demonstration project and removal and close out of the test covers.

Following the completion of the field demonstration, the working group met to evaluate the Demonstration Project and establish design criteria for the full-scale RCRA-equivalent cover implementation projects. While an Agreement (RVO 1998d) had been established prior to the field demonstration to guide the transition from the demonstration project to the full-scale design, the Regulatory Agencies requested an assessment of the test cover soils used in the field demonstration and further evaluation of soil characteristics or properties that would help ensure that the cover soil material and placement specifications would result in acceptable cover performance.

Table 5.1.2-1 summarizes the significant milestones for the RCRA-Equivalent Cover Demonstration Project.

**Table 5.1.2-1 RCRA-Equivalent Cover Demonstration Project Milestones**

<b>Activity</b>	<b>Date</b>
Demonstration Project design process completion	January 1998
Test covers construction completion	September 1998
Test covers final project inspection	September 4, 2001
Test covers removal	December 2008
Final project report	Forecast October 2011

### 5.1.3 Cost Summary

The original baseline remediation cost estimate for this project was \$1,254,200. The Estimate at Completion for this project is \$1,677,961, representing an increase of approximately 34.4 percent from the baseline estimate. These costs represent RVO costs for planning and implementation of the cover demonstration as well as documentation of demonstration results and close out.

## 5.2 Borrow Areas (2.07.35)

### 5.2.1 Scope

The selected soil remedy in the On-Post ROD requires approximately 12 million cubic yards of borrow materials to backfill excavations, build structural fills, establish cover grades, and construct liner and cover components. The materials in the borrow areas were managed carefully to ensure each IP had access to the quality and volume of borrow materials required for remediation. As part of the project, remediation of P1 and TRER soils was also tracked.

### 5.2.2 Description of Activities

The original Borrow Area Plan (FWENC 1998a) identified those areas within the RMA boundary where borrow operations would be appropriate, estimated the material types available at the sources, estimated the sizes of areas impacted by borrow excavations, allocated and managed borrow area operations, provided operation alternatives, and identified operational issues.

The selected soil remedy in the On-Post ROD also requires continued biomonitoring to identify areas where soil contamination levels are below human health concerns but may pose potential risk to biota so that design boundaries for surficial soil and aquatic contamination areas could be refined. To support this requirement, the Biological Advisory Subcommittee (BAS) conducted evaluations of potential biota risk and identified areas with residual risk to biota. The BAS also coordinated with borrow area planning to focus borrow area selection to include areas where residual risk soils were identified in order to maximize overall risk reduction. The initial assessment classified the residual risk soil areas as containing either P1 (i.e., soils that should be given first priority for use as borrow) or P2 soils (PMRMA 1997). These soils are located within the upper 1 foot (ft) of the soil profile in these areas. Subsequent evaluations, including further evaluation of P2 areas, resulted in additional potential risk areas classified as TRER soils, which were identified for remediation either by removal or through tilling in place (PMRMA 2003). The P1 and TRER borrow soils were not used as top soil or liner soil, nor were they placed within the upper 2 ft of backfilled excavations or cap/cover systems.

The Borrow Area Project tracked and coordinated IP use of borrow areas, reviewed interim and final grading plans for conformance with the USFWS refuge objectives, and tracked remediation of P1 and TRER soils. Since 1998, when the original Borrow Area Plan (FWENC 1998a) was developed, annual updates to this plan (TtEC 2010g, 2009k, 2008q, 2007d, 2005e; TtFW 2004i; FWENC 2003c, 2002e, 2001f, 2000l, 1999e) were prepared, except in 2006, when the RER CCR Part 1 (TtEC 2006f) was prepared in lieu of the annual update. These documents served as planning and documentation tools for the management of BAs and as a tracking tool for Priority 1 and TRER soils and contained summaries of previous years' borrow area operations, as well as those planned for the upcoming year. The final update was issued in August 2010 at the



conclusion of on-site borrow activities (TtEC 2010g). Included in the final update is a complete set of as-built drawings for each borrow area showing final grades and vegetation status.

Each IP that included requirements for borrow materials planned activities at a given borrow area, and final grading of the borrow area was performed by the last IP active in a given borrow area. These activities and the final grades of borrow area surfaces are documented in CCRs for the various IPs that utilized the borrow areas. For borrow material volume used from each borrow area, by IP, see Table 5.2.2-1. The locations of the borrow areas are shown on Figure 5.2.2-1.

Remediation of P1 and TRER soil areas was performed by various IPs. Typically, IPs addressed areas within or adjacent to the project area or borrow areas used by the project. Remedy activities for P1 and TRER areas are documented in CCRs for the various IPs that performed the work. In addition, two CCRs were completed to document completion of all RER soil remediation activities, including soil removal, tilling, and sampling. The Part 1 CCR was completed in 2006 (TtEC 2006f) and the Part 2 CCR was completed in 2009 (TtEC 2009h).

Table 5.2.2-2 presents significant milestones for the Borrow Areas Program.

**Table 5.2.2-2 Borrow Areas Program Milestones**

Activity	Date
Borrow Areas Plan, 100 percent report issued	October 1998
RER Soil Remediation CCR	March 2006
RER Soil Remediation Part 2 CCR	June 2009
Completion of borrow activities	February 2010
Completion of borrow area final grading	May 2010

### 5.2.3 Cost Summary

The original baseline remediation cost estimate for this project was \$36,581,391. However, the baseline estimate projected costs for this program to include physical management of the borrow areas including excavation and hauling of borrow soil. During implementation, the actual borrow activities and costs were assigned to each implementing project. Costs tracked for the site-wide program element include RVO and PMC costs for the initial borrow areas design, preparation of annual updates, borrow activity coordination and preparation of the RER CCRs. The Estimate at Completion for this project is \$2,043,907.

## 5.3 Structural Agent Treatment Facility (2.07.36)

The selected structures remedy in the On-Post ROD requires that all Agent History Structures be monitored for the presence of Army chemical agents during dismantling operations and that building debris determined to contain agent be treated by caustic washing, as necessary, prior to disposal. No site-wide treatment facility was constructed. However, a North Plants-specific agent treatment facility was constructed for the decontamination of 11 pieces of GB Fill equipment, which is documented in the North Plants Structure Demolition and Removal Remediation Project and Destruction of Equipment in the GB Production and Fill Facilities Project, Construction Completion Report (TtFW 2004f).

## **5.4 Soil Agent Treatment Facility (2.07.37)**

The selected soil remedy in the On-Post ROD requires that soil within potential agent areas be monitored for the presence of Army chemical agents during excavation and that soils determined to contain agent be treated by caustic washing, as necessary, prior to disposal. During remedy implementation, no soils were determined to contain chemical agents; therefore, construction of treatment facilities was not required.

## **5.5 Site-Wide Biota Monitoring (2.07.38)**

### **5.5.1 Scope**

Biomonitoring is included in the On-Post ROD as an additional component of the remedy and also as a long-term operations requirement. As part of the remedy continued biomonitoring was identified to refine design boundaries for surficial soil and aquatic contamination areas. The BAS was established and tasked with continuing the USFWS biomonitoring program and completing the Supplemental Field Study (SFS)/risk assessment process to be used in recommending refinements to remediation boundaries. The BAS also served as a technical resource during remediation to analyze and collect data sufficient to support design refinements. For long-term operations, the ROD states that "monitoring activities for biota will continue by USFWS in support of evaluating the effectiveness of the selected remedy."

### **5.5.2 Description of Activities**

As required by the On-Post ROD, the BAS was tasked with determining a level of acceptable risk to biota remaining after implementation of the ROD-identified remedial activities. To better assess residual risk, the BAS used results of the SFS Phase 1 (FWENC 1996b) to narrow its focus. The SFS indicated that while risks to mammals were overestimated in the Integrated Endangerment Assessment/Risk Characterization (Ebasco 1994) risks to small birds were underestimated. Small birds are the most sensitive ecological receptor at RMA and were used as the indicator species to ensure that all other terrestrial receptors would be adequately protected. The SFS results also indicated that approximately 90 percent of the risk to the small bird receptor was caused by exposure to combined aldrin and dieldrin, termed todrin (total for "aldrin and dieldrin"). Accordingly, the risk assessment efforts were focused on the small bird exposure to todrin.

An initial assessment of risk to small birds, completed in early 1997, used an adjusted biomagnification factor 7.5 times higher than that used for the ROD, based on SFS results, and identified two classes of soil sites that exhibited generally higher and lower risks. The BAS ranked the higher risk sites P1 soil and the lower risk sites P2 soil. These sites were defined using aldrin, dieldrin and arsenic soil concentration data; interpolated grids of estimated soil concentrations for todrin; and todrin beetle tissue data from the SFS. Residual risk soils were determined from a conservative model that uses both measured and modeled concentrations of todrin to identify sites of potential residual risk to small birds.

The BAS review of potential residual risk soil indicated that excavating limited areas of higher risk soils (identified as P1 soil) would effectively eliminate risk posed by contaminated surface soils adjacent to the core remedy areas. In addition, the BAS, working in coordination with the RVO borrow are planning team, recognized that potential risk in P1 soil areas could be most

effectively addressed if the P1 soil areas coincided with planned borrow areas, and refined the borrow areas to incorporate P1 soils as much as practicable. This initial effort concluded with a BAS recommendation to the RMA Committee that the higher risk, or P1 soil sites, should have priority for surface soil (0 to 1 foot) removal in order to maximize risk reduction for biota. The RMA Committee accepted the BAS recommendations to refine the IPs and borrow sites to include P1 soils and subsequently documented this minor ROD change in an agreement finalized in May 1997 (PMRMA 1997) detailing the design refinements for surficial soil removal and related risk reduction. This agreement outlines the remedy requirements for the identified P1 soil sites (approximately 997 acres) and provides detailed requirements for use of the majority of this soil as borrow soil.

Following initial identification of P1 and P2 soils and incorporation of P1 soil removal in the remedy, the BAS continued to evaluate potential residual risks to biota to complete the ROD requirements for residual risk evaluation. The continued evaluation included P2 soil sites and limited exempted soil sites under the 1997 RMA Committee Agreement. Ultimately, "P2 soils" nomenclature was subsumed under the title, TRER. The terrestrial portion of the risk assessment was issued by the BAS in April 2002 (BAS 2002) and an addendum to the report was issued in April 2003 (BAS 2003a). The TRER report summarizes the results of the study and identifies sites and amounts of potential residual risk, identifies options for reducing those residual risks and identifies sites that are candidates for possible future monitoring. The TRER report provided the basis for the BAS recommendations to the RMA Committee to complete the ROD requirement for residual risk remedy.

In 2003, the RMA Committee reached concurrence on an agreement regarding the remediation of RER soils identified in the TRER report (PMRMA 2003). The 2003 Committee Agreement adopted the BAS recommendations for removal or tilling of 42 TRER sites. Twenty-four of the sites are located primarily in or adjacent to borrow areas. For these sites, removal was the preferred remedial approach. However, if the soil was not removed, soil tilling was substituted to reduce risk to acceptable levels. The tilling method approved by the BAS consists of 3 steps: (1) ripping to 18 inches, (2) plowing to 12 inches, and (3) disking to 6 inches. The remaining 18 sites are outside borrow areas and the Agreement states that the three-step tilling process is the preferred approach to reduce risk to acceptable levels. The original TRER boundaries defined by the BAS are included in the 2003 Committee Agreement.

In 2003, the BAS completed an assessment of aquatic risks for Lake Mary, Lake Ladora, and Lower Derby Lake (South Lakes) to determine whether there was a need for further aquatic remediation. The analysis of residual risks included both refinement of risk assessment inputs previously used in the Integrated Endangerment Assessment/Risk Characterization (Ebasco 1994) as well as consideration of supplemental information developed since the completion of the Integrated Endangerment Assessment/Risk Characterization, including USFWS biomonitoring data. The overall conclusion of the Aquatic Residual Ecological Risk Assessment (ARER), based on the refined risk assessment as well as additional supporting information, is that there are no significant risks to aquatic birds in the South Lakes that require additional remediation beyond that already defined in the On-Post ROD (BAS 2003b).

Together the TRER and ARER satisfied the ROD requirements for biomonitoring as part of design refinement. Completion of remediation of RER soils is documented in two CCRs as discussed in Section 5.2 (TtEC 2009h, 2006f).

The selected remedy in the ROD also states that water levels in Lake Ladora, Lake Mary, and Lower Derby Lake will be maintained to support aquatic ecosystems and that the biological health of the ecosystems will continue to be monitored. The *Management Plan for Protection and Monitoring of Lake Ladora, Lake Mary, and Lower Derby Lake during RMA Remediation* (PMRMA 2006b) describes how the lake levels will be monitored. The plan outlines requirements for maintenance of lake levels (water quantity) and surface water quality and ecological monitoring that are applicable until completion of the surface remedy, defined as EPA approval of the last cap or cover CCR, which occurred in August 2011.

To address the long-term biomonitoring requirements in the ROD, the BAS developed the *Long-Term Contaminant Biomonitoring Program for Terrestrial Ecological Receptors at Rocky Mountain Arsenal* (BMP) (BAS 2006). The purpose of the BMP is to help evaluate the efficacy of the remedy in accordance with the ROD requirement that "monitoring activities for biota will continue by USFWS in support of evaluating the effectiveness of the selected remedy."

Biomonitoring under the BMP started in 2007 and is ongoing. Discussions of the monitoring activities and results for the first three years of monitoring are presented in the *Rocky Mountain Arsenal 2007 and 2008 Annual Biomonitoring Report* (USFWS 2010b) and *Rocky Mountain Arsenal 2009 Annual Biomonitoring Report* (USFWS 2010a).

Continued biomonitoring is included as part of the long-term remedy requirements as discussed in Section 7. An MCR for the Site-Wide Biota Monitoring Program will be prepared to document and evaluate monitoring results.

Table 5.5.2-1 presents significant milestones for the Site-Wide Biomonitoring Program.

**Table 5.5.2-1 Site-Wide Biomonitoring Program Milestones**

Activity	Date
Supplemental Field Study Phase I	July 1996
Design refinement of remediation boundaries	May 1997
Dioxin/Furan Study	June 2001
Assessment of Residual Ecological Risk and Risk Management Recommendations Part 1: Terrestrial Pathways and Receptors	April 2002
RER Addendum A-1	April 2003
Assessment of Residual Ecological Risk and Risk Management Recommendations Part 2: Aquatic Pathways and Receptors	July 2003
RER Soil Remediation Part 1 CCR	March 2006
Long-Term Contaminant Biomonitoring Plan	November 2006
RER Soil Remediation Part 2 CCR	June 2009
2007 and 2008 Annual Biomonitoring Report	February 2010
2009 Annual Biomonitoring Report	October 2010

### **5.5.3 Cost Summary**

The original baseline remediation cost estimate for this project was \$4,642,116. The Estimate at Completion for this project is \$1,123,983, representing a decrease of approximately 76 percent from the baseline estimate.

## **5.6 Contingent Soil Volume (2.07.40)**

### **5.6.1 Description of Activities**

The selected soil remedy in the On-Post ROD identifies Contingent Volume and Confirmatory Samples as part of soil remediation requirements. Contingent Soil Volume (CSV) is defined as all soil excavated in excess of design or actual volume that is located outside the ROD human health boundary as identified in the SQCSR. The ROD included provision for up to 150,000 bank cubic yards (bcy) of CSV that was identified during implementation based on visual or other evidence discovered in the field (e.g., material exhibiting high odor or emissions levels). This soil was only removed at the written direction of the RVO and Regulatory Agencies and only up to a maximum quantity not to exceed 150,000 bcy, an amount that was not a project-specific limit, but a site-wide upper limit on CSV excavation and disposal. The Parties could, as an option, refine CSV boundaries using confirmatory soil samples. All CSV was transported to either the HWL/Enhanced Hazardous Waste Landfill (ELF) for disposal or Basin A for consolidation beneath the RCRA-equivalent cover.

The ROD allowed for up to 1,000 confirmatory soil samples to be used, at the written direction of the RVO and Regulatory Agencies, to identify the CSV requiring excavation. Fourteen additional samples were also identified between the North Plants, Toxic Storage Yard, Lake Sediments, Sand Creek Lateral, and/or Burial Trenches IPs. The site-wide combined total number of confirmatory soil samples available was 1,014. Confirmatory soil samples were taken as needed or indicated by field conditions outside the design boundary. If sample locations were outside the design boundary, but also inside the original ROD boundary, then samples that indicated contamination were not considered part of the 1,014 confirmatory soil samples.

Individual IPs excavated and disposed CSV and collected and analyzed confirmatory soil samples in accordance with the Contingent Soil Volume Procedure (RVO 2007a) and the RMA CSV Sampling and Analysis Plan (RVO 2007b). The CCRs prepared for individual IPs that involved CSV and confirmatory soil samples document volumes of CSV excavated, disposal location, and the number of confirmatory soil samples taken.

In accordance with the procedure, a tracking log was maintained to record confirmatory soil samples collected and CSV excavated for all projects. Copies of this log were made available on a monthly basis to the RMA Committee. Table 5.6.1-1 provides a summary of confirmatory soil samples associated with each IP. The volume of CSV removed for each project is included on Table 3.1-1.

**Table 5.6.1-1 Confirmatory Soil Samples Collected by Project**

WBS	Project	Number of Confirmatory Samples
2.01.01	Hazardous Waste Landfill	2
2.01.01	Landfill Wastewater Treatment System Outfall	2
2.01.02	Enhanced Hazardous Waste Landfill	3
2.01.03	Basin A Consolidation and Remediation	3
2.03.08	Toxic Storage Yards Soil Remediation	16
2.03.09	Existing (Sanitary) Landfills Remediation	27
2.03.10	Lake Sediments Remediation	12
2.03.11	Burial Trenches Soil Remediation	24
2.03.12	Munitions (Testing) Soil Remediation	19
2.03.13	Miscellaneous Northern Tier Soil Remediation	31
2.03.14	Miscellaneous Southern Tier Soil Remediation	114
2.03.17	Miscellaneous RMA Structure Demolition	28
2.04.18	Buried M-1 Pits Soil Remediation	9
2.04.20	South Plants Central Processing Area Soil Remediation	84
2.04.21	South Plants Balance of Areas Soil Remediation	250
2.05.23	Section 36 Balance of Areas Soil Remediation	134
2.05.24	Secondary Basins Soil Remediation	47
2.05.25	Complex (Army) Disposal Trenches Rem.	3
2.05.27	North Plants Soil Remediation	5
2.05.28	Section 35 Soil Remediation	46
2.05.29	North Plants Structure Demolition and Removal	38
2.06.30	Basin F Wastepile Remediation	16
2.06.31	Basin F Principal Threat Soil	2
2.06.32	Basin F and Basin F Exterior Remediation	81
2.07.63	Haul Roads	13
	Total Confirmatory Samples Collected	1,009

## 5.6.2 Cost Summary

The original baseline remediation cost estimate for the CSV program was \$4,445,372. However, confirmatory soil sample and CSV excavation costs were captured within each IP as appropriate. Therefore, there were no costs tracked to this WBS element.

## 5.7 Site-Wide Plume Monitoring (2.07.41)

### 5.7.1 Scope

The site-wide groundwater monitoring programs in the RDIS site-wide plume monitoring category were developed to meet the monitoring requirements identified in the On-Post and Off-Post RODs (FWENC 1996a, HLA 1995). The specific monitoring objectives and monitoring networks for the site-wide plume monitoring were first specified in the 1999 LTMP for Groundwater (FWENC 1999a) and updated in the 2010 LTMP for Groundwater and Surface

Water (TtEC and URS 2010c). Site-wide plume monitoring has been conducted by the PMC and U.S. Geological Survey (USGS) and includes the following current monitoring categories as defined in the LTMP:

- Water Level Tracking (ROD requirement) - On-post water level monitoring used to track the effects of the soil remedy on groundwater in the On-Post OU.
- Water Quality Tracking (ROD requirement) - On-post water quality monitoring of indicator analytes is conducted to track contaminant migration in and downgradient of source areas within the identified plumes.
- Confined Flow System (CFS) Monitoring (ROD requirement) - Water quality monitoring required by the On-Post ROD in three confined aquifer areas - Basin A, South Plants, and Basin F.
- Off-Post Exceedance Monitoring (ROD requirement) - Long-term water quality monitoring of off-post groundwater to assess contaminant concentration reduction and remedy performance and to create groundwater CSRG exceedance area maps to support well permit institutional controls.
- Surface Water Quality Monitoring (ROD requirement) - Off-post and on-post surface water monitoring to assess changes in surface water quality related to the RMA remedy.
- Surface Water Management (remedy support) - Conducted in support of the soil remedy and involves management of water use for remedy support and irrigation. This task included collection of stream flow and stage data at gauging stations, seasonal wetlands, lakes, and ponds as well as water quality monitoring for protection of the aquatic ecosystems and review and reporting of hydrologic conditions.
- South Lakes Plume Monitoring (ROD requirement) - Monitoring to determine whether groundwater contaminants were migrating into the South Lakes.

### 5.7.2 Description of Activities

Following the signing of the On-Post ROD, the monitoring programs from the RI/FS phase of the project continued until the January 2000 approval of the Final LTMP, which was issued in December 1999 (FWENC 1999a). The 1999 monitoring program was in place until April 2010 when the 2010 LTMP (TtEC and URS 2010c) was approved. Changes to the LTMP monitoring programs during the period between the two LTMPs were documented in annual well networks updates in accordance with the *Rocky Mountain Arsenal 2003 Well Retention and Closure Program* (FWENC 2003b).

The 2010 LTMP was approved by the Regulatory Agencies on April 28, 2010 and went into effect immediately. The revised LTMP also documents the completion of the ROD-required on-post surface water quality monitoring, which is a result of completion of the on-post soil remedy. Off-post ROD-required surface water quality monitoring continues, as discussed below. The long-term monitoring programs are to be evaluated in each five-year review and potential recommendations for changes to the programs will be made at that time. Water table maps will be developed annually, and on-post plume extent mapping will be performed on a 20-year cycle, with the next such mapping event performed for 2014 monitoring data as part of the 2015 five-

year review. The reporting requirements for water level monitoring, water quality tracking, and surface water quality are provided in the LTMP. For site-wide plume monitoring, Annual Summary Reports are prepared to provide evaluation of monitoring data. In addition, Five-Year Summary Reports are prepared as part of the five-year site review process to support preparation of the Five-Year Review Reports. A summary of each monitoring category is provided below.

### **Water Level Tracking**

Water level tracking is the primary means of tracking the effects of remedies on water levels and flow directions on post. The water level tracking involves annual monitoring of the wells identified for this category in the LTMP. Water level maps are issued as part of the Annual Summary Report for Groundwater and Surface Water. The LTMP performance criteria for water level tracking summarize the program requirements and the evaluation process as follows:

- Develop and maintain water level tracking network that tracks the impacts of on-post remedy implementation on water levels, flow direction, and contaminant migration pathways in previously identified plumes between on-post source areas and the RMA boundary.
- Evaluate water level data to assess if lowering of the water table is occurring where soil covers and caps are installed. Use visual time-trend comparisons of water level contours to assess if there are any changes that could impact flow, flow directions, and contaminant migration pathways.

### **Water Quality Tracking**

Water quality tracking involves monitoring of plume-specific indicator analytes in accordance with the 2010 LTMP. Samples from the wells are collected twice in five years for some wells and once in five years in areas where groundwater migration is very slow. The performance criteria for water quality tracking are as follows:

- Conduct monitoring for indicator analytes in source areas and within historically defined plumes for contaminant tracking purposes.
- Evaluate water quality data to assess concentration trends and address potential needs for changes to the monitoring program. Use water level data and historical chemical data to identify monitoring locations and indicator analytes.

### **CFS Monitoring**

The on-post CFS monitoring program was developed to meet the monitoring requirements identified in the On-Post ROD (FWENC 1996a). Based on the ROD requirement and the monitoring objective provided above, the following performance criteria were defined for the CFS in the 2010 LTMP:

- Provide data that can be used to determine whether downward hydraulic gradients are present indicating the potential for downward contaminant migration.
- Maintain monitoring program to determine whether contaminant concentrations in the CFS are increasing or migrating significantly with time.



The 19 CFS wells identified in the LTMP will continue to be monitored twice in five years for their respective indicator analytes. When the ROD requirement of post-remedy monitoring has been met, discontinuation of the CFS monitoring network will be considered. The RVO will make a recommendation to discontinue the program based on a review of historical data to determine whether there is any remaining contamination of concern in the CFS. The 2010 LTMP includes a list of factors that may be considered when evaluating whether CFS monitoring can be discontinued. The CFS monitoring results will be included in the annual summary reports as applicable and will be evaluated in the Five-Year Summary Reports and Five-Year Review Reports.

If agreement is reached that discontinuation of CFS monitoring can proceed, a Decision Document that specifies a confirmatory sampling program will be developed for signature by all parties. If it is determined that long-term monitoring should be resumed, the well(s) and analytes will be identified in the LTMP, which will be updated to reflect the change in the monitoring program.

### **Off-Post Exceedance Monitoring**

Off-Post Exceedance Monitoring is conducted to assess contaminant concentration reduction and remedy performance (HLA 1995). The RVO conducts CSRG exceedance monitoring twice in five years. The CSRG exceedance monitoring network was updated in the 2010 LTMP to ensure that proper wells and analytes are monitored so that the most accurate CSRG exceedance areas can be determined.

Exceedance monitoring is conducted for a network of off-post monitoring wells and private wells. The exceedance monitoring network and analytes will be re-evaluated over time in response to changing conditions off post. The following criteria, which were developed to assess the existing network, will be used as guidelines for potential future network revisions:

- If an exceedance monitoring well has not had any CSRG exceedances during at least three consecutive sampling events, is located in an area where there were no exceedances during the last Five-Year Review period, and is located where there is no evidence of migration of an upgradient exceedance toward a well, the exceedance monitoring well will be considered for removal from the exceedance monitoring network.

Exceedance monitoring is also conducted in support of the institutional control component of the off-post remedy. The purpose of the institutional controls is to prevent the future use of groundwater exceeding remediation goals. The CSRG exceedance maps are used to develop notification area maps that the State Engineer's Office (SEO) uses for the Well Notification Program as discussed in Section 7.5.

### **Surface Water Quality Monitoring**

Surface water quality monitoring has been conducted to support requirements in the On-Post and Off-Post RODs to evaluate the impact of the remedy on surface water quality and biota.

Contaminated soil areas were excavated during a multi-year period, and surface water quality has been monitored as it leaves the RMA site boundary as well as in the off-post area. Monitoring of

surface water entering RMA was also performed until 2003, when upgradient monitoring was discontinued. No organic target analytes were detected in the on-post First Creek surface water sampling sites near the north boundary during the excavation of contaminated soil. Further, all contaminated soil with concentrations above site-specific action criteria has either been removed and disposed in landfills or has been covered, thus eliminating the potential for movement of contaminated soil to surface water. Consequently, long-term monitoring of on-post surface water to detect contamination caused by contaminated soil is no longer necessary and was discontinued with the implementation of the 2010 LTMP.

To continue to evaluate the effect of groundwater treatment on surface water quality in the Off-Post OU, which is not monitored during storm events, surface water quality monitoring will continue at site SW24004 and off-post site SW37001 (First Creek at Highway 2). Annual surface water quality samples will be collected at off-post site SW37001 when there is low flow in First Creek. Typically, low flow occurs during the spring or summer; sampling occurs during the third quarter of the fiscal year, i.e., April through June. Guidelines for the conditions necessary for sampling are provided in the 2010 LTMP.

*A Surface Water Quality Monitoring Report for the Rocky Mountain Arsenal*, which covered the period from the signing of the ROD to 2003, was issued in 2003 (RVO 2003a). Another surface water report was issued as Draft Final for Regulatory Agency review in 2008 and is scheduled for completion in 2011 (RVO 2008, draft). An MCR to document the completion of the ROD-required on-post surface water monitoring program is expected in late 2011.

### **Surface Water Management**

Surface water management has been conducted in support of the soil remedy and involves management of water use for remedy support and irrigation. This task included collection of stream flow and stage data at gauging stations, seasonal wetlands, lakes, and ponds as well as water quality monitoring for protection of the aquatic ecosystems and review and reporting of hydrologic conditions.

The RMA Surface Water Management Plan was prepared to balance forecast water demands with water supplies. The Surface Water Management Team was disbanded at the end of 2010.

The activities included under surface water management have been adapted to the remedy needs during the course of the on-post remedy and have included:

- Development of Surface Water Management Plans to update the program to adjust to changing monitoring needs
- Maintenance of stream flow gauging station network for water rights accounting and surface water management
- South Adams County Water and Sanitation District (SACWSD) data collection as necessary
- Maintenance of lake stage gauging station network for water rights accounting and surface water management

- Maintenance of seasonal wetland gauging stations for habitat management
- Water quality monitoring for the protection of aquatic ecosystems
- Monthly hydrologic conditions reports
- Annual surface water reports

Future management will be conducted to ensure that the needs of the Refuge and completed soil remedy are met.

### **South Lakes Plume Management**

The selected remedy in the On-Post ROD requires:

Lake-level maintenance or other means of hydraulic containment or plume control will be used to prevent South Plants plumes from migrating into the lakes at concentrations exceeding CBSGs in groundwater at the point of discharge. Groundwater monitoring will be used to demonstrate compliance.

An evaluation of contaminant migration was conducted in accordance with the *Rocky Mountain Arsenal South Lakes Sampling and Analysis Plan for Groundwater* (USGS 2001). This monitoring program, which focused on monitoring contaminant migration into Lake Ladora, revised a previous evaluation project (FWENC 1997).

The data quality objectives for the monitoring program were developed to answer the following questions:

- Do conditions allow potential migration into the South Lakes?
- Do contaminants migrate into the South Lakes at groundwater concentrations exceeding the CBSGs at the point of discharge?

The South Lakes Plume Management groundwater monitoring program results were documented in the final South Lakes groundwater monitoring report (USGS 2004). The data presented in the report confirm that South Plants plumes are not migrating into the lakes at concentrations exceeding CBSGs in groundwater. Based on the results of the South Lakes groundwater monitoring study, an ESD was completed to remove lake level maintenance or other means of hydraulic containment required by the ROD for plume management. The ESD was approved by EPA on March 31, 2006 (TtEC 2006e). The ESD did not remove the requirement for groundwater monitoring to demonstrate compliance and that monitoring is included in the LTMP.

Table 5.7.2-1 presents significant milestones for the Site-Wide Plume Monitoring Program.

**Table 5.7.2-1 Site-Wide Groundwater Plume Monitoring Program Milestones**

<b>Activity</b>	<b>Date</b>
Long-Term Monitoring Plan for Groundwater	December 1999
Well Retention and Closure Program	April 2003
Surface Water Quality Monitoring Report	2003

Final South Lakes Groundwater Monitoring Report	March 2004
Explanation of Significant Differences for Groundwater Remediation and Revegetation Requirements	March 2006
Long-Term Monitoring Plan for Groundwater and Surface Water	March 2010
Five-Year Summary Report for Groundwater and Surface Water	January 2011

### 5.7.3 Cost Summary

The original baseline remediation cost estimate for this project was \$17,537,884, including \$12,760,169 for site-wide plume monitoring, \$947,917 for CFS monitoring, and \$3,829,798 for South Lakes plume management. The Estimate at Completion for this project is \$25,016,636, which represents an approximate increase of 43 percent. These costs represent RVO, PMC, and USGS costs for on-post and off-post plume monitoring as well as maintenance of the well network and documentation of monitoring results.

## 5.8 Medical Monitoring Advisory Group (2.07.43)

### 5.8.1 Description of Activities

The selected remedy in the On-Post ROD for Medical Monitoring required that a medical monitoring program be instituted that would respond effectively to RMA-related health concerns of the surrounding communities during the soil cleanup. CDPHE has the lead role in the medical monitoring program. The ROD also stipulates that a Medical Monitoring Advisory Group be formed to recommend appropriate program components. As directed by the ROD, the Medical Monitoring Advisory Group had representation from affected communities that included Commerce City, Montbello, Henderson, and Green Valley Ranch; from public health agencies including CDPHE, Agency for Toxic Substances and Disease Control, EPA, Denver Department of Environmental Health, and TCHD; and from the Army, Shell, USFWS, independent technical advisors, and the Site-Specific Advisory Board.

The Medical Monitoring Advisory Group completed its work in October 1998 and submitted a final report to CDPHE for acceptance. CDPHE formally accepted all 12 of the program recommendations developed by the Medical Monitoring Advisory Group and began program implementation. The program recommendations include systematic evaluation of air quality data and their health significance, a medical referral system to track and respond to community health concerns, systems to monitor birth defects and cancer in the neighborhoods around RMA, improvements to the RMA air quality and odor monitoring programs, improvements to emergency response programs, a process for selecting appropriate public health actions, health professional education, and public involvement and education.

In accordance with the Medical Monitoring Advisory Group recommendations, the Medical Monitoring Program was implemented throughout the duration of the remedy program. The program evaluated air quality data provided by the air and odor monitoring programs, which documented control of chemical and odor emissions and indicated the success of exposure prevention efforts during soil remediation. The program also tracked and responded to potential RMA-related health concerns of the community through its toll-free health information hotline and monitored birth defects and cancer rates in the neighborhoods around RMA. For the future, CDPHE will continue to field calls from the citizens surrounding RMA with general questions

and health-related concerns and will continue to maintain its Medical Monitoring Program website to serve as a clearinghouse for any future issues related to the program.

An MCR is being prepared to document and evaluate monitoring results for the Medical Monitoring Program. The final report is expected in October 2011.

### **5.8.2 Cost Summary**

The original baseline remediation cost estimate for this project was \$4,057,294. The Estimate at Completion for this project is \$4,057,438, representing a decrease of approximately 15 percent from the baseline estimate.

## **5.9 Traffic Management (2.07.63)**

### **5.9.1 Scope**

Construction and maintenance of primary haul roads was performed to support the implementation of the ROD remedy. Primary haul roads and, to a lesser extent, joint-use roads provided access between waste consolidation/disposal facilities and IP areas for transportation of waste materials, between borrow areas and IP areas for transportation of borrow materials, and to IP areas for delivery of construction equipment and materials.

### **5.9.2 Description of Activities**

A site-wide network of haul roads was constructed to provide access between the various IP sites and on-site consolidation/disposal facilities and borrow areas and for transportation of construction materials on site. The design for the site-wide network of haul roads was completed in 1998 (FWENC 1998b, 1998c). Construction of the approximately 12.5-mile-long system was implemented in two stages and was completed in 1999. Then, beginning in August 2005, the Biota Barrier Material (BBM) Haul Road was constructed for transportation of BBM from the former Stapleton Airport to cap/cover IP areas. Haul roads were located in areas where there were no remedial actions required by the ROD or where all ROD-identified remedial actions had been completed. Project waste haul, borrow haul, and construction traffic were kept separated from public and administrative traffic. Project-specific haul roads were constructed and removed as part of each IP and are documented in each project CCR.

Haul roads and joint-use roads were maintained throughout the remedy. General maintenance activities included pothole and rut repair, stormwater management and erosion control, snow removal, sign and road barrier maintenance and repairs as necessary to maintain the integrity of the road surfaces. Haul road operations included a requirement for remediation projects to decontaminate vehicles leaving a project area before entering the haul roads to ensure that no contaminated material was transported from project areas onto the haul roads. Routine inspections were performed to verify the effectiveness of the decontamination efforts. In addition, remediation projects were required to conduct spill response for any petroleum products (e.g., hydraulic fluid, oil, fuel, etc.) that may have been spilled or leaked on the haul roads during routine use and to clean-up any hauled materials that may have been spilled during use of the roads. Spill response actions are documented in the project records for each individual IP.

In May 2007, confirmatory samples were collected in several locations along the haul roads to confirm that there were no releases along or on the roads. Thirteen samples were collected from four different areas. These samples were collected after the use of the roads for remedial actions was substantially complete. The results showed concentrations of arsenic, chromium, and lead within RMA background levels and non-detect for all other contaminants of concern. The results of the haul road sampling are presented in a data summary report (TtEC 2008o).

Requirements for haul road construction, removal, and maintenance necessary to accommodate ongoing remedy implementation activities and general site-wide public and administrative traffic were reviewed annually, and the Site-Wide Traffic Management/Haul Road Operations Plans were updated annually to reflect the needs for the coming year (FWENC 2000c, 2001c, 2003g; TtFW 2004t, 2004b; TtEC 2006a, 2006h, 2007c, 2008h, 2009g). These plans presented the scope of work for the coming year.

The *Haul Road Removal Plan* (TtFW 2004q) and *Site-Wide Traffic Management Road and Laydown Area Removal Plan* (TtEC 2009m) specified haul road removal/modification and laydown areas removal. Haul roads segments were removed as remediation projects were completed and segments of road were no longer necessary. Segments of haul roads identified for continued use by USFWS for operation of the Refuge or Army operations and maintenance activities were not removed; although in some cases they were modified because they were no longer needed to support heavy haul traffic. Figure 5.9.2-1 shows locations of removed and remaining haul roads. Areas where haul roads were removed were graded to blend with the natural topography and revegetated by the USFWS in a manner that is consistent with the Refuge habitat restoration requirements (USFWS 1999). Materials generated during road removal and modification were either disposed or stockpiled for later use by USFWS. Future road modifications, if necessary, will be made as part of long-term maintenance activities.

Table 5.9.2-1 presents significant milestones for the Traffic Management Program.

**Table 5.9.2-1 Traffic Management Program Milestones**

Activity	Date
Stage I Design	August 1998
Stage II Design	September 1998
Haul road construction completion	Spring 1999
Haul Road and Traffic Management Annual Updates	2000 - 2009
BBM haul road construction completion	Spring 2006
Haul road removal and modification completion	Spring 2010

### 5.9.3 Cost Summary

The original baseline remediation cost estimate for this project was \$272,500, an amount that represented only initial planning for on-site transportation. The ROD included transportation costs within each project, which would include construction, maintenance and removal of haul roads necessary to deliver the waste to the on-site disposal facilities. The RVO implemented a site-wide program to provide construction and maintenance of haul roads that would be used by more than one project.

The Estimate at Completion for this project is \$26,897,164 and includes costs for design and construction of the site-wide haul road system, maintenance of haul roads during remediation activities, and removal or modification of haul roads at the completion of the remedy.

## **5.10 Geophysical Screening (2.07.64)**

### **5.10.1 Scope**

The selected remedy in the On-Post ROD includes geophysical screening to locate UXO in areas where the RI identified the potential for UXO. Geophysical screening was completed to further define areas where Munitions and Explosives of Concern (MEC) might be encountered. For remediation, the broader term MEC, which includes UXO, was used to encompass all munitions-related items. A geophysical survey was performed in areas designated as potential MEC sites prior to the commencement of work in those areas to minimize the risk of MEC hazards during remediation work.

### **5.10.2 Description of Activities**

The geophysical survey covered an area of 3,240 acres in 12 different RMA sections. Arrays of total field magnetometers were deployed via a nonmagnetic cart system over the site to cover the area at an average rate of 34 acres per workday. The magnetometer data were positioned, using GPS navigation technology, and integrated within a geographic information system for processing and analysis.

A total of 10,693 targets were detected during this screening effort. The targets were evaluated using a software system that used analytical modeling of the magnetic field data, comparison of targets against a database of known signatures and expert operator opinion. Detections ranged from small shallow targets estimated to be near the surface and weighing a pound or less to large deep targets in excess of 15 feet deep and weighing 500 pounds or more. Additional features were observed in the data and interpreted as burn pits, trenches, and landfills.

Each of the target anomalies was analyzed using seven different parameters, which eventually led to the excavation/characterization of 783 targets. Of these 783 targets, 2 resulted in MEC, both located within the boundary of Site ESA-4a, which was subsequently remediated as part of the Munitions Testing Project. The remaining 781 targets resulted in munitions debris, cultural debris, or were geologic in nature. The primary objective of the anomaly characterization effort was to determine the extent of the areas which would require an additional munitions response effort. This information was used to ensure the safe implementation of remedy projects completed in those areas and support the design efforts for the Munitions (Testing) and Burial Trenches Projects. Results of the geophysical survey are documented in the Final Report - Geophysical Screening Activities and Results (SC&A 1998).

It should be noted that there were additional project-specific geophysical screening efforts completed during the remedy. However, these efforts were completed as part of the respective projects and are reported in the corresponding project CCRs. Table 5.10.2-1 presents significant milestones for the Site-Wide Geophysical Screening Program.

**Table 5.10.2-1 Site-Wide Geophysical Screening Program Milestones**

Activity	Date
Geophysical survey completion	October 1998
Final report issued	December 1998

### **5.10.3 Cost Summary**

The ROD included geophysical screening within each project where there was a potential for UXO discovery and did not include a site-wide screening program. As a result there were no costs in the baseline estimate. However, the RVO implemented a site-wide program during the initial stages of remedy implementation to identify potential anomalies in multiple project areas in the most efficient manner possible. The Estimate at Completion for this program is \$1,239,446.

## **5.11 UXO Disposal (2.07.65)**

### **5.11.1 Scope**

The selected remedy in the On-Post ROD requires that UXO encountered during remediation be excavated and transported off post for detonation (unless the UXO is unstable and must be detonated on post) or other demilitarization process. During remediation, the PMC UXO Department responded to discoveries of anomalies that may have resulted in recovered MEC and/or RCWM, managed and/or performed military munitions-related operations relating to confirmed munitions, and provided military munitions-related construction support during remedial efforts that had the potential to result in recovered MEC, RCWM, and/or munitions debris. Additional support was provided by the Technical Escort Unit (TEU). The TEU is an Army unit based in Aberdeen, Maryland, which specializes in the identification, handling, transportation, and emergency destruction of Ordnance/Explosives and UXO.

### **5.11.2 Description of Activities**

The PMC UXO Department provided full-time support on a number of project-specific tasks that included a munitions response component, the majority of which were included in the Toxic Storage Yards, Burial Trenches and Munitions (Testing) Soils, Existing Sanitary Landfills, Section 36 Balance of Areas, Miscellaneous Structures, and Lime Basins projects. As a function of supporting each project, UXO personnel were tasked with management, including disposal, of all recovered MEC. Potential and confirmed RCWM was managed and disposed by the TEU. The UXO component of each of these projects is documented in the project CCR.

The PMC UXO Department also provided on-call construction support to all projects and remedy support activities when anomalies were discovered during project work. The anomalies were characterized and either disposed or cleared as not having MEC potential. Potential and confirmed RCWM was managed and disposed by the TEU. These activities were documented on Anomaly Response Forms and in each project CCR.

With one exception, all UXO and discarded military munitions recovered during remedy activities were considered unstable and were explosively disposed on post using donor explosives. MEC recovered on RMA have been subjected to extreme heat, shock, and friction as



a result of some variation of a previous functioning/disposal attempt and were, therefore, considered unstable. The one exception was five M56 warheads (components of the M61 rocket) recovered during Part I of the Burial Trenches/Munitions Testing Project. TEU personnel confirmed the warheads as simulant-filled (ethylene glycol) and/or explosive-filled (Tetryl). The TEU assumed custody of the M56 warheads and transported the warheads off post for disposal.

Chemical warfare material (CWM) response actions performed in support of the remedy are discussed in the *Chemical Warfare Material Response After-Action Report* (TtEC 2011c) and munitions response actions are discussed in the *Munitions Response After-Action Report* (TtEC 2010i). These reports document that the chemical agent and explosives safety aspects of the responses were completed in accordance with the applicable Chemical Safety Submissions (CSSs) and Explosives Safety Submissions (ESSs), which were approved by U.S. Army Technical Center for Explosives Safety and the Department of Defense Explosives Safety Board. Remediation activities associated with the CWM and munitions response actions are also documented in the appropriate CCRs (TtEC 2009o, 2009r, 2008m, 2008p; TtFW 2004f, 2004g, 2004p; FWENC 2003a, 2002a).

During execution of CSSs, CWM was recovered from the Section 36 Boneyard (Boneyard) (M139 bomblets, which were disposed by TEU personnel) and chemical agent was recovered from the North Plants site (a vial of GB, which was neutralized in the on-site laboratory). During execution of the ESSs, 877 acres were cleared and 8,779 MEC were recovered and disposed. Figure 5.11.2-1 shows the locations of the CWM response sites and Figure 5.11.2-2 shows the locations of munitions response sites.

Between October 2000 and June 2001, ten M139 bomblets were discovered during cleanup activities as part of the Miscellaneous RMA Structure Demolition and Removal Project in the Boneyard. TEU munitions experts evaluated the bomblets and determined that the bomblets contained the nerve agent GB. The Explosive Destruction System, which demilitarizes munitions through detonation followed by the introduction of a chemical reagent in the vessel to neutralize any chemical agent, was used by TEU for bomblet disposal. As part of the Explosive Destruction System plan, the Boneyard was covered by a Large Area Maintenance Shelter to provide containment and a temperature-controlled working environment. Destruction of the first six bomblets is documented in the *M139 Bomblets Destruction Completion Report* (FWENC 2001e); destruction of the last four bomblets was documented in a second report (FWENC 2001a). Overall documentation for the boneyard remediation, including bomblet destruction, is included in the Miscellaneous RMA Structure Demolition Phase 1 CCR (FWENC 2003a).

Although cleanup of the Boneyard is part of the selected remedy, the Boneyard had not been identified as having a potential for RCWM or MEC. In response to the discovery of M139 bomblets, the Summary and Evaluation Team was formed in January 2001 for the purpose of performing the RMA-wide evaluation of potential MEC and RCWM hazards. The team members included representatives from EPA, CDPHE, TCHD, and RVO. The evaluation of MEC and RCWM hazards contained the following major elements:

- Review of aerial photographs using new state-of-the-art technological capabilities and identification and review of observed anomalies

- Review of historical documentation, including reports, geophysical surveys, interviews and depositions, with regard to potential MEC and RCWM hazards
- Field investigation of anomalies that could not otherwise be explained
- Integration of the results from the document review, aerial photograph review, and field investigations into a section summary and hazard evaluation

As a direct result of the Summary and Evaluation Team's efforts, six additional sites were identified and added to the Burial Trenches or Munitions (Testing) Soil Remediation Project. The Summary and Evaluation Team's efforts are documented in a final report, *Summary and Evaluation of Potential Ordnance/Explosives and Recovered Chemical Warfare Materiel Hazards at the Rocky Mountain Arsenal* (FWENC 2002d).

The Army responsibility for military munitions-related hazards on RMA is nontransferable and remains with the Army after the RMA remedy is complete. Long-term management of the potential to encounter military munitions, or remnants thereof, on RMA will be managed according to the *Response Plan for Recovered Material Potentially Presenting an Explosive Hazard (MPPEH)* (TtEC 2010k). All MPPEH identified by RMA Refuge personnel will be inspected, recovered, and disposed by local law enforcement or Department of Defense personnel trained in military munitions response.

Table 5.11.2-1 presents significant milestones for the UXO Disposal Program.

**Table 5.11.2-1 UXO Disposal Program Milestones**

<b>Activity</b>	<b>Date</b>
ESS for magazine reactivation approval	July 1999
ESS for reactivation of demolition range approval	November 1999
ESS for Burial Trenches/Munitions (Testing) Soils projects approval	March 2000
CSS for Eastern Study Area-2c approval	September 2000
First Section 36 Boneyard bomblet discovered	October 2000
Summary and Evaluation Team formed to evaluate site-wide potential of potential MEC and RCWM	January 2001
CSS for Section 36 Boneyard approval	April 2001
Bomblet destruction completion	July 2001
CSS for North Plants structures demolition and GB equipment destruction approval	September 2001
Evaluation of site-wide potential of potential MEC and RCWM report completion	June 2002
ESS for Section 36 Balance of Areas soil remediation approval	November 2003
ESS for demolition range exclusion zone approval	January 2006
ESS for Section 36 Borrow Area 9a approval	May 2006
ESS for demolition range approval	November 2006
Munitions Response After-Action Report	June 2010
Chemical Warfare Materiel Response After-Action Report	March 2011

### 5.11.3 Cost Summary

The ROD included UXO disposal within each project where there was a potential for UXO discovery and did not include a site-wide disposal program. As a result there were no costs in the baseline estimate. However, the RVO implemented a site-wide support program to efficiently respond to munitions issues across all projects. The Estimate at Completion for this program is \$9,918,550.

## 5.12 Biota Barrier Material (2.07.66)

### 5.12.1 Scope

The selected soil remedy in the On-Post ROD requires construction of RCRA and RCRA-equivalent caps/covers that include biota barriers. The BBM Project identified and stockpiled an adequate volume of suitable material for this use.

### 5.12.2 Description of Activities

Once BBM use and design issues had been resolved through the *Biota Barrier Material Issues Resolution Agreement* (RVO 2000), the BBM Project began the work of producing BBM. Existing concrete pavement from pre-approved runways, taxiways, aprons and shoulders of the former Stapleton International Airport was tested to verify that the compressive strength was acceptable (4,000 pounds per square inch, minimum) and then removed, crushed and stockpiled by Recycled Materials Company at the former Stapleton International Airport. In accordance with a second *Biota Barrier Material Issues Resolution Agreement* (RVO 2004), when the available concrete pavement at the former Stapleton International Airport was exhausted, an alternative source was identified at the Denver International Airport. This source consisted of concrete pavement removed from runways, taxiways and aprons and stockpiled at two locations adjacent to the airport. The stockpiled concrete was tested to verify that the compressive strength met the 4,000 pounds per square inch, minimum, requirement and then crushed and placed by Recycled Materials Company in the former Stapleton International Airport stockpile. Gradation and purity of content testing was performed on the stockpiled concrete at an on-site laboratory.

Concrete was processed for approximately 4 years, beginning in 2001. A BBM production report was prepared each year to document the volume of BBM produced that year and the results of testing performed (TtEC 2005f; TtFW 2004d, 2004s; FWENC 2002b, 2001b). A total of approximately 1,907,962 tons of BBM was produced, as follows:

- Production for FY01 was 386,500 tons
- Production for FY02 was 449,310 tons
- Production for FY03 was 594,000 tons
- Production for FY04 was 410,452 tons
- Production for FY05 was 67,700 tons

Hauling BBM from the former Stapleton International Airport stockpile to the project sites where it was used and placing it in the caps and covers was performed as part of IPs and is documented in the CCR for each IP. Table 3.0-2 provides a list of IPs and their associated CCRs. As required by the ROD, BBM was used in the HWL and ELF RCRA caps and in the Integrated

Cover System (ICS), which includes the Basin A, Complex (Army) Trenches, South Plants Central Processing Area and Lime Basins project sites), Shell Disposal Trenches, and Basin F RCRA-equivalent covers. Remaining BBM was placed in two on-site stockpiles for future use by the RVO and USFWS.

Table 5.12.2-1 presents significant milestones for the BBM Project.

**Table 5.12.2-1 BBM Project Significant Milestones**

Activity	Date
BBM production began	January 2001
BBM production ended	December 2004
Last load of BBM was removed from the Stapleton stockpile	April 2009
Deadline for removing all BBM from the Stapleton stockpile	July 2009

### 5.12.3 Cost Summary

The ROD included costs for BBM and biota barrier construction within each project where a biota barrier was required. The baseline estimate, therefore, did not include a cost element for program-wide development of BBM. The Estimate at Completion for the BBM Project is \$20,888,734. This cost is offset by BBM cost savings in each of the cap/cover projects.

## 5.13 Permanent Revegetation/Irrigation (2.07.67)

### 5.13.1 Scope

The selected remedy in the On-Post ROD for revegetation is:

*Remedy components for all sites include reconditioning the surface soil and revegetating areas disturbed during remediation with locally adapted perennial vegetation.*

The Site-Wide Revegetation Management/Irrigation Program designed, scheduled, and implemented a plan for efficient permanent revegetation/irrigation of disturbed sites and other areas to compensate for impacts of the remediation. Work was conducted jointly by the USFWS and the PMC, with RVO oversight. The program was based upon the *Habitat Restoration Plan for Rocky Mountain Arsenal National Wildlife Refuge* (USFWS 1999) and annual Vegetation Management Plans and Irrigation Work Plans.

### 5.13.2 Description of Activities

Areas outside the Army-Maintained Area (AMA) that were disturbed during remediation were generally permanently revegetated by USFWS. Areas were turned over to the USFWS for revegetation after the remediation was complete and the surface soil had been reconditioned. Reconditioning of the surface soil included some combination of backfilling, grading, ripping, disking, and either incorporating soil amendment (composted cow manure) or replacing topsoil. Permanent revegetation was done in both fall and spring. Some remediation areas outside the AMA boundaries were not permanently revegetated by USFWS if they were considered to have achieved the habitat goals of the Refuge. Examples include the following:

- Remediation areas within the lakes, if they were subsequently covered with water

- Remediation areas where potholing to recover anomalies resulted in minimal disturbance to existing vegetation
- Remediation areas where disturbance was minimal and weed management eliminated invasive species
- Remediation areas where interim seeding with locally adapted native perennial vegetation resulted in a vegetative cover that achieved habitat goals of the Refuge

Another example of a remediation area outside the AMA boundaries that was not permanently revegetated by USFWS was a portion of Borrow Area 5, which was revegetated by an IP.

Some permanently seeded areas outside the AMA boundaries were irrigated to improve the chances of successful vegetation establishment. Irrigation was accomplished using linear move, side roll, and solid set irrigation systems to irrigate outside the AMA boundaries from 1999 through 2010. No site-wide irrigation was done in 2009, because of the extensive irrigation performed on the constructed RCRA-equivalent and other soil covers that year. Irrigation was generally started June 1 and continued through the end of August, with approximately 6 inches of water applied during that period.

Areas within the AMA boundaries that were disturbed during remediation were permanently revegetated by IPs. These areas included HWL and ELF RCRA caps; ICS, Shell Disposal Trenches and Basin F RCRA-equivalent covers; South Plants Balance of Areas 3-foot cover; Shell Disposal Trenches 2-foot cover; and non-cover areas. All areas were irrigated except for the HWL and ELF RCRA caps. Irrigation was done by subcontractors using a variety of irrigation equipment that was selected specifically for each area. Irrigation was performed in 2007, 2008, and 2009; the largest area was irrigated in 2009. Revegetation and irrigation activities are documented in IP CCRs.

Temporary or interim seeding was sometimes performed to control weeds and minimize erosion in disturbed areas that would be disturbed again prior to permanent seeding. Temporary or interim seeding was also sometimes completed by IPs before areas were turned over to the USFWS. This revegetation is documented in IP CCRs. The interim vegetation served to mitigate loss of habitat, control weeds, and prevent soil erosion until USFWS established permanent vegetation. Herbicides, mowing, and tilling were also used to control weeds until permanent seeding was completed.

During preparation of and resolution of comments on the 2005 Five-Year Review Report, an ESD was prepared (TtEC 2006e) that clarified the ROD revegetation requirement. Since the Refuge Act requires most of the RMA to be transferred to USFWS upon completion of the remedy, certification of compliance requirements was added to the ESD as follows:

*Sites will be reconditioned and seeded in a manner acceptable to the USFWS consistent with the USFWS management plan and annual "Vegetation Management Plan". For areas disturbed during the remedy, the USFWS will certify, in writing, to the EPA that the site has been revegetated or has a USFWS-approved revegetation plan that is being*

*implemented, and that the USFWS is satisfied that the site's habitat is being or will be restored to achieve the statutory purposes of the Refuge.*

The USFWS certification of compliance with the ESD provision for revegetation was documented in a series of letters to EPA identifying specific areas graphically on figures attached to the letters. A final letter and accompanying figure, dated January 28, 2010 (USFWS 2010c), certified that all areas outside the AMA boundaries, whether it was depicted on the attached figure or not, have been (or will be) seeded with locally adapted perennial seed according to USFWS terrestrial restoration planning schedule to ensure that the sites' habitats will be restored to achieve the statutory purposes of the Refuge to the USFWS's satisfaction.

The USFWS has identified areas it intends to plant to permanent vegetation through 2013, including acreage outside areas disturbed during remediation. The additional revegetation outside disturbed areas compensates for impacts caused by remediation-related activities, consistent with the *Habitat Restoration Plan for Rocky Mountain Arsenal National Wildlife Refuge* (USFWS 1999). Figure 5.13.2-1 shows the extent of areas disturbed during remediation and the revegetation status of those disturbed areas. Areas disturbed during remediation include excavations, covers, roads, laydown and parking areas, graded areas, potholed areas and areas where tilling was required to complete remediation (e.g., TRER areas).

Annual updates to Vegetation Management Plans (TtFW 2004r, 2005a; TtEC 2006d, 2007e, 2008n, 2009i, 2010l) and Irrigation Work Plans (FWENC 1999b, 2003h; TtFW 2004u, 2005b) were prepared and served as planning and documentation tools for the management of site-wide revegetation and irrigation work. Vegetation Management Plans contained summaries of previous years' operations, as well as those planned for the upcoming year.

Table 5.13.2-1 presents significant milestones for the Permanent Revegetation/Irrigation Support Program.

**Table 5.13.2-1 Permanent Revegetation/Irrigation Support Program Milestones**

Activity	Date
Habitat Restoration Plan for Rocky Mountain Arsenal National Wildlife Refuge	August 1999
10-Year Irrigation Work Plan (FWENC 1999b)	September 1999
Irrigation Work Plans 1999-2008 and 2010 (None done in 2009)	1999-2008, 2010
2004 – 2010 Vegetation Management Plans	March 2004 – April 2010
Revegetation Acceptance Letter from USFWS to EPA (USFWS 2010c)	January 2010
Completion of Site-wide Irrigation	August 2010

### 5.13.3 Cost Summary

The ROD included costs for revegetation within each remediation project. The baseline estimate, therefore, did not include a cost element for Site-Wide Revegetation/Irrigation Support. The Estimate at Completion for the Revegetation/Irrigation Support Program is \$12,676,174.

## 5.14 Drummed Waste Handling (2.07.68)

### 5.14.1 Scope

The ROD states that stored drummed waste, as identified in the waste management element of the CERCLA hazardous wastes IRA, may be disposed in the HWL in accordance with the Final Corrective Action Management Unit Designation Document, dated June 12, 1996 (HLA 1996b). The Draft *Drummed, Staged and Contained Waste Handling and Disposal Plan* (FWENC 1999c) was prepared to address drummed waste disposal. It provided background information regarding the waste to be disposed, outlined waste processing issues and concerns, discussed processing technology, proposed processing solutions, described waste transportation requirements and detailed documentation and record-keeping procedures.

### 5.14.2 Description of Activities

The draft *Drummed, Staged and Contained Waste Handling and Disposal Plan* (FWENC 1999c) addressed drums stored within South Plants and miscellaneous structures outside the boundary of South Plants, but not drums stored in the North Plants area. The draft plan described performance-based requirements for drum disposal operations and addressed the following list of waste streams, taken from the Final Decision Document for Element One of the CERCLA Hazardous Wastes Interim Response Action at the Rocky Mountain Arsenal, December, 1992:

- CERCLA Investigation-Derived Wastes
  - Soils
  - Liquid Wastes
  - Personal Protective Equipment
  - Laboratory Wastes
  - Trash
  - Contaminated Debris
  - Miscellaneous Drummed Solids
- Utility System Wastes
- Sewage Treatment Plant Wastes
- Facility Maintenance Shop Wastes
- Motor Pool Wastes
- Laboratory Wastes
- Found On-Post Wastes

The final plan was submitted to the Regulatory Agencies as Design Change Notices (DCNs) to the Miscellaneous RMA Structures Demolition and Removal Project. DCN-MSD-001 included all drums stored within South Plants and miscellaneous structures outside the boundary of South Plants, but not drums stored in the North Plants area. Disposal of these drums was performed under the Miscellaneous RMA Structures Demolition and Removal Project - Phase I. DCN-MSD-002 included drummed waste stored in the North Plants area, which was disposed as a part of the North Plants Demolition project. Preparation of the DCNs and disposal of the drums is documented in the project CCRs.

Table 5.14.2-1 presents significant milestones for the Drummed Waste Handling program.

**Table 5.14.2-1 Drummed Waste Handling Milestones**

Activity	Date
Draft Drummed, Staged and Contained Waste Handling and Disposal Plan prepared	July 1999
DCN-MSD-001 approved	March 2000
DCN-MSD-002 approved	August 2000

### 5.14.3 Cost Summary

Costs for drummed waste handling and disposal were included in the individual structures demolition projects in the baseline estimate. However, early design stage planning was completed on a site-wide basis resulting in costs for this program. The Estimate at Completion for this project is \$106,383, representing the initial planning efforts. Remediation and disposal costs were incorporated in the Miscellaneous RMA Structures Demolition and Removal and North Plants Demolition projects.

## 5.15 Site-Wide Well Abandonment/Retention (2.07.69)

### 5.15.1 Scope

As part of the ROD implementation, well abandonment was conducted to accommodate the implementation of soil remediation projects and eliminate wells that were no longer needed or damaged beyond repair. The scope of this program included wells within or proximate to remediation project areas that were not identified for long-term use in the LTMP.

The focus of the well retention program, initiated in 2003, was to establish a process for identifying wells that needed to be retained for actual or potential monitoring purposes, thereby allowing for closure of additional wells.

### 5.15.2 Description of Activities

During soil remedy implementation, well abandonment activities were performed to accommodate field implementation projects and off-post development. A consolidated well abandonment campaign conducted within the Central Remediation Area in 2001 and 2002 resulted in the closure of 350 wells. Approximately 150 wells were abandoned in FY03 in the Western Tier deletion areas and in off-post development areas. A second consolidated well abandonment program conducted in 2003 and 2004 included closure of about 500 wells.

The Well Retention and Closure Program (WRCP) (FWENC 2003f) presented the decision process for identifying wells that could be closed from a groundwater monitoring perspective. The WRCP approach was to identify all wells that had an actual or potential monitoring purpose, thereby allowing other wells to be considered for closure. Annual well networks updates that reflect all changes to the RMA well networks have been issued since the implementation of the WRCP (PMRMA 2010a, 2009a, 2009b, 2008a, 2008b, 2006a; TtFW 2004c).



Well retention was addressed in the 2010 LTMP, but the actual decisions regarding retention of wells and closure of wells that are not needed now or expected to be needed in the future is ongoing. As a result, this site-wide program is identified for long-term O&M (see Section 7.4)

Long-term well network maintenance at RMA is an important component of the remedial actions prescribed by the RODs for both the On-Post and Off-Post OUs (FWENC 1996a, HLA 1995). The RMA well networks will be retained to ensure continued remedy and post-remedy monitoring and LTMP wells will be repaired or replaced as necessary if they are damaged. Well retention is intended to support all groundwater-related aspects of remedy implementation and performance monitoring, including long-term monitoring, other project-specific monitoring, and operational monitoring. Well maintenance and repairs will be performed on an as-needed basis for on-post and off-post wells in response to observations made during reviews to maintain the integrity of the well. Wells may be modified or adapted to reduce tampering or damage by traffic, construction, grounds maintenance, fire, wildlife, or off-post development. Monitoring wells will be reviewed each time a well is used during scheduled monitoring events. The minimum checks on well integrity and follow-up actions are identified in the Groundwater Sampling Procedure (URS 2010).

### **5.15.3 Cost Summary**

Since there was no specific ROD requirement for site-wide well abandonment, there was no cost assigned to this program in the baseline estimate. The Estimate at Completion for this program is \$2,305,576, including costs for well abandonment and maintenance costs for retained wells.

## **5.16 On-Post Water Supply (2.08.45)**

### **5.16.1 Scope**

The ROD requires that a sufficient on-post water supply be maintained to support remedial actions, including revegetation, habitat enhancement and maintenance of lake levels. During remedy implementation, several potential water supply alternatives were identified and evaluated and ultimately used for remediation, construction, vehicle and equipment decontamination, dust suppression, irrigation, haul road maintenance, minimum lake level maintenance, and wetlands fill.

### **5.16.2 Description of Activities**

The *Evaluation of a Short-Term and Long-Term On-Post Water Supply Alternative Final Report* (PMRMA 1996b) was prepared to identify and evaluate potential water supply alternatives for use at RMA. The report stated that existing water supplies were not sufficient to meet the demands of the remedial activities, referred to as short-term demands, and that a water supply was also needed by USFWS to maintain RMA as a Refuge in perpetuity after remediation is complete. The latter supplies were referred to as long-term demands. This report identified and evaluated potential water supply alternatives for use at RMA and stated that existing water supplies would be used to the extent possible.

Existing water supplies at RMA included three permitted groundwater supply wells located in Section 4 that were connected by piping to Lake Ladora and High Line Canal water, in addition to variable storm water flows into the lakes from a watershed located south and southeast of the

southern boundary of RMA. The federal government owned shares for High Line Canal water, and that water had historically been delivered to RMA by Denver Water. It was determined that these existing supplies would be used as long as possible.

In December 1997 a Memorandum of Understanding was signed by the Denver Water Board (DWB), SACWSD, the Army and the USFWS regarding project facilities needed to supply the Refuge with nonpotable water and to supply SACWSD with potable water. In 1998, a Biological Assessment (ERO 1998b) and an Environmental Assessment (ERO 1998a) were prepared to assess potential biological and environmental effects of supplying water to the Refuge and SACWSD.

The *Risk Assessment for Section 4 Water Supply Wells* (FWENC 1998d) was prepared to meet the ROD requirement that a risk assessment be performed prior to any nonpotable use of on-post groundwater to assess potential risks to humans and ecological receptors associated with exposures to contaminants of concern in this water source. Groundwater wells 04303, 04304, and 04305 in Section 4 were identified as a potential source of water for remedial activities at RMA and maintenance of the Refuge. Groundwater from these wells would be pumped to Lake Ladora for holding and then withdrawn from the lake, as needed, for remedy activities. Results of the risk assessment indicated that the use of groundwater from these wells for the intended purposes was not expected to result in adverse effects to human health or impacts to ecological receptors. Water from these wells was then used as a source of nonpotable water.

Until 2004, the primary sources of nonpotable water were the spring and fall runs of the High Line Canal Lateral, distributed by the DWB in accordance with the 1998 Non-potable Water Lease Agreement, and groundwater pumped from production wells 04303, 04304, and 04305 in Section 4. In 2004, DWB ceased delivery of nonpotable water using the High Line Canal because of the drought and the large amounts of water lost to seepage along its 66-mile course from the foothills southwest of Denver to RMA. As a result, the DWB, the Army, and USFWS renegotiated the non-potable water lease agreement to provide alternative water sources, including Denver potable water and Denver recycled water to be discharged into Lake Ladora and a new groundwater production well in Section 12.

To determine the feasibility of a new groundwater production well in Section 12, aquifer pumping tests were performed during 2004 in three wells in Sections 7, 11, and 12 (TtFW 2004e). On the basis of these tests, it was determined that a new production well would be installed near monitoring well 12005. The new well, well 12025, was installed in December 2004 and January 2005, but never used.

The new water lease agreement was executed in April 2008. In accordance with the new agreement, Denver potable water was delivered to Lake Ladora through existing potable water lines at RMA. New piping was installed in the Lake Ladora Pump House to convey potable water into the Pump House "wet well", where the water from Section 4 and Lake Ladora is filtered prior to being pumped for use at RMA. A dechlorination system was installed in the Pump House to make this water suitable for discharge into the lake.

The 2008 water lease agreement with DWB also provides for Denver recycled water in perpetuity, beginning when DWB completes a recycled water main pipeline along the RMA south boundary paralleling 56<sup>th</sup> Avenue, which is scheduled for early October 2011. Once Denver recycled water is available, Denver potable water will no longer be used and USFWS will use Denver recycled water to maintain the Refuge in perpetuity.

Surface Water Management Plans were prepared each year during remedy implementation to assess nonpotable water demands of the up-coming year and compare them to nonpotable water supplied to RMA through various sources and to plan activities to maintain sufficient on-post water supply to support remedial actions.

Table 5.16.2-1 presents significant milestones for the On-Post Water Supply Project.

**Table 5.16.2-1 On-Post Water Supply Project Milestones**

Activity	Date
Evaluation of a Short-Term and Long-Term On-Post Water Supply Alternative Final Report	December 1996
Risk Assessment for Section 4 Water Supply Wells	June 1998
New Production Well Installation	January 2005
New Non-potable Water Lease Agreement	April 2008

### 5.16.3 Cost Summary

The original baseline remediation cost estimate for this project was \$15,006,560. However, sufficient water supply was maintained using the existing sources on site and no additional water purchase or development was required during remediation. The Estimate at Completion for this project is \$212,717, which represents the water supply evaluations performed and the construction of the Section 12 well as a potential additional water source.

### 5.17 North Plants LNAPL Recovery (2.08.78)

Light non-aqueous phase liquids (LNAPL) associated with groundwater was first identified beneath the North Plants manufacturing area during water level monitoring in 1993 (TtEC 2007a). Follow-up sampling in 1993 showed low levels of BTEX (benzene, toluene, ethylbenzene and xylenes). Delineation of the LNAPL was initially conducted in July 2001 as part of the North Plants structures groundwater monitoring (FWENC 2001d). In September 2001, passive recovery of the LNAPL was undertaken and continued until demolition activities in the area required abandonment of the well and cessation of recovery in February 2002 (FWENC 2002i). Continuation of LNAPL recovery was planned to follow completion of North Plants surface remedial actions.

In December 2002, petroleum-impacted soils were observed during excavation of the chemical sewers surrounding Building 1712. This triggered two rounds of soil sampling to delineate the extent of petroleum-contaminated soil. The investigation and evaluation of the petroleum-contaminated soil was documented in the *North Plants Soil Remediation Project Petroleum Release Evaluation Report* (TtFW 2004a). The conclusion, based upon the RI results (Ebasco 1988a, 1988b), groundwater monitoring results, and the two rounds of soil sampling (TtFW

2004j) was that no action was required for soil; however, because LNAPL was present in association with groundwater beneath the former North Plants production area, free product recovery would be implemented with the number and location of recovery wells to be determined during design, and groundwater monitoring would continue to track attenuation of contaminants.

Water levels and LNAPL thickness were monitored and LNAPL and groundwater sampling were conducted to characterize the LNAPL accumulation, assess potential groundwater impacts, and design a pilot LNAPL removal system. The results were reported in the *North Plants Soil Remediation Project Interim Free Product and Groundwater Characterization Data Summary Report* (TtEC 2007a).

A pilot study on removal of LNAPL was initiated in 2009 with the purpose to determine the extent to which removal of LNAPL is practicable using a passive skimming system (URS and TtEC 2009). Twenty-two piezometers and two recovery wells were installed in the LNAPL plume in February 2009, and monitoring began in March 2009. The pilot LNAPL removal system is being operated to the extent necessary to gather data in support of the final action, if any, for the North Plants LNAPL Plume. As of this RASR, sufficient LNAPL has not been observed in the recovery well to commence LNAPL removal operations.

The Final North Plants Pilot LNAPL Removal Action Evaluation Report was issued by URS Corporation in April 2011 (URS 2011b). This report presented the monitoring results from March 2009 through May 2010. Based on the lack of conclusive data regarding the recoverability of LNAPL from the North Plants site, an additional monitoring period was recommended and monthly water level and LNAPL thickness measurements continued through August 2011. A subsequent evaluation report for the additional monitoring period will be prepared and will provide the basis for determination of the further actions necessary to address the LNAPL plume.

### **5.18 Lime Basins DNAPL Investigation (2.08.79)**

In August 2009, field monitoring of the Lime Basins dewatering wells indicated the potential presence of dense non-aqueous phase liquid (DNAPL). Subsequent sampling confirmed that DNAPL, consisting of a mixture of chlorobenzene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, and dicyclopentadiene, was present in two of the six dewatering wells. Subsequent monitoring confirmed DNAPL in a third dewatering well. Because the presence of DNAPL was not a known site condition during preparation of the Lime Basins design documents and represented a new source material for the Lime Basins area, the discovery triggered the application of the CERCLA process and performance of a RI/FS. The Lime Basins DNAPL RI/FS Work Plan (TtEC and URS 2010b) outlined the approach and components of the RI/FS process.

The RI, which was completed in fall 2010, was conducted using historical and current data and identified three source zones in the following locations:

- At the northwest corner of the Lime Basins, near and downgradient of dewatering wells DW-10 and DW-5.

- Near the northeast corner of the Lime Basins, near well DW-9.
- Roughly 300 feet south-southwest of the southwest corner of the Lime Basins, at wells 36001, 36181, and 36182.

Conclusions from the RI indicate that the DNAPL within the first two source zones appears to be primarily, if not entirely, comprised of residual DNAPL with limited DNAPL mobilization occurring as a result of the operation of the dewatering wells and the subsequent changes in hydrologic conditions. To date, these effects have been localized and have only affected the immediate vicinity of the dewatering wells. The third area is not expected to mobilize to create a pool that could come in contact with the slurry wall. The DNAPL volumes observed have been insufficient to cause migration through the native soils (TtEC and URS 2010a).

In accordance with the Work Plan, the FS component of the report is a focused FS that follows a presumptive remedy approach, which is one tool of acceleration within the Superfund Accelerated Cleanup Model presented in EPA guidance on presumptive remedies (EPA 2009). Presumptive remedies are preferred technologies for common categories of sites. For the Lime Basins, the presumptive remedy is DNAPL source containment and DNAPL removal to the extent practicable (EPA 1996, 2009).

The recommended remedy presented in the FS for Lime Basins DNAPL consists of operation of dewatering wells including measurement and removal of recoverable quantities of DNAPL; monitoring of well pairs along segments of the slurry wall to facilitate water-level measurement, DNAPL detection, and analyses of COCs that will allow for the evaluation of slurry wall performance; and further refinement of the delineation of DNAPL source zones at these locations; and treatment of groundwater at Basin A Neck System to meet Containment System Remediation Goals (TtEC and URS 2011).

The recommended remedy includes the following elements:

- Removal of recoverable quantities of DNAPL from the dewatering and monitoring wells
- Addition of monitoring well pairs along the alignment of the slurry wall to enhance the capability of a monitoring program to detect any potential impacts of the DNAPL on the existing slurry wall
- Implementation of a monitoring program for the detection and measurement of DNAPL, and characterization of groundwater to evaluate the potential impacts of the DNAPL on the existing slurry wall and refine the delineation of DNAPL source zones identified through the RI/FS

An ESD is under preparation to document selection of the FS recommended remedy as a change to the ROD. Final remedy selection is expected in late 2011.

## 5.19 Trust Fund

### 5.19.1 Description of Activities

During the development of the ROD, members of the public and some local governmental organizations expressed keen interest in the creation of a trust fund to help ensure that the long-term O&M obligations of the Army would be performed. This provision was included because, at the time of the ROD, there was concern that Congress would severely cut funding for the cleanup of RMA, leaving the remedy incomplete. The ROD provided for the formation of a trust fund group to develop a strategy to establish such a trust fund, and in August 1996 a Trust Fund Work Group was established. The Trust Fund Group consisted of representatives from the Parties, the Restoration Advisory Board, the Site-Specific Advisory Board, the Governor's office, Commerce City officials, and the public. The first meeting was held August 14, 1996, and monthly meetings were held thereafter. The Trust Fund Group was co-chaired by a member of the Colorado Attorney General's office (Ms. Casey Shpall), Commerce City (Tim Gagen), and the Restoration Advisory Board (Roland Russell). The Trust Fund Group identified eight possible options for establishing a trust fund and, after much study and discussion, agreed that two options were the most feasible.

The first option consisted of establishing a trust fund under the auspices of EPA, which had received approval from the Office of Management and Budget to establish trust funds at its Superfund sites. Under this option, the Army would enter into an agreement with EPA, under which EPA would establish an interest-bearing sub-account for RMA within the Superfund Trust Fund. The second option consisted of Shell placing \$5 million in an interest-bearing trust fund established directly as an RMA response action project in lieu of making the payment to the Army as part of its cleanup costs. In return, Shell would receive credit for this expenditure as an allocable cost at the time of the deposit against the periodic payments due under the Settlement Agreement and the FFA.

Representatives of the Trust Fund Group met with EPA Region 8 authorities and contacted EPA Headquarters to discuss the first option. After several meetings with Region 8 authorities and phone conversations with Headquarters EPA, it was determined that because RMA was an active military installation, the EPA Superfund Trust Account could not be used to establish a trust fund for RMA. More specifically, Army money recovered from Shell could not be placed into the Superfund account because the recovery was not on behalf of the Superfund. Also, the CERCLA section governing the Superfund Account (42 USC § 9611(e)) states that no money in the Superfund is available for remedial actions at federally owned facilities with certain limited exceptions, none of which included O&M activities.

A series of letters were exchanged between the Trust Fund Group and Mr. Raymond Fatz, Deputy Assistant Secretary of the Army (Environment, Safety and Occupational Health), regarding the second option. As stated previously, a condition of the second option was that the Army consider the Shell payment into a trust fund as an allocable response cost for which Shell would obtain credit under its financial agreements with the Army. In addition to the series of letters, representatives of the Trust Fund Group met to further explain the second option. It was determined that the second option was legally unacceptable. Under fiscal law constraints, monies payable to the Army by Shell are considered response costs and must be managed under the

same rules that apply to appropriated funds. These rules dictate that response costs must be deposited in the U.S. Treasury and may not be placed in an interest-bearing account absent special legislation.

The last remaining option considered by the Trust Fund Group was to seek legislation to modify the Schroeder Account to fund the O&M trust account. All payments by Shell under the Settlement Agreement with the Army were deposited into the so-called "Schroeder Account," a special non-interest bearing account set up by Congress in 1986 to allow the Army to spend the funds deposited by Shell without a separate Congressional appropriation. This account was of great benefit to activities at RMA because major projects could be accomplished without waiting for Congressional appropriation. Meetings were held with U.S. Representative Diana DeGette and members of her staff regarding pursuit of legislation to establish the trust fund. This option was not pursued, however, because of concerns by the Army and Shell that such efforts might lead Congress to abolish or otherwise modify the Schroeder Account if it were again brought to the attention of Congress. This view was also supported by Commerce City representatives. At this point, all further work on the trust fund came to an end and the efforts were documented in the *Rocky Mountain Arsenal Trust Fund Work Group Summary of Work* (PWT 2006).

Accordingly, the only remaining alternative was to seek appropriate legislation. At that time, the Army and Shell determined that they had performed "good-faith best efforts" to establish a trust fund. The Trust Fund Group discussed seeking the necessary legislation, but following a series of communications with Colorado U.S. congressional representatives, it was determined that such an effort would be unsuccessful and no further meetings were held. In light of these unsuccessful efforts, made in good faith, this task is complete.

### **5.19.2 Cost Summary**

There were no costs assigned for this activity in the baseline estimate. Instead, costs for the efforts associated with attempts to establish a trust fund were included within the Program Management element of the WBS (2.09).

### **5.20 Dioxin Study**

After completion of the ROD and the start of remedial activities, some members of the public stated they were concerned that RMA might be contaminated with dioxins. To address this potential issue, EPA Region 8, working in cooperation with the State of Colorado and the RVO, completed a series of studies to characterize the levels of dioxins in on-site and off-site soils. The purpose of the studies was to summarize data on the levels of dioxin in random soil samples collected from across RMA, and to compare the site data with the regional ambient data in order to judge whether levels at RMA were elevated compared to other comparable locations in and about the greater Denver area, and, if so, whether the levels were in a range of potential human health concern to on-site workers. A series of four reports was completed presenting the study results for regional off-post soils and various areas at RMA (EPA 2001a, 2001b, 2001c, 2001d). The results from the studies show that the spatial pattern of contamination does not suggest that any significant off-site releases have occurred, and even the highest on-site levels are far below a level of health concern to on-site workers. Concentration levels in the RMA manufacturing areas were similar to those found at other industrial and commercial areas around the Denver Front

Range area. With remedy completion, it is expected that dioxin levels throughout RMA will be approximately the same as for open space areas in the Denver Front Range area and will present no significant health risk to future Refuge workers, volunteers, or visitors.

Although the BAS supported development and completion of the dioxin studies, there were no specific costs tracked to the site-wide program elements.





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## 6.0 Operational and Functional Status Summary

### 6.1 Groundwater Treatment Facilities

Typically, an O&F determination is documented through approval of a CCR or an Interim Remedial Action Report for groundwater remedies once construction is completed. However, most of the RMA groundwater treatment facilities were constructed as IRAs prior to recognition of O&F status in accordance with EPA close-out guidance (EPA 2000).

During the 2000 RMA Five-Year Review, the Army completed an assessment of the groundwater treatment systems to determine whether they were functioning as designed and that necessary operations and maintenance were being performed. In 2001, EPA and CDPHE concurred with the Army's conclusions in the 2000 Five-Year Review Report; specifically that the operation of water treatment plants had been implemented in a manner that is protective of human health and the environment. The EPA's acceptance of the 2000 Five-Year Review Report was considered the same as approval of an Interim Remedial Action Report and determined that the assessment was equivalent to an O&F determination (PMRMA 2006c). This determination was effective for the Basin A Neck System, NBCS, NWBCS, Irondale Containment System, Rail Yard and Motor Pool Extraction System, and CERCLA Wastewater Treatment Plant.

For groundwater systems constructed after the ROD, O&F determinations have been completed, as have CCRs for system construction. For the Section 36 Bedrock Ridge Groundwater Plume Extraction System, the CCR approval letter from EPA includes the O&F determination (EPA 2008). For the Complex (Army) Trenches Groundwater Barrier/Groundwater Extraction System Project, an O&F Report (RVO 2002) was completed along with the CCR to document completion and operational status of the system.

### 6.2 RCRA-Equivalent, 2-ft, and 3-ft Covers

Part 1 CCRs were prepared for the ICS, Shell Disposal Trenches Cover, and Basin F Cover projects to document that remedial actions have been completed, have achieved the intent of the ROD to be protective of human health and the environment when the covers are determined to be O&F, and, having been inspected by the RVO and Regulatory Agencies, are functioning as intended. Following establishment of vegetation on the covers and determination that the covers are O&F by the EPA, in coordination with the CDPHE, TCHD, and the RVO, CCRs - Part 2 will be completed that will document the O&F status of the covers. The O&F determinations will be completed in accordance with the *RCRA-Equivalent, 2-, and 3-Foot Covers Long-Term Care Plan* (LTCP) and are based on sufficient field inspection and monitoring data to show conformance with cover performance standards. The CCR - Part 2 and O&F determinations for ICS (including Shell Disposal Trenches) and Basin F Cover are expected in 2016.

Monthly percolation measurements for the Shell Disposal Trenches began in 2007 and for the ICS and Basin F lysimeters in December 2009. Inspections, monitoring and repairs of the covers are being conducted to ensure their integrity and protectiveness, and to meet long-term O&M requirements for the ICS and Shell Disposal Trenches covers and post-closure requirements for the Basin F cover. Enforcement of the performance standards does not begin until 2015, or at the time of successful O&F determination, whichever occurs first.

### 6.3 RCRA Landfill Caps

The HWL and ELF projects consisted of liner construction, landfill operations, and final cap construction; completion of each phase is documented in a separate CCR. In addition, the liner and cap construction elements required Construction Quality Assurance (CQA) Reports to document that construction activities were completed in accordance with the project design and closure requirements. Following completion of the final cap CCRs, EPA provided O&F determinations based on the information presented in the CCRs and the CQA Reports.

## 7.0 Operations & Maintenance Summary

This section summarizes O&M activities that are required following remedy completion for RMA landfill and cover projects, for operating groundwater systems, and for ongoing site-wide programs. For these remedy components that have ongoing and future O&M requirements, Table 7.0-1 provides the current status and indicates the general O&M activity with reference to the operating plans or other documents where detailed O&M requirements are found. Figure 7.0-1 shows the location of remedy structures remaining with O&M requirements.

### 7.1 RCRA Landfill Caps

The physical construction of the HWL and ELF RCRA caps is complete and these units are in the post-closure period. The HWL and ELF Post-Closure Plans (TtEC 2011d, 2010j) describe detailed O&M activities, summarized below, that must be undertaken during the post-closure period beginning at physical completion and continuing for a minimum of 30 years.

Inspection, monitoring, maintenance and repair activities will be performed to meet applicable substantive regulatory requirements specified in 6 Code of Colorado Regulations 1007-3, Section 264.552 (Subpart S), Section 265.310 (Subpart N), and Section 265.117-120 (Subpart G). These requirements include:

- Maintain the integrity of the cap, including making repairs to the cap as necessary to correct effects of settling, subsidence, erosion, or other phenomenon.
- Continue to operate the leachate collection and removal system until leachate is no longer being generated.
- Maintain and monitor the LDS in accordance with 6 CCR 1007-3, Sections 264.301(c)(3)(iv) and (4) and 6 CCR 1007-3, Section 265.304(b).
- Maintain and monitor the groundwater monitoring system.
- Prevent run on and run off from eroding or otherwise damaging the cap.

To fulfill these requirements, the following activities will be implemented during the post-closure period:

- Inspect soil cap and vegetation conditions.
- Inspect surface water controls, including trench drain outfalls at the ELF.
- Inspect the leachate collection system, leak detection system, and Leachate Storage/Loadout Facility.
- Inspect engineering controls.
- Monitor, collect, and transport leachate off-site for disposal/incineration.
- Monitor the quality of the leachate collection system, leak detection system, wastewater and groundwater.
- Perform maintenance and repair of the above-listed components as needed.

## 7.2 RCRA-Equivalent, 2-ft, and 3-ft Covers

The RCRA Equivalent, 2-ft, and 3-ft covers are evapotranspirative in design and function, and were constructed over the following areas:

- Basin A Consolidation and Remediation Area
- South Plants Central Processing Area
- South Plants Balance of Areas 3-ft Soil Cover
- Complex (Army) Disposal Trenches
- Shell Disposal Trenches
- Shell Disposal Trenches 2-ft Soil Cover Area
- Section 36 Lime Basins
- Basin F/Basin F Exterior (Basin F Cover) Area

Detailed O&M activities for the above-listed covers are described in the LTCP (TtEC 2008f) and are summarized below.

To protect the integrity of the covers, the following O&M activities will be implemented during the long-term care period:

- Inspect cover surfaces and vegetation conditions.
- Inspect surface water controls.
- Monitor percolation using pan lysimeters.
- Inspect engineering controls.
- Assess the status of the plant community annually.
- For the Shell Disposal Trenches cover, soil moisture monitoring will be conducted in accordance with the LTCP.
- Perform maintenance and repair of the above listed components, as needed.

Basin F Cover O&M activities are also described in the Basin F Post-Closure Plan (TtEC 2011a, draft) and have the same general O&M requirements as listed above, with the additional requirement to monitor upgradient and downgradient groundwater levels and water quality.

## 7.3 Groundwater Systems

O&M requirements for the groundwater systems include continued O&M of extraction and treatment systems identified in Table 7.0-1 in accordance with applicable O&M manuals. Operations following remedy completion will continue with the goal of meeting applicable CSRGs and /or Practical Quantitation Limits and ROD shut-off criteria as described in the LTMP (TtEC and URS 2010c).

Monitoring for the RMA containment and mass removal systems consists of compliance, performance, and operational monitoring. Additionally, pre-shut-off monitoring, shut-off monitoring, and post-shut-off monitoring will apply to systems that are being considered for shutdown or have been shut off. Compliance monitoring will be conducted to confirm effluent water quality meets CSRGs for the on-post and off-post treatment systems. Performance monitoring will be conducted to assess water level and water quality performance against specific performance criteria defined for each system. Operational monitoring is performed to ensure that system objectives are met and to optimize system performance of extraction, recharge, and/or monitoring wells located near the systems. Groundwater monitoring and well maintenance is performed in accordance with the LTMP. Specific treatment plant operational monitoring and maintenance programs are included in the O&M manuals for the respective systems.

Groundwater monitoring associated with the Complex (Army) Trenches, Shell Trenches, and Lime Basins containment areas include slurry walls and dewatering components to enhance containment in addition to RCRA-equivalent covers. For these sites, required water level monitoring and well maintenance following remedy completion is included in the LTMP and is conducted to evaluate the effectiveness of each remedy.

Future O&M requirements, if any, for removal or mitigation of the North Plants light non-aqueous phase liquid and the Lime Basins DNAPL groundwater contamination sites are undetermined pending completion of ongoing study and evaluation processes.

#### **7.4 Site-Wide Programs**

Ongoing site-wide monitoring programs are listed in Table 7.0-1 and will continue to operate to support the long-term assessment of remedy protectiveness.

The site-wide groundwater program incorporates on-post and off-post groundwater monitoring not included with the system-related, HWL and ELF, and Basin F cover groundwater monitoring programs. On-post water level and water quality monitoring will be conducted to assess the impact of the on-post remedy implementation on water levels and quality, flow, and contaminant migration pathways between the historical plume source areas and the RMA boundary. Off-post exceedance water quality and water level monitoring is conducted to assess contaminant concentration reduction and remedy performance, confirm flow paths, and to support the institutional controls component of the off-post remedy. Monitoring and maintenance of groundwater wells is performed in accordance with the LTMP. Site-wide well abandonment and retention continues in support of the monitoring requirements in the LTMP.

Off-post surface water monitoring will continue at two locations as described in Section 5.7.2 to evaluate the effect of groundwater treatment on surface water quality in the Off-Post OU as described in the LTMP. Management and use of surface water in support of post-remedy operations will be planned and coordinated with USFWS as needed.

Site-wide biomonitoring will continue to support the long-term assessment of remedy protectiveness in accordance with the Long-Term Contaminant Biomonitoring Program for Terrestrial Ecological Receptors (BAS 2006).

During the long-term O&M period, the potential to encounter any MPPEH at RMA is expected to be remote. If MPPEH, or remnants thereof, are discovered on RMA or the Refuge during the execution of post-remedy activities, the response actions will be in accordance with procedures developed in the RMA Response Plan for Recovered MPPEH (TtEC 2010k).

## 7.5 Land Use Restrictions

The Army is responsible for implementing, maintaining, reporting on, and enforcing all land use controls (LUCs) employed to minimize the potential for exposure to contaminants and protect the integrity of the remedy. During the RD/RA period, LUCs were managed in accordance with the *Interim Rocky Mountain Arsenal (RMA) Institutional Control Plan* (PMRMA 2008c). Continuing LUCs and operational requirements are shown in Table 7.0-1. Land use restrictions and prohibitions will be maintained and enforced through periodic inspections and inquiry of responsible officials as described in the *Land Use Control Plan* (RVO 2010a), which is under development and is expected to be finalized in October 2011.

General RMA access and activities management will continue to be a long-term operations requirement as described in the *Land Use Control Plan*. Access restrictions such as fences, signs, and obelisks will be maintained to ensure the integrity of the landfills and covers. These are inspected and maintained pursuant to the Long-Term Care Plan (TtEC 2008f), the Basin F Post-Closure Plan (TtEC 2011a, draft), HWL Post-Closure Plan (TtEC 2011d), and ELF Post-Closure Plan (TtEC 2010j).

Sanitary sewer markers will be inspected and maintained to ensure that the location of abandoned sanitary sewers is adequately marked. In addition, signs will be maintained to warn of the prohibition of excavation into dredged sediments from Upper and Lower Derby Lakes disposed in Section 12 (Site SSA-3b).

Ongoing protection of groundwater remediation structures including treatment facilities, extraction/recharge systems, wells, and related infrastructure is the responsibility of the Army. Off-post institutional controls include implementation of a well notification program. The Army will prepare and submit updated CSRG exceedance and well notification maps to the SEO so that the SEO can include the proper notification on well permits for off-post wells that are located in areas where contaminated groundwater might be encountered.

The Off-Post ROD requires a deed restriction that prohibits drilling new alluvial wells and use of deeper groundwater underlying the Shell Property for potable purposes until such groundwater no longer contains contamination in exceedance of groundwater CSRGs established in the ROD (HLA 1995). The deed restriction is defined in the *Declaration of Covenants among Shell, the United States, and the State of Colorado* dated February 2, 1996. The covenants were recorded by the Adams County Clerk and Recorder on June 11, 1996. These covenants "run with, and burden the land ... and are enforceable by the United States, through the Army and EPA, and by the State."

## 8.0 Contact Information

Direct all questions related to the Primary Responsible Party (PRP) Project Manager:

Mr. Charles Scharmann, Program Manager  
Department of the Army  
Base Realignment and Closure  
6550 Gateway Road, Building 129  
Commerce City, CO 80022-1748  
Phone: (303) 289-0180

### EPA Project Manager:

Ms. Laura Williams, Project Manager  
United States Environmental Protection Agency  
Region 8  
1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone: (303) 312-6660

### PRP Contractor:

Mr. Scott Ache, Environmental Compliance Engineer  
Tetra Tech EC, Inc.  
6550 Gateway Road, Trailer Z-99  
Commerce City, CO 80022  
Phone: (303) 289-0619

### EPA Oversight Contractor:

Mr. Levi Todd, Project Manager  
Pacific Western Technologies, Ltd.  
11049 W. 44<sup>th</sup> Avenue, Suite 200  
Wheat Ridge, CO 80033  
Phone: (303) 274-5400, ext. 47

### PRP Sample Analysis:

Ms. Meg Watson  
Tetra Tech EC, Inc.  
6550 Gateway Road, Trailer Z-92  
Commerce City, CO 80022  
Phone: (303) 289-0890

### EPA Sample Analysis:

#### Soil and Water Samples:

Ms. Lynda Huckestein, Project Chemist  
Columbia Analytical Services, Inc.  
1317 South 13<sup>th</sup> Avenue



P. O. Box 479  
Kelso, WA 98626  
Phone: (360) 577-7222

Air Samples:

Volatile Organic Compounds

Reddy Gosala, Laboratory Manager  
Alamo Analytical Laboratories, Ltd.  
10526 Gulfdale  
San Antonio, TX 78216-3601  
Phone: (210) 340-8121

Metals and Total Suspended Particulates

Lisa Ball, Project Chemist  
Chester LabNet, Inc.  
12242 SW Garden Place  
Tigard, OR 97223-8246  
Phone: (503) 624-2183

Mercury

Bob Brunette, Project Manager  
Frontier Geosciences, Inc.  
414 Pontius Avenue North  
Seattle, WA 98109  
Phone: (206) 622-6960

## 9.0 References

### Army (U.S. Department of the Army)

- 2011 (Sept.) *Final 2010 Five-Year Review Report for Rocky Mountain Arsenal Commerce City Adams County, Colorado.*
- 2007 (Nov.) *Final 2005 Five-Year Review Report for Rocky Mountain Arsenal Commerce City Adams County, Colorado. (3 Volumes).*
- 2000 (Oct.) *Final Five-Year Review Report for Rocky Mountain Arsenal Commerce City Adams County, Colorado.*

### BAS (Biological Advisory Subcommittee)

- 2006 (Nov. 3) *Long-Term Contaminant Biomonitoring Program for Terrestrial Ecological Receptors at Rocky Mountain Arsenal. Revision 0.*
- 2003a (Apr.) *Assessment of Residual Ecological Risk and Risk Management Recommendations at the Rocky Mountain Arsenal Part I: Terrestrial Pathways and Receptors. Addendum A-1.*
- 2003b (July) *Assessment of Residual Ecological Risk and Risk Management Recommendations Part II: Aquatic Pathways and Receptors.*
- 2002 (Apr.) *Assessment of Residual Ecological Risk and Risk Management Recommendations at the Rocky Mountain Arsenal Part I: Terrestrial Pathways and Receptors.*

### Black & Veatch

- 1998 (Dec. 20) *South Adams County Water and Sanitation District Henderson Pipeline Construction Completion Report.*

### Dames & Moore

- 2000 (June 15) *Final Confined Flow System Well Closure Construction Completion Report.*

### Ebasco (Ebasco Services Incorporated)

- 1994 (July) *Integrated Endangerment Assessment/Risk Characterization. Version 4.2. (4 Volumes).*
- 1992 (Jan.) *Final Remedial Investigation Summary Report. Version 3.2.*
- 1988a (Nov.) *Final Phase II Data Addendum, North Plants Complex. Version 3.2.*
- 1988b (Sept.) *Final Phase I Contamination Assessment Report, North Plants Complex. Version 3.2.*

EPA (U.S. Environmental Protection Agency)

- 2009 Presumptive Remedies: Policy and Procedures  
<http://www.epa.gov/superfund/policy/remedy/presump/pol.htm>
- 2008 (Sept. 30) Letter from Terry L. Anderson to Bruce Huenefeld Regarding Section 36 Bedrock Ridge Groundwater Plume Extraction System Construction Completion Report.
- 2001a (July) *Denver Front Range Study. Dioxins in Surface Soil. Study 1: Characterization of Dioxins, Furans and PCBs in Soil Samples Collected from the Denver Front Range Area.*
- 2001b (July) *Denver Front Range Study. Dioxins in Surface Soil. Study 2: Characterization of Dioxins, Furans and PCBs in Random Soil Samples Collected from the Rocky Mountain Arsenal.*
- 2001c (July) *Denver Front Range Study. Dioxins in Surface Soil. Study 3: Western Tier Parcel Rocky Mountain Arsenal.*
- 2001d (July) *Denver Front Range Study. Dioxins in Surface Soil. Study 4: Characterization of Dioxins, Furans and PCBs in Soil Samples Collected from Historic Use Areas of the Rocky Mountain Arsenal.*
- 2000 (Jan.) *Close Out Procedures for National Priorities List Sites. OSWER Directive 9320.2-09A-P.*
- 1996 (Oct.) *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites, Final Guidance, OSWER Directive 9283.1-12.*
- 1989 (Feb.) *Federal Facility Agreement for the Rocky Mountain Arsenal. Pursuant to CERCLA Section 120, Docket No. CERCLA VIII-89-13.*

EPA & Army (U.S. Environmental Protection Agency and U.S. Department of the Army)

- 2000a (May) *Interim Response Action (IRA) Summary Report, Improvement of the North Boundary System and Evaluation of all Existing Boundary Systems, North Boundary System. Final.*
- 2000b (May) *Interim Response Action (IRA) Summary Report, Improvement of the North Boundary System and Evaluation of all Existing Boundary Systems, Northwest Boundary Containment System. Final.*
- 2000c (May) *Interim Response Action (IRA) Summary Report, Basin F Liquids, Sludges, and Soils Remediation, Element One - Basin F Waste Pile. Final.*

- 2000d (May) *Interim Response Action (IRA) Summary Report, Basin F Liquids, Sludges, and Soils Remediation, Element Two - Basin F Liquid. Final.*
- 2000e (May) *Interim Response Action (IRA) Summary Report, Closure of the Hydrazine Facility. Final.*
- 2000f (May) *Interim Response Action (IRA) Summary Report, Groundwater Intercept and Treatment System in the Basin A Neck Area. Final.*
- 2000g (May) *Interim Response Action (IRA) Summary Report, Groundwater Intercept and Treatment System North of Basin F. Final.*
- 2000h (May) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, Shell Section 36 Trenches. Final.*
- 2000i (May) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, Army (Complex) Disposal Trenches. Final.*
- 2000j (May) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, M-1 Settling Basins. Final.*
- 2000k (May) *Interim Response Action (IRA) Summary Report, Groundwater Intercept and Treatment System North of Rocky Mountain Arsenal. Final.*
- 2000l (May) *Interim Response Action (IRA) Summary Report, Pretreatment of Comprehensive Environmental Response, Compensation, and Liability Act Liquid Wastes, Element Two – Polychlorinated Biphenyls (PCBs). Final.*
- 2000m (Aug.) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, South Tank Farm Plume. Final.*
- 2000n (Sept.) *Interim Response Action (IRA) Summary Report, Asbestos Remediation. Final.*
- 2000o (Sept.) *Interim Response Action (IRA) Summary Report, Fugitive Dust Control. Final.*
- 2000p (Sept.) *Interim Response Action (IRA) Summary Report, Building 1727 Sump Liquid. Final.*
- 2000q (Sept.) *Interim Response Action (IRA) Summary Report, Chemical Process Related Activities. Final.*
- 2000r (Sept.) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, Lime Settling Basins. Final.*

- 2000s (Sept.) *Interim Response Action (IRA) Summary Report, Pretreatment of Comprehensive Environmental Response, Compensation, and Liability Act Liquid Wastes, Wastewater Treatment System. Final.*
- 2000t (Sept.) *Interim Response Action (IRA) Summary Report, Pretreatment of Comprehensive Environmental Response, Compensation, and Liability Act Liquid Wastes, Element One - Waste Management. Final.*
- 2000u (Sept.) *Interim Response Action (IRA) Summary Report, Pretreatment of Comprehensive Environmental Response, Compensation, and Liability Act Liquid Wastes, Element Three - Waste Storage. Final.*
- 2000v (Oct.) *Interim Response Action (IRA) Summary Report, Closure of Abandoned Wells at Rocky Mountain Arsenal. Final.*
- 1999a (July) *Interim Response Action (IRA) Summary Report, Deep Disposal Well Closure. Final.*
- 1999b (July) *Interim Response Action (IRA) Summary Report, Klein Water Treatment Plant. Final.*
- 1998 (May) *Interim Response Action (IRA) Summary Report, Sanitary Sewers. Final.*
- 1997a (Oct.) *Interim Response Action (IRA) Summary Report, Improvement of the North Boundary System and Evaluation of all Existing Boundary Systems, Irondale Containment System. Final.*
- 1997b (Oct.) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, Rail Classification Yard. Final.*
- 1997c (Oct.) *Interim Response Action (IRA) Summary Report, Remediation of Other Contamination Sources, Motor Pool Area. Final.*
- ERO (ERO Resources Corporation)
- 1998a (Oct. 23) *Final Environmental Assessment, Water Supply Project, Rocky Mountain Arsenal National Wildlife Refuge, South Adams County Water and Sanitation District.*
- 1998b (Aug.) *Final Biological Assessment, Water Supply Project, Rocky Mountain Arsenal National Wildlife Refuge, South Adams County Water and Sanitation District.*
- FWENC (Foster Wheeler Environmental Corporation)
- 2003a (June) *Miscellaneous RMA Structure Demolition and Removal Project – Phase 1 Construction Completion Report. Revision 1.*

- 2003b (June 19) *Rocky Mountain Arsenal Well Networks Update for Retention and Closure Water Year 2003. Final.*
- 2003c (May) *Borrow Areas and Priority 1 Soil Tracking Plan 2003 Update. Revision 0.*
- 2003d (Apr. 29) *Explanation of Significant Differences for Section 36 Balance of Areas Soil Remediation Project. Revision 0.*
- 2003e (Apr. 9) *Amendment to the Record of Decision for the On-Post Operable Unit, Rocky Mountain Arsenal Federal Facility Site, Hex Pit Remediation. Revision 0.*
- 2003f (Apr. 10) *Rocky Mountain Arsenal Well Retention and Closure Program. Final.*
- 2003g (Jan.) *Haul Road Operations Plan Fiscal Year 2003 Annual Update. Revision 7.*
- 2003h (Jan. 16) *2003 Work Plan Installation and Operation of Irrigation Systems. Revision 0.*
- 2002a (Sept. 24) *Burial Trenches Soil Remediation Project Final Construction Completion Report Part I. Revision 1.*
- 2002b (Sept.) *Stapleton International Airport Recycled Concrete Biota Barrier Material Production Report for FY02. Revision 0.*
- 2002c (Aug. 19) *South Plants Balance of Areas and Central Processing Area Soil Remediation Project – Phase 1 Construction Completion Report. Revision 0.*
- 2002d (June 18) *Summary and Evaluation of Potential Ordnance/Explosives and Recovered Chemical Warfare Materiel Hazards at the Rocky Mountain Arsenal. Final.*
- 2002e (May) *Borrow Areas and Priority 1 Soil Tracking Plan 2002 Update. Revision 0.*
- 2002f (Apr. 9) *Buried M-1 Pits Soil Remediation Project Construction Completion Report. Revision 0.*
- 2002g (Mar. 5) *South Plants Structure Demolition and Removal Project Phase 2 Construction Completion Report. Revision 0.*
- 2002h (Feb.) *Miscellaneous Northern Tier Soil Remediation Project Construction Completion Report. Revision 2.*



- 2002i (Feb.) *North Plants Structure Demolition and Removal Project Groundwater Monitoring SAP (DCN-NPD-006).*
- 2002j (Jan. 24) *Explanation of Significant Differences for Secondary Basins B, C and D Remediation. Final.*
- 2001a (Nov. 6) *M139 Bomblets Destruction Completion Report and M139 Bomblets (Episode 2- June 2001) Destruction Completion Report.*
- 2001b (Nov.) *Stapleton International Airport Recycled Concrete Biota Barrier Material Production Report for FY01. Revision 0.*
- 2001c (Sept.) *Haul Road Operations Plan Fiscal Year 2002 Annual Update. Revision 5.*
- 2001d (July 13) *North Plants Structures Demolition and Removal Remediation Project. 100 Percent Design Package (Appendix M, Groundwater Monitoring Sampling and Analysis Plan). Revision 0.*
- 2001e (July 10) *M139 Bomblets Destruction Completion Report. Revision 0.*
- 2001f (June) *Borrow Areas and Priority 1 Soil Tracking Plan 2001 Update. Revision 1.*
- 2001g (May 16) *Shell Section 36 Trenches Groundwater Barrier Project Construction Completion Report. Revision 0.*
- 2001h (Mar. 22) *Complex Army Trenches Groundwater Barrier Project Construction Completion Report. Revision 0.*
- 2001i (Mar. 21) *Hazardous Waste Landfill Phase II Project Construction Completion Report. Revision 0.*
- 2000a (Oct.) *Explanation of Significant Differences for Chemical Sewer Remediation (Section 35 and Section 26).*
- 2000b (Oct.) *Explanation of Significant Differences for South Plants Balance of Areas and Central Processing Area Soil Remediation Project.*
- 2000c (Oct.) *Haul Road Operations Plan Fiscal Year 2001 Annual Update. Revision 4.*
- 2000d (Sept.) *South Plants Structure Demolition and Removal Project – Phase I Final Construction Completion Report. Revision 1.*
- 2000e (Sept.) *CAMU Soils Remediation Completion and Support Project Construction Completion Report. Final.*

- 2000f (Sept.) *Section 26 Human Health Exceedance and Biota Exceedance Soils Removal Project Construction Completion Report. Revision 0.*
- 2000g (Aug. 31) *Hazardous Waste Landfill Phase I Project Construction Completion Report. Revision 1.*
- 2000h (Aug. 31) *Landfill Wastewater Treatment System Project Construction Completion Report. Revision 1.*
- 2000i (July 19) *Existing (Sanitary) Landfills Remediation Section 4 Construction Completion Report. Revision 2.*
- 2000j (June) *Miscellaneous Southern Tier Soil Remediation Project Construction Completion Report. Revision 1.*
- 2000k (Apr. 24) *Existing (Sanitary) Landfill Remediation Section 1 Construction Completion Report. Revision 1.*
- 2000l (Apr.) *Borrow Areas and Priority 1 Soil Tracking Plan 2000 Update. Revision 0.*
- 2000m (Mar.) *Lake Sediments Remediation Project Construction Completion Report. Revision 1.*
- 2000n (Mar.) *Toxic Storage Yards Soil Remediation Project Construction Completion Report. Revision 0.*
- 1999a (Dec.) *Rocky Mountain Arsenal Long-Term Monitoring Plan for Groundwater, Final.*
- 1999b (Sept.) *10-Year Irrigation Work Plan.*
- 1999c (July) *Drummed, Staged and Contained Waste Handling and Disposal Plan. Revision A.*
- 1999d (May) *Technical Justification for Volume Modification of Toxic Storage Yards Soil Remediation Project.*
- 1999e (Apr.) *Borrow Areas and Priority 1 Soil Tracking Plan 1999 Update. Revision 0.*
- 1998a (Oct. 1) *Borrow Areas Plan, 100 Percent Report. Revision 0.*
- 1998b (Sept.) *Stage II Haul Roads Design Package.*
- 1998c (Aug.) *Stage I Haul Roads 100 Percent Design Package.*
- 1998d (June) *Risk Assessment for Section 4 Water Supply Wells.*





- 1997 (May) *South Lakes Groundwater Investigation Final Work Plan.*
- 1996a (June) *Record of Decision for the On-Post Operable Unit. Version 3.1. (3 Volumes).*
- 1996b (July) *Supplemental Field Study – Phase I Program Results.*
- 1996c (Sept.) *Soil Quantity Calculation Summary Report.*

Gannett Fleming (Gannett Fleming, Inc.)

- 2000a (Sept.) *Final Acquisition and Delivery of 4,000 Acre-Feet Potable Water Supply, Completion Report.*
- 2000b (Sept.) *Final Lake Ladora Dam Reconstruction Project, Completion Report.*

Gonzales (Gonzales Construction Company, Inc.)

- 1995 (Dec. 14) *Report of Closure for Aboveground Storage Tanks.*

HLA (Harding Lawson Associates)

- 1996a (Sept. 25) *Remediation Scope and Schedule for the Offpost Operable Unit, Rocky Mountain Arsenal, Commerce City, Colorado.*
- 1996b (June) *Final Corrective Action Management Unit Designation Document, Rocky Mountain Arsenal, Commerce City, Colorado. (2 Volumes).*
- 1995 (Dec.) *Rocky Mountain Arsenal Offpost Operable Unit, Final Record of Decision.*

LATA/AG&M (Los Alamos Technical Associates/Arcadis Geraghty & Miller)

- 1999 (July 9) *Final RMA Off-Post Well Abandonment Construction Completion Report.*

MKC (Morrison Knudsen Corporation)

- 1998a (June 30) *North Boundary Containment System, System Modifications for Treatment of NDMA, Construction and Startup Completion Report.*
- 1998b (Mar.) *Construction Completion Report Chemical Process Related Activities Free Standing Tank Removal, Outside Pipeline and Equipment Removal.*
- 1998c (Jan.) *RCRA-Equivalent Cover Demonstration Project Final Design Package.*

PMRMA (Program Manager Rocky Mountain Arsenal)

- 2010a (Dec.) *Annual Well Networks Update Summary for FY 2010.*
- 2010b (Nov.) *Remediation Design and Implementation Schedule.*
- 2009a (Dec.) *Annual Well Networks Update Summary for FY 2009.*
- 2009b (Mar.) *Annual Well Networks Update Summary for FY 2008.*

- 2008a (June) *Annual Well Networks Update Summary for FY 2007.*
- 2008b (Feb.) *Annual Well Networks Update Summary for FY 2006.*
- 2008c (Aug.) *Interim Rocky Mountain Arsenal Institutional Control Plan.*
- 2006a (Dec.) *Well Networks Update Annual Summary April 2004 through September 2005.*
- 2006b (June) *Management Plan for Protection and Monitoring of Lake Ladora, Lake Mary, and Lower Derby Lake during RMA Remediation.*
- 2006c (Mar. 9) *Decision Document DD-GWTF-07. Status of Groundwater Treatment Facilities at the Rocky Mountain Arsenal Federal Facility Site, Commerce City, Colorado.*
- 2003 (June) *Refinement of Remediation Areas for Surficial Soil and Reduction of Residual Biota Risk, Rocky Mountain Arsenal, Colorado.*
- 1997 (May) *Design Refinement of Excavation Boundaries for Surficial Soil and Reduction of Residual Biota Risk, Rocky Mountain Arsenal, Colorado.*
- 1996a (Dec. 9) *Remediation Design and Implementation Schedule.*
- 1996b (Dec.) *Evaluation of a Short-Term and Long-Term On-Post Water Supply Alternative Final Report.*
- Public Law 102-402
- 1992 (Oct.) *Rocky Mountain Arsenal National Wildlife Refuge Act of 1992.*
- PWT (Pacific Western Technologies, Ltd.)
- 2006 (Mar.) *Rocky Mountain Arsenal Trust Fund Work Group Summary of Work.*
- RVO (Remediation Venture Office)
- 2010a (Nov.) *Land Use Control Plan. Draft.*
- 2010b (Sept. 21) *RMA Incident and Emergency Management Policy and Contingency Plan. Revision 0.*
- 2008 (June) *Surface Water Quality Monitoring Report for the Rocky Mountain Arsenal. Draft Final.*
- 2007a (Mar. 1) *Contingent Soil Volume Procedure. (RVO SOP: RVOP.009.P-Revision 3).*
- 2007b (Mar.) *Contingent Soil Volume Procedure Sampling and Analysis Plan. Revision 3.*

- 2006a (Mar.) *Existing (Sanitary) Landfill Remediation Section 1 Construction Completion Report Addendum 1. Revision 1.*
- 2006b (Mar.) *Miscellaneous Northern Tier Soil Remediation Project Construction Completion Report Addendum 1. Revision 1.*
- 2006c (Mar.) *Miscellaneous Southern Tier Soil Remediation Project Construction Completion Report Addendum 1. Revision 1.*
- 2006d (Feb.) *Section 26 Human Health Exceedance and Biota Exceedance Soils Removal Project Construction Completion Report Addendum 1. Revision 1.*
- 2004 (Aug.) *Biota Barrier Material Issues Resolution Agreement.*
- 2003a *Surface Water Quality Monitoring Report for the Rocky Mountain Arsenal.*
- 2003b (Jan. 14) *Administrative Area Asbestos Remediation Projects Final Construction Completion Report. Revision 4.*
- 2002 (Sept. 24) *Complex Army Trenches Groundwater Barrier Project, Groundwater Barrier/ Groundwater Extraction System Operational and Functional Report, Final.*
- 2001a (Nov. 1) *Explanation of Significant Differences for Endrin Containment System Remediation Goal in On- and Off-Post Records of Decision for Rocky Mountain Arsenal Federal Facility Site.*
- 2001b (Apr. 23) *Documentation of "Non-Significant or Minor" Record of Decision (ROD) Change at Rocky Mountain Arsenal (RMA) of the CSRGs for the NWBCS.*
- 2000 (Dec.) *Biota Barrier Material Issues Resolution Agreement.*
- 1998a (Sept. 30) *Corrective Action Management Unit (CAMU) Soil Remediation Construction Completion Report. Final.*
- 1998b (Aug. 17) *CAMU/Basin A Well Abandonment Project Construction Completion Report.*
- 1998c (Aug. 3) *Sanitary and Chemical Sewer Plugging Project Construction Completion Report.*
- 1998d (July 1) *Agreement Summary on Comparative Analysis and Field Demonstration Design Scope of Work for the Rocky Mountain Arsenal Resource Conservation and Recovery Act (RCRA)-Equivalent Cover Demonstration Project.*

- 1998e (July) *Final RCRA-Equivalent Cover Demonstration Project Comparative Analysis and Field Demonstration Design Scope of Work.*
- 1997 (Aug.) *Final Inspection/Implementation Report for the Off-Post Tillage Task Rocky Mountain Arsenal.*

SC&A (Sanford Cohen & Associates)

- 1998 (Dec. 30) *Final Report, Geophysical Screening Activities and Results.*

TtEC (Tetra Tech EC Inc.)

- 2011a (July 29) *Basin F Post-Closure Plan. Revision F.*
- 2011b (June 3) *Miscellaneous RMA Structure Demolition and Removal Project – Phase IV and SQI Extension Sanitary Sewer Manhole Plugging Construction Completion Report. Revision 0.*
- 2011c (Mar.) *Chemical Warfare Material Response After-Action Report. Revision 0.*
- 2011d (Mar. 16) *Hazardous Waste Landfill Post-Closure Plan. Revision 3.*
- 2011e (Feb. 17) *Landfill Wastewater Treatment System (LWTS) Closure Project Construction Completion Report. Revision B.*
- 2010a (Dec. 31) *Explanation of Significant Differences for Basin F/Basin F Exterior Remediation Project. Revision 0.*
- 2010b (Dec. 2) *Enhanced Hazardous Waste Landfill Final Cap Construction Project Construction Completion Report. Revision 0.*
- 2010c (Oct. 27) *Site-Wide PM-10 Monitoring Program Addendum to the Air Monitoring Completion Report. Revision 0.*
- 2010d (Sept. 9) *Integrated Cover System Project (Basin A, Complex Army Trenches, Lime Basins, Shell Disposal Trenches, South Plants) Subgrade and Cover Construction, Construction Completion Report – Part 1. Revision 0.*
- 2010e (Aug. 19) *Basin F/Basin F Exterior Remediation Project Part 2 (Basin F Cover Project) Construction Completion Report. Revision 0.*
- 2010f (Aug. 18) *Section 36 Lime Basins Soil Remediation Project Slurry/Barrier Wall Construction, Construction Completion Report. Revision 0.*
- 2010g (Aug.) *Final Borrow Areas and Residual Ecological Risk Soil Update. Revision 0.*
- 2010h (June 3) *Hazardous Waste Landfill Final Cap Construction Project Construction Completion Report. Revision 0.*



- 2010i (June 24) *Munitions Response After-Action Report*. Revision 0.
- 2010j (May 20) *Enhanced Hazardous Waste Landfill Post-Closure Plan*. Revision 0.
- 2010k (May) *Response Plan for Recovered Material Potentially Presenting an Explosive Hazard (MPPEH)*. Revision 0.
- 2010l (May) *2010 Vegetation Management Plan*. Revision 0.
- 2009a (Nov. 20) *Section 36 Balance of Areas Soil Remediation Project – Part 2 Construction Completion Report*. Revision 0.
- 2009b (Nov. 19) *Air Monitoring Completion Report, Final*. Revision 0.
- 2009c (Nov. 5) *Miscellaneous RMA Structure Demolition and Removal Project – Phase III Construction Completion Report*. Revision 0.
- 2009d (Nov. 5) *South Plants Balance of Areas and Central Processing Area Soil Remediation Project – Phase 2, Part 1 and Part 2 Construction Completion Report*. Revision 1.
- 2009e (Sept. 10) *Explanation of Significant Differences for Section 36 Balance of Areas Soil Remediation Project*. Revision 0.
- 2009f (July 22) *Basin A Consolidation and Remediation Project Construction Completion Report*. Revision 0.
- 2009g (July) *Site-Wide Traffic Management FY 2010 Site-Wide Traffic Management Plan*. Revision 14.
- 2009h (June) *Residual Ecological Risk Soil Remediation – Part 2 Construction Completion Report*. Revision 0.
- 2009i (June 2) *2009 Vegetation Management Plan*. Revision 0.
- 2009j (May 7) *Secondary Basins Soil Remediation Project NCSA-2d (Basin B Drainage Ditch) Contingent Soil Volume (CSV) Construction Completion Report*. Revision 0.
- 2009k (May) *Borrow Areas and Residual Ecological Risk Soil Tracking Plan 2009 Update*. Revision 0.
- 2009l (Apr. 30) *Odor Monitoring Completion Report, Final*. Revision 0.
- 2009m (Apr. 27) *Site-Wide Traffic Management Road and Laydown Area Removal Plan*. Revision 0.
- 2009n (Apr. 14) *Explanation of Significant Differences for the Basin F Wastepile Remediation Project*. Revision 0.

- 2009o (Apr. 6) *Munitions (Testing) Soils Remediation Project Construction Completion Report Part IV. Revision 2.*
- 2009p (Mar. 31) *Enhanced Hazardous Waste Landfill and Facilities Operations Project Construction Completion Report. Revision 0.*
- 2009q (Mar. 12) *Basin F Principal Threat Soil Remediation Project & Basin F Wastepile Drying Facility Demolition Construction Completion Report. Revision 0.*
- 2009r (Feb. 13) *Section 36 Balance of Areas Soil Remediation Project – Part 1 Construction Completion Report. Revision 0.*
- 2009s (Jan. 6) *Explanation of Significant Differences for Basin F/Basin F Exterior Remediation Project – Part 2 (Basin f Cover) and Chemical Sewer Remediation. Revision 0.*
- 2008a (Dec. 10) *Sanitary Sewer Manhole Plugging Project – Phase II Final Construction Completion Report. Revision 0.*
- 2008b (Dec. 10) *Explanation of Significant Differences for North Plants Soil Remediation Project. Revision 0.*
- 2008c (Nov. 19) *Shell Disposal Trenches Remediation Project RCRA-Equivalent Cover Subgrade Construction, RCRA-Equivalent Cover Soil Stockpiling, and RCRA-Equivalent Cover Construction, Construction Completion Report. Revision 0.*
- 2008d (Nov. 3) *Explanation of Significant Differences for Munitions (Testing) Soil Remediation Project. Revision 0.*
- 2008e (Oct. 28) *Basin F/Basin F Exterior Remediation Project – Part 1 Phase 2 Construction Completion Report. Revision 0.*
- 2008f (Sept. 9) *RCRA-Equivalent, 2-, and 3-Foot Covers Long-Term Care Plan. Revision 1.*
- 2008g (Aug. 19) *Explanation of Significant Differences for Off-Site Waste Disposal and Cost Increases for On-Site Disposal Facilities Projects. Revision 0.*
- 2008h (Aug.) *Site-Wide Traffic Management FY 2009 Site-Wide Traffic Management Plan. Revision 13.*
- 2008i (June 11) *Sand Creek Lateral: Miscellaneous Southern Tier Soil Remediation Project and Section 35 Soil Remediation Project Construction Completion Report. Revision 0.*



- 2008j (May 20) *Basin F Wastepile Remediation Project Construction Completion Report. Revision 0.*
- 2008k (Apr. 14) *Minor Change to the On-Post Record of Decision for Soil Covers, Rocky Mountain Arsenal, Fact Sheet.*
- 2008l (Apr. 9) *Explanation of Significant Differences for the Sand Creek Lateral and Other Ditches Remediation, Miscellaneous Southern Tier Soil Remediation Project and Section 35 Soil Remediation Project. Revision 0.*
- 2008m (Apr. 9) *Munitions (Testing) Soil Remediation Project Construction Completion Report Part II. Revision 1.*
- 2008n (Apr. 30) *2008 Vegetation Management Plan. Revision 0.*
- 2008o (Mar. 18) *Data Summary Report for Confirmatory Soil Samples for Haul Roads, Basin D and E Berms, and SAR Sites NCSA-2d and SPSA-9a. Revision 0.*
- 2008p (Mar. 10) *Munitions (Testing) Soils Remediation Project Construction Completion Report Part III. Revision 1.*
- 2008q (Mar.) *Borrow Areas and Residual Ecological Risk Soil Tracking Plan 2008 Update. Revision 0.*
- 2008r (Feb. 12) *Complex (Army) Disposal Trenches Remediation Project Subgrade Construction, Construction Completion Report. Revision 0.*
- 2007a (Dec. 21) *North Plants Soil Remediation Project Interim Free Product and Groundwater Characterization Data Summary Report. Revision 0.*
- 2007b (Nov. 13) *Hazardous Waste Landfill and Facilities Operations Project Construction Completion Report. Revision 1.*
- 2007c (July) *Site-Wide Traffic Management FY 2008 Site-Wide Traffic Management Plan. Revision 12.*
- 2007d (June) *Borrow Areas and Residual Ecological Risk Soil Tracking Plan 2007 Update. Revision 0.*
- 2007e (June 25) *2007 Vegetation Management Plan. Revision 1.*
- 2006a (Nov.) *Site-Wide Traffic Management Plan Fiscal Year 2007 Annual Update. Revision 10a.*
- 2006b (Oct. 31) *Enhanced Hazardous Waste Landfill Liner Construction Project Construction Completion Report. Revision 0.*

- 2006c (May 5) *Explanation of Significant Differences for the Shell Disposal Trenches Remediation Project. Revision 0.*
- 2006d (May 1) *2006 Vegetation Management Plan. Revision 0.*
- 2006e (Mar. 31) *Explanation of Significant Differences for Groundwater Remediation and Revegetation Requirements. Revision 0.*
- 2006f (Mar. 13) *Residual Ecological Risk Soil Remediation Construction Completion Report. Revision 0.*
- 2006g (Mar. 9) *Miscellaneous RMA Structure Demolition and Removal Project – Phase II Construction Completion Report. Revision 1.*
- 2006h (Feb.) *Haul Road Operations Plan Fiscal Year 2006 Annual Update. Revision 10.*
- 2005a (Nov. 1) *Basin F/Basin F Exterior Remediation Project – Part I Final Construction Completion Report. Revision 0.*
- 2005b (Oct. 31) *Amendment to the Record of Decision for the On-Post Operable Unit, Rocky Mountain Arsenal Federal Facility Site, Section 36 Lime Basins Remediation, Basin F Principal Threat Soil Remediation. Revision 0.*
- 2005c (July 28) *Section 30 Existing (Sanitary) Landfills Remediation Project Construction Completion Report. Revision 1.*
- 2005d (May 9) *Explanation of Significant Differences for Existing (Sanitary) Landfills Soil Remediation Project. Revision 0.*
- 2005e (Apr.) *Borrow Areas and Residual Ecological Risk Soil Tracking Plan 2005 Update. Revision 0.*
- 2005f (Apr.) *Former Stapleton and Denver International Airport Recycled Concrete Biota Barrier Material Production Report for FY02. Revision 0.*

TtEC and URS (Tetra Tech EC, Inc. and URS Corporation)

- 2011 (June 20) *Lime Basins Dense Non-Aqueous Liquid (DNAPL) Feasibility Study (FS) Report. Final. Revision 1.*
- 2010a (Sept. 21) *Lime Basins Dense Non-Aqueous Liquid (DNAPL) Remedial Investigation Summary Report. Final.*
- 2010b (Mar. 29) *Lime Basins Dense Non-Aqueous Liquid (DNAPL) Remedial Investigation/Feasibility Study (RI/FS) Work Plan. Final.*
- 2010c (Mar. 3) *Rocky Mountain Arsenal Long-Term Monitoring Plan for Groundwater and Surface Water, Final.*



TtFW (Tetra Tech FW Inc.)

- 2005a (Apr. 15) *2005 Vegetation Management Plan*. Revision 0.
- 2005b (Jan. 20) *2005 Work Plan Installation and Operation of Irrigation Systems*. Revision 0.
- 2004a (Dec. 3) *North Plants Soil Remediation Project Petroleum Release Evaluation Report*. Revision 0.
- 2004b (Dec.) *Haul Road Operations Plan Fiscal Year 2005 Annual Update*. Revision 9.
- 2004c (Nov. 23) *Well Networks Update For Retention and Closure, Water Year 2004*.
- 2004d (Nov.) *Stapleton International Airport Recycled Concrete Biota Barrier Material Production Report for FY04*. Revision 0.
- 2004e (Oct.) *Water Supply Well Design Support Pumping Test Report*. Revision 0.
- 2004f (Sept. 28) *North Plant Structure Demolition and Removal Remediation Project and Destruction of Equipment in the GB Production Fill Facilities Project Construction Completion Report*. Revision 1.
- 2004g (Sept. 27) *Burial Trenches Soil Remediation Project Final Construction Completion Report Part II*. Revision 0.
- 2004h (Sept. 24) *Explanation of Significant Differences for North Plants Structure Demolition and Removal Project*. Revision 0.
- 2004i (Aug.) *Borrow Areas and Residual Ecological Risk Soil Tracking Plan 2004 Update*. Revision 1.
- 2004j (June 29) *North Plants Soil Remediation Project Petroleum-Impacted/Stained Soils Final Data Summary Report*. Revision 0.
- 2004k (June 9) *Explanation of Significant Differences for Burial Trenches Soil Remediation Project*. Revision 0.
- 2004l (June 8) *Hex Pit Soil Remediation Project [Redesign] Construction Completion Report*. Revision 0.
- 2004m (May 13) *Secondary Basins Soil Remediation Project Construction Completion Report*. Revision 1.
- 2004n (Apr. 13) *Section 35 Soil Remediation Project Construction Completion Report*. Revision 1.

- 2004o (Apr. 9) *Section 36 Existing (Sanitary) Landfills Remediation Project Construction Completion Report. Revision 0.*
- 2004p (Mar. 26) *Munitions (Testing) Soil Remediation Project Construction Completion Report. Revision 5.*
- 2004q (Mar.) *Haul Road Removal Plan. Revision 0.*
- 2004r (Mar. 3) *2004 Vegetation Management Plan. Revision 0.*
- 2004s (Feb.) *Stapleton International Airport Recycled Concrete Biota Barrier Material Production Report for FY03. Revision 0.*
- 2004t (Jan.) *Haul Road Operations Plan Fiscal Year 2004 Annual Update. Revision 8.*
- 2004u (Jan.) *2004 Work Plan Installation and Operation of Irrigation Systems. Revision 0.*

TVA (Tennessee Valley Authority)

- 1998 (May) *Final Report for the Sampling, Decontamination, and Dismantling Operations of the Buildings in the North and South Plants at Rocky Mountain Arsenal.*

URS (URS Corporation)

- 2011a (Sept.) *Rocky Mountain Arsenal Motor Pool Extraction Component of the Irondale Containment System Shut-Off Monitoring Completion Report.*
- 2011b (Apr.) *North Plants Pilot Light Non-Aqueous Phase Liquid Removal Action Evaluation Report. Final.*
- 2011c (Feb. 24) *Groundwater Mass Removal Project Construction Completion Report. Revision C.*
- 2010 (Feb.) *Groundwater Sampling Procedure. Revision 4.1.*

URS and TetEC (URS Washington Division and Tetra Tech EC, Inc.)

- 2009 (Feb. 13) *North Plants Pilot Light Non-Aqueous Phase Liquid Removal System Action Plan for Rocky Mountain Arsenal. Revision 1.*

USFWS (U.S. Fish and Wildlife Service)

- 2010a (Oct.) *Rocky Mountain Arsenal 2009 Annual Biomonitoring Report. Final.*
- 2010b (Feb.) *Rocky Mountain Arsenal 2007 and 2008 Annual Biomonitoring Report. Final.*
- 2010c (Jan. 28) *Letter from Bruce Hastings to Laura Williams Regarding Rocky Mountain Arsenal Status of Revegetation Acceptance.*

- 1999 (Aug.) *Habitat Restoration Plan for Rocky Mountain Arsenal National Wildlife Refuge.*
- USGS (U.S. Geological Survey Water Resources Division Colorado District RMA Office)
- 2004 (Mar.) *Final South Lakes Groundwater Monitoring Report, June 1, 2001 – May 31, 2003.*
- 2001 (May) *Rocky Mountain Arsenal South Lakes Sampling and Analysis Plan for Groundwater.*
- WGI (Washington Group International, Inc.)
- 2008a (May 15) *Landfill Wastewater Treatment System Modification Construction Completion Report. Revision 1.*
- 2008b (Mar. 2) *Section 36 Bedrock Ridge Groundwater Plume Extraction System Construction Completion Report. Revision 6.*
- 2006 (Mar. 2) *Explanation of Significant Differences for the Section 36 Bedrock Ridge Groundwater Plume Extraction System. Revision 1.*
- 2005 (Sept. 21) *Termination of Operations at the Groundwater Intercept and Treatment System North of Basin F Well Construction Completion Report. Final.*
- 2003 (Apr. 8) *Irondale Containment System, Shut-Down for the Irondale Extraction System, Final Construction Completion Report. Revision 0.*
- 2001 (Nov.) *Rocky Mountain Arsenal RCRA-Equivalent Cover Demonstration Project, Final Project Report. Draft.*
- 2000 (Sept. 8) *Interior Building Chemical Related Activities for South Plants Construction Completion Report. Revision 1.*

## TABLES

**Table 2.0-1 Summary of Interim Response Actions**

Interim Response Action	Objective	Status	IRA Completion Report	Approval Date
1. Groundwater Intercept and Treatment System North of Rocky Mountain Arsenal	Capture and treat contaminated groundwater plumes north of RMA.	Construction completed 1993; treatment is ongoing as part of ROD implementation.	EPA & Army 2000k	October 19, 2000
2. Improvement of the North Boundary System and Evaluation of all Existing Boundary Systems: a. North Boundary System b. Northwest Boundary Containment System c. Irondale Containment System	Evaluate and improve, as necessary, the operation of the boundary containment and treatment systems.	North Boundary System construction completed 1990; Northwest Boundary Containment System and Irondale Containment System construction completed 1993; treatment/monitoring ongoing as part of ROD implementation.	a. EPA & Army 2000a b. EPA & Army 2000b c. EPA & Army 1997a	a. October 19, 2000 b. October 19, 2000 c. October 19, 2000
3. Groundwater Intercept and Treatment System North of Basin F	Capture and treat contaminated groundwater north of the Basin F area closer to its source.	Construction completed 1990; treatment completed as part of ROD implementation (WGI 2005).	EPA & Army 2000g	October 19, 2000
4. Closure of Abandoned Wells at Rocky Mountain Arsenal	Identify, locate, examine, and properly close old or unused wells at RMA to prevent vertical migration of contamination between aquifers.	Completed 1991.	EPA & Army 2000v	August 23, 2000
5. Groundwater Intercept and Treatment System in the Basin A Neck Area	Capture and treat shallow contaminated groundwater from Basin A closer to the source area.	Construction completed 1990; treatment is ongoing as part of ROD implementation.	EPA & Army 2000f	October 19, 2000
6. Basin F Liquids, Sludges, and Soils Remediation a. Element 1, Basin F Wastepile b. Element 2, Basin F Liquid	Construct wastepile and cap to minimize the potential for infiltration of contaminants to groundwater and the potential for volatile emissions; reduce the potential impact of Basin F on wildlife; incinerate Basin F liquids; close Submerged Quench Incinerator system.	Containment of sludges/soil completed in 1989; incineration of liquids completed 1995; Submerged Quench Incinerator closed 1996. Wastepile removed as part of ROD implementation (TtEC 2008j).	a. EPA & Army 2000c b. EPA & Army 2000d	a. October 19, 2000 b. October 19, 2000
7. Building 1727 Sump Liquid	Treat contaminated liquid in the sump.	Completed 1990.	EPA & Army 2000p	August 23, 2000

**Table 2.0-1 Summary of Interim Response Actions**

Interim Response Action	Objective	Status	IRA Completion Report	Approval Date
8. Closure of the Hydrazine Facility	Treat decontamination rinseate stored at this facility; demolish and dispose of the aboveground structures.	Completed 1992.	EPA & Army 2000e	October 19, 2000
9. Fugitive Dust Control	Minimize the amount of windblown contaminated dust.	Application completed 1988; reapplications completed in 1991 and 1993.	EPA & Army 2000o	August 23, 2000
10. Sanitary Sewers Remediation	Plug the RMA sanitary sewers to eliminate the transport of contaminated groundwater.	Completed 1992.	EPA & Army 1998	October 19, 2000
11. Asbestos Remediation	Remove and dispose of friable asbestos in RMA structures where any potential for human exposure exists.	Interim actions conducted through 1998. Remaining actions completed as part of ROD implementation.	EPA & Army 2000n	September 29, 2000
12. Remediation of Other Contamination Sources: a. Motor Pool Area b. Rail Classification Yard c. Lime Settling Basins d. South Tank Farm Plume e. Army (Complex) Disposal Trenches f. Shell Section 36 Trenches g. M-1 Settling Basins	Minimize or eliminate releases from selected contamination sources.	Motor Pool treatment/monitoring continued as part of ROD implementation; Rail Classification Yard extraction system is ongoing as part of ROD implementation; Lime Settling Basins completed in 1993; South Tank Farm Plume completed in 1994; Army Trenches completed in 1994 with groundwater monitoring continuing as part of ROD implementation; Shell Trenches completed in 1991; M-1 Basins action terminated in 1993.	a. EPA & Army 1997c b. EPA & Army 1997b c. EPA & Army 2000r d. EPA & Army 2000m e. EPA & Army 2000i f. EPA & Army 2000h g. EPA & Army 2000j	a. October 19, 2000 b. October 19, 2000 c. August 23, 2000 d. October 19, 2000 e. October 19, 2000 f. October 19, 2000 g. October 19, 2000

**Table 2.0-1 Summary of Interim Response Actions**

Interim Response Action	Objective	Status	IRA Completion Report	Approval Date
13. CERCLA Liquid Wastes: a. Wastewater Treatment System b. Waste Management c. Polychlorinated Biphenyls (PCB) d. Waste Storage	Construct and operate a facility to treat wastewater resulting from response actions; identify disposal options for hazardous wastes; inventory, sample, and remediate PCB-contaminated structures and soil; analyze temporary management of bulk hazardous wastes.	Construction of treatment plant completed in 1992; liquid treatment and waste management completed; PCB interim actions completed in 1996, remaining actions completed as part of ROD implementation ; waste storage analysis completed; treatment plant demolished in 2010.	a. EPA & Army 2000s b. EPA & Army 2000t c. EPA & Army 2000l d. EPA & Army 2000u	a. August 23, 2000 b. August 23, 2000 c. October 19, 2000 d. August 23, 2000
14. Chemical Process-Related Activities: Agent Equipment and Tanks Nonagent Equipment and Tanks Underground Storage Tanks	Remove and dispose of contaminated process related equipment from manufacturing areas.	Underground Storage Tanks completed in 1996.  Phase I Chemical Process Equipment Removal (Exterior) completed Jan 98.  Remaining actions completed as part of ROD implementation.	EPA & Army 2000q WGI 2000	August 23, 2000
Other Response Actions: 1. Klein Water Treatment Plant 2. Deep Disposal Well Closure	1. Construct and operate a facility to treat chlorinated solvent contaminated groundwater extracted by South Adams County Water and Sanitation District wells west of RMA.  2. Properly seal and abandon deep injection well adjacent to Basin F.	1. Construction of treatment plant completed 1989; became part of the Chemical Sales Company Superfund Site.  2. Completed in 1985.	1. EPA & Army 1999b 2. EPA & Army 1999a	1. October 19, 2000 2. October 19, 2000

**Table 3.0-1 Work Breakdown Structure**

<b>WBS</b>	<b>Description</b>
1	Pre-ROD Activities
2	On-Post OU
2.01	Disposal Facilities – Basin A/Landfills
2.01.01	Construct Hazardous Waste Landfill
2.01.02	Construction of Enhanced Hazardous Waste Landfill
2.01.03	Basin A Consolidation and Remediation
2.02	Early Start Projects
2.02.04	Sanitary Sewer Manhole Plugging – Phase I
2.02.05	Chemical Sewer Plugging (South Plants Central Processing Area and Complex Army Trenches)
2.02.06	Shell/Complex (Army) Disposal Trenches Slurry Walls
2.02.07	Post-ROD Removal Actions for Structures
2.03	Phase I – Outlying Areas
2.03.08	Toxic Storage Yards Soil Remediation
2.03.09	Existing (Sanitary) Landfills Remediation
2.03.10	Lake Sediments Remediation
2.03.11	Burial Trenches Soil Remediation
2.03.12	Munitions (Testing) Soil Remediation
2.03.13	Miscellaneous Northern Tier Soil Remediation
2.03.14	Miscellaneous Southern Tier Soil Remediation
2.03.15	Section 36 Bedrock Ridge Groundwater Barrier Plume Extraction System
2.03.16	South Plants Structure Demolition and Removal
2.03.17	Miscellaneous RMA Structure Demolition and Removal
2.04	Phase II – South Plants Area
2.04.18	Buried M-1 Pits Soil Remediation
2.04.19	Hex Pit Soil Remediation
2.04.20	South Plants Balance of Areas and Central Processing Area Soil Remediation – Phase II
2.04.21	South Plants Balance of Areas and Central Processing Area Soil Remediation – Phase I
2.05	Phase III – Sections 35 and 36 Sites
2.05.22	Sanitary Sewer Manhole Plugging – Phase II
2.05.23	Section 36 Balance of Areas Soil Remediation
2.05.24	Secondary Basins Soil Remediation
2.05.25	Complex (Army) Disposal Trenches Remediation – Cover
2.05.26	Shell Disposal Trenches Remediation – Cover
2.05.27	North Plants Soil Remediation - Cover
2.05.28	Section 35 Soil Remediation
2.05.29	North Plants Structure Demolition and Removal
2.06	Phase IV – Basin F/Lime Basins
2.06.30	Basin F Wastepile Remediation
2.06.31	Former Basin F Principal Threat Soil Remediation



**Table 3.0-1 Work Breakdown Structure**

<b>WBS</b>	<b>Description</b>
2.06.32	Basin F and Basin F Exterior Remediation
2.06.33	Section 36 Lime Basins Soil Remediation
2.07	Site-Wide Programs
2.07.34	RCRA-Equivalent Cover Demonstration Project
2.07.35	Borrow Areas
2.07.36	Structural Agent Treatment Facility
2.07.37	Soil Agent Treatment Facility
2.07.38	Site-Wide Biota Monitoring – Biological Advisory Committee
2.07.39	Site-Wide Air Monitoring – Air Pathway Analysis
2.07.40	Contingent Soil Volume
2.07.41	Site-Wide Plume Monitoring
2.07.42	Confined Flow System Monitoring
2.07.43	Medical Monitoring Program
2.07.63	Site-Wide Traffic Management (Haul Roads)
2.07.64	Site-Wide Geophysical Investigation
2.07.65	Unexploded Ordnance Disposal
2.07.66	Biota Barrier Material
2.07.67	Permanent Revegetation/Irrigation
2.07.68	Drummed Waste Handling (Plan Development Only)
2.07.69	Well Abandonment/Retention Program
2.08	Water Treatment/Monitoring
2.08.44	SACWSD Water Supply/Henderson Distribution Line and Hook-ups
2.08.45	On-Post Water Supply
2.08.46	Confined Flow System Well Closures
2.08.47	Irondale Containment System
2.08.48	Basin A Neck System
2.08.49	CERCLA Wastewater Treatment Facility
2.08.50	Northwest Boundary Containment System
2.08.51	North Boundary Containment System
2.08.52	South Lakes Plume Management
2.08.77	Groundwater Mass Removal
2.08.78	North Plants LNAPL Recovery
2.08.79	Lime Basins DNAPL Investigation
2.09	Remediation Venture Office
2.09.54	Program Management
2.09.55	Remedy Support and Operations
2.09.56	Remedy Execution
2.09.57	USFWS
2.09.58	Program Controls
2.09.59	Public Outreach

**Table 3.0-1 Work Breakdown Structure**

<b>WBS</b>	<b>Description</b>
2.09.72	CERCLA 5-Year Review Report
2.10	Program Management
2.10.54	Program Management
2.10.55	Remedy Support and Operations
2.10.56	Remedy Execution
2.10.57	USFWS
2.10.58	Program Controls
2.10	Closeout Reporting
2.12.70	RMA Remedial Action Summary Report
3	Off-Post OU
3.11.60	Off-Post Surficial Soil
3.11.61	Off-Post Water Treatment Facility
3.11.62	Off-Post Well Closures
4	Long-Term Operations
4.01	Caps and Covers
4.01.01	Hazardous Waste Landfill
4.01.02	Enhanced Hazardous Waste Landfill
4.01.03	Integrated Cover System
4.01.04	Basin F Cover
4.02	Water Treatment Systems
4.02.05	North Boundary System
4.02.06	Northwest Boundary System
4.02.07	Basin A Neck System
4.02.08	Rail Yard
4.02.09	Off-Post Water Treatment Facility
4.03	Site-Wide Programs
4.03.10	Site-Wide Plume Monitoring
4.03.11	Medical Monitoring Program
4.03.12	Well Abandonment/Maintenance
4.03.13	Analytical Coordination
4.03.14	Five-Year Reviews/Closeout Reports
4.03.15	Land Use Control Monitoring/Reporting
4.03.16	RMA Facility Operations and Maintenance
4.03.17	RMA Facility Operations - IJOs
4.03.18	Operations Waste Management
4.04	O&M Program Management
4.04.19	Regulatory Oversight
4.04.20	Data Management/Information systems
4.04.21	Remedy Operations Oversight
4.04.22	Utilities

**Table 3.0-1 Work Breakdown Structure**

<b>WBS</b>	<b>Description</b>
4.04.23	Land Transfers
4.04.24	Operations and Maintenance Contractor Management
4.04.25	USFWS Support
4.04.26	Program Controls
4.04.27	Health and Safety
4.04.28	Security
4.04.29	Public Outreach
4.04.30	Contracting
4.04.31	Compliance/Quality Assurance
4.04.32	Central Repository/Business Management
4.04.33	Legal Office
4.04.34	Program Manager

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.01.01	Hazardous Waste Landfill	NA	Construct a RCRA- and Toxic Substances Control Act-compliant hazardous waste landfill on post.	TtEC 2008g	FWENC 2000g FWENC 2000h FWENC 2001i TtEC 2007b TtEC 2010h TtEC 2011e, draft	Yes
	NCSA-4b P1 Soil: Borrow 5 P1 Soil: Borrow 7a P1 Soil: Corrective Active Management Unit	Surficial Soil Residual Ecological Risk (RER) Soil RER Soil RER Soil	Excavate and landfill Human Health Exceedance (HHE) soil. Excavate biota risk soil and consolidate beneath Basin A cover.		RVO 1998a RVO 1998b FWENC 2000e FWENC 2000f RVO 2006d	No
2.01.02	Enhanced Hazardous Waste Landfill	NA	Construct a triple-lined RCRA- and Toxic Substances Control Act -compliant hazardous waste landfill on post.	TtEC 2008g	TtEC 2006b WGI 2008a TtEC 2009p TtEC 2010b	Yes
2.01.03	Basin A Consolidation and Remediation NCSA-1a NCSA-1e NCSA-1c	Basin A Basin A Ditches/Drainage Areas	Consolidation of soil posing a potential risk to biota and structural debris from other sites. Construction of a RCRA-Equivalent cover including biota barrier over the principal threat and HHE soil and soil posing a potential risk to biota.	TtEC 2008k	RVO 1998a RVO 1998b TtEC 2009f TtEC 2010d <sup>1</sup>	Yes
2.02.04	Sanitary Sewer Plugging Phase I	Sanitary Sewers	Plug sanitary sewer manholes to prohibit access and eliminate the manholes as a potential migration pathway for contaminated groundwater. Post aboveground warning signs every 1,000 ft along the sewer lines to indicate their location underground.		RVO 1998c	Yes

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.02.05	Chemical Sewer Plugging CSA-3 SPSA-10	Chemical Sewers	Plug chemical sewer voids within South Plants Central Processing Area and Complex (Army) Trenches area. The plugged sewers are contained beneath the RCRA-equivalent cover in their respective site.		RVO 1998c	No
2.02.06	Complex (Army) Trenches and Shell Trenches Slurry Walls	Complex (Army) Trenches Shell Trenches	Install slurry wall into competent bedrock around the disposal trenches. Dewatering within the slurry wall to ensure containment.		FWENC 2001h FWENC 2001g RVO 2002	Yes
2.02.07	Post-ROD Removal Actions for Structures	Structures	Process-related equipment not remediated as part of the Chemical Process-Related Activities IRA will be disposed in the on-post hazardous waste landfill.		MKC 1998b WGI 2000 RVO 2003b	No
2.03.08	Toxic Storage Yards ESA-3a ESA-3b ESA-3g	Toxic Storage Yards	Excavate and landfill HHE soil. Perform agent screening during excavation.	FWENC 1999d	FWENC 2000n	No
2.03.09	Existing (Sanitary) Landfills CSA-1d CSA-2d ESA-2b P1 Soil: Borrow 7b P1 Soil: Section 1 SSA-4 WSA-2 WSA-3c WSA-5	Sanitary Landfills Munitions Testing Sanitary Landfills RER Soil RER Soil Sanitary Landfills Sanitary Landfills Sanitary Landfills Sanitary Landfills	Excavate and landfill HHE soil. Excavate landfill debris and biota risk soil and consolidate beneath Basin A cover.	TtEC 2005d	FWENC 2000i FWENC 2000k TtFW 2004o TtEC 2005c RVO 2006a	No

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.03.10	Lake Sediments SSA-1b SSA-1c	Lake Sediments	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.		FWENC 2000m	No
2.03.11	Burial Trenches ESA-2a ESA-2c	Burial Trenches	Locate UXO using geophysical survey; remove and detonate. Remove and landfill munitions debris. Excavate and landfill HHE soil. Perform agent screening during excavation of ESA-2c.	TtFW 2004k	FWENC 2002a TtFW 2004g	No
	BT4-01 BT4-02 BT4-03 BT4-04 BT4-05 BT4-06 BT4-07 BT4-08 BT4-09 BT4-10 BT4-11 BT4-12 BT4-13 BT4-14 BT4-15 BT6-01 BT6-02 BT9-01 BT20-1 BT29-01 BT29-02 BT30-01 BT32-01	NA				

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
	BT32-02 BT32-03 BT32-04 BT32-05 BT32-06 BT32-07 BT32-08 BT32-09 BT32-10 BT32-11 BA10					
2.03.12	Munitions Testing CSA-2c ESA-1a ESA-1b ESA-1c ESA-1d ESA-4a ESA-4b <hr/> BA10 BA9a P2 BT32-10 DREZ MT29-1	Munitions Testing           NA RER Soil NA NA NA	Locate UXO using geophysical survey; remove and detonate. Remove and landfill munitions debris.	TtEC 2008d	TtFW 2004p TtEC 2008m TtEC 2008p TtEC 2009o	No
2.03.13	Miscellaneous Northern Tier Soil NCSA-8b NPSA-4 Pistol Range	Sand Creek Lateral Sand Creek Lateral Surficial Soil	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.		FWENC 2002h RVO 2006b	No

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.03.14	Miscellaneous Southern Tier Soil Fisherman's Parking Lot Rifle Range SSA-1b SSA-2a SSA-2b SSA-2c SSA-3b WSA-1f WSA-6a	RER Soil Surficial Soil Lake Sediments Sand Creek Lateral Sand Creek Lateral Ditches/Drainage Areas Buried Sediments Sand Creek Lateral Sand Creek Lateral	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.	TtEC 2008i	FWENC 2000j RVO 2006c TtEC 2008i	Yes
2.03.15	Section 36 Bedrock Ridge Extraction System	Groundwater	Install extraction system and treat extracted groundwater at Basin A Neck System.	WGI 2006	WGI 2008b	Yes
2.03.16	South Plants Structure Demolition and Removal	Agent History Significant Contamination History Other Contamination History	All No Future Use structures will be demolished. Agent History and Significant Contamination History Group structural debris will be disposed in the on-site hazardous waste landfill. Other Contamination History Group structural debris will be used as grade fill in Basin A.		FWENC 2000d FWENC 2002g TtEC 2009d	No
2.03.17	Miscellaneous RMA Structures	Agent History Significant Contamination History Other Contamination History	All No Future Use structures will be demolished. Agent History and Significant Contamination History Group structural debris will be disposed in the on-site hazardous waste landfill. Other Contamination History Group structural debris will be used as grade fill in Basin A.		FWENC 2003a TtEC 2006g TtEC 2009c TtEC 2011b	No



Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU

WBS	WBS Description (Implementation Project [with SAR Site] or Program Element)	ROD Medium Group	ROD Requirement	ROD Change Documentation	Completion Documentation	Long- Term O&M
2.04.18	Buried M-1 Pits SPSA-1e	Lime Basins	Excavate Principal Threat (PT) and HHE soil, stabilize, and landfill. Perform treatability testing to determine the mixture of stabilization agents, verify the effectiveness of the treatment process, and establish operating parameters for the design of the full-scale operation. Perform agent screening during excavation.		FWENC 2002f	No
2.04.19	Hex Pit SPSA-1f	Disposal Trenches	Excavate and landfill PT and HHE soil.	FWENC 2003e	TtFW 2004l	No
2.04.20	South Plants Central Processing Area SPSA-1a SPSA-10 P1 Soil: Borrow 11	South Plants CPA Chemical Sewers RER Soil	Excavate principal threat and HHE soil to a depth of 5 ft and landfill. Perform agent screening during excavation. Foundations within human health soil areas are removed to a depth of 5 ft. Construct a RCRA-Equivalent cover including biota barrier over the remaining principal threat and HHE soil and soil posing a potential risk to biota. Soil posing a potential risk to biota from other portions of South Plants may be used as backfill and/or gradefill prior to placement of the soil cover.	FWENC 2000b TtEC 2008k	FWENC 2002c TtEC 2009d TtEC 2010d <sup>1</sup>	Yes
2.04.21	South Plants Balance of Areas SPSA-1d SPSA-2d SPSA-3a SPSA-4a SPSA-9a SPSA-10	South Plants Ditches      Chemical Sewers	Locate UXO using geophysical survey; remove and detonate. Excavate and landfill chemical sewer lines, principal threat and HHE soil, and polychlorinated biphenyl-contaminated soil. Perform agent screening during excavation. Remove and landfill munitions debris. Excavate biota risk soil	FWENC 2000b	FWENC 2002c TtEC 2009d TtEC 2010d <sup>1</sup>	Yes

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
	SPSA-12b SPSA-1c SPSA-1g SPSA-2a SPSA-2b SPSA-2c SPSA-2e SPSA-3b SPSA-3c SPSA-3d SPSA-3e SPSA-4b SPSA-5b SPSA-6 SPSA-7c SPSA-8a SPSA-8b SPSA-9b	South Plants BOA	and consolidate under the South Plants Central Processing Area cover or use as backfill for excavated areas. Construct a 3-ft-thick soil cover over the former HHE areas. Sample former biota risk soil areas to verify contaminant of concern concentrations do not exceed site evaluation criteria. Backfill former biota risk soil areas with minimum 1-ft-thick clean soil.			
2.05.22	Sanitary Sewer Plugging Phase II	Sanitary Sewers	Plug sanitary sewer manholes to prohibit access and eliminate the manholes as a potential migration pathway for contaminated groundwater. Post aboveground warning signs every 1,000 ft along the sewer lines to indicate their location underground.		TtEC 2008a TtEC 2011b	Yes
2.05.23	Section 36 Balance of Areas CSA-1b CSA-1d CSA-2a	Section 36 BOA Ditches/Drainage Areas Section 36 BOA	Locate UXO using geophysical survey; remove and detonate. Remove and landfill munitions debris. Excavate and landfill chemical sewer lines and HHE soil.	FWENC 2003d TtEC 2009e	TtEC 2009r TtEC 2009a	Yes

Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU

WBS	WBS Description (Implementation Project [with SAR Site] or Program Element)	ROD Medium Group	ROD Requirement	ROD Change Documentation	Completion Documentation	Long- Term O&M
	CSA-2b CSA-3 CSA-4 NCSA-1b NCSA-1c NCSA-1d NCSA-1f NCSA-1g NCSA-6a NCSA-6b P1 Soil: Surface Soil	Ditches/Drainage Areas Chemical Sewers Section 36 BOA Lime Basins Ditches/Drainage Areas Ditches/Drainage Areas Ditches/Drainage Areas Section 36 BOA Chemical Sewers Chemical Sewers RER Soil Surficial Soil	Perform agent screening during excavation. Excavate biota risk soil and consolidate beneath Basin A cover.			
2.05.24	Secondary Basins NCSA-2a NCSA-2b NCSA-2d NCSA-4b P1 Soil: Surface Soil	Secondary Basins Secondary Basins Sand Creek Lateral Surficial Soil RER Soil Surficial Soil	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.	FWENC 2002j	TtFW 2004m TtEC 2009j	No
2.05.25	Complex (Army) Disposal Trenches CSA-1c	Disposal Trenches	Construct a RCRA-equivalent cover including biota barrier over the entire site.	TtEC 2008k	TtEC 2008r TtEC 2010d <sup>1</sup>	Yes
2.05.26	Shell Disposal Trenches CSA-1a	Disposal Trenches	Modify the existing soil cover to be a RCRA-equivalent cover including a biota barrier. Construct a 2-ft-thick soil cover over impacted soil areas adjacent to the Shell Disposal Trenches.	TtEC 2006c	TtEC 2008c <sup>1</sup> TtEC 2010d <sup>1</sup>	Yes

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.05.27	North Plant Soil NPSA-1 NPSA-3 NPSA-5 NPSA-6 NPSA-8c NPSA-9f	Chemical Sewers North Plants Soil North Plants Soil North Plants Soil Ditches/Drainage Areas Ditches/Drainage Areas	Excavate and landfill chemical sewer lines and HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.	TtEC 2008b	TtFW 2004f	No
2.05.28	Section 35 Soil NCSA-1c NCSA-5a NCSA-5b NCSA-5c NCSA-5d NCSA-6a P1 Soil: Surface Soil	Ditches/Drainage Areas Secondary Basins Sand Creek Lateral Sand Creek Lateral Ditches/Drainage Areas Chemical Sewers RER Soil Surficial Soil	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover.	FWENC 2000a FWENC 2002j TtEC 2008l	TtFW 2004n TtEC 2008i	No
2.05.29	North Plant Structures Demolition and Removal	Agent History Other Contamination History	All No Future Use structures will be demolished. Agent History and Significant Contamination History Group structural debris will be disposed in the on-site hazardous waste landfill. Other Contamination History Group structural debris will be used as grade fill in Basin A.	TtFW 2004h	TtFW 2004f	No
2.06.30	Basin F Wastepile	Basin F Wastepile	Excavate wastepile PT soil and liner materials and dispose in triple-lined landfill.	TtEC 2009n	TtEC 2008j	No
2.06.31	Basin F Principal Threat Soil NCSA-3	Basin F	Excavate principal threat soil and dispose in triple-lined landfill.	TtEC 2005b	TtEC 2009q	No

Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU

WBS	WBS Description (Implementation Project [with SAR Site] or Program Element)	ROD Medium Group	ROD Requirement	ROD Change Documentation	Completion Documentation	Long- Term O&M
2.06.32	Basin F/Basin F Exterior NCSA-3 NCSA-6a	Basin F Chemical Sewers	Construct a RCRA-Equivalent cover including biota barrier over the entire former basin and the remaining chemical sewer.	TtEC 2008k TtEC 2009s FWENC 2000a	TtEC 2010e <sup>1</sup>	Yes
	NCSA-4a NCSA-4b NCSA-5c	Secondary Basins Surficial Soil Sand Creek Lateral	Excavate and landfill HHE soil. Excavate biota risk soil and consolidate beneath Basin A cover or Basin F cover.	TtEC 2010a	TtEC 2005a TtEC 2008e	No
2.06.33	Section 36 Lime Basins NCSA-1b	Lime Basins	Construct a RCRA-Equivalent cover including biota barrier over the former basins. Install slurry wall into competent bedrock around the disposal basins. Perform agent screening during slurry wall construction. Dewatering within the slurry wall to ensure containment.	TtEC 2005b TtEC 2008k	TtEC 2010f TtEC 2010d <sup>1</sup>	Yes
2.07.34	RCRA-Equivalent Cover Demonstration Project	NA	Demonstrate cap performance equivalent to a RCRA landfill cap according to an EPA- and state-approved demonstration that will include comparative analysis and field demonstration.		WGI 2001 (draft) Section 5.1	No
2.07.35	Borrow Areas	NA	None. On-post borrow area development and management required for remedy support.  Continued monitoring, as part of design refinement, for areas that may pose a potential risk to biota (also discussed under 2.07.38).		Section 5.2  TtEC 2006f TtEC 2009h	No
2.07.36	Structural Agent Treatment Facility	Structures	Treatment by caustic washing for all debris testing positive for the presence of agent.		Section 5.3 TtFW 2004f	No

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.07.37	Soil Agent Treatment Facility	Soil	Treatment by caustic washing for all excavated soil testing positive for the presence of agent.		Section 5.4	No
2.07.38	Site-Wide Biota Monitoring	Biota	Continued monitoring, as part of design refinement, for areas that may pose a potential risk to biota.  Water levels in Lake Ladora, Lake Mary, and Lower Derby Lake will be maintained to support aquatic ecosystems. The biological health of the ecosystems will continue to be monitored.  Aquatic sediments are left in place and the area is monitored to ensure that the sediments continue to pose no unacceptable risk to aquatic biota.  Continue to fund USFWS to conduct on-post wildlife monitoring programs.	PMRMA 1997 PMRMA 2003	TtEC 2006f TtEC 2009h PMRMA 2006b Section 5.5	No
2.07.39	Site-Wide Air Monitoring	Air	Continue to conduct air, groundwater, and surface water monitoring programs at RMA.		TtEC 2009b TtEC 2009l TtEC 2010c	No
2.07.40	Contingent Soil Volume	Soil	Excavate and landfill up to 150,000 bank cubic yards of additional volume to be identified based on visual field observations. An additional 14 samples from North Plants, Toxic Storage Yards, Lake Sediments, Sand Creek Lateral, and Burial Trenches and up to 1,000 additional confirmatory samples may be used to identify the contingent soil volume requiring excavation.		Section 5.6	No

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.07.41	Site-Wide Groundwater Monitoring and Surface Water Monitoring (includes off-post monitoring)	Groundwater Surface Water	Continue to conduct air, groundwater, and surface water monitoring programs at RMA.  A network of monitoring wells will be sampled to evaluate the effectiveness of the remedy. A select number of deep wells will also be sampled to monitor any contamination in the confined aquifer.  Surface water will be monitored and managed in a manner consistent with the selected remedy.		Ongoing Section 5.7 TtEC and URS 2010c	Yes
2.07.42	Confined Flow System Monitoring	Groundwater	Confined aquifer wells are monitored in the South Plants, Basin A, and Basin F areas.  Combined with Site-Wide Groundwater Monitoring (2.07.41)		Ongoing Section 5.7 TtEC and URS 2010c	Yes
2.07.43	Medical Monitoring Advisory Group Medical	NA	The Army and Shell will fund Agency for Toxic Substances and Disease Registry to conduct an RMA Medical Monitoring Program in coordination with CDPHE. The program's nature and scope will include baseline health assessments and be determined by the on-post monitoring of remedial activities to identify exposure pathways, if any, to any off-post community.		Section 5.8	No
2.07.63	Traffic Management	NA	None. Site-wide haul road construction, maintenance, and traffic management required for remedy support.		Section 5.9	No
2.07.64	Geophysical Screening	NA	Areas outside the central portions of RMA that are suspected to have potential UXO presence are screened and cleared.		Section 5.10	No

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.07.65	UXO Disposal	NA	Any UXO encountered during remediation will be excavated and transported off post for detonation (unless the UXO is unstable and must be detonated on post) or other demilitarization process.		Section 5.11	No
2.07.66	Biota Barrier Material	NA	No specific ROD requirement. Construction of landfill caps and RCRA-equivalent covers required material for biota barrier.		Section 5.12	No
2.07.67	Permanent Revegetation / Irrigation	NA	Remedy components for all sites include reconditioning the surface soil and revegetating areas disturbed during remediation with locally adapted perennial vegetation. The disturbed areas will be revegetated consistent with a USFWS refuge management plan.	TtEC 2006e	Section 5.13	No
2.07.68	Drummed Waste Handling	NA	Stored, drummed waste identified in the waste management element of the CERCLA Hazardous Waste IRA may be disposed in the on-post hazardous waste landfill in accordance with the CAMU Designation Document.		Section 5.14	No
2.07.69	Site-Wide Well Abandonment/ Retention	Groundwater	No specific ROD requirement. Wells not identified for long-term monitoring requirements are abandoned.		Section 5.15	Yes



Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU

WBS	WBS Description (Implementation Project [with SAR Site] or Program Element)	ROD Medium Group	ROD Requirement	ROD Change Documentation	Completion Documentation	Long- Term O&M
2.08.44	South Adams County Water Supply	NA	Provision of \$48.8 million held in trust to provide for the acquisition and delivery of 4,000 acre-feet of potable water to South Adams County Water and Sanitation District and the extension of the water-distribution lines from an appropriate water supply distribution system to all existing well owners within the diisopropylmethyl phosphonate (DIMP) plume footprint north of RMA as defined by the detection limit for DIMP of 0.392 parts per billion (ppb).		Black & Veatch 1998 Gannett Fleming 2000a	No
			In compliance with National Environmental Policy Act, PMRMA will separately evaluate the potential impacts to the environment of both the acquisition of a water supply for South Adams County Water and Sanitation District and for extension of water-distribution lines.		ERO 1998a	No
			In the future, owners of any domestic wells, new or existing, found to have DIMP concentrations of 8 ppb (or other relevant Colorado Basic Standard for Groundwater (CBSG) at the time) or greater will be connected to a water-distribution system or provided a deep well or other permanent solution.		NA RVO 2011	Yes

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.08.45	On-Post Water Supply	NA	A sufficient on-post water supply will be maintained to support remedial actions (revegetation, habitat enhancement, maintenance of lake levels).  A risk evaluation will be performed prior to any future non-potable use to ensure that such use is protective of human health and the environment.		PMRMA 1996b Gannett Fleming 2000b TtFW 2004e FWENC 1998d Section 5.16	No
2.08.46	Confined Flow System Well Closure	Groundwater	Close and seal monitoring wells installed in the confined aquifer that may represent pathways for migration from the unconfined aquifer.		Dames & Moore 2000	No
2.08.47	Irondale System	Groundwater	Continue operation of boundary system until shut-off criteria are met.	ESD pending	EPA & Army 1997a <sup>2</sup> WGI 2003	Yes
	Railyard  Motor pool		Continue operation of existing IRA systems until shut-off criteria are met.	ESD pending	EPA & Army 1997b <sup>2</sup> URS 2011a	Yes
2.08.48	Basin A Neck System	Groundwater	Continue operation of existing IRA systems until shut-off criteria are met.	RVO 2001a ESD pending	EPA & Army 2000f <sup>2</sup>	Yes
	North of Basin F Well				WGI 2005	No
2.08.49	CERCLA Wastewater Treatment Facility	NA	Continue operation of the CERCLA Wastewater Treatment Plant to support the remediation activities.		TtEC 2011b	No
2.08.50	Northwest Boundary System	Groundwater	Continue operation of boundary system until shut-off criteria are met.	RVO 2001a RVO 2001b ESD pending	EPA & Army 2000b <sup>2</sup>	Yes
2.08.51	North Boundary System	Groundwater	Continue operation of boundary system until shut-off criteria are met.	RVO 2001a ESD pending	EPA & Army 2000a <sup>2</sup>	Yes

Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU

WBS	WBS Description (Implementation Project [with SAR Site] or Program Element)	ROD Medium Group	ROD Requirement	ROD Change Documentation	Completion Documentation	Long- Term O&M
			Monitoring and assessment of n-nitrosodimethylamine contamination will be performed in support of design refinement/design characterization to achieve remediation goals specified for the boundary groundwater treatment systems.		MKC 1998a	No
2.08.52	South Lakes Plume Monitoring	Groundwater	Lake-level maintenance or other means of hydraulic containment or plume control will be used to prevent South Plants plumes from migrating into the lakes at concentrations exceeding CBSGs in groundwater at the point of discharge. Groundwater monitoring will be used to demonstrate compliance.	TtEC 2006e	NA (lake level maintenance requirement eliminated by ESD; long-term plume monitoring continues)	Yes
2.08.53	Storm Water Management	NA	None. Site-wide storm water management in support of remedy.		NA	No
2.08.77	Groundwater Mass Removal System	Groundwater	Perform additional source treatment in targeted areas. Extract contaminated groundwater from the South Tank Farm Plume and the South Plants North Plume in the vicinity of the Lime Basins. Treat extracted groundwater at the CERCLA Wastewater Treatment Facility and recharge treated groundwater in the vicinity of the extraction well fields.	TtEC 2006e	URS 2011c (draft)	TBD
2.08.78	North Plants LNAPL Recovery	Groundwater	NA. Remedy requirements to be determined following pilot study.	TBD	TBD	TBD
2.08.79	Lime Basins DNAPL Investigation	Groundwater	NA. Remedy requirements to be determined following RI/FS.	ESD pending	TBD	TBD

**Table 3.0-2 Summary of ROD Requirements and Completion Documentation for On-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project [with SAR Site] or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.09	Remediation Design and Implementation Schedule	NA	Within 180 days after issuance of the Notice of Availability for the ROD, the Army will append to the ROD a complete, detailed schedule for completion of activities associated with the selected remedy. The schedule will identify the enforceable project milestone dates for design activities. Future design documents will detail milestone dates for implementation activities. Revisions to this schedule will be initiated prior to the start of each fiscal year to allow adequate time for review and concurrence by the Parties.		PMRMA 1996a PMRMA 2010	No
2.09	CERCLA Five-year Reviews	NA	In accordance with CERCLA, a review will be performed a minimum of every 5 years after initiation of remedial action to ensure that the various remedial actions where contamination continues to exist, such as the capped areas or the hazardous waste landfill, remain protective of human health and the environment and comply with Applicable or Relevant and Appropriate Requirements.		Army 2000 Army 2007 Army 2011	Yes
2.09	Land Use Restrictions	NA	Continued restrictions on land use are included as an integral component of the remedy.		RVO 2011, draft PMRMA 2008c	Yes
2.10	Trust Fund	NA	Form a Trust Fund group and provide a good-faith best effort to establish a Trust Fund for the operation and maintenance of the remedy.		PWT 2006 Section 5.17	No

<sup>1</sup>Citation provided is for the CCR – Part 1, which documents completion of physical construction of the coves. A CCR – Part 2 will be prepared to document final project completion following an O&F determination for the covers.

<sup>2</sup>Citation provided is for the IRA Summary Report. A final CCR will be prepared for each system once remediation goals have been achieved for that system.

**Table 3.0-3 Summary of ROD Requirements and Completion Documentation for Off-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
3.11.60	Off-Post Surficial Soil	Soil	Revegetate (tilling and seeding) approximately 160 acres located in the southeast portion of Section 14 and the southwest portion of Section 13.		RVO 1997	No
3.11.61	Off-Post Water Treatment Facility	Groundwater	Continue operation of the Off-post Groundwater Intercept and Treatment System until shut-off criteria are met.	RVO 2001a	EPA & Army 2000k <sup>1</sup>	Yes
3.11.62	Off-Post Well Closure	Groundwater	Abandon groundwater wells completed in one or more aquifers below the alluvial aquifer that may represent pathways for migration between aquifers.		LATA/AG&M 1999	No
2.07.41	Site-Wide Groundwater Monitoring and Surface Water Monitoring	Groundwater Surface Water	Long-term monitoring of off-post groundwater and surface water to assess contaminant concentration reduction and remedy performance. Groundwater monitoring will continue utilizing both monitoring wells and private drinking water wells. Selected surface-water monitoring locations will be included to evaluate the effect of groundwater treatment on surface water quality (included with on-post site-wide monitoring).		Section 5.7 TtEC and URS 2010c	Yes
2.08.44	South Adams County Water Supply	NA	Exposure control/provision of alternate water supply. As part of the On-Post ROD, provide for the acquisition and delivery of 4,000 acre-feet of potable water to South Adams County Water and Sanitation District and the extension of the water-distribution lines from an appropriate water supply distribution system to all existing well owners within the diisopropylmethyl phosphonate (DIMP) plume footprint north of RMA as defined by the detection limit for DIMP of 0.392 parts per billion (ppb). In the future, owners of any domestic wells, new or existing, found to have DIMP concentrations of 8 ppb (or other relevant CBSG at the time) or greater will be connected to a water-distribution system or provided a deep well or other permanent solution.		Black & Veatch 1998 Gannett Fleming 2000 ERO 1998a ERO 1998b	No

**Table 3.0-3 Summary of ROD Requirements and Completion Documentation for Off-Post OU**

<b>WBS</b>	<b>WBS Description (Implementation Project or Program Element)</b>	<b>ROD Medium Group</b>	<b>ROD Requirement</b>	<b>ROD Change Documentation</b>	<b>Completion Documentation</b>	<b>Long- Term O&amp;M</b>
2.08.50	Northwest Boundary System	Groundwater	Continue operation of boundary system until shut-off criteria are met (also part of On-Post ROD).	RVO 2001a ESD pending	EPA & Army 2000b <sup>1</sup>	Yes
2.08.51	North Boundary System	Groundwater	Continue operation of boundary system until shut-off criteria are met (also part of On-Post ROD).	RVO 2001a ESD pending	EPA & Army 2000a <sup>1</sup>	Yes
			Monitoring and assessment of n-nitrosodimethylamine contamination (using a 20 part per trillion method detection limit) will be performed in support of design refinement/design characterization to achieve remediation goals specified for the boundary groundwater treatment systems (also part of On-Post ROD).		MKC 1998a	
2.09	Institutional Controls	Groundwater	Institutional controls to prevent the future use of groundwater exceeding remediation goals.		RVO 2011 PMRMA 2008c	Yes
2.09	Remediation Scope and Schedule	NA	The Army will present the scope of the ongoing groundwater monitoring programs in an Implementation Plan to be submitted within 90 days following issuance of the Off-Post ROD. A schedule for compliance with the containment system remediation goals will be included in the Implementation Plan.		HLA 1996a	No
2.09	CERCLA Five-year Reviews	NA	In accordance with CERCLA, a site review will be conducted at least every five years until groundwater containment system remediation goals are achieved to assure that human health and the environment are protected during and after remediation. The site review will use monitoring program data to assess whether additional remedial action would be warranted.		Army 2000 Army 2007 Army 2011	Yes

<sup>1</sup>Citation provided is for the IRA Summary Report. A final CCR will be prepared for each system once remediation goals have been achieved for that system.

Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
2.01.01	Hazardous Waste Landfill												
		NCSA-4b: CAMU	0	0	0	211,503	274,862	0	0	0	0	0	0
		NCSA-4b: Sec26	12,667	13,718	0	0	4,032	5,128	0	0	0	0	0
		North Contractor Lot	0	0	0	0	0	0	0	0	0	0	16,795
		P1:Borrow12	0	0	0	0	0	0	0	0	0	0	44,271
		P1:CAMU	0	0	0	0	0	0	0	0	0	0	254,584
		RCRA Test Plots	0	0	0	0	0	0	0	0	0	0	3,931
		<b>Project Totals</b>	<b>12,667</b>	<b>13,718</b>	<b>0</b>	<b>211,503</b>	<b>278,894</b>	<b>5,128</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>319,581</b>
2.01.02	Enhanced Hazardous Waste Landfill												
		P1:Section25	0	0	0	0	0	0	0	0	0	0	3,222
		<b>Project Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3,222</b>
2.03.08	Toxic Storage Yards Soil Remediation												
		ESA-3a	2,112	4,400	0	0	0	0	0	0	0	0	0
		ESA-3b	314	738	0	0	0	0	0	2,040	0	0	0
		ESA-3g	279	626	0	0	0	0	0	0	0	0	0
		<b>Project Totals</b>	<b>2,705</b>	<b>5,764</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,040</b>	<b>0</b>	<b>0</b>	<b>0</b>
2.03.09	Existing (Sanitary) Landfills Remediation												
		CSA-1d	2,348	2,963	0	22,051	38,766	0	0	0	48,800	36,640	3,125
		CSA-2d	0	0	0	0	0	0	395	708	0	0	0
		ESA-2b	745	874	0	0	0	0	0	0	220,500	143,515	0
		P1:Section1	0	0	0	0	0	0	0	0	0	0	11,930
		SSA-4	3,483	3,650	208	915	1,470	1,666	0	0	0	0	0
		WSA-2	3,299	4,876	0	0	0	0	0	0	55,900	12,918	0
		WSA-3c	448	625	552	0	0	0	0	0	0	0	0
		WSA-5	4,000	5,489	15	0	0	0	0	0	57,900	30,247	0
		<b>Project Totals</b>	<b>14,323</b>	<b>18,477</b>	<b>775</b>	<b>22,966</b>	<b>40,236</b>	<b>1,666</b>	<b>395</b>	<b>708</b>	<b>383,100</b>	<b>223,320</b>	<b>15,055</b>
2.03.10	Lake Sediments Remediation												
		SSA-1b	9,506	8,322	157	18,948	15,043	0	0	0	0	0	0
		SSA-1c	6,852	9,490	0	0	0	0	0	0	0	0	0
		<b>Project Totals</b>	<b>16,358</b>	<b>17,812</b>	<b>157</b>	<b>18,948</b>	<b>15,043</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
2.03.11	Burial Trenches Soil Remediation												
		BA10Asphalt	0	0	0	0	0	0	0	1,872	0	0	0
		BT20-01	0	6,203	0	0	247	12	0	0	0	0	0
		BT29-01	0	0	0	0	0	0	0	867	0	0	0
		BT29-02	0	0	0	0	0	0	0	105	0	0	0
		BT30-01	0	0	0	0	0	0	0	0	0	118	0
		BT32-01	0	0	0	0	0	0	0	1,560	0	0	0
		BT32-02	0	0	0	0	0	0	0	1,568	0	0	0
		BT32-03	0	0	0	0	0	0	0	1,870	0	0	0
		BT32-04	0	0	0	0	0	0	0	126	0	0	0
		BT32-05	0	0	0	0	0	0	0	1,161	0	0	0
		BT32-06	0	0	0	0	0	0	0	4,511	0	0	0
		BT32-07	0	0	0	0	0	0	0	6,113	0	0	0
		BT32-08	0	0	0	0	0	0	0	215	0	0	0
		BT32-09	0	0	0	0	0	0	0	955	0	0	0
		BT32-10	0	0	0	0	0	0	0	1,908	0	0	0
		BT32-11	0	0	0	0	0	0	0	843	0	0	0
		BT4-01	0	0	0	0	0	0	0	418	0	0	0
		BT4-02	0	0	0	0	0	0	0	128	0	0	0
		BT4-03	0	0	0	0	0	0	0	256	0	0	0
		BT4-05	0	0	0	0	0	0	0	313	0	0	0
		BT4-08	0	0	0	0	0	0	0	518	0	0	0
		BT4-09	0	0	0	0	0	0	0	953	0	0	0
		BT4-10	0	0	0	0	0	0	0	879	0	0	0
		BT4-11	0	0	0	0	0	0	0	1,328	0	0	0
		BT4-12	0	0	0	0	0	0	0	100	0	0	0
		BT4-13	0	0	0	0	0	0	0	150	0	0	0
		BT4-14	0	0	0	0	0	0	0	120	0	0	0
		BT4-15	0	0	0	0	0	0	0	400	0	0	0
		BT6-01	0	0	0	0	0	0	0	4,682	0	0	0
		BT6-02	0	0	0	0	0	0	0	1,414	0	0	0
		BT9-01	0	0	0	0	0	0	0	36	0	0	0
		ESA-2a1	0	0	0	0	0	0	11,923	7,875	0	0	0



Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
		ESA-2a2	0	0	0	0	0	0	1,199	4,061	0	0	0
		ESA-2a3	0	0	0	0	0	0	1,125	3,875	0	0	0
		ESA-2a4	8,667	3,835	0	0	0	0	7,435	5,410	0	0	0
		ESA-2a5	2,370	596	0	0	0	0	2,280	1,685	0	0	0
		ESA-2a6	11,333	6,205	0	0	0	0	9,723	7,058	0	0	0
		ESA-2a7	9,259	3,845	0	0	0	0	20,769	11,881	0	0	0
		ESA-2c	0	0	0	0	0	0	2,360	3,400	0	0	0
		F Street	0	0	0	0	0	0	0	0	0	570	0
		<b>Project Totals</b>	<b>31,629</b>	<b>20,684</b>	<b>0</b>	<b>0</b>	<b>247</b>	<b>12</b>	<b>56,814</b>	<b>80,614</b>	<b>0</b>	<b>688</b>	<b>0</b>
2.03.12	Munitions (Testing) Soil Remediation (see Note 1)												
		BA10	0	0	0	0	0	0	0	4	0	0	0
		Bor9a2	0	0	0	0	0	0	0	14	0	0	0
		BT32-10	0	0	0	0	0	0	0	8	0	0	0
		CSA-2c	0	0	0	0	925	0	863	105	0	613	0
		DREZ	0	0	0	0	0	0	0	22	0	0	0
		ESA-1a	0	0	0	0	0	0	2,711	5,200	0	0	0
		ESA-1b	0	0	0	0	0	0	2,198	4,900	0	0	0
		ESA-1c	0	0	0	0	0	0	1,814	5,365	0	0	0
		ESA-1d	0	0	0	0	0	0	2,682	6,595	0	0	0
		ESA-4a	0	0	0	0	0	0	68,658	52	0	0	0
		ESA-4b	0	0	0	0	6,775	0	9,848	9,572	0	0	0
		MT29-1	0	0	0	0	0	0	0	2,765	0	0	0
		<b>Project Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7,700</b>	<b>0</b>	<b>88,774</b>	<b>34,602</b>	<b>0</b>	<b>613</b>	<b>0</b>
2.03.13	Miscellaneous Northern Tier Soil Remediation												
		NCSA-8b	1,979	2,323	11,520	18,666	26,452	0	0	0	0	0	0
		NPSA-4	259	332	0	0	0	0	0	0	0	0	0
		PistolRange	1,200	1,457	0	0	0	0	0	0	0	0	0
		<b>Project Totals</b>	<b>3,438</b>	<b>4,112</b>	<b>11,520</b>	<b>18,666</b>	<b>26,452</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
2.03.14	Miscellaneous Southern Tier Soil Remediation												
		Fisherman's Parking Lot	0	0	0	0	0	0	0	0	0	0	4,367
		RifleRange	1,103	1,355	0	0	0	0	0	0	0	0	0
		SSA-2a	737	2,049	5,228	15,157	3,325	0	0	0	0	0	5,919



Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
2.04.21	South Plants Balance of Areas Soil Remediation												
		SPSA-10: SPBA	25,121	72,766	68	0	0	0	0	0	0	0	0
		SPSA-12b	178	249	820	0	0	0	0	0	0	0	0
		SPSA-1a: SPBA	0	4,844	0	0	0	0	0	0	0	0	0
		SPSA-1c	1,303	1,569	1,194	0	0	0	0	0	0	0	0
		SPSA-1d	946	1,333	722	0	0	0	0	0	0	0	0
		SPSA-1g	27,847	33,890	3,054	0	0	0	0	0	0	0	0
		SPSA-2a	3,259	2,091	3,387	0	0	0	0	0	0	0	0
		SPSA-2b	2,844	2,935	0	0	0	0	0	0	0	0	0
		SPSA-2c	388	538	596	0	0	0	0	0	0	0	0
		SPSA-2d	763	1,056	166	0	0	0	0	0	0	0	0
		SPSA-2e	20,148	22,103	0	0	0	0	0	0	0	0	0
		SPSA-3a	5,317	6,526	0	0	0	0	0	0	0	0	0
		SPSA-3b	5,155	10,263	0	0	0	0	0	0	0	0	0
		SPSA-3c	9,007	17,935	0	0	0	0	0	0	0	0	0
		SPSA-3d	178	207	603	0	0	0	0	0	0	0	0
		SPSA-3e	24,905	23,646	1,260	0	0	0	0	0	0	0	0
		SPSA-4a	24,127	15,151	0	0	0	0	0	0	0	0	0
		SPSA-4b	12,859	40,041	729	0	0	0	0	0	0	0	0
		SPSA-5b	1,821	2,075	273	0	0	0	0	0	0	0	0
		SPSA-6	59	87	0	0	0	0	0	0	0	0	0
		SPSA-7c	1,391	1,888	1,461	0	0	0	5,027	6,599	0	0	0
		SPSA-8a	14,003	21,371	335	0	0	0	0	0	0	0	0
		SPSA-8b	1,637	4,207	0	0	0	0	0	0	0	0	0
		SPSA-9a	575	945	273	0	0	856	0	0	0	0	0
		SPSA-9b	1,982	4,032	0	0	0	0	0	0	0	0	0
		SPSA-BA	0	0	0	531,069	361,296	0	0	0	0	0	0
		SPSA-Bor2	0	0	813	0	36,709	0	0	0	0	0	0
		SPSA-LP	0	21,426	13,163	0	0	0	0	0	0	0	0
		SPSA-PCB	0	154	0	0	0	0	0	0	0	0	0
		SPSA-Petro	0	258	0	0	0	0	0	0	0	0	0
		UST321	0	360	0	0	0	0	0	0	0	0	0
	Project Totals		185,813	313,946	28,917	531,069	398,005	856	5,027	6,599	0	0	0

Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
2.05.23	Section 36 Balance of Areas Soil Remediation												
		36NW-4	0	0	0	0	0	0	0	0	0	0	10,102
		36NW-5	0	0	0	0	0	0	0	0	0	0	4,473
		CSA-1b	29,102	68,488	912	28,602	81,705	0	26,304	10,733	0	0	0
		CSA-1d	0	0	0	0	641	0	0	0	0	0	185
		CSA-2a	0	0	0	0	0	0	2,062	3,105	0	0	0
		CSA-2b	0	0	0	8,668	11,590	0	0	0	0	0	0
		CSA-3	2,035	5,062	0	0	0	0	0	0	0	0	0
		CSA-4	17,404	27,996	0	82,727	113,066	0	51,512	37,924	0	0	0
		NCSA-1b	0	135	0	0	0	0	0	0	0	0	0
		NCSA-1d	0	0	0	3,169	4,278	0	0	0	0	0	0
		NCSA-1f	0	0	0	1,137	4,053	0	0	0	0	0	0
		NCSA-1g	1,885	2,670	0	30,775	35,067	0	0	0	0	0	0
		NCSA-6a: Sec36	1,100	23,041	1,406	0	0	0	0	0	0	0	0
		NCSA-6b	805	1,024	0	0	0	0	0	0	0	0	0
		P1:Borrow9C	0	0	0	0	0	0	0	0	0	0	44,245
		P1:Section36	0	0	0	0	0	0	0	9,917	0	0	57,921
		SP Lot	0	0	0	0	5,656	0	0	0	0	0	0
		SurficialSoil:Sec36	497	640	0	11,497	7,991	0	0	0	0	0	0
	Project Totals		52,828	129,056	2,318	166,575	264,047	0	79,878	61,679	0	0	116,926
2.05.24	Secondary Basins Soil Remediation												
		NCSA-2a	25,448	38,954	452	96,694	101,753	0	0	0	0	0	0
		NCSA-2b	2,472	2,990	0	29,375	38,113	0	0	0	0	0	0
		NCSA-2d	89	1,124	483	3,664	2,636	0	0	0	0	0	0
		NCSA-2d: CSV	0	0	2,237	0	0	0	0	0	0	0	0
		NCSA-4b: SECB	0	0	0	0	10,350	15	0	0	0	0	0
		P1:SECB	0	0	0	0	0	0	0	0	0	0	23,558
		SurficialSoil:SECB	3,375	4,755	0	6,063	7,373	0	0	0	0	0	0
	Project Totals		31,384	47,823	3,172	135,796	160,225	15	0	0	0	0	23,558
2.05.27	North Plants Soil Remediation												
		NPSA-1	11,220	42,307	0	0	0	0	0	0	0	0	4,316
		NPSA-3	0	0	0	6,056	2,373	0	0	0	0	0	0

### Table 3.1-1 Soil Remediation Volumes

[illegible]

Table 3.1-1 Soil Remediation Volumes

WBS	Implementation Project	SARSite	Human Health Soil (bcy)			Biota Risk Soil (bcy)			Munitions Debris/Soil (bcy)		Sanitary Landfill Debris (bcy)		RER Soil (bcy)
			ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	Contingent Volume	ROD Volume	Actual Volume	ROD Volume	Actual Volume	Actual Volume
		NCSA-2d Backfill	0	0	0	0	0	0	0	0	0	0	3,530
		NCSA-4a	0	17	0	0	0	0	0	0	0	0	0
		NCSA-4a	3,381	7,875	3,176	4,756	5,541	0	0	0	0	0	0
		NCSA-4b	0	0	0	115,222	172,758	2,766	0	0	0	0	0
		NCSA-4b	68,525	118,875	13,910	24,344	75,817	0	0	0	0	0	0
		NCSA-5c: Sec26	0	2,699	1,869	14,378	0	0	0	0	0	0	0
		Project Totals	71,906	129,466	18,955	158,700	254,116	2,766	0	0	0	0	12,638
2.07.35	Borrow Area Operations												
		P1:Borrow3	0	0	0	0	0	0	0	0	0	0	340,832
		P1:Borrow4	0	0	0	0	0	0	0	0	0	0	101,351
		P1:Borrow5	0	0	0	0	0	0	0	0	0	0	67,989
		P1:Borrow6	0	0	0	0	0	0	0	0	0	0	121,137
		P1:Borrow7A	0	0	0	0	0	0	0	0	0	0	116,379
		P1:Borrow7B	0	0	0	0	0	0	0	0	0	0	57,123
		P1:Borrow8	0	0	0	0	0	0	0	0	0	0	46,961
		P1:Borrow9A	0	0	0	0	0	0	0	0	0	0	73,942
		Project Totals	0	0	0	0	0	0	0	0	0	0	925,714
2.07.38	TRER Soil												
		1SE-4	0	0	0	0	0	0	0	0	0	0	12,916
		26SW-1	0	0	0	0	0	0	0	0	0	0	1,828
		26WC-2	0	0	0	0	0	0	0	0	0	0	3,761
		31EC-1	0	0	0	0	0	0	0	0	0	0	9,826
		31EC-2	0	0	0	0	0	0	0	0	0	0	3,340
		36EC-1	0	0	0	0	0	0	0	0	0	0	5,734
		36NE-3N	0	0	0	0	0	0	0	0	0	0	13,303
		Project Totals	0	0	0	0	0	0	0	0	0	0	50,708
Total Remediation Volumes			1,445,008	1,742,183	194,037	1,448,465	1,661,104	10,800	230,888	186,242	383,100	230,946	1,722,368

Note 1: Actual Munitions Debris/Soil volume presented is estimated for BA10, BT32-10, DREZ, ESA-4a and ESA-4b based on pounds of debris reported in CCRs

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0111	35	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0112B	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0114	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0116	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0136	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0137	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0148	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0169B	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0176	3	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-002
0211	2	Future Use	NFU by RD	South Plants Demo Phase 1 CCR
0213	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0241	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0242	2	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0243	2	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0244	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0245	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0246	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0247	2	NFU-SCH	NFU-SCH	South Plants BOA & CPA Phase 2 CCR
0248	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0249	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0251	2	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0252	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0253	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0254	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0255	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0256	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0282	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0286	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0287	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0295	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0296	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0307	36	NFU-OCH	NFU-OCH	Section 36 BOA Part 2 CCR
0309	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0311	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0311A	2	NA	NFU by RD	South Plants Demo Phase 1 CCR
0312	36	Future Use	NFU by RD	Section 36 BOA Part 2 CCR
0313	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0313A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
0314	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0315	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0315A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0316	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0316A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0316B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0317	1	NA	NFU by RD	Pilot Demo Experience Report
0317A	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0318	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 4 CCR
0319	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0321	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0321A	2	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0321B	2	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0321C	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0321D	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0322	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0322A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0323	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0324	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0325	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0326	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0327	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0328	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0328A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0329	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0331	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0332	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0333	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0334	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0335	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0336	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0337	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0338	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0339	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0340	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0341	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0341A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0341B	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0342	2	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0343	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0343A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0344	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0345	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0346	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0347	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0351	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0352	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0352A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>



Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0353	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0354	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0355	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0356	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0362	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0364	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0365	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0368	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0372	2	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
0374	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0378	10	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0379	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0381	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0382	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0383A	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0391	24	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
0392	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0393	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0394	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0395	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
0409	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0411	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0411A	1	NFU-SCH	NFU-SCH	South Plants BOA & CPA Phase 2 CCR
0412	1	NA	NFU by RD	Pilot Demo Experience Report
0413	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0413A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
0414	1	NFU-AH	NFU-AH	South Plants BOA & CPA Phase 2 CCR
0414Q	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0415	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0416	1	NFU-AH	NFU-AH	South Plants BOA & CPA Phase 2 CCR
0417	1	NFU-AH	NFU-AH	South Plants BOA & CPA Phase 2 CCR
0422	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0424A	1	NFU-SCH	NFU-SCH	South Plants BOA & CPA Phase 2 CCR
0424B	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0424C	1	NFU-SCH	NFU-SCH	South Plants BOA & CPA Phase 2 CCR
0426	1	NFU-AH	NFU-AH	South Plants BOA & CPA Phase 2 CCR
0427	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0428	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 Design
0429	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0431	1	NA	NFU by RD	Pilot Demo Experience Report <sup>1</sup>
0432	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0433	1	NA	NFU by RD	Pilot Demo Experience Report <sup>1</sup>
0434	1	NFU-OCH	NFU-OCH	Closure for ASTs - Gonzales

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0435	1	NFU-OCH	NFU-OCH	Closure for ASTs - Gonzales <sup>1</sup>
0451	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0459	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0459A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0459B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0459C	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0461	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0464	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0471	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0471B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0471C	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0472	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0472A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0473	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0474	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0475	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0502	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0503	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR
0504	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0504A	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0505	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR
0506	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0507	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0508	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0509	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0510	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0511	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0511A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0512	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0512A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0514	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0514A	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0514C	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0514D	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0514E	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0515	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0515A	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR
0516	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0516B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0517	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0518A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0519	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0519A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0520	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0521	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0521A	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0521B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0521C	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0522	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0522A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0522B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0523	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0523A	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0523C	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0523D	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0523E	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0523F	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0523G	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0524	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0525	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0525A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR
0526	1	NFU-SCH	NFU-SCH	South Plants BOA & CPA Phase 2 CCR
0527	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0528	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0529	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0531	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0532	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0533	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0534	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0534A	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0534B	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0534C	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0534D	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0536	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0537	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0538	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0538A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0539	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0540	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0541	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0541A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0542	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0543	1	NFU-OCU	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0543A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0543B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0544	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0545	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0546	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0548	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0549	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0550	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0551	1	Future Use	NFU by RD	South Plants Demo Phase 1 CCR
0552	1	Future Use	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0553	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0555	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0557	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0561	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR <sup>1</sup>
0561A	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0561X	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
0571	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0571A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0571B	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0605	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0606	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0607	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0608	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0611	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0612	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0613	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0614	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0615	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0616	3	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0617	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0618	3	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0619	3	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0621	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0621A	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0622	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0623	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0624	4	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0625	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0626	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0626C	4	NFU-OCH	NFU-OCH	Miscellaneous Southern Tier Soils CCR
0627	4	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0627B	4	NFU-OCH	NFU-OCH	Miscellaneous Southern Tier Soils CCR
0628 MH	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0628 Pad	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0629	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0629E	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0630	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
0631	4	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0631A	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0632	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 and 3 CCRs
0633	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0633A	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0633B	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0634	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0635	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0639	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0641	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0643	3	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0646	4	NFU-SCH	NFU-SCH	Miscellaneous Structures Demo Phase 1 CCR
0647A	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0647B	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0647C	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0647D	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0648	4	NFU-OCH	NFU-OCH	Miscellaneous Southern Tier Soils CCR
0670	3	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
0673	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0679	10	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0680	9	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
0684	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0685	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0724	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR
0725	36	NFU-AH	NFU-AH	Section 36 BOA Part 1 CCR
0726	36	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
0727	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0728	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0729	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0730	36	NA	NFU by RD	Section 36 BOA Part 1 CCR
0731	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0732	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733C	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733D	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733E	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0733F	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0735	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0741	1	NFU-SCH	NFU-SCH	South Plants Demo Phase 2 CCR
0742	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>
0742A	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 CCR <sup>1</sup>

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0743	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0743A	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0744	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0745	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0746	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
0748	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0751	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0752	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0752A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0753	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0754	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
0765	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
0784	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
0785	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0786	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0787	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
0788	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0791	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0792	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0793	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0794	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0795	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0796	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0797	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0798	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
0801	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
0808	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
0809	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0810	27	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
0825	35	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
0829	26	NA	NFU by RD	Basin F Wastepile CCR
0831	26	NA	NFU by RD	Basin F Wastepile CCR
0831	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0831A	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0833	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0834	36	NFU-SCH	NFU-SCH	Section 36 ESL CCR
0836	24	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
0840 Debris	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0851	19	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
0854	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0863	12	NFU-OCH	NFU-OCH	Miscellaneous Southern Tier Soils CCR
0864	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
0865	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0866	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
0867A	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
0867B	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
0871A	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0871B	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0871C	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0871D	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0872A	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0872B	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0872C	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0872D	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0873A	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0873B	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0873C	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0874A	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0874B	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0874C	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0874D	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
0881	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
0882	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
0883	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
0885	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
0886	6	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
0888	25	NA	NFU by RD	CQA for ELF Support Facilities Closure
0889	36	NA	NFU by RD	Section 36 BOA Part 2 CCR
0890	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
0895	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
1402	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
1403	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1403A	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
1404	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1405	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1501	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1502	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1503A	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1503B	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1503C	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1504	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1504A	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1504A2	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
1504A3	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
1505	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
1505A	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
1506	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1507	25	NFU-OCH	NFU-OCH	North Plant Demo Design
1508	25	NFU-OCH	NFU-OCH	North Plant Demo Design
1509	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1510	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1510A	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1512	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1601	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1601A	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1602	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1603A	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1603B	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1605	25	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 2 CCR
1606	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1607	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1608	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1609	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1610	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1611	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1611A	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1613	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1614	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1615	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1616	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1618	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1619	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1622	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1701	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1702	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1703	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1704	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1705	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1706	25	NCU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1707	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1710	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1711	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1712	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1713	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1715	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1717	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
1718	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
1719	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
1726	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR



Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
1727	25	NFU-AH	NFU-AH	North Plants Demo/Equip Destruction CCR
1728	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
1730	31	NCU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1734	31	NCU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
1735	31	NFU-AH	NFU-AH	Miscellaneous Structures Demo Phase 1 CCR
B632 UST	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
B633A UST	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
B810 UST	27	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
B1622 UST	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
BFWP Drying Facility	26	NA	NFU by RD	Basin F Principal Threat Soil & Basin F Wastepile Drying Facility Demolition CCR
BFWP Decon Pad	26	NA	NFU by RD	Basin F Wastepile CCR
Irondale	33	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0101	1	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0102	1	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0103	1	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0104	1	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0105	1	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0201	2	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0203	2	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0301	3	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0302	3	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0303	3	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0602	6	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0603	6	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0604	6	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0605	6	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD0801	8	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1101	11	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1201	12	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1202	12	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1203	12	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1902	19	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD1903	19	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2001	20	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2201	22	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2301	23	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2401	24	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2501	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
MD2502	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
MD2503	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2504	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
MD2505	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2506	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2507	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2508	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2509	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2510	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2511	25	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2601	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2602	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2603	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2701	27	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2702	27	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2901	29	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD2902	29	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3001	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3002	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3003	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3004	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3005	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3101	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3103	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3104	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3106	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3401	34	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3501	35	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
MD3502	35	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
NBTS01	23	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
NN0102	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0103	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0104	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
NN0105	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0106	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0107	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0108	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0109	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
NN0110	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0111	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 2 CCR <sup>1</sup>
NN0112	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
NN0113	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0114	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
NN0115	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
NN0116	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR <sup>1</sup>
NN0117	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
NN0201	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
NN0202	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR and Miscellaneous Structures Demo Phase 1 CCR
NN0203	2	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
NN0204	2	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
NN0205	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
NN0300	3	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
NN0301	3	NCU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN0302	3	NCU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN0303	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
NN0304	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
NN0601	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
NN0602	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
NN0603	6	NFU-OCH	NFU-OCH	Toxic Storage Yards CCR
NN0902	9	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN1208	12	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN1209	12	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN1210	12	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN1211	12	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN1212	12	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN2001	20	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN22	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
NN23	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
NN2301	23	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
NN24	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
NN2401	24	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN2402	24	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
NN2403	24	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
NN2404	24	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
NN2405	24	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
NN2501	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN2502	25	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN2503	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
NN2601	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN2602	26	NFU-OCH	NFU-OCH	Secondary Basins CCR
NN28	28	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
NN3001	30	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN3002	30	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN3101	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN3102	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3103	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3104	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3105	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
NN3106	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3107	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3108	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3109	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN33	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
NN3501	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3601	36	NFU-OCH	NFU-OCH	Section 36 ESL CCR
NN3602	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
NN3603	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3604	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
NN3605	36	NFU-OCH	NFU-OCH	Section 36 BOA Part 1 CCR
NNT0101	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0103	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0105	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0106	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0107	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0108	1	NA	NFU by RD	Removal of Non-Agent ASTs - Weston
NNT0110	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
NNT0111	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
NNT0201	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
None 01	3	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 02	3	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 03	10	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 04	35	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 05	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 06	36	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 07	26	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 08	30	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 09	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 10	36	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 11	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 12	31	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 13	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
None 14	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
NP01	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
NP02	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
NP03	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
PR01	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
PR02	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
PR04	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
PR25	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
PR36	36	NFU-OCH	NFU-OCH	Section 36 BOA Part 1 CCR
SQI01	26	NA	IRA Support-NFU	Miscellaneous Structures Demo Phase 3 and Phase 4

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 0100	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0101	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0102	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0103	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0104	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0105	6	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0111	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0141	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0176	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0213	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0232	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0243	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0245	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0311	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0312	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0312A	36	NFU-OCH	NFU-OCH	Section 36 BOA Part 2 CCR
SS 0313	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0313-2	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0314	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0315	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0316	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0316A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0317	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0321	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0321A	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0321B	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0325	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0327	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0328	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0330	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0335	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0342	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0344	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0355	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0361	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0362	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0363	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0365	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0368	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0371A	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0378	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0379	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0383	2	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 0391	24	NFU-OCH	NFU-OCH	Miscellaneous Northern Tier Soils CCR
SS 0392	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0393	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0411	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0422	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0451	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0461	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0464	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0474	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
SS 0510	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0512	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0514	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0515	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
SS 0516	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0517	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0517A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0517B	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0521	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0523	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0525A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0527	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0528	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0529	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0531	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0534	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0539	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0541	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0543	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
SS 0548	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0548A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0556	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0571	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0575	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
SS 0575A	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0611	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0612	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0613	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0614	3	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0616	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0618	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0618-2	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 3 CCR
SS 0619	3	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
SS 0621	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 0622	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0624	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0625	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0627	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0627A	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0629	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0631	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0632	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0633	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0634	4	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0635	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0647	3	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0673	3	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0725	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0726	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0727	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0728	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0729	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0732	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0742	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0747	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CCR
SS 0755	1	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0756	1	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0757	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0780	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0781	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0782	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS 0806D	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0806G	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0808ABC	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808D	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808E	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808F	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808G	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808H	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808I	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808K	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0808L	24	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS 0809	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS 0809A	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 0809B	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 0809C	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 0809D	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 0809E	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 0809F	33	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 0831	35	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0831E	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0832	34	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 0836	24	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 2 CCR
SS 1000	27	NA	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
SS 1402	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1403	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1404	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1501	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1505	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1506	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1510	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1601-1	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1601-2	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1602	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1603	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1605	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1606-1	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1606-2	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1607	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1609	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1611	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1611AB	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1614	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1616	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1701	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1702	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1703	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1704-1	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1704-2	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1704-3	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1706	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1707	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1710	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1711	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1724	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS 1730	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 1731	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 1732	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 1735	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 1736	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design



Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 3610L	23	NA	NFU by RD	RCRA-Equivalent Cover Demonstration
SS 6C	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS 7215	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS AL338	31	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Phase 1 CCR
SS AWL021	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS CPR 1	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 10	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 2	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 3	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 CRR
SS CPR 4	2	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 5	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 6	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS CPR 7	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1
SS CPR 8	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1
SS CPR 9	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1
SS F182	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS FL842	25	NFU-OCH	NFU-OCH	North Plants Demo Design
SS GA	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS H-1	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS LDLA	1	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS NN2201	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2202	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2203	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2204	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2205	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2206	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2207	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2208	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2209	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2210	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2211	22	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2301	23	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS NN2501	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
SS NN2601	26	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS NN2701	27	NFU-OCH	NFU-OCH	Misc Structures Demo Design DCN-MSD2-013
SS PSCOST	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS PT56/57	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
SS SBA	36	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS SWIM	2	NFU-OCH	NFU-OCH	Miscellaneous Structures Demo Design
SS WR	36	NFU-OCH	NFU-OCH	Section 36 BOA Part 1 CCR
STF Meter	2	NA	NFU by RD	Groundwater Mass Removal Project CCR
T 0026	1	NFU-OCH	NFU-OCH	Interior Building
T 0027	1	NFU-AH	NFU-AH	South Plants Demo Phase 2 Design

Table 3.2-1 Remediation Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
T 0064	1	NFU-OCH	NFU-OCH	Interior Building
T 0065	1	NFU-OCH	NFU-OCH	Outside Pipeline and Equipment Removal
T 0075	1	NFU-OCH	NFU-OCH	Outside Pipeline and Equipment Removal
T 0076	1	NFU-OCH	NFU-OCH	Outside Pipeline and Equipment Removal
T 0078	1	NFU-OCH	NFU-OCH	Outside Pipeline and Equipment Removal
T 0139	1	NFU-OCH	NFU-OCH	TVA Dismantling Operations
T 0190	1	NFU-OCH	NFU-OCH	TVA Dismantling Operations
T 0289	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
T 1040	1	NFU-OCH	NFU-OCH	Interior Building
T 1128	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1129	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1132	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1133	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1140	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1146	1	NFU-OCH	NFU-OCH	Outside pipeline and equipment removal
T 1147	1	NFU-OCH	NFU-OCH	Outside pipeline and equipment removal
T 1168	1	NFU-OCH	NFU-OCH	TVA Dismantling Operations
T 1178	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1205	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1206	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1216	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
T 1324	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
T 1327	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1340	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1390	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1391	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1392	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1463	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
T 1505	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1506	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1507	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1508	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1509	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1510	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
T 1570	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment removal
T 1603	1	NA	NFU by RD	South Plants BOA & CPA Phase 1 CCR
T 1605	1	NA	NFU by RD	South Plants BOA & CPA Phase 1 CCR
T 1606	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
T 1973	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
TF0101	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
TF0102A	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
TF0104	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
TF0106	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR

**Table 3.2-1 Remediation Structures Listing**

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
TF0107	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
TF0110	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
TF2501	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
T463E	1	NA	NFU by RD	South Plants BOA & CPA Phase 2 CCR
TW-13	25	NFU-OCH	NFU-OCH	North Plants Demo/Equip Destruction CCR
UNK	24	NA	NFU by RD	Miscellaneous Structures Demo Phase 2 CCR
UNK	1	NA	NFU by RD	South Plants Demo Phase 2 CCR
UNK	1	NA	NFU by RD	South Plants Demo Phase 1 CCR
V 1064	1	NFU-OCH	NFU-OCH	Removal of Non-Agent ASTs - Weston
V 1214	1	NFU-OCH	NFU-OCH	TVA Dismantling Operations
V 1220	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
V 1250	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
V 1253	1	NFU-OCH	NFU-OCH	South Plants BOA & CPA Phase 2 CCR
V 1267	1	NFU-OCH	NFU-OCH	South Plants Demo Phase 1 Design
V 1270	1	NFU-OCH	NFU-OCH	Outside Pipeline & Equipment Removal
Vault01	4	NA	NFU by RD	Miscellaneous Structures Demo Phase 3 CCR
Z-196	25	NA	NFU by RD	North Plants Demo/Equip Destruction CCR
Z-28	23	Future Use	NA	Miscellaneous Structures Demo Design
Z-3	35	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
Z-38	4	Future Use	NA	Miscellaneous Structures Demo Design
Z-39	4	Future Use	NA	Miscellaneous Structures Demo Design
Z-40	25	Future Use	NA	Miscellaneous Structures Demo Design
Z-41	25	Future Use	NFU by RD	North Plants Demo/Equip Destruction CCR
Z-42	25	Future Use	NFU by RD	North Plants Demo/Equip Destruction CCR
Z-58	35	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR
Z-68	35	Future Use	NA	Miscellaneous Structures Demo Design
Z-69	35	Future Use	NA	Miscellaneous Structures Demo Design
Z-70	4	Future Use	NFU by RD	Miscellaneous Structures Demo Phase 1 CCR

<sup>1</sup>Foundation removed during South Plants BOA & CPA Phase 2

BFWP      Basin F Wastepile  
 BOA        Balance of Areas  
 CPA        Central Processing Area  
 NA         Not Applicable  
 NFU-AH    No Future Use - Agent History  
 NFU-SCH   No Future Use - Significant Contamination History  
 NFU-OCH   No Future Use - Other Contamination History  
 NFU by RD   No Future Use - Remedial Design

Table 3.2-2 Future Use Structures Listing

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
0105	33	Future Use	Future Use	Miscellaneous Structures Demo Design
0112	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0112A	35	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0120	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0121	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0124	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0127	35	NA	FU by RD	Misc Structures Demo Design DCN-MSD2-013
0128	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0129	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0130	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0132	35	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD3-004
0133	35	Future Use	Future Use	Miscellaneous Structures Demo Design
0135	4	Future Use	Future Use	Miscellaneous Structures Demo Design <sup>1</sup>
0143	4	Future Use	Future Use	Misc Structures Demo Design DCN-MSD2-002 <sup>1</sup>
0145	11	Future Use	Future Use	Misc Structures Demo Design DCN-MSD2-002 <sup>1</sup>
0180	35	NA	FU by RD	Misc Structures Demo Design DCN-MSD2-013
0291	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0361	2	Future Use	Future Use	Miscellaneous Structures Demo Design
0369	1	Future Use	Future Use	Miscellaneous Structures Demo Design
0370	2	Future Use	Future Use	Miscellaneous Structures Demo Design
0371	2	Future Use	Future Use	Miscellaneous Structures Demo Design
0372A	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0373	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0373B	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0383	2	Future Use	Future Use	Miscellaneous Structures Demo Design
0385	4	Future Use	Future Use	Miscellaneous Structures Demo Design
0386	4	Future Use	Future Use	Miscellaneous Structures Demo Design
0387	4	Future Use	Future Use	Miscellaneous Structures Demo Design
0644	3	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0644A	3	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0680	9	NA	FU by RD	Misc Structures Demo Design DCN-MSD2-013
0688	3	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
0702	5	Future Use	Future Use	Miscellaneous Structures Demo Design
0811	24	NA	FU by RD	Misc Structures Demo Design DCN-MSD2-003
0835	14	NA	FU by RD	Miscellaneous Structures Demo Design
0840	25	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD3-013
0841	12	NFU-OCH	Future Use	Miscellaneous Structures Demo Design
0853	30	NFU-OCH	Future Use	Miscellaneous Structures Demo Design
0884	6	NFU-SCH	Future Use	Misc Structures Demo Design DCN-MSD3-003
0887	26	NA	FU by RD	LWTS Closure Plan and Project CCR
0892	26	NA	FU by RD	Miscellaneous Structures Demo Design <sup>1</sup>
0893	26	NA	FU by RD	Misc Structures Demo Design DCN-MSD2-013 <sup>1</sup>
NN0101	1	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
NN0501	5	Future Use	Future Use	Miscellaneous Structures Demo Design
NN0903	9	Future Use	NA	Removed by Federal Aviation Administration
NN1213	12	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
NN2002	20	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013

**Table 3.2-2 Future Use Structures Listing**

Structure Number	Section	ROD Designation	Use Refinement	Completion Documentation
SS 0112	0	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
SS 0121	3	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
SS 0370	3	Future Use	NA	Misc Structures Demo Design DCN-MSD2-013 <sup>1</sup>
SS 0371	2	Future Use	Future Use	Miscellaneous Structures Demo Design
SS 0371B	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
SS 0385	4	Future Use	Future Use	Miscellaneous Structures Demo Design
SS 0386	4	Future Use	Future Use	Miscellaneous Structures Demo Design
SS 0387	4	Future Use	Future Use	Miscellaneous Structures Demo Design
SS 0670	3	NA	FU by RD	Miscellaneous Structures Demo Design
SS 0673A	3	NA	FU by RD	Miscellaneous Structures Demo Design
SS 0673B	36	NA	FU by RD	Miscellaneous Structures Demo Design
SS 0791-2	11	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
SS 7C	2	NFU-OCH	Future Use	Misc Structures Demo Design DCN-MSD2-013
SS 9619	35	NA	FU by RD	Misc Structures Demo Design DCN-MSD3-004

<sup>1</sup>Structure subsequently removed as part of facility operations

LWTS      Landfill Wastewater Treatment System  
 NA        Not Applicable  
 NFU-SCH   No Future Use - Significant Contamination History  
 NFU-OCH   No Future Use - Other Contamination History  
 FU by RD   Future Use - Remedial Design

**Table 4.0-1 Remedy Project Status and Completion Dates**

WBS	Description	Status	Start Date	Finish Date
2.01.01	Hazardous Waste Landfill			
2.01.01.02	Design	Completed	11-Mar-1996	24-Jun-2011
2.01.01.03	Remediation (Construct/Ops/Closure)	Ongoing	14-Nov-1997	31-Oct-2011F
2.01.01.04	Short Term Monitoring And Maintenance	Completed	1-Apr-2009	30-Nov-2010
2.01.01.47	Remediation Biota / Priority 1 Soils Removal	Completed	14-Nov-1997	30-Sep-1998
2.01.01.49	Remediation Human Health Exceedance Soils	Completed	27-Sep-1999	30-Mar-2006
2.01.02	Enhanced Hazardous Waste Landfill			
2.01.02.01	Pre Design Activities	Completed	13-Apr-1999	12-Aug-2003
2.01.02.02	Design	Completed	17-Nov-2000	25-Aug-2010
2.01.02.03	Remediation (Construct/Ops/Closure)	Completed	22-Aug-2003	24-Mar-2011
2.01.02.04	Short Term Monitoring and Maintenance	Completed	27-May-2010	30-Nov-2010
2.01.03	Basin A Consolidation and Remediation			
2.01.03.02	Design	Completed	3-Jun-1996	22-Apr-2008
2.01.03.03	Remediation	Completed	14-Nov-1997	1-Apr-2011
2.01.03.04	Short Term Monitoring and Maintenance	Completed	1-Oct-2008	30-Nov-2010
2.02.04	Sanitary Sewer Manhole Plugging - Phase I			
2.02.04.02	Design	Completed	3-Jun-1996	30-May-1997
2.02.04.03	Remediation	Completed	3-Sep-1997	30-Sep-1998
2.02.05	SPCP / Complex Trench Chemical Sewer Plugging			
2.02.04.02	Design	Completed	3-Jun-1996	30-May-1997
2.02.04.03	Remediation	Completed	3-Sep-1997	30-Sep-1998
2.02.06	Shell / Complex Trench Slurry Walls			
2.02.04.02	Design	Completed	3-Jun-1996	12-Sep-1997
2.02.04.03	Remediation	Completed	27-Apr-1998	30-Sep-2002
2.02.04.04	Short Term Monitoring and Maintenance	Completed	12-Mar-2001	30-Sep-2010
2.02.07	Post-ROD Removal Actions for Structures			
2.02.07.04	Remediation	Completed	3-Jun-1996	29-Sep-2000
2.03.08	Toxic Storage Yards			
2.03.08.02	Design	Completed	21-Apr-1998	17-Mar-1999
2.03.08.03	Remediation	Completed	3-May-1999	20-Jun-2000
2.03.09	Existing Sanitary Landfills			
2.03.09.02	Design	Completed	13-Aug-1997	19-May-2005
2.03.09.03	Remediation	Completed	22-Nov-1998	16-Aug-2005

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

WBS	Description	Status	Start Date	Finish Date
2.03.10	Lake Sediments			
2.03.10.02	Design	Completed	29-Sep-1997	13-Oct-1998
2.03.10.03	Remediation	Completed	13-Dec-1998	20-Apr-2000
2.03.11	Burial Trenches			
2.03.11.02	Design	Completed	22-Aug-1997	13-Dec-1999
2.03.11.03	Remediation	Completed	28-Feb-2000	30-Sep-2004
2.03.12	Munitions Testing Soils			
2.03.12.02	Design	Completed	22-Aug-1997	3-Jul-2007
2.03.12.03	Remediation	Completed	01-Mar-2000	14-May-2009
2.03.13	Miscellaneous Northern Tier Soils			
2.03.13.02	Design	Completed	29-Sep-1997	13-Oct-1998
2.03.13.03	Remediation	Completed	22-Dec-1998	20-Apr-2000
2.03.14	Miscellaneous Southern Tier Soils			
2.03.14.02	Design	Completed	29-Sep-1997	22-Dec-2005
2.03.14.03	Remediation	Completed	22-Dec-1998	2-Sep-2008
2.03.15	Section 36 Bedrock Ridge Extraction System			
2.03.15.02	Design	Completed	24-Feb-1997	8-Jun-2006
2.03.15.03	Remediation (Construction)	Completed	19-May-1999	30-Sep-2008
2.03.16	South Plants Structure Demolition			
2.03.16.02	Design	Completed	28-Aug-1997	4-Oct-1999
2.03.16.03	Remediation (Construction)	Completed	22-Nov-1998	2-Jul-2002
2.03.17	Miscellaneous RMA Structure Demolition			
2.03.17.02	Design	Completed	2-Nov-1998	1-Nov-2007
2.03.17.03	Remediation (Construction)	Completed	24-Feb-2000	13-Jul-2011
2.06.17.50	Drum Shredding	Completed	28-Aug-2000	30-Sep-2002
2.04.18	Buried M-1 Pits			
2.04.18.01	Pre Design	Completed	16-Dec-1998	12-Apr-2000
2.04.18.02	Design	Completed	3-Jan-2000	25-Jan-2001
2.04.18.03	Remediation	Completed	9-Feb-2001	18-Jul-2002

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

WBS	Description	Status	Start Date	Finish Date
2.04.19	Hex Pit Soils			
2.04.19.01	Pre Design	Completed	9-Sep-1996	17-Apr-2003
2.04.19.02	Design	Completed	8-Feb-2000	30-Oct-2003
2.04.19.03	Remediation	Completed	21-Mar-2001	21-Jul-2004
2.04.20	South Plants BOA / CPA - Phase II			
2.04.20.02	Design	Completed	1-Jun-1998	22-Apr-2008
2.04.20.03	Remediation	Completed	3-Dec-2001	26-Jan-2011
2.04.20.04	Short Term Monitoring and Maintenance	Completed	5-Oct-2009	30-Nov-2010
2.04.21	South Plants BOA / CPA - Phase I			
2.04.21.02	Design	Completed	1-Jun-1998	24-Mar-2000
2.04.21.03	Remediation	Completed	28-Feb-2000	24-Sep-2002
2.05.22	Sanitary Sewer Manhole Plugging - Phase II			
2.05.22.02	Design	Completed	14-Jan-2002	24-Jan-2008
2.05.22.03	Remediation (Construction)	Completed	13-Dec-2007	17-Feb-2009
2.05.23	Section 36 Balance of Areas			
2.05.23.02	Design	Completed	19-Dec-2000	8-Jun-2006
2.05.23.03	Remediation	Completed	19-May-2003	22-Feb-2010
2.05.24	Secondary Basins			
2.05.24.02	Design	Completed	23-Aug-1999	31-Jan-2002
2.05.24.03	Remediation	Completed	21-Mar-2001	15-Jun-2009
2.05.25	Complex Army Disposal Trenches			
2.05.25.02	Design	Completed	17-Dec-2002	22-Apr-2008
2.05.25.03	Remediation	Completed	27-Jul-2005	26-Jan-2011
2.05.25.04	Short Term Monitoring and Maintenance	Completed	21-Sep-2009	30-Nov-2010
2.05.26	Shell Disposal Trenches			
2.05.26.02	Design	Completed	17-Dec-2002	22-Apr-2008
2.05.26.03	Remediation	Completed	4-Feb-2005	26-Jan-2011
2.05.26.04	Short Term Monitoring and Maintenance	Completed	29-Oct-2007	30-Nov-2010
2.05.27	North Plants Soil Remediation			
2.05.27.02	Design	Completed	5-Jun-2003	6-Jan-2009
2.05.27.03	Remediation (included in NP Structure Demo)	Completed	NA	NA

F represents forecast completion date



**Table 4.0-1 Remedy Project Status and Completion Dates**

<b>WBS</b>	<b>Description</b>	<b>Status</b>	<b>Start Date</b>	<b>Finish Date</b>
2.05.28	Section 35 Soil Remediation			
2.05.28.02	Design	Completed	1-Dec-1998	27-Sep-2005
2.05.28.03	Remediation	Completed	28-Jun-2002	2-Sep-2008
2.05.29	North Plants Structure Demolition			
2.05.29.02	Design	Completed	28-Feb-2000	28-Sep-2004
2.05.29.03	Remediation	Completed	21-Mar-2001	30-Sep-2004
2.06.30	Basin F Wastepile			
2.06.30.01	Pre Design	Completed	8-Feb-1999	31-Jan-2001
2.06.30.02	Design	Completed	16-Oct-2000	2-Jun-2005
2.06.30.03	Remediation	Completed	30-Mar-2005	15-Jun-2009
2.06.31	Former Basin F			
2.06.31.01	Pre Design	Completed	2-Apr-2001	6-Apr-2005
2.06.31.02	Design	Completed	19-Aug-2005	20-Dec-2007
2.06.31.03	Remediation	Completed	3-Apr-2007	16-Jul-2009
2.06.32	Basin F / Basin F Exterior			
2.06.32.02	Design	Completed	23-Aug-1999	14-May-2008
2.06.32.03	Remediation	Completed	20-Dec-2001	25-Aug-2011
2.06.32.04	Short Term Monitoring and Maintenance	Completed	8-Sep-2009	30-Nov-2010
2.06.33	Section 36 Lime Basins			
2.06.33.01	Pre Design	Completed	12-Apr-1999	7-Nov-2006
2.06.33.02	Design	Completed	8-Oct-2001	22-Apr-2008
2.06.33.03	Remediation	Completed	20-Apr-2007	26-Jan-2011
2.06.33.04	Short Term Monitoring and Maintenance	Completed	14-Sep-2009	30-Nov-2010
2.07.34	RCRA-Equivalent Cover Demonstration Project			
2.07.34.01	Pre Design	Completed	3-Jun-1996	4-Sep-2001
2.07.35	Borrow Areas			
2.07.35.02	Design Activities	Completed	28-Aug-1997	30-Dec-2010
2.07.35.03	Construction/Operations/Closure	Completed	28-Aug-1997	30-Dec-2010
2.07.38	Site-Wide Biota Monitoring			
2.07.38.04	Short Term Monitoring and Maintenance	Ongoing	11-Jun-1996	15-Feb-2012 <sup>F</sup>

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

<b>WBS</b>	<b>Description</b>	<b>Status</b>	<b>Start Date</b>	<b>Finish Date</b>
2.07.39	Site-Wide Air Monitoring			
2.07.39.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	30-Sep-2010
2.07.41	Site-Wide Plume Monitoring			
2.07.41.04	Short Term Monitoring and Maintenance	Ongoing	11-Jun-1996	27-Jan-2012F
2.07.42	Confined Flow System Monitoring			
2.07.41.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	18-Jan-2011
2.07.43	Medical Monitoring Program			
2.07.41.04	Short Term Monitoring and Maintenance	Ongoing	6-Dec-1995	12-Oct-2011F
2.07.63	Site-Wide Traffic Management			
2.07.63.02	Design	Completed	28-Aug-1997	27-May-2005
2.07.63.03	Remediation/Construction/Operations/Removal	Completed	4-Aug-1998	31-May-2011
2.07.64	Site-Wide Geophysical Investigation			
2.07.64.01	Pre Design Activities	Completed	23-Mar-1998	01-Feb-1999
2.07.65	Unexploded Ordnance Disposal			
2.07.65.03	Remediation Activities	Completed	1-Jan-1999	29-Jul-2011
2.07.66	Biota Barrier Material			
2.07.66.02	Design Activities	Completed	NA	NA
2.07.66.03	Remediation Activities	Completed	25-Sep-2000	18-Mar-2005
2.07.67	Permanent Revegetation /Irrigation Support			
2.07.67.02	Design Activities	Completed	3-Nov-1998	3-Nov-2009
2.07.67.03	Remediation Activities	Ongoing	7-Dec-1998	30-Dec-2011F
2.07.68	Drummed Waste Handling			
2.07.68.02	Design Activities	Completed	1-Dec-1998	28-Apr-2000
2.07.69	Well Abandonment / Retention Program			
2.07.69.04	Short Term Monitoring and Maintenance	Completed	23-Jan-2002	29-Jul-2005
2.08.44	SACWSD Water Supply			
2.08.44.04	Short Term Monitoring and Maintenance	Completed	6-Oct-1996	28-Apr-2000

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

<b>WBS</b>	<b>Description</b>	<b>Status</b>	<b>Start Date</b>	<b>Finish Date</b>
2.08.45	On-Post Water Supply			
2.08.45.01	Pre Design	Completed	3-Jun-1996	5-Oct-2004
2.08.46	Confined Flow System Well Closure			
2.08.46.02	Design Activities	Completed	2-Sep-1997	12-Jan-1999
2.08.46.03	Remediation Activities	Completed	22-Mar-1999	27-Sep-2000
2.08.47	Irondale / RY MP Containment System			
2.08.47.04	Short Term Monitoring and Maintenance	Ongoing	11-Jun-1996	30-Sep-2011F
2.08.48	Basin A Neck System			
2.08.48.04	Short Term Monitoring and Maintenance	Ongoing	11-Jun-1996	7-Jan-2012F
2.08.49	CERCLA Wastewater Treatment Facility			
2.08.49.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	23-Jun-2010
2.08.50	Northwest Boundary System			
2.08.50.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	1-Oct-2010
2.08.51	North Boundary System			
2.08.51.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	21-Dec-2010
2.08.52	South Lakes Plume Management			
2.08.52.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	18-Jan-2011
2.08.77	Groundwater Mass Removal System			
2.08.77.04	Short Term Monitoring and Maintenance	Ongoing	14-Mar-2005	27-Oct-2011F
2.08.78	North Plants LNAPL Recovery			
2.08.78.04	Short Term Monitoring and Maintenance	Ongoing	14-Jan-2008	2-Dec-2011F
2.08.79	Lime Basins DNAPL Investigation			
2.08.79.01	Pre Design Activities	Ongoing	30-Nov-2009	13-Jun-2011
2.09.54	Program Management	Ongoing	11-Jun-1996	28-Sep-2012F
2.09.55	Remedy Support and Operations	Ongoing	11-Jun-1996	28-Sep-2012F
2.09.56	Remedy Execution	Ongoing	11-Jun-1996	28-Sep-2012F
2.09.57	US Fish and Wildlife / Habitat Mitigation	Ongoing	11-Jun-1996	30-Sep-2011F
2.09.58	Program Controls	Ongoing	11-Jun-1996	28-Sep-2012F

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

WBS	Description	Status	Start Date	Finish Date
2.09.59	Public Outreach	Ongoing	NA	NA
2.09.72	Five Year Reviews	Ongoing	1-Nov-1999	14-Oct-2011F
2.09.76	Environmental Management System	Ongoing	24-Apr-2008	17-Nov-2011F
2.10.xx	Party Only Program Management	Ongoing	11-Jun-1996	30-Sep-2011F
2.12.70	RMA Remedial Action Summary Report	Ongoing	16-Feb-2011	30-Sep-2011F
3.11.60	RMA Off-Post Surficial Soil			
3.11.60.03	Remediation Activities	Completed	4-Mar-1996	26-Aug-1997
3.11.61	RMA Off-Post Water Treatment System			
3.11.61.04	Short Term Monitoring and Maintenance	Completed	11-Jun-1996	29-Oct-2010
3.11.62	RMA Off-Post Well Closure			
3.11.62.02	Design Activities	Completed	NA	NA
3.11.62.03	Remediation Activities	Completed	3-Jun-1996	30-Sep-1999
4.01.01	Hazardous Waste Landfill	Ongoing		
4.01.02	Enhanced Hazardous Waste Landfill	Ongoing		
4.01.03	Integrated Cover System	Ongoing		
4.01.04	Basin F Cover	Ongoing		
4.02.05	North Boundary System	Operating		
4.02.06	Northwest Boundary System	Operating		
4.02.07	Basin A Neck System	Operating		
4.02.08	Rail Yard	Operating		
4.02.09	Off-Post Water Treatment Facility	Operating		
4.03.10	Site-Wide Plume Monitoring	Ongoing		
4.03.11	Medical Monitoring Program	Ongoing		
4.03.12	Well Abandonment/Maintenance	Ongoing		
4.03.13	Analytical Coordination	Ongoing		
4.03.14	Five-Year Reviews/Closeout Reports	Ongoing		
4.03.15	Land Use Control Monitoring/Reporting	Ongoing		
4.03.16	RMA Facility Operations and Maintenance	Ongoing		
4.03.17	RMA Facility Operations - IJOs	Ongoing		
4.03.18	Operations Waste Management	Ongoing		
4.04.19	Regulatory Oversight	Ongoing		
4.04.20	Data Management/Information systems	Ongoing		
4.04.21	Remedy Operations Oversight	Ongoing		
4.04.22	Utilities	Ongoing		
4.04.23	Land Transfers	Ongoing		

F represents forecast completion date

**Table 4.0-1 Remedy Project Status and Completion Dates**

<b>WBS</b>	<b>Description</b>	<b>Status</b>	<b>Start Date</b>	<b>Finish Date</b>
4.04.24	OMC Management	Ongoing		
4.04.25	USFWS Support	Ongoing		
4.04.26	Program Controls	Ongoing		
4.04.27	Health & Safety	Ongoing		
4.04.28	Security	Ongoing		
4.04.29	Public Outreach	Ongoing		
4.04.30	Contracting	Ongoing		
4.04.31	Compliance/QA	Ongoing		
4.04.32	Central Repository/Business Management	Ongoing		
4.04.33	Legal Office	Ongoing		
4.04.34	Program Manager	Ongoing		

Table 5.2.2-1 Uncontaminated Borrow Material Volumes

Borrow Area	WBS Project Number	Project	Volume (bcy)
1	9	Existing (Sanitary) Landfills Remediation (Sections 1 & 4)	44,972
	17	Miscellaneous RMA Structures Demolition	6,825
	11	Burial Trenches Soil Remediation (Section 4)	3,634
		Borrow Area 1 Total	55,431
2	NA	Borrow Area Reserved (not used)	-
3	18	Buried M-1 Pits Soil Remediation	18,015
	24	Secondary Basin Soil Remediation (Part 1)	8,200
	NA	U.S. Fish and Wildlife Service (USFWS)	780
	24	Secondary Basins (Part 2) / Section 35 Soil Remediation	16,800
	1,3	Basin A and HWL Operations	62,933
	NA	U.S. Fish and Wildlife Service (Basin E Berm)	1,000
	19	Hex Pit Soil Remediation (redesign)	5,700
	17,23,14,32	Miscellaneous RMA Structures Demolition and Removal Project Phase II, Section 36 Balance of Areas and Deep Acute Excavation Areas Project (Basin F Exterior and Miscellaneous Southern Tier Soils)	23,084
	1,3	Basin A and HWL Operations	23,313
	30	Basin F Drying Facility	32,505
	14	Sand Creek Lateral (backfill)	73,781
	3	Integrated Cover System (ICS) Gradefill (Basin A North)	215,147
	30	Basin F Wastepile Remediation (Backfill and final contours)	108,347
	3	Basin A Notch	100,000
	21	ICS 2-foot and 3-foot Covers	1,093,968
	3,20,23,25,33	ICS Gradefill/Backfill [Basin A, Complex (Army) Trenches (CAT), South Plants Central Processing Area (CPA), Section 36 BOA, and Lime Basins]	542,600
		Borrow Area 3 Total	2,326,173
4	2	ELF Operations	149,865
	3	ICS RCRA-Equivalent Cover	226,990
	2	ELF Cap	279,894
	32	Basin F (RCRA-Equivalent Cover) and Frost Protection Layer	425,196
		Borrow Area 4 Total	1,081,945
5	63	Stage I Haul Roads	5,750
	1	Excavation of Corrective Action Management Unit (CAMU) Soils	20,460
	NA	Lake Ladora Spillway Reconstruction	16,700
	1	HWL Construction - Cell 1	283,100
	63	Stage II Haul Roads	7,860
	1	HWL Construction - Cell 2	471,700
	1	HWL Operations	5,600
	2	ELF (compacted clay liner)	288,703

Table 5.2.2-1 Uncontaminated Borrow Material Volumes

Borrow Area	WBS Project Number	Project	Volume (bcy)
5 (cont.)	2	ELF(compacted clay liner)	172,739
	2	ELF Operations (associated with Sanitary Sewer Line)	174,830
	1	HWL RCRA Cap	654,584
	2	ELF Cap	23,527
		Borrow Area 5 Total	2,125,553
6	NA	Borrow Area characterized as RER soil, no uncontaminated soil removed	-
7A	1	Excavation of CAMU Soils	28,491
	63	Stage II Haul Roads	6,600
	3	Basin A Operations Facility (Construction)	15,000
	3	Basin A Consolidation and Remediation (Operations Subcontractor)	
		2000 Usage	99,421
		2001 Usage	163,659
		2002 Usage	86,423
	1	HWL Operations	
		2001 Usage	26,911
		2002 Usage	24,910
	24,28	Secondary Basins (Part 2)/Section 35 Soil Remediation	2,000
	32	Basin F Exterior Soils Remediation	53,800
	29	North Plants Structure Demolition and Removal (backfill)	33,807
	29	North Plants Structure Demolition and Removal (backfill)	57,000
	1,3	Disposal Facility Operations (Basin A and HWL)	-
		Borrow Area 7A Total	598,022
7B	9	Section 36 Existing Sanitary Landfills	8,700
		Borrow Area 7B Total	8,700
8	NA	Borrow Area characterized as RER soil, no uncontaminated soil removed	-
9A	23	Section 36 Balance of Areas (Part 1)	11,086
		Borrow Area 9A Total	11,086
9B	NA	Borrow Area not used; incorporated into Section 36 BOA final grade design	-
9C (3)	25	Stockpiled for RCRA-Equivalent cover adjacent to CAT	73,700
			73,700
10	6	Shell/Complex Trench Slurry Walls (from abovegrade berms)	59,346
	63	Stage I Haul Roads (from abovegrade berms)	25,500
	8	Toxic Storage Yard (ESA-3a, -3b) (from abovegrade berms)	8,505
	3	Basin A Consolidation and Remediation (Operations Subcontractor)	
		2000 Usage	86,931

Table 5.2.2-1 Uncontaminated Borrow Material Volumes

Borrow Area	WBS Project Number	Project	Volume (bcy)
10 (cont.)		2001 Usage	164,875
	11	Burial Trenches Soils (ESA-2a-4, -5, -6, -7) (from abovegrade berms)	16,170
	1	HWL Operations - 2001 Usage	30,031
	11	Burial Trenches Soils (Secs 29, 30 and 32)	21,340
	20,21	South Plants Subgrade	28,270
	25	CAT Remediation (gradefill)	183,416
	26	ICS RCRA Cover (Shell) - Two Stockpiles	131,187
	11	Burial Trenches Soils - Demo Pits	500
	17	Miscellaneous RMA Structures Demolition and Removal Project Phase III - Asbestos Containing Material (ACM) Trenches	9,004
	3,20,25,33	ICS RCRA Equivalent Covers (Basin A, CAT, South Plants CPA, and Lime Basins)	1,920,676
	3,25	Perimeter gradefill (CAT and North Basin A)	128,453
Borrow Area 10 Total			2,814,204
11	25	South Plants Soil Remediation for gradefill in CAT	39,993
		Borrow Area 11 Total	39,993
12	1	HWL Excavation	704,260
	1	CAMU Soil Remediation	8,818
		Borrow Area 12 Total	713,078
Total Uncontaminated Borrow Material Volume Used			9,847,885

Note: Project Number represents WBS Level 3 number.



**Table 7.0-1 Remedial Project O&M Requirements**

<b>WBS</b>	<b>Long-Term WBS</b>	<b>Project Name</b>	<b>Status August 31, 2011</b>	<b>Operation and Maintenance Requirement</b>
2.01.01	4.01.01	Hazardous Waste Landfill Cap Construction	Completed, Post-Closure O&M	Landfill inspections and maintenance required per HWL Post-Closure Plan Manage the storage and disposal of leachate per HWL Post-Closure Plan Monitor leachate collection and leak detection systems per HWL Post-Closure Plan Groundwater monitoring and well maintenance and repairs per HWL Post-Closure Plan
2.01.02	4.01.02	Enhanced Hazardous Waste Landfill Cap Construction	Completed, Post-Closure O&M	Landfill inspections and maintenance required per ELF Post-Closure Plan Manage the storage and disposal of leachate per ELF Post-Closure Plan Monitor leachate collection and leak detection systems per ELF Post-Closure Plan Groundwater monitoring and well maintenance and repairs per ELF Post-Closure Plan
2.01.03	4.01.03	Integrated Cover System, Basin A Consolidation and Remediation Area	Completed, Interim O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP (long-term O&M once O&F determination is made)
2.02.04	4.03.15	Sanitary and Chemical Sewer Manhole Plugging Phase I	Completed	Inspect sanitary sewer markers in accordance with the Land Use Control Plan
2.02.06	4.03.10	Shell Disposal Trenches Slurry Walls (Dewatering)	Operating, Long-Term Monitoring	Water level monitoring per LTMP Well maintenance and repairs performed as needed per LTMP
2.02.06	4.02.07	Complex (Army) Disposal Trenches Slurry Walls (Dewatering)	Operating, Long-Term Monitoring	Water level monitoring per LTMP Well maintenance and repairs performed as needed per LTMP
2.03.14	4.03.15	Miscellaneous Southern Tier Soil Remediation	Completed	Prevent excavation of contaminated soils and sediments at site SSA-3b in accordance with the Land Use Control Plan
2.03.15	4.02.07	Bedrock Ridge Extraction System	Operating, Long-Term O&M	Water level and water quality monitoring per LTMP Extraction system O&M per BANS Operations and Maintenance Manual Well maintenance and repairs performed as needed per LTMP

**Table 7.0-1 Remedial Project O&M Requirements**

<b>WBS</b>	<b>Long-Term WBS</b>	<b>Project Name</b>	<b>Status August 31, 2011</b>	<b>Operation and Maintenance Requirement</b>
2.04.20 2.04.21	4.01.03	Integrated Cover System, South Plants Balance of Areas and Central Processing Area	Completed, Interim O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP (long-term O&M once O&F determination is made)
2.05.22	4.03.15	Sanitary Sewer Manhole Plugging Project Phase II	Completed	Inspect sanitary sewer markers in accordance with the Land Use Control Plan
2.05.23	4.01.03	Section 36 Balance of Areas Soil Remediation	Completed, O&M	Inspect and maintain areas in accordance with the LTCP
2.05.25	4.01.03	Integrated Cover System, Complex (Army) Disposal Trenches Remediation Cover	Completed, Interim O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP (long-term O&M once O&F determination is made)
2.05.26	4.01.03	Shell Disposal Trenches RCRA-Equivalent Cover Construction	Completed, Interim O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP (long-term O&M once O&F determination is made) Monitor soil moisture content (Soil Cover Moisture Monitoring System Operations and Maintenance Plan) per the LTCP
2.05.26	4.01.03	Integrated Cover System, Shell Disposal Trenches 2-foot Soil Covers	Completed, Interim O&M	Cover inspections and maintenance required per the LTCP (long-term O&M once O&F determination is made)
2.06.32	4.01.04	Basin F/Basin F Exterior RCRA-Equivalent Cover Construction (Basin F Cover)	Completed, Post-Closure O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP and Basin F Post-Closure Plan Groundwater monitoring per Basin F Post-Closure Plan Well maintenance and repairs performed as needed per LTMP
2.06.33	4.01.03	Integrated Cover System, Section 36 Lime Basins Cover	Completed, Interim O&M	Cover inspections and maintenance, percolation monitoring, and vegetation assessment required per the LTCP (long-term O&M once O&F determination is made)
2.06.33	4.02.07	Section 36 Lime Basins Soil Remediation Slurry/Barrier Wall, including Lime Basins Dewatering Wells	Operating, Long-Term O&M	Maintain positive hydraulic gradient from the outside to the inside of the barrier wall Water level monitoring per LTMP Pump and treat groundwater to meet dewatering goals. Extraction system O&M per Basin A Neck Treatment System Operations and Maintenance Manual Well maintenance and repairs performed as needed per LTMP

**Table 7.0-1 Remedial Project O&M Requirements**

<b>WBS</b>	<b>Long-Term WBS</b>	<b>Project Name</b>	<b>Status August 31, 2011</b>	<b>Operation and Maintenance Requirement</b>
2.07.41 2.07.42	4.03.10	Site-Wide Groundwater Monitoring (includes CFS and off-post monitoring)	Ongoing	On- and off-post water level and water quality monitoring per LTMP Well maintenance and repairs performed as needed per LTMP
2.07.41	4.03.10	Off-Post Surface Water Monitoring	Ongoing	Assess contaminant concentration reduction and remedy performance through surface water sampling at two locations and at frequencies specified in the LTMP
2.07.65	NA	Unexploded Ordnance (UXO) Management	As Needed	Manage the potential to encounter military munitions, or remnants thereof, on RMA in accordance with the <i>Response Plan for Recovered Material Potentially Presenting an Explosive Hazard (MPPEH)</i> (TtEC 2010k) and <i>RMA Incident and Emergency Management Policy and Contingency Plan</i> (RVO 2010b)
2.07.69	4.03.12	Site-Wide Well Abandonment/Retention	Ongoing	Well retention per LTMP
2.08.44	NA	South Adams County Water Supply	As Needed	Provide connection to water distribution system, deep well, or other permanent solution if potable wells are found to have DIMP concentration greater than 8 ppb
2.08.47	4.03.10	Irondale Containment System Motor Pool Area Treatment System	Operations Completed	Continue post-shut-off monitoring per LTMP and Motor Pool Post-Shut-Off Monitoring SAP
2.08.47	4.02.08	Railyard Containment System	Operating	Continued operation of groundwater containment system in accordance with the Railyard Treatment System Operations and Maintenance Manual, Volume 1 Water level and water quality monitoring per LTMP Well maintenance and repairs performed as needed per LTMP
2.08.48	4.02.07	Basin A Neck System	Operating	Continued operation of groundwater extraction and treatment systems to achieve mass removal goals Water level and water quality monitoring per LTMP Treatment system and well maintenance and repairs performed as needed per Basin A Neck Treatment System Operations and Maintenance Manual and LTMP
2.08.50	4.02.06	Northwest Boundary Containment System	Operating	Continued operation of groundwater extraction and treatment system to achieve CSRG/PQLs and system shut-down criteria Operate system to maintain plume capture and reverse hydraulic gradient Water level and water quality monitoring per LTMP Treatment system and well maintenance and repairs performed as needed per the NWBCS Operations and Maintenance Manual and LTMP

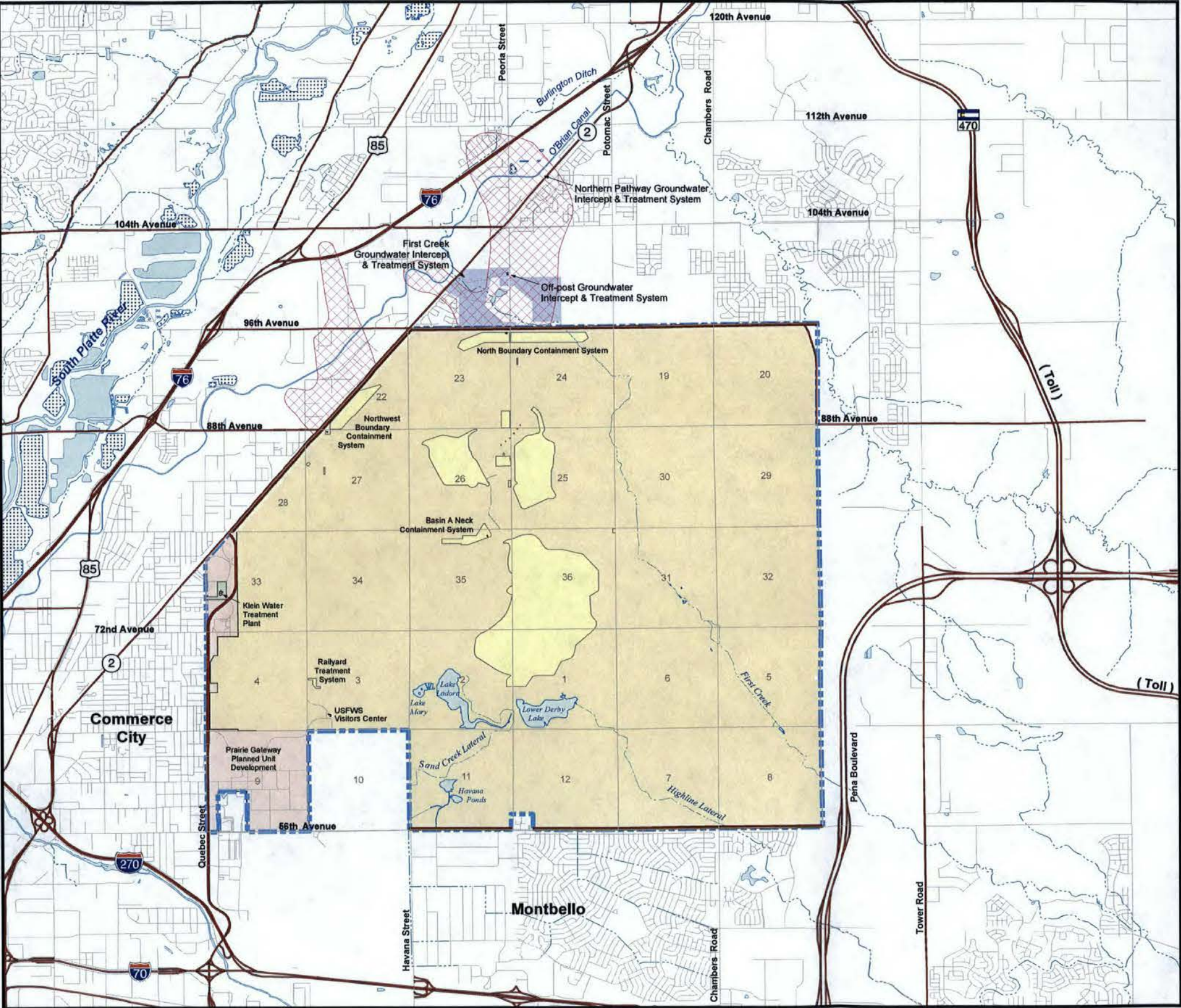
**Table 7.0-1 Remedial Project O&M Requirements**

<b>WBS</b>	<b>Long-Term WBS</b>	<b>Project Name</b>	<b>Status August 31, 2011</b>	<b>Operation and Maintenance Requirement</b>
2.08.51	4.02.05	North Boundary Containment System	Operating	Continued operation of groundwater extraction and treatment system to achieve CSRG/PQLs and system shut-down criteria Operate system to maintain plume capture and reverse hydraulic gradient Water level and water quality monitoring per LTMP Treatment system and well maintenance and repairs performed as needed per the NBCS Operations and Maintenance Manual and LTMP
2.09	4.03.15	Off-Post Institutional Controls	Ongoing	Lock and protect off-post wells Prepare and submit updated CSRG exceedance and notification maps after each sampling round for the State Engineer's Well Notification Program in accordance with the Land Use Control Plan Prepare updates to notification maps and continue to assure the State Engineer's Office is provided with the necessary information to implement the off-post well notification program Prohibit drilling new alluvial wells and use of deeper groundwater underlying the Shell Property until groundwater contamination no longer exceeds CSRGs
2.09	4.03.15	Land Use Controls	Ongoing	Annual monitoring and reporting in accordance with the Land Use Control Plan Maintain primary land use restrictions per the FFA and ROD Prohibit use of basements without appropriate feasibility study Prevent excavation of SSA-3b; maintain signs at site Maintain sanitary sewer markers Ensure protection of groundwater remedial action structures
2.09	4.03.14	CERCLA Five-year Reviews	Ongoing	Statutory requirement (includes On-Post and Off-Post OUs)
3.11.61	4.02.09	Off-Post Groundwater Intercept and Treatment System	Operating	Continued operation of groundwater extraction and treatment system to achieve mass removal goals Water level and water quality monitoring per LTMP Treatment system and well maintenance and repairs performed as needed per Off-Post Groundwater Intercept and Treatment System Operations and Maintenance Manual
2.09	4.04.19	Private Well Network	Operating	Water level and water quality monitoring per LTMP in cooperation with TCHD

## FIGURES



# RMA Regional Reference Figure 1.1-1



NAD27-NGVD29 Datum, US Survey Feet,  
Colorado North Zone

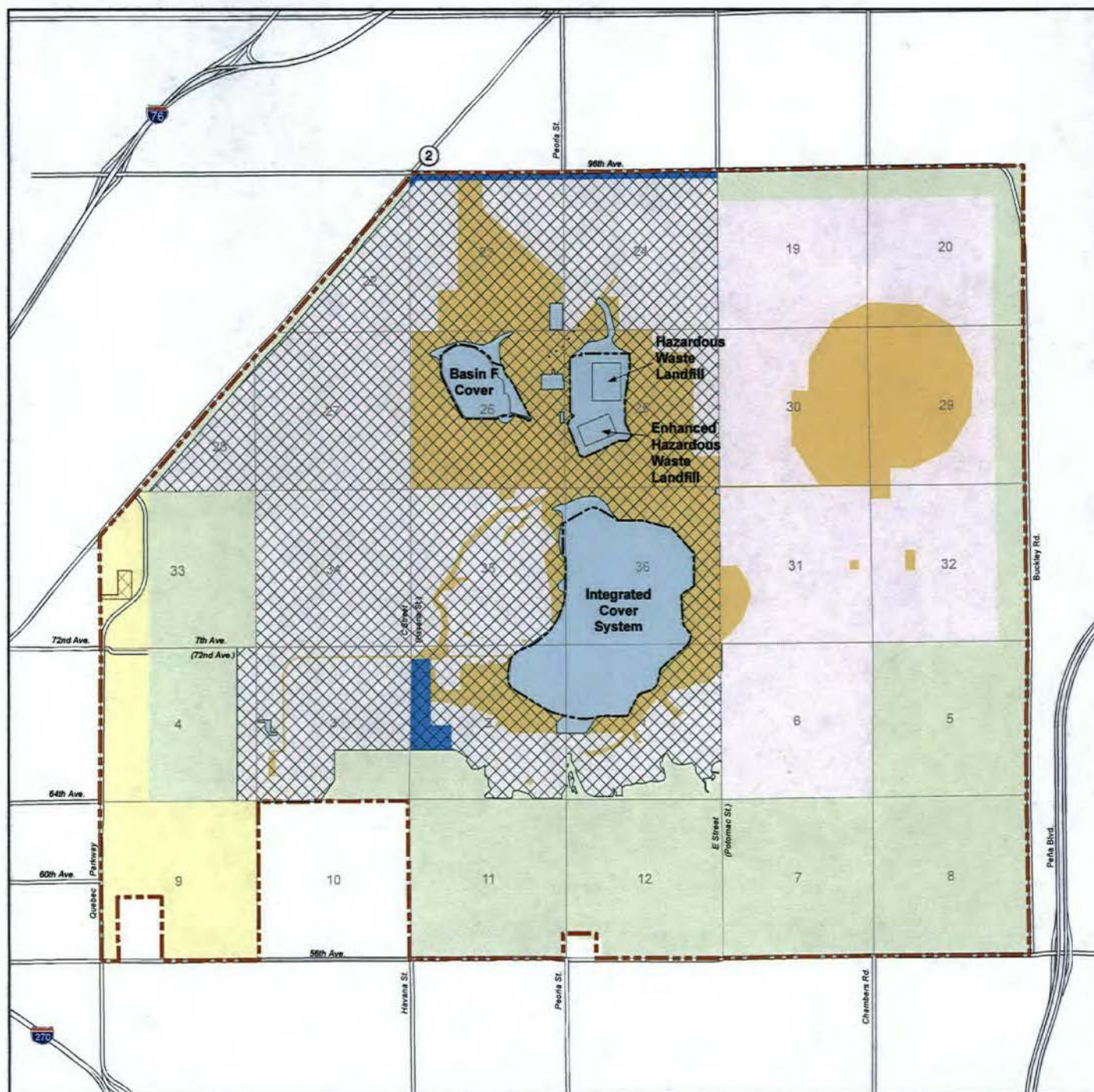
Sources: U.S. Army BIMS, U.S. Army COE, USGS DLG, USFWS,  
URS - Washington Division, Tetra Tech-EC, RVO GIS



Remediation Venture Office GIS



# Rocky Mountain Arsenal On-Post Deletion Areas



## Deletion Areas

- Western Tier Deletion (Jan. 2003)
- Surface Deletion Area (Jan. 2004)
- Selected Perimeter Deletion Area (Jan. 2004)
- Internal Parcel Deletion Area (Jul. 2006)
- Central & Eastern Areas Deletion (Sep. 2010)
- Areas Remaining to be Deleted

- Army Maintained Area
- RMA On-Post Operable Unit
- Surface Deletion Only with Groundwater Remaining on NPL
- South Adams County - Klein Treatment Facility



0 2,400 4,800 9,600  
Feet

State Plane Coordinate System, CO North Zone  
NAD27-NGVD29 Datum, U.S. Survey Feet

Sources: U.S. Army BIMS; TetraTech-EC,  
URS - Washington Division, RVO GIS

## Remediation Venture Office GIS

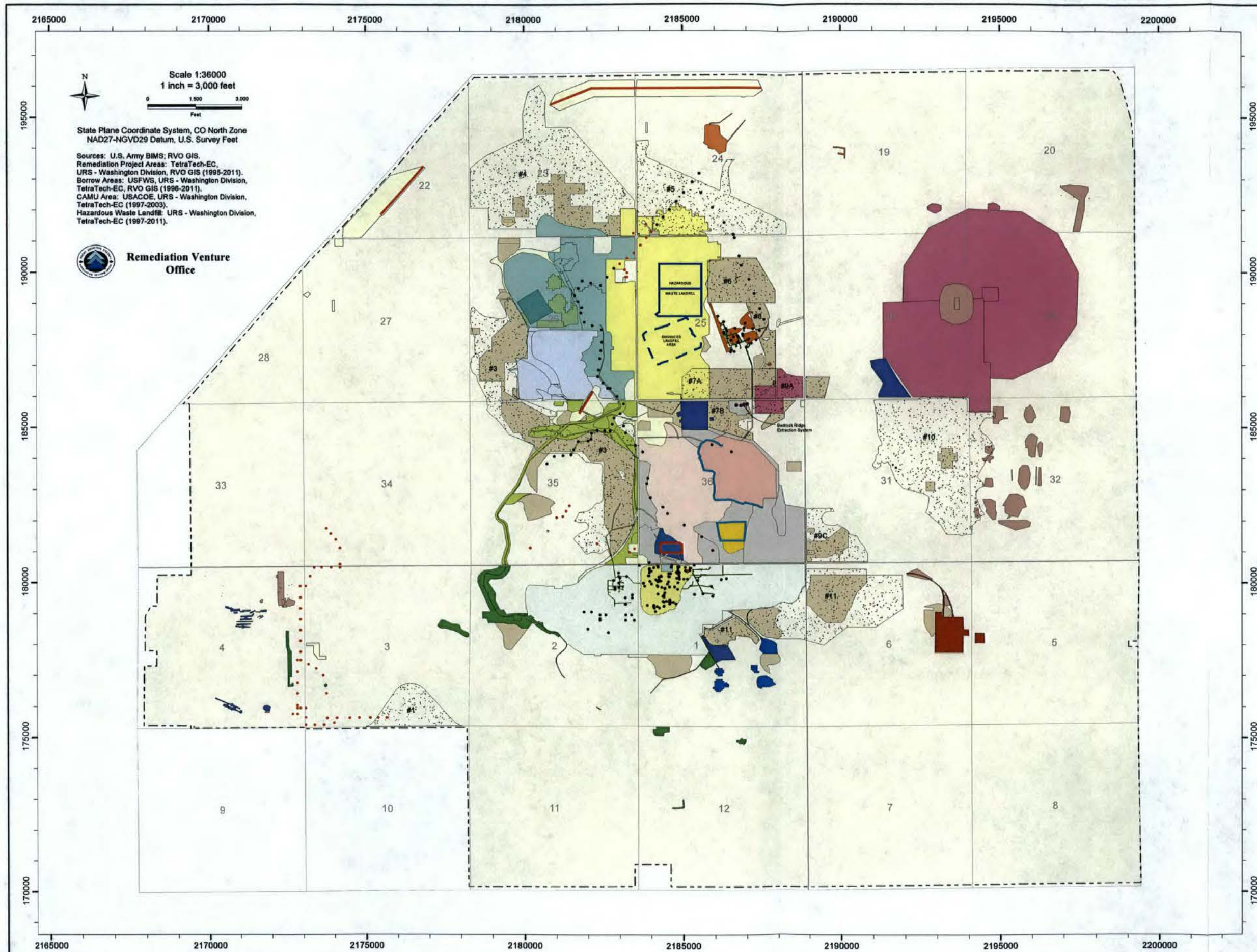
GIS Analyst:  
J. Thompson  
Date: 9/16/2011  
Scale:  
Prepared For:  
S. Ache  
Approved:

Figure 1.3-1



File Location:  
S:\giswork\gis\RA\_Summary\_Report\mxd\deletion\_stages\_fig\_1-3-1.mxd





## Remediation Implementation Project Areas

### Disposal Facilities - Basin A/Landfills

- Construct Hazardous Waste Landfill, Associated Influent/Effluent Basins, and Uncontaminated Detention Basin (1)
- CAMU Area Site Project (1)
- Operational Construction of Enhanced Hazardous Waste Landfill (2)
- Basin A Consolidation & Remediation (3)

### Early Start Projects

- Sanitary Sewer Manhole Plugging - Phase I (4)
- South Plants Central Processing Area and Complex Trench Chemical Sewer Plugging (5)
- Shell/Complex Trench Slurry Walls (6)
- Post-ROD Removal Actions for Structures (7) (Not Shown)

### PHASE I: Outlying Areas

- Toxic Storage Yards Soil Remediation (8)
- Existing Sanitary Landfill Remediation (9)
- Lake Sediments Remediation (10)
- Burial Trenches Soil Remediation (11)
- Munitions (Testing) Soil Remediation (12)
- Miscellaneous Northern Tier Soil Remediation (13)
- Miscellaneous Southern Tier Soil Remediation (14)
- Section 36 Bedrock Ridge Extraction System (15)
- South Plants Structures Demolition (16) and Removal (Not Shown)
- Miscellaneous Structures Demolition (17) and Removal (Not Shown)

### PHASE II: South Plants

- Buried M-1 Pits Soil Remediation (18)
- Hex Pit Soil Remediation (19)
- South Plants Central Processing Area (20) Soil Remediation
- South Plants Balance of Areas Soil Remediation (21)

### PHASE III: Sections 35 & 36 Sites

- Sanitary Sewer Manhole Plugging - Phase II (22)
- Section 36 Balance of Areas Soil Remediation (23)
- Secondary Basins Soil Remediation (24)
- Complex (Army) Disposal Trenches Remediation (25)
- Shell Disposal Trenches Remediation (26)
- North Plants Soil Remediation (27)
- Section 35 Soil Remediation (28)
- North Plants Structures Demolition and Removal (29) (Not Shown)

### PHASE IV: Basin F and Lime Basins

- Basin F Waste Pile Remediation (30)
- Former Basin F Principal Threat Soil Remediation (31)
- Basin F & Basin F Exterior Remediation (32)
- Section 36 Lime Basins Soil Remediation (33)

### Site Wide Programs

- RCRA - Equivalent Cover Demonstration (34)
- Borrow Areas: # = Borrow Area Number
- RER Soil Areas
- Treatment System Slurry Walls (48, 50, 51)
- Chemical Sewer Excavation in South Plants Balance of Areas (Phase II) and North Plants Soil Remediation (Phase III)
- Rocky Mountain Arsenal (U.S. Army Jurisdiction)
- USFWS National Wildlife Refuge

## Remediation Venture Office GIS

GIS Analyst:  
J. Thompson  
Date: 9/16/2011  
Scale:  
Prepared For:  
S. Ache  
Approved:

Figure 3.0-1

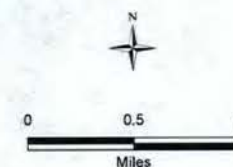


File Location:  
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# Rocky Mountain Arsenal On-Post Borrow Areas

 Borrow Areas



NAD27-NGVD29 Datum, US Survey Feet  
Colorado Stateplane North Zone

Sources: U.S. Army, URS - Washington Division,  
TetraTech-EC, RVO GIS Dept.

## Remediation Venture Office GIS

GIS Analyst:  
J. Thompson

Date: 9/16/2011

Scale:

Prepared For:  
S. Ache

Approved:

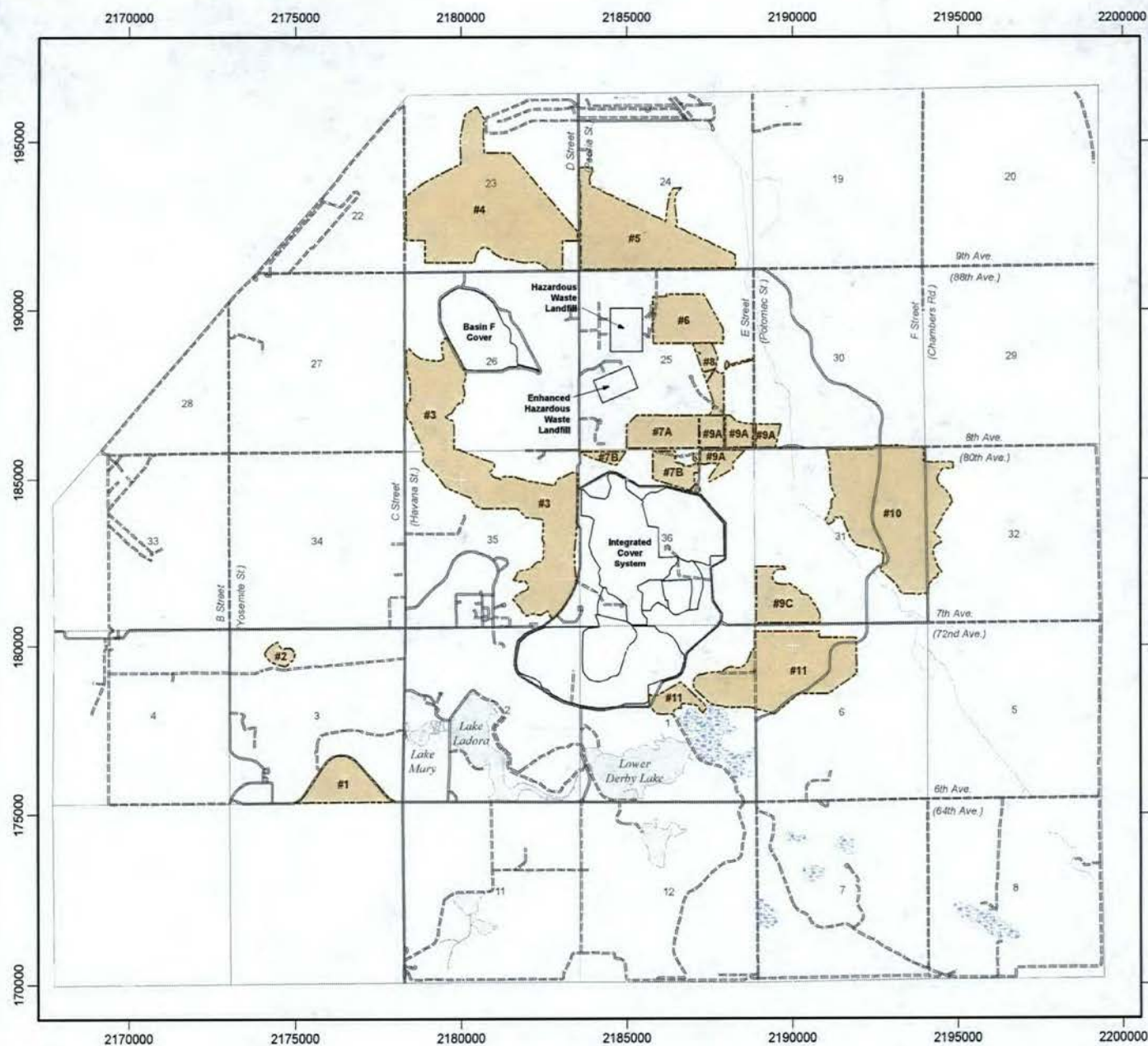


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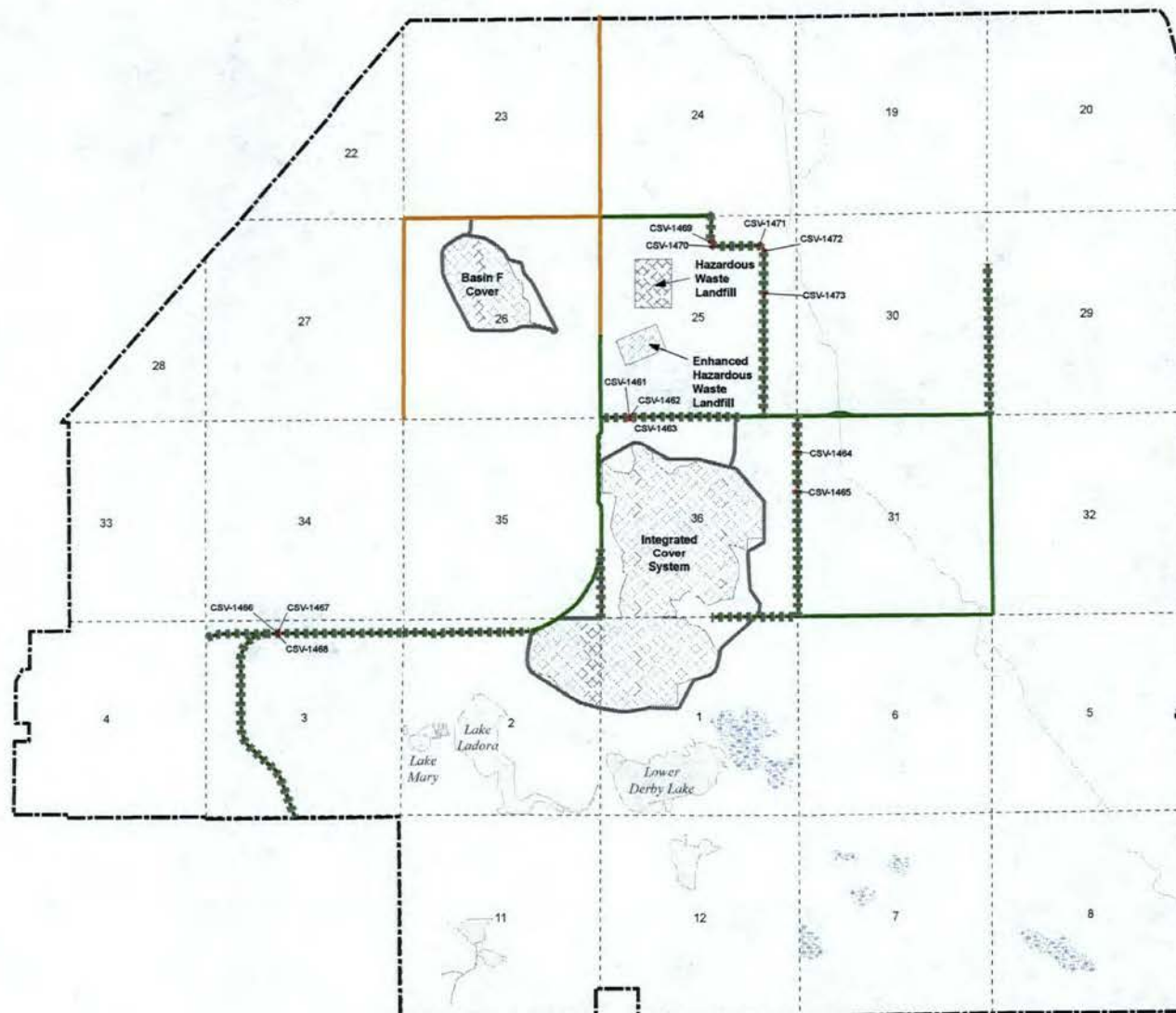
S:\giswork\gis\RA\_Summary\_Report\mxd\borrow\_areas\_fig\_5-2-2-1.mxd



Figure 5.2.2-1



## Rocky Mountain Arsenal Site-Wide Haul Roads



Caps and Covers



Army Maintained Area Roads

### Haul Roads Constructed in Support of Remedy



Primary Haul Road



Joint Use Road



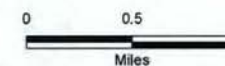
Removed



Confirmatory Soil Samples



NAD27-NGVD29 Datum, US Survey Feet  
Colorado Stateplane North Zone



Sources: U.S. Army, URS - Washington Division,  
TetraTech-EC, RVO GIS Dept.

### Remediation Venture Office GIS

GIS Analyst:  
J. Thompson

Figure 5.9.2-1

Date: 9/16/2011

Scale:

Prepared For:  
S. Ache

Approved:

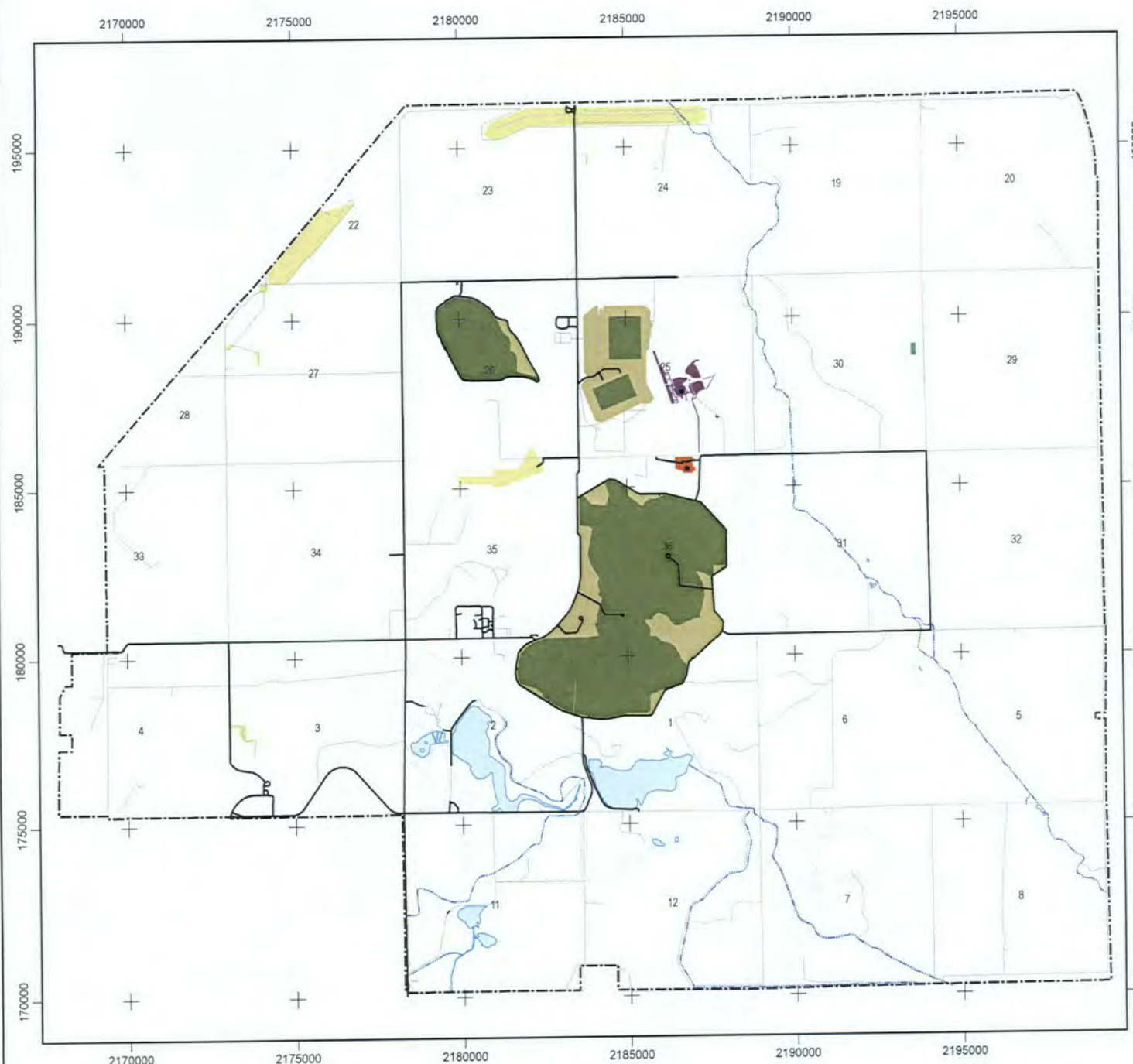


File Location:

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# Recovered Chemical Warfare Material Response Site Location Plan



- Permanent U.S. Army Land
- RCRA Caps and RCRA Equivalent Covers
  - Army Retained Groundwater Treatment Sites
  - Additional Army Retained Area
- Chemical Warfare Material Response Action Areas
- (2.1) CSS for Remediation of Site ESA-2c
  - (2.2) CSS for Remediation of the Section 36 Boneyard
  - (2.3) CSS North Plants Demolition and Removal and GB Equipment Destruction Projects
- Recovered CWM/Chemical Agent
- > Vial of GB Liquid
  - > M139 (GB) Bomblets



NAD27-NGVD29 Datum, US Survey Feet  
Colorado Stateplane North Zone

Sources: U.S. Army, URS - Washington Division,  
Tetra Tech-EC, RVO GIS Dept.

## Remediation Venture Office GIS

GIS Analyst:  
J. Thompson

Date: 9/20/2011

Scale:

Prepared For:  
S. Ache

Approved:

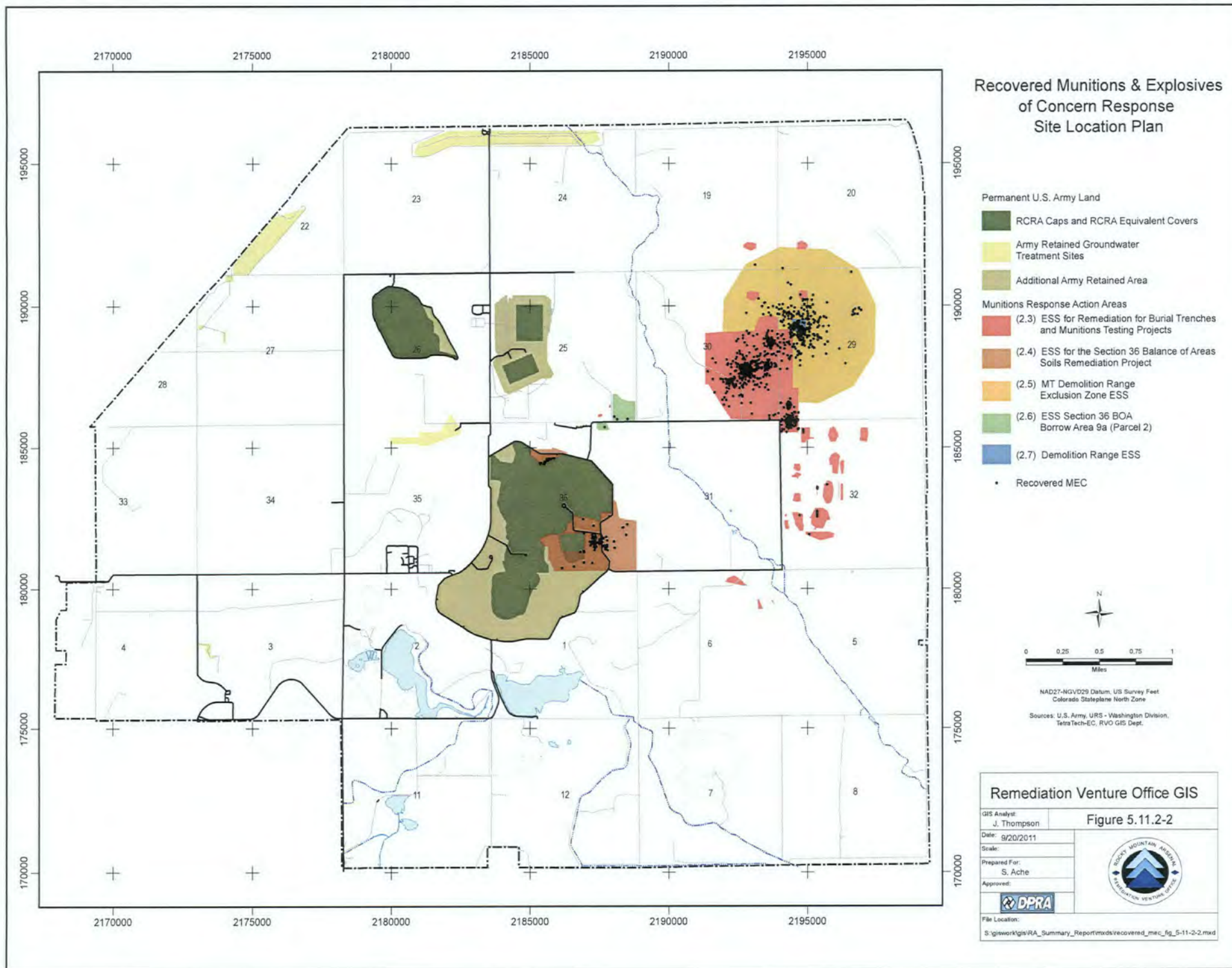


File Location:

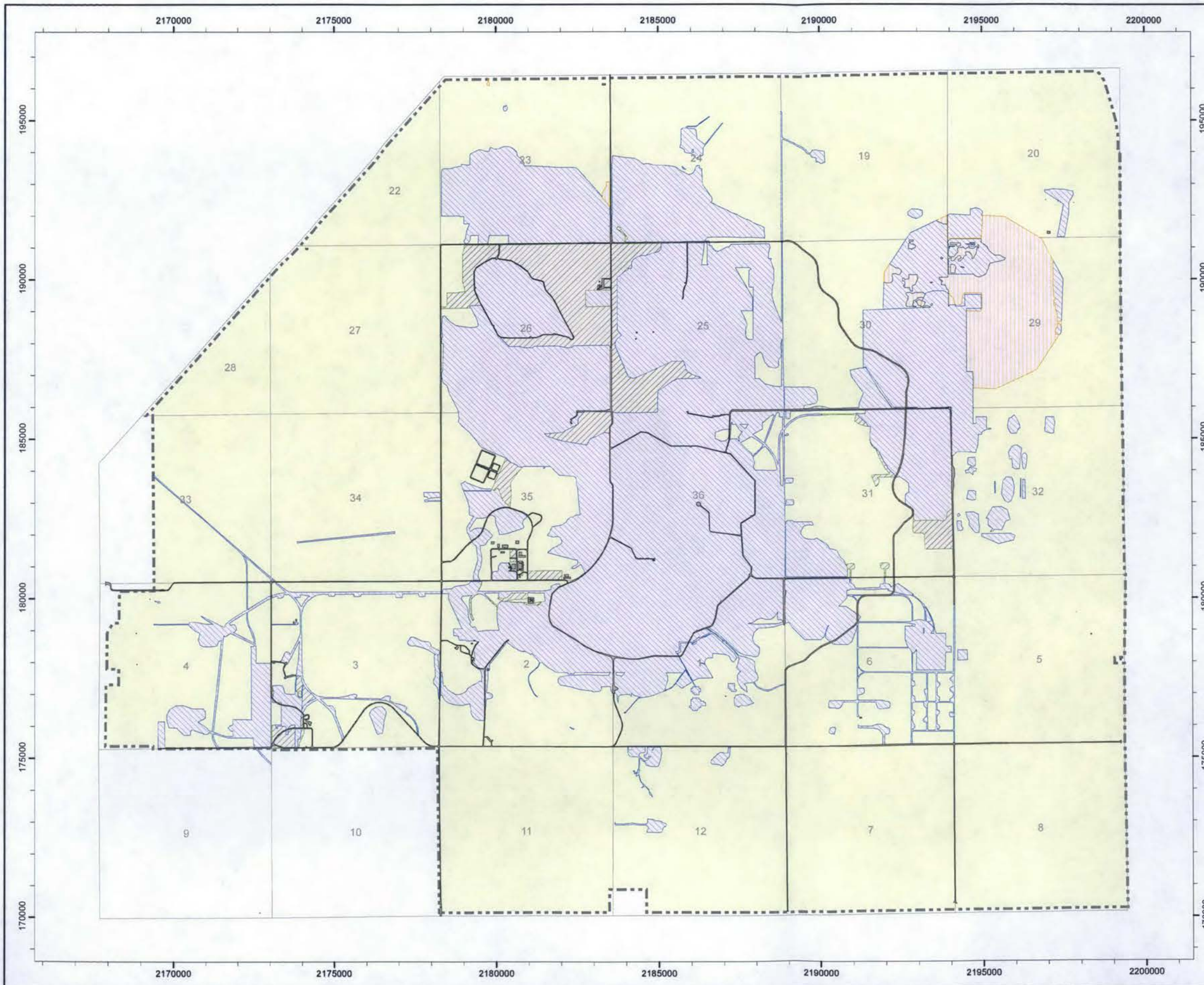
S:\giswork\RA\_Summary\_Report\mxd\recovered\_cwm\_fig\_5-11.2-1.mxd

Figure 5.11.2-1









# Rocky Mountain Arsenal Revegetation Map

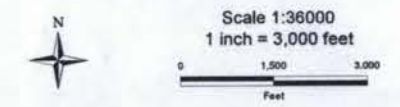
## Legend

- Rocky Mountain Arsenal
- Sections
- Disturbed Areas
- Revegetation Planned
- Revegetation Completed / No Further Action
- Minor Disturbance / No Further Action
- Road and Buildings

Areas disturbed during remediation include excavations, covers, roads, laydown and parking areas, graded areas, potholed areas, and tilled areas.

Completed revegetation areas include areas completed through 2010 and those areas planned for 2011.

Planned revegetation areas include areas planned for revegetation in 2012 and 2013.



State Plane Coordinate System, CO North Zone  
NAD27-NGVD29 Datum, U.S. Survey Feet  
Sources: U.S. Army BIMS; TetraTech-EC,  
URS - Washington Division, RVO GIS

## Remediation Venture Office GIS

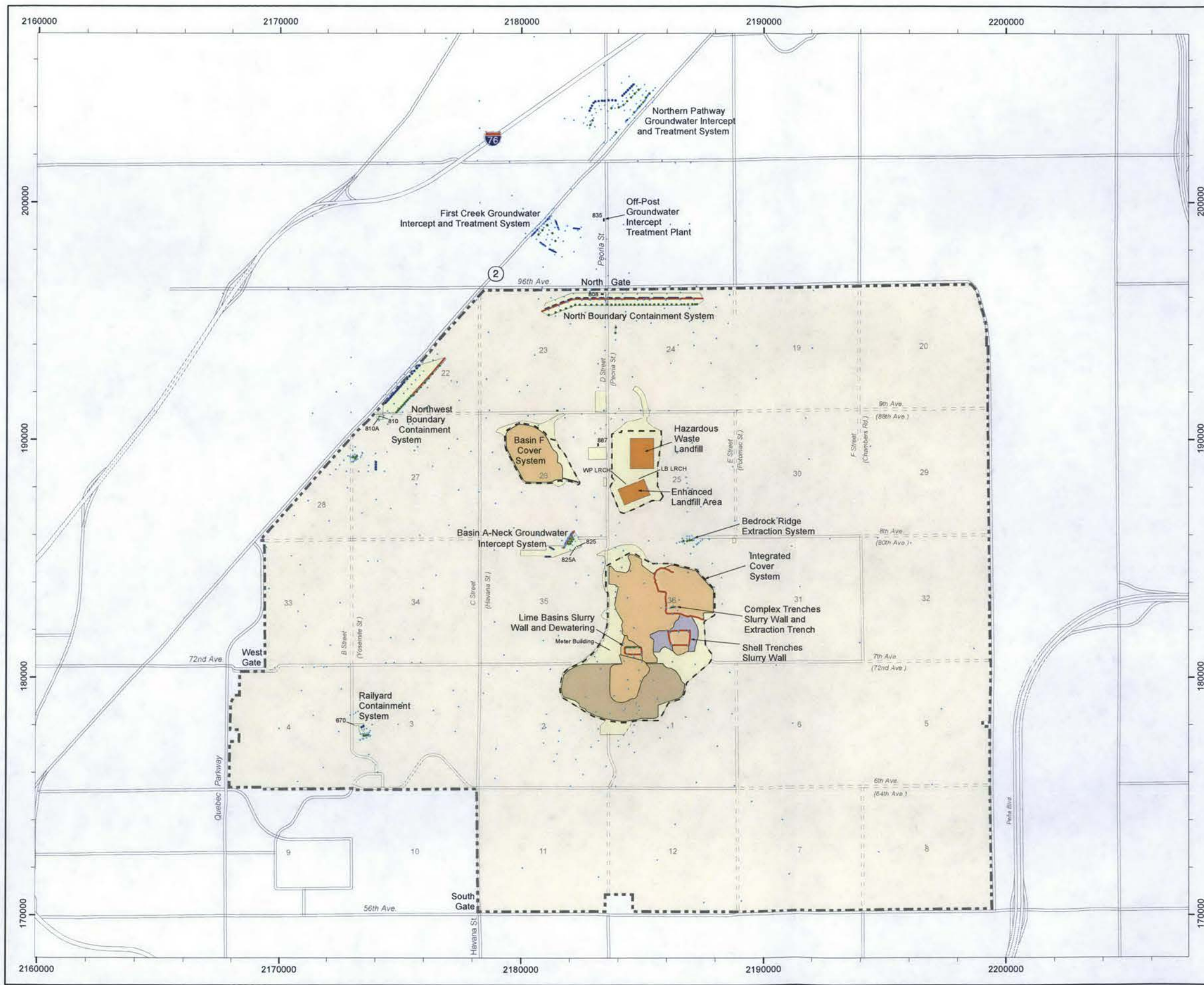
GIS Analyst:  
J. Thompson  
Date: 9/16/2011  
Scale:  
Prepared For:  
S. Ache  
Approved:

Figure 5.13.2-1



File Location:  
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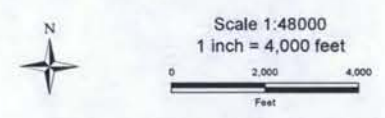


# Rocky Mountain Arsenal Long-Term Operations and Maintenance

## Legend

- Rocky Mountain Arsenal
- U.S. Army Jurisdiction
- USFWS National Wildlife Refuge
- Army Maintained Area Boundary
- RCRA Cap
- RCRA-Equivalent Cover
- 3-Foot Soil Cover
- 2-Foot Soil Cover
- Buildings
- Slurry walls
- Dewatering Trench
- Recharge Trench
- Extraction Wells
- Recharge Wells
- Long Term Monitoring Plan Wells

Note: Details related to the long-term O&M systems and requirements are provided in the Long-Term Care Plan, HWL Post-Closure Plan, ELF Post-Closure Plan, Basin F Post-Closure Plan, Long-Term Monitoring Plan for Groundwater and Surface Water, and the Land Use Control Plan



Scale 1:48000  
1 inch = 4,000 feet  
State Plane Coordinate System, CO North Zone  
NAD27-NGVD29 Datum, U.S. Survey Feet  
Sources: U.S. Army BIMS; TetraTech-EC,  
URS - Washington Division, RVO GIS

Remediation Venture Office GIS	
GIS Analyst: J. Thompson	Figure 7.0-1
Date: 9/16/2011	
Scale:	
Prepared For: S. Ache	
Approved:	
File Location: S:\giswork\gis\IRA_Summary_Report\mxd\l_operations_17x11.mxd	

**Appendix A**  
**Final Remedy Schedule**



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
-------------	---------	-------	--------	--------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

MASTER RMA REMEDIATION SCHEDULE																				
RMA On-Post Operable Unit																				
Disposal Facilities - Basin A / Landfills																				
Construct Hazardous Waste Landfill																				
Remedial Design																				
LF2-120000	0	11MAR96A	21JUL96A	100	Prepare / Revise 10% Design Scope of Work - LF															
LF2-130000	0	22JUL96A	31MAR97A	100	Prepare 30% Design - LF															
LF2-150000	0	03MAR97A	09JUN97A	100	Prepare 60% Design - LF															
LF2-140000	0	01APR97A	01MAY97A	100	Regulator / Committee Review - LF															
LF2-135000	0		03APR97A	100	<<<<<RCRA Design Deadline Date>>>>>															
LF2-170000	0	09JUN97A	10SEP97A	100	Prepare 90% Design - LF															
LF2-160000	0	09JUL97A	14AUG97A	100	Regulator / Committee Rev. & Public Input - LF															
LF2-180000	0	11SEP97A	27OCT97A	100	Regulator / Committee Review - LF															
LF2-190000	0	28OCT97A	13FEB98A	100	Prepare 100% Design - LF															
LF2-100900	0*	23MAR98A	30APR99A	100	HWLF Operational Plans															
LF2-DES002	0*	08JUL02A	24JAN06A	100	Redesign of the HWL Final Cap															
LF2-100000	0*	18MAR05A	01DEC05A	100	HWL Ramp Closure DCN															
LF2-900000	0*	20JUN05A	25JUL06A	100	HWL Closure Plan															
LF2-900200	0*	30OCT06A	02JUL09A	100	PLAN-Hazardous Waste Landfill-Post Closure															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
Remedial Design																					
LF2-860000	0*	25OCT10A	24JUN11A	100	PLAN - HWL Post-Closure Plan Rev 3																
LF2-INF	0*	11MAR96A	24JUN11A	100	Hazardous Waste Landfill Design																
Remediation Activities																					
LF4-630000	0*	14NOV97A	16JAN98A	100	Mobilization - LF																
LF4-640000	0*	06FEB98A	09APR98A	100	Excavate Biota Soil - LF																
Construction/Operations/Closure																					
LF5-665000	0*	26FEB98A	14JAN99A	100	Phase I Cell Construction - LF																
LF5-179000	0	26FEB98A	14JAN99A	100	BOR12 Support to Hazardous Waste Landfill																
LF5-666000	0*	15JUN98A	01MAR99A	100	Landfill Water Treat System - Construction																
LF5-130000	0*	17AUG98A	14DEC98A	100	BOR5 Support to Haz Waste Landfill -Cell I Liner																
LF5-680000	0	30APR99A		100	*** RCRA LANDFILL AVAILABLE *** - LF																
LF5-670000	0*	01JUL99A	04JAN01A	100	Phase II Cell Construction - LF																
LF5-INF1	0*	26FEB98A	04JAN01A	100	Haz Waste Landfill Cell II Liner Construction																
LF5-140000	0*	07MAR00A	14SEP00A	100	BOR5 Support to Haz Waste Landfill Cell II Liner																
LF5-690000	0*	30APR99A	30APR04A	100	Operation LF																
LF5-155010	0*	21MAY01A	31DEC01A	100	BOR10 Support to HWL Ops Odor Control/GF																
LF5-155000	0*	02JAN02A	30APR04A	100	BOR7A Support to HWL Ops Odor Control/GF																
LF5-155020	0*	29MAY02A	30APR04A	100	BOR3 Support to HWL Ops Odor Control/GF																
LF5-700000	0		30APR04A	100	*** RCRA LANDFILL CLOSED *** - HWL																
LF5-690010	0*	03MAY04A	13OCT06A	100	HWL Interim Operations																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction/Operations/Closure																				
LF5-711000	0*	07JUL03A	13OCT06A	100																
LF5-140010	0*	07JUL03A	13OCT06A	100																
LF5-715013	0*	30APR99A	28AUG06A	100																
LF5-INF2	0*	30APR99A	13OCT06A	100																
LF5-725000	0*	10AUG00A	31MAR09A	100																
LF5-002007	0*	01JUL08A	15DEC08A	100																
LF5-600001	0*	27JUN06A	11JAN07A	100																
LF5-715015	0*	02OCT06A	05JAN07A	100																
LF5-716000	0*	20NOV06A	15AUG08A	100																
LF5-715011	0*	09APR07A	12MAY09A	100																
LF5-150000	0*	09APR07A	12MAY09A	100																
LF5-715090	0*	16APR08A	14JAN10A	100																
LF5-660000	0*	20NOV08A	20MAY09A	100																
LF5-720000	0*	02MAR09A	11JUN09A	100																
LF5-INF3	0*	02OCT06A	11JUN09A	100																
LF5-400130	0*	25AUG08A	23MAR10A	100																
LF5-186020	0*	27JUL09A	23MAR10A	100																
LF5-186010	0*	25AUG08A	23MAR10A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction/Operations/Closure</b>																				
LF5-740000	0*	26FEB98A	23MAR10A	100																
LF5-002008	0	01MAY09A	24SEP09A	100																
LF5-INF	26*	26FEB98A	22SEP11	100																
LF5-900000	0*	14APR10A	21JAN11A	100																
LF5-191005	26*	16DEC10A	22SEP11	91																
<b>Construction Completion Report</b>																				
LF6-730100	0	28NOV00A	29JAN01A	100																
LF6-730102	0	29JAN01A	27FEB01A	100																
LF6-730104	0	24FEB01A	22MAR01A	100																
LF6-730106	0	26MAR01A	01MAY01A	100																
LF6-730108	0		24APR01A	100																
LF6-INF1	0*	28NOV00A	24APR01A	100																
LF6-730200	0*	07JUN04A	06AUG04A	100																
LF6-730201	0*	07AUG04A	10NOV04A	100																
LF6-730204	0	30OCT06A	04JAN07A	100																
LF6-730205	0	05JAN07A	30JAN07A	100																
LF6-INF2	0*	07JUN04A	08APR08A	100																
LF6-730206	0	31JAN07A	04JUN07A	100																
LF6-730210	0	05JUN07A	13NOV07A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
LF6-730220	0	14NOV07A	08APR08A	100																EPA - State Prep & Iss Accept Ltr CCR - HWL Ops
LF6-730230	0		08APR08A	100																Project Complete - Hazardous Waste Landfill Ops
LF6-300030	0*	01JUL09A	27AUG09A	100																PMC-Prep Draft/RVO Iss CCR to Agencies-HWL Cap
LF6-INF3	0*	01JUL09A	21JUL10A	100																CCR - Hazardous Waste LF - Cap Construction
LF6-300040	0*	28AUG09A	30SEP09A	100																Regulator/Committee Review Draft CCR - HWL Cap
LF6-300050	0*	01OCT09A	01JUN10A	100																Incorp. Comments & Resubmit CCR - CAP Constr
LF6-300060	0	04JUN10A	21JUL10A	100																EPA/State-Prepare/Issue Accept Ltr CCR- HWL Cap
LF6-300070	0		21JUL10A	100																Project Complete (EPA Accept. of CCR - HWL Cap)
LF6-INF	0*	28NOV00A	21JUL10A	100																Constr Cmplt Rprt (CCR) Process-HWL Cell II
LF6-400030	0*	02NOV10A	18FEB11A	100																PMC-Prep Draft/RVO Iss CCR to Agencies - LWTS
LF6-400040	0*	21FEB11A	22MAR11A	100																Regulator/Committee Review Draft CCR - LWTS
LF6-400050	48*	23MAR11A	14OCT11	76																Incorp. Comments & Resubmit CCR - LWTS Closure
LF6-400060	13	19OCT11	31OCT11	0																EPA/State-Prepare/Issue Accept Ltr CCR - LWTS
LF6-300075	0		31OCT11	0																Project Complete (EPA Accept. of CCR - LWTS)
LF6-INF4	65*	02NOV10A	31OCT11	82																CCR - Hazardous Waste LF - LWTS Closure
Short-Term Monitoring/Maintenance/Operations																				
LF7-726000	0*	01APR09A	30NOV10A	100																Short-Term HWL Postclosure Grndwater Monitoring
LF7-980000	0*	01APR09A	30NOV10A	100																<<<< Short-Term M&M >>>> - HWL Cap
LF7-740000	0*	01OCT09A	12MAY10A	100																REPORT - 2009 HWL Annual Cover Report



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
LF7-840000	0*	01SEP10A	20OCT10A	100	REPORT - 2010 Annual Covers Report for RCRA Caps															
<b>Plan Development or Revision</b>																				
LFR#200220	0*	02FEB09A	23APR10A	100	PLAN-LWTS Closure Plan Development															
<b>Operational Construction of Enhanced Haz Wst LF</b>																				
<b>Predesign Activities</b>																				
LE1-DES030	0*	13APR99A	06JUL00A	100	ELF Geotechnical Investigation															
LE1-DES040	0*	02FEB00A	12AUG03A	100	ELF Liner Compatibility Study															
LE1-030940	0*	23MAY00A	06AUG02A	100	ELF Pre-Operational Groundwater Mon.-Well Instal															
LE1-040960	0*	01AUG00A	02DEC02A	100	ELF Operations Manual															
LE1-INF	0*	13APR99A	12AUG03A	100	Enhanced Landfill Pre-Design															
<b>Remedial Design</b>																				
LE2-100000	0*	17NOV00A	04APR01A	100	Prepare/Revise Design SOW- ELF															
LE2-101500	0		30JAN01A	100	Submit Draft Design Scope of Work -ELF															
LE2-130000	0*	10JAN01A	15MAY01A	100	Prepare 30% Design - ELF															
LE2-101600	0*	31JAN01A	02MAR01A	100	Reg./RMA Committee Review (Design SOW)															
LE2-195000	0*	26FEB01A	29APR02A	100	ELF Test Pad Program															
LE2-132500	0		15MAY01A	100	<<<<<<Submit 30% - Design Deadline >>>>>>															
LE2-140000	0*	16MAY01A	15JUN01A	100	Regulator/Committee Review/Pub. Input-LE30%Design															
LE2-150000	0*	18MAY01A	25OCT01A	100	Prepare 60% Design - ELF															
LE2-160000	0*	26OCT01A	28DEC01A	100	Regulator / Committee Review - 60% Design (ELF)															
LE2-170000	0*	26OCT01A	28MAR02A	100	Prepare 95% (Draft Final) Design - ELF															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
LE2-175000	0		28MAR02A	100																
LE2-180000	0*	29MAR02A	13MAY02A	100																
LE2-190000	0*	29MAR02A	25JUL02A	100																
LE2-DES030	0*	06AUG01A	25JUL02A	100																
LE2-DES031	0*	05DEC02A	07AUG03A	100																
LE2-DES032	0*	12AUG03A	24JUN04A	100																
LE2-DES033	0*	18SEP03A	06APR04A	100																
LE2-725000	0*	13OCT03A	10FEB06A	100																
LE2-DES002	0*	30NOV05A	26OCT07A	100																
LE2-200000	0*	29JAN07A	07DEC07A	100																
LE2-INF	0*	17NOV00A	25AUG10A	100																
LE2-210000	0*	04FEB08A	18AUG08A	100																
LE2-210010	0*	18FEB09A	25AUG10A	100																
Construction/Operations/Closure																				
LE5-620000	0*	22AUG03A	05NOV03A	100																
LE5-630000	0*	17OCT03A	26NOV03A	100																
LE5-650000	0*	04DEC03A	06MAY04A	100																
LE5-176000	0*	18MAR04A	27MAY05A	100																
LE5-650001	0*	25MAY04A	30NOV04A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction/Operations/Closure																				
LE5-002008	0	01MAR10A	14OCT10A	100																REPORT-2008 ELF Annual GW
LE5-002009	0	01JUL10A	06JAN11A	100																REPORT-2009 ELF Annual GW
LE5-656000	0*	07OCT04A	12NOV04A	100																ELF Intracell Berm Construction Part I
LE5-900010	0*	24JAN05A	26AUG05A	100																Construct LWTS Addition - Ion Exchange
LE5-660010	0*	01DEC04A	11AUG05A	100																ELF CCSCS Construction
LE5-656010	0*	25OCT04A	26SEP05A	100																ELF Infrastructure/Misc Facilities Construction
LE5-650002	0*	03FEB05A	29SEP05A	100																ELF Excavation & Berm Construction Part II
LE5-656001	0*	16MAR05A	31OCT05A	100																ELF Cell Liner Construction (Part 2)
LE5-186010	0*	01DEC04A	19OCT05A	100																Develop/Submit CR-ELF/CCSCS
LE5-656002	0*	05JUL05A	28JUL05A	100																ELF Intracell Berm Construction Part 2
LE5-660020	0*	14NOV05A	01FEB06A	100																ELF Construction Interim Revegetation
LE5-710000	0*	24OCT05A	06DEC05A	100																Demobilization - ELF Berms & Liner
LE5-186020	0*	20OCT05A	07MAR06A	100																Regulatory Agencies Approval to Place Waste
LE5-670000	0	07MAR06A		100																***RCRA ENHANCED LF AVAILABLE***
LE5-INF2	0*	22AUG03A	07MAR06A	100																ELF Berms & Liner Construction
LE5-707010	0*	01NOV05A	29JUN07A	100																BOR5 Support to ELF Ops Vapor Controls - EHWL
LE5-680000	0*	01NOV05A	05MAY08A	100																ELF Operations
LE5-690000	0		05MAY08A	100																***RCRA ENHANCED LF CLOSED*** - EHWL

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction/Operations/Closure																				
LE5-707020	0*	16JUL07A	20FEB08A	100																BOR4 Support to ELF Ops Vapor Controls - EHWL
LE5-705000	0*	16JUL07A	05MAY08A	100																Const Intermed Cover - ELF Ops
LE5-176010	0*	16JUL07A	05MAY08A	100																BOR5 Support to ELF Intermediate Cover - EHWL
LE5-705010	0*	20DEC07A	20MAR08A	100																ELF Support Facilities Closure
LE5-600300	0*	13MAR08A	10JUL08A	100																ELF Support Facilities Closure DSR - EHWL
LE5-708000	0*	13MAR08A	19MAR09A	100																CERT REPORT - ELF - Support Facilities Closure
LE5-711000	0*	21MAR08A	06AUG08A	100																ELF Settlement Monitoring
LE5-500000	0	14APR08A	18JUN08A	100																Stockpile BBM - ELF Cap
LE5-INF3	0*	01NOV05A	19MAR09A	100																ELF Operations/Intermediate Cover/Closure
LE5-O&M1	0*	07MAR06A	30NOV10A	100																ELF Operational Groundwater Monitoring
LE5-002007	0	01MAY09A	06OCT09A	100																REPORT-JUL2007-APR2008 ELF Annual GW
LE5-350090	0*	23MAY08A	19JAN09A	100																DSR for the HWL and ELF Entrance Haul Rd CSV
LE5-632000	0	12SEP08A	22SEP08A	100																Mobilization ELF Cap Construction
LE5-719000	0*	29SEP08A	16MAR10A	100																Construct Clean Soils and Biota Barrier - ELF
LE5-718000	0	21NOV08A	09APR09A	100																Construct Geotextiles/Geosynthetics - ELF
LE5-206010	0*	29SEP08A	16MAR10A	100																BOR4 Support to ELF Cap/Cover - EHWL
LE5-710110	0	01APR09A	07APR09A	100																Remove/Reduce 9th Ave Haul Road (East of D St.)
LE5-710120	0	08APR09A	30NOV09A	100																Remove/Reduce F Street Haul Rd (7th to 8th)-EHWL



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction/Operations/Closure</b>																				
LE5-726110	0*	08APR09A	15MAR10A	100																Remove RMA Primary Haul Roads - ELF
LE5-710100	0	04MAY09A	30NOV09A	100																Remove 7th Ave Haul Road - EHWA
LE5-710130	0	03FEB10A	15MAR10A	100																Remove D Street Haul Road - EHWA
LE5-720000	0*	08SEP09A	16MAR10A	100																Final Drainage and Surface Water Controls - ELF
LE5-710020	0	03MAR10A	30MAR10A	100																Demobilization ELF Cap Construction
LE5-720010	0	11MAR10A	26MAY10A	100																Final Inspection Process - ELF Cap
LE5-709000	0	06APR10A	25MAY10A	100																Permanent Revegetation - ELF Cap
LE5-186040	0*	01FEB10A	11NOV10A	100																CQA Certification Report - ELF Cap
LE5-186050	0*	01FEB10A	11NOV10A	100																Closure Certification Report - ELF Cap
LE5-186030	0*	01FEB10A	11NOV10A	100																CERT REPORT - ELF - Cap Closure
LE5-INF4	0*	12SEP08A	11NOV10A	100																ELF Final Cap Construction-Thru CR Approval
LE5-730000	0*	22AUG03A	11NOV10A	100																Proj Support-ELF Construction/Operations/Cover
LE5-INF	0*	22AUG03A	11NOV10A	100																FIELD- ELF - Construction/Operations/Cover
<b>Construction Completion Report</b>																				
LE6-730400	0	06AUG07A	06NOV07A	100																Prep Const Cmplt Rpt (CCR)-Ion Ex-LWTS Mod
LE6-INF1	0*	06AUG07A	17JUL08A	100																Constr Cmplt Rpt (CCR) Proc-Ion Exch-LWTS Mod
LE6-730410	0	07NOV07A	29JAN08A	100																Regltry/Commnt Rev CCR - Ion Ex-LWTS Mod
LE6-730420	0	29JAN08A	22MAY08A	100																Inc/Resp to Comnts/Iss Draft CCR-Ion Ex-LWTS Mod
LE6-730430	0	23MAY08A	17JUL08A	100																EPA/State Prep/Acpt Ltr CCR-Ion Ex-LWTS Mod

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
LE6-730440	0		17JUL08A	100																Proj Cmpl't-Ion Exch Addtn to LWTS-LWTS Mod
LE6-663002	0	28NOV05A	03FEB06A	100																Prep Constr Cmpl't Rpt (CCR) - ELF/CCSCS
LE6-INF2	0*	28NOV05A	01FEB07A	100																Constr Cmpl't Rpt (CCR) Process- ELF Constr/CCSCS
LE6-663003	0	21FEB06A	28APR06A	100																Regulator/Committee Review CCR- ELF Constr/CCSCS
LE6-663004	0	01MAY06A	01NOV06A	100																Incor/Rsp to Cmnts/Iss Draft CCR-ELF/CCSCS
LE6-663006	0	06NOV06A	01FEB07A	100																EPA-State Prep & Iss Acpt Ltr CCR-ELF Const/CCSCS
LE6-663016	0		01FEB07A	100																Project Complete- Enhanced Hazardous Waste LF
LE6-INF3	0*	22MAY08A	05MAY09A	100																CCR - ELF - Operations
LE6-663020	0	22MAY08A	28AUG08A	100																Prep Constr Cmpl't Rpt (CCR) - ELF Ops
LE6-663030	0	29AUG08A	31OCT08A	100																Regulator/Committee Review CCR - ELF Ops
LE6-663040	0*	03NOV08A	02APR09A	100																Incorp Comments & Resubmit CCR
LE6-663050	0	03APR09A	05MAY09A	100																EPA/State-Prep & Iss Acpt Ltr CCR-ELF Ops
LE6-663060	0		05MAY09A	100																Project Complete- EHVL Ops
LE6-300030	0	01APR10A	22JUL10A	100																PMC-Prep Draft/RVO Iss CCR to Agencies-ELF Cap
LE6-INF4	0*	01APR10A	24MAR11A	100																CCR - ELF - Cap Construction
LE6-300040	0	23JUL10A	30AUG10A	100																Regulator/Committee - Review Draft CCR - ELF Cap
LE6-300050	0*	31AUG10A	18MAR11A	100																Incorp. Comments & Resubmit CCR - CAP Constr
LE6-300060	0	19MAR11A	24MAR11A	100																EPA/State-Prepare/Issue Accept Ltr CCR- ELF Cap

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
LE6-300070	0		24MAR11A	100																Project Complete (EPA Accept. of CCR - ELF Cap)
LE6-INF	0*	22MAY08A	24MAR11A	100																Constr Cmpl't Rpt (CCR) Process- ELF Construction
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
LE7-O&M2	0*	27MAY10A	30NOV10A	100																Short-Term-ELF Postclosure Grndwater Monitoring
LE7-980000	0*	27MAY10A	30NOV10A	100																<<<< Short-Term M&M >>>> - ELF Cap
LE7-002010	0	04JAN11A	30JUN11A	100																REPORT-2010 ELF Postclosure Annual GW
<b>Basin A Consolidation and Remediation</b>																				
<b>Remedial Design</b>																				
BA2-120000	0	03JUN96A	19JAN97A	100																Prepare / Revise Design Scope of Work - BASA
BA2-125000	0	18NOV96A	22DEC96A	100																Regulator / RMA Committee Review
BA2-130000	0	19AUG96A	17NOV96A	100																Prepare 30% (Conceptual) Design - BASA
BA2-140000	0	18NOV96A	22DEC96A	100																Regulator / Committee Rev. & Public Input- BASA
BA2-150000	0	18NOV96A	02MAY97A	100																Prepare 60% Design - BASA
BA2-160000	0	05MAY97A	30MAY97A	100																Regulator / Committee Review - BASA
BA2-170000	0	05MAY97A	21JUL97A	100																Prepare 95% (Draft Final) Design - BASA
BA2-175000	0		21JUL97A	100																<<<<<<Design Deadline>>>>>>
BA2-180000	0	22JUL97A	08SEP97A	100																Regulator/Committee Rev. & Public Comment- BASA
BA2-190000	0	09SEP97A	29SEP97A	100																Prepare 100% Design
BA2-INF1	0*	03JUN96A	29SEP97A	100																Prepare / Revise Design Scope of Work - BASA
BA2-110095	0*	01APR04A	29APR04A	100																Revise Basin A Subgrade DCN - Rev. 3

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
Remedial Design																					
BA2-122000	0*	13JAN05A	08JUN06A	100												Prepare 95% ICSD Design - Basin A DCN					
BA2-123000	0*	09JUN06A	29SEP06A	100												Prepare 100% ICSD Design - Basin A DCN					
BA2-120100	0	02JAN07A	03APR07A	100												Prepare/Revise 95% ICS Design - Basin A					
BA2-120101	0	04APR07A	03MAY07A	100												Reg. Review Revised 95% ICS Design - Basin A					
BA2-120102	0	30APR07A	23JUL07A	100												Prepare/Revise 100% ICS Design - Basin A					
BA2-120112	0	25JUL07A	23AUG07A	100												Reg Review Revised 100% ICS Design - Basin A					
BA2-110000	0*	21JUL03A	23AUG07A	100	Basin A RCRA-Equivalent Cover Redesign																
BA2-120113	0	24AUG07A	23OCT07A	100												Revise & Submit Final 100% ICS Design - Basin A					
BA2-120114	0	24OCT07A	20NOV07A	100												Reg. Agencies Review R2 100% ICS Design- Basin A					
BA2-120120	0	21NOV07A	22APR08A	100												Prepare DCN & Obtain Agency Approval - Basin A					
BA2-INF	0*	03JUN96A	22APR08A	100	Basin A Design [ICSD]																
Remediation Activities																					
BA4-120000	0*	14NOV97A	14OCT98A	100	Mobilization - Basin A Operations																
BA4-125000	0	14NOV97A		100	<<<<<<Imp. Start Deadline>>>>>>																
BA4-131000	0*	09JAN98A	16APR98A	100	Visual Surface UXO Survey																
BA4-190000	0	19JAN98A		100	*** BASIN A CONSOLIDATION AREA OPEN ***																
BA4-291000	0*	19JAN98A	16APR98A	100	Consolidate Biota to Basin A From CAMU Area																
BA4-200000	0*	19JAN98A	30JUN04A	100	--- BASIN A CONSOLIDATION OPS DURATION ---																
BA4-175000	0*	11MAY99A	31DEC99A	100	BOR10 Support to Basin A Ops Gradefill																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
BA4-292000	0*	04MAY99A	30JUN04A	100																
BA4-140000	0*	13JAN99A	30JUN04A	100																
BA4-178000	0	07MAY03A	30SEP03A	100																
BA4-176000	0	29MAY02A	31DEC03A	100																
BA4-177000	0*	02FEB04A	30JUN04A	100																
BA4-210000	0		30JUN04A	100																
BA4-210010	0	28OCT04A	29OCT04A	100																
BA4-292030	0*	01JUL04A	13MAY05A	100																
BA4-032002	0*	29NOV04A	04JAN05A	100																
BA4-INF1	0*	14NOV97A	13MAY05A	100																
BA4-292020	0*	01JUL04A	13MAY05A	100																
BA4-250000	0*	12APR05A	13MAY05A	100																
BA4-032001	0*	17MAY05A	09NOV05A	100																
BA4-032003	0*	08JUN05A	09NOV05A	100																
BA4-220500	0*	27JUL05A	29NOV05A	100																
BA4-032004	0*	11OCT05A	08NOV05A	100																
BA4-252000	0*	03JUL06A	17JUL06A	100																
BA4-300000	0*	05JUL06A	14NOV06A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
BA4-INF2	0*	12APR05A	21NOV06A	100																
BA4-042003	0*	05JUL06A	14NOV06A	100																
BA4-179010	0*	05JUL06A	14NOV06A	100																
BA4-300005	0	09NOV06A	21NOV06A	100																
BA4-360000	0*	17MAY05A	10DEC08A	100																
BA4-360050	0*	17MAY05A	10DEC08A	100																
BA4-360010	0		10DEC08A	100																
BA4-300010	0	20JUL07A	10SEP07A	100																
BA4-310000	0	13AUG07A	16NOV07A	100																
BA4-311000	0	24SEP07A	07DEC07A	100																
BA4-600030	0	11OCT07A	01NOV07A	100																
BA4-679000	0*	24SEP07A	23MAY09A	100																
BA4-600020	0	31OCT07A	09NOV07A	100																
BA4-310010	0	15JAN08A	25APR08A	100																
BA4-325000	0	25APR08A	02JUL08A	100																
BA4-320000	0	27MAY08A	03JUL08A	100																
BA4-325001	0	02JUN08A	25JUN08A	100																
BA4-326000	0	07JUL08A	26SEP08A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
BA4-320002	0	23JUL09A	23JUL09A	100																Prefinal Inspection Conference - Basin A
BA4-600010	0	26NOV07A	12FEB08A	100																Subgrade Prep - Basin A North
BA4-610000	0	13DEC07A	14MAY09A	100																BBM Placement - Basin A North
BA4-611000	0	17DEC07A	15MAY09A	100																Choke Surface - Basin A North
BA4-320001	0	21APR10A	21APR10A	100																Final Inspection - Basin A South
BA4-610010	0	17JUL08A	23MAY09A	100																CBL/Cover Soil/Perimeter GF- Basin A North
BA4-625001	0	23SEP08A	29MAY09A	100																Prefinal Inspection - Basin A North
BA4-625000	0	23SEP08A	17JUL09A	100																Soil Amendments - Basin A North
BA4-620000	0	10NOV08A	23JUL09A	100																Perm Reveg - Basin A North
BA4-036001	0*	06MAR09A	30JUN09A	100																DSR-Basin A Haul Road
BA4-626000	0	25JUL09A	12SEP09A	100																Irrigation - Basin A North
BA4-INF4	0*	20JUL07A	12SEP09A	100																FIELD-Basin A-RCRA-Eq Cover Constr (Excl Notch)
BA4-620001	0	21APR10A	21APR10A	100																Final Inspection - Basin A North
BA4-300110	0	23JUN08A	23FEB09A	100																Subgrade Construction - Basin A Notch Cover
BA4-300115	0	24FEB09A	25FEB09A	100																Final Survey and QA - Basin A Notch Subgrade
BA4-300116	0	26FEB09A	26FEB09A	100																Final Inspection - Basin A Notch Subgrade
BA4-310100	0	27JUN08A	19MAR09A	100																BBM Placement -Basin A Notch
BA4-310200	0	02MAR09A	27MAR09A	100																Choke Surface - Basin A Notch

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
BA4-320200	0	24FEB09A	24JUL09A	100																Irrigation Setup- Basin A North & Notch
BA4-310110	0	06APR09A	23MAY09A	100																CBL/Soil Cover/Perimeter GF - BA Notch
BA4-310121	0	21MAY09A	21MAY09A	100																Prefinal Inspection - Basin A Notch
BA4-320100	0	23JUN09A	23JUL09A	100																Perm Reveg & Irrigation Setup- Basin A Notch
BA4-310120	0	19MAY09A	21JUL09A	100																Soil Amendments - Basin A Notch
BA4-326100	0	25JUL09A	12SEP09A	100																Irrigation - Basin A Notch
BA4-360320	0*	23JUL09A	16NOV10A	100																CERT REPORT - Basin A - RCRA-Eq Cover
BA4-211115	0	03AUG09A	20NOV09A	100																Borrow Area 10 Restoration
BA4-211100	0	14SEP09A	02MAR10A	100																Construct Engineering Controls - Basin A
BA4-326110	0	01OCT09A	02MAR10A	100																Remove RMA Primary Haul Roads - Basin A
BA4-INF5	0*	23JUN08A	16NOV10A	100																FIELD-Basin A - RCRA-Eq Cover Constr (Notch)
BA4-211130	0	04MAR10A	04MAR10A	100																Prefinal Inspection (Enginrg Controls) - Basin A
BA4-320101	0	21APR10A	21APR10A	100																Final Inspection - Basin A Notch
BA4-650000	0	21APR10A	30APR10A	100																Demobilization - Basin A Covers
BA4-355000	0		16NOV10A	100																<<<<<<Imp. Finish Deadline>>>>>>
BA4-620010	0	28FEB11A	01APR11A	100																Formal Records Review
BA4-370000	0*	14NOV97A	01APR11A	100	Project Support - Basin A Consolidation & Remedi															
BA4-INF	0*	14NOV97A	01APR11A	100	Basin A Operations/ Interim Ops/ Cover															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
BA6-360100	0*	20NOV06A	03JAN08A	100																Prep Construction Cmplt Rpt - BA Ops & SG
BA6-359950	0	15SEP08A	02DEC08A	100																PMC - Prep Draft CCR Part I - ICS Basin A (2008)
BA6-INF0	0*	15SEP08A	12FEB09A	100																CCR Part I Draft- ICS Basin A
BA60INF0	0*	15SEP08A	12FEB09A	100																CCR Pt I 2008 Draft-RCRA-Eq ICS-BA,SP,CAT,2FT,LB
BA6-359960	0	02DEC08A	12FEB09A	100																Agency-Rev'w Draft CCR Part I-ICS (2008)
BA6-360200	0*	27FEB09A	23APR09A	100																Revise CCR to include Notch, 1' Clean Cvr, Subgr
BA6-INF1	0*	27DEC04A	03SEP09A	100																CCR - Basin A - Operations & Subgrade
BA6-360115	0	24APR09A	29MAY09A	100																Regulator/Committee Review CCR - BA Ops/SG
BA6-360120	0*	01JUN09A	21JUL09A	100																Incorporate Comments & Resubmit CCR - BA Ops/SG
BA6-360130	0	24JUL09A	03SEP09A	100																EPA-State Prep & Iss Accept Ltr CCR -BA Ops/SG
BA6-360140	0		03SEP09A	100																Project Complete - Basin A Ops and Subgrade
BA6-360000	0*	01FEB10A	01APR10A	100																Prepare Constr Cmplt Rpt (CCR)
BA6-INF2	0*	01FEB10A	26JAN11A	100																CCR Part I - ICS RCRA-Eq Covers-Basin A
BA6-360010	0*	02APR10A	13MAY10A	100																Regulator/Committee Review CCR
BA6-360020	0*	14MAY10A	09SEP10A	100																Incorp/Resp to Comments/Iss Draft CCR-ICS Covers
BA6-360030	0	09SEP10A	26JAN11A	100																EPA - State Prep & Iss Accept Ltr CCR-ICS Covers
BA6-360040	0		26JAN11A	100																Cover CCR Part I Complete - ICS Covers
BA6-INF	0*	27DEC04A	26JAN11A	100																CCR Process - BA Ops / ICS Cover

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Short-Term Monitoring/Maintenance/Operations																				
BA7-600000	0	01OCT08A	30NOV10A	100	BA Cover-Begin 5 Year Veg. Obs. & Rprt Period															
BA7-100000	0*	01OCT08A	30NOV10A	100	<<<< Short-Term M&M >>>> - Basin A Cover															
Early Start Projects																				
Sanitary/Chemical Sewer Manhole Plugging-Phase I																				
Remedial Design																				
S12-120000	0	03JUN96A	16JAN97A	100	Prepare / Revise Design Scope of Work - S/CSW1															
S12-INF	0*	03JUN96A	30MAY97A	100	Phase I Sanitary/Chem Sewer Design															
S12-130000	0	05AUG96A	17NOV96A	100	Prepare 30% (Conceptual) Design - S/CSW1															
S12-125000	0	15NOV96A	23DEC96A	100	Regulator / RMA Committee Review - S/CSW1															
S12-140000	0	18NOV96A	22DEC96A	100	Regulator / Committee Rev. & Public Input-S/SCW1															
S12-150000	0	18NOV96A	02FEB97A	100	Prepare 60% Design - S/CSW1															
S12-170000	0	03FEB97A	07MAR97A	100	Prepare 95% (Draft Final) Design - S/CSW1															
S12-160000	0	03FEB97A	10MAR97A	100	Regulator / Committee Review - S/CSW1															
S12-175000	0		07MAR97A	100	<<<<<<Design Deadline>>>>>>															
S12-180000	0	10MAR97A	21APR97A	100	Regulator/Committee Rev. & Public Comment-S/CSW1															
S12-190000	0	22APR97A	30MAY97A	100	Prepare 100% Design - S/CSW1															
Remediation Activities																				
S14-125000	0	03SEP97A		100	<<<<<<Imp. Start Deadline>>>>>>															
S14-120000	0	03SEP97A	03OCT97A	100	Mobilization - S/CSW1															
S14-INF	0*	03SEP97A	23FEB98A	100	Phase I Sanitary/Chemical Sewer Plugging															
S14-135000	0	06OCT97A	14JAN98A	100	Plugging of Chemical Sewer Manholes															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
S14-130000	0	06OCT97A	20FEB98A	100	Plugging of Sanitary Sewer Manholes - S/CSW1															
S14-140000	0	16FEB98A	23FEB98A	100	Demobilization - S/CSW1															
S14-145000	0		23FEB98A	100	<<<<<<Imp. Finish Deadline>>>>>>															
Construction Completion Report																				
S16-150000	0	24FEB98A	24APR98A	100	Prep Construction Cmpl't Report (CCR) - S/CSW1															
S16-INF	0*	24FEB98A	30SEP98A	100	Constr Cmpl't Rprt (CCR) Process - S/CSW1															
S16-150100	0	25APR98A	18JUN98A	100	Regulator/Committee Review CCR															
S16-150200	0	19JUN98A	13AUG98A	100	Incorp/Respond to Comments/Issue Final Draft CCR															
S16-150300	0	14AUG98A	30SEP98A	100	EPA-State Review/Prepare & Issue Acceptance Ltrs															
S16-150400	0		30SEP98A	100	Phase I San/Chem Sewer Plugging Proj Complete															
Shell/Complex Trench Slurry Walls																				
Remedial Design																				
SW2-120000	0	03JUN96A	26JAN97A	100	Prepare / Revise Design Scope of Work - SLWL															
SW2-INF	0*	03JUN96A	12SEP97A	100	Slurry Wall Design															
SW2-130000	0	26AUG96A	05JAN97A	100	Prepare 30% (Conceptual) Design - SLWL															
SW2-125000	0	23DEC96A	26JAN97A	100	Regulator / RMA Committee Review - SLWL															
SW2-140000	0	06JAN97A	09FEB97A	100	Regulator / Committee Rev. & Public Input - SLWL															
SW2-150000	0	06JAN97A	16FEB97A	100	Prepare 60% Design - SLWL															
SW2-160000	0	17FEB97A	03APR97A	100	Regulator / Committee Review - SLWL															
SW2-170000	0	17FEB97A	23JUN97A	100	Prepare 95% (Draft Final) Design - SLWL															


















Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
SW2-180000	0	23JUN97A	25JUL97A	100	Regulator / Committee Review - SLWL															
SW2-175000	0		23JUN97A	100	<<<<<<Design Deadline>>>>>>															
SW2-190000	0	28JUL97A	12SEP97A	100	Prepare 100% Design - SLWL															
Remediation Activities																				
SW4-125000	0	24APR98A		100	<<<<<<Imp. Start Deadline															
SW4-120000	0	27APR98A	01JUN98A	100	Mobilization - SLWL															
SW4-127500	0*	02JUN98A	27JUL98A	100	UXO Clearance - Install Working Benches															
SW4-127510	0	03JUN98A	07APR00A	100	Support Slurry Wall Installation - BOR10															
SW4-127600	0*	20JUL98A	02OCT98A	100	Perform Soil Borings - CXTR & SHTR															
SW4-130000	0*	07JAN99A	22MAR99A	100	Install Slurry Wall - CXTR															
SW4-140000	0*	23MAR99A	07APR00A	100	Install Slurry Wall-SHTR/ Extr Well/Trench/Pipe															
SW4-165000	0		07APR00A	100	<<<<<<Imp. Finish Deadline>>>>>>															
SW4-430000	0*	14MAR00A	06JUL00A	100	Demobilization															
SW4-206500	0*	27APR98A	07APR00A	100	Project Support Slurry Wall Construction															
SW4-INF	0*	02JUN98A	07APR00A	100	Shell & Army Complex Trenches Slurry Walls															
Construction Completion Report																				
SW6-170000	0	07JUL00A	22MAR01A	100	Prep Construction Cmplt Report (CCR) - SLWL															
SW6-INF1	0*	07JUL00A	08JUN01A	100	Constr Cmplt Rprt (CCR) Process - SLWL															
SW6-170010	0	22MAR01A	09MAY01A	100	Regulator/Committee Review CCR - SLWL															
SW6-170020	0	09MAY01A	16MAY01A	100	Incorp/Respond to Comments/Issue Draft CCR -SLWL															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
SW6-170030	0	16MAY01A	08JUN01A	100																
SW6-170040	0		08JUN01A	100																
SW6-170100	0	07JUL00A	13SEP00A	100																
SW6-INF2	0*	07JUL00A	03JUL01A	100																
SW6-170110	0	13SEP00A	02NOV00A	100																
SW6-170120	0	02NOV00A	21MAR01A	100																
SW6-170130	0	22MAR01A	03JUL01A	100																
SW6-170140	0		03JUL01A	100																
SW6-155000	0	03SEP02A	17SEP02A	100																
SW6-155030	0	18SEP02A	30SEP02A	100																
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
SW7G200100	0*	12MAR01A	30SEP02A	100																
SW7G200200	0	03OCT02A	30SEP10A	100																
<b>Post-ROD Removal Actions for Structures</b>																				
<b>Remediation Activities</b>																				
CI4-130000	0	03JUN96A	01DEC97A	100																
CI4-140000	0	03JUN96A	19JAN98A	100																
CI4-INF	0*	03JUN96A	28DEC99A	100																
CI4-205000	0	19JAN98A	28DEC99A	100																
CI4-200000	0	20JAN98A	20MAR98A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
TS2-190000	0	01FEB99A	17MAR99A	100																
					■ Prepare 100% Design - TXSY															
Remediation Activities																				
TS4-125000	0	03MAY99A		100																
					■ <<<<<Imp. Start Deadline>>>>>- TXSY															
TS4-120000	0*	03MAY99A	24JUN99A	100																
					■ Mobilization- TXSY															
TS4-220100	0*	03MAY99A	30SEP99A	100																
					■ Project Support - Toxic Storage Yard Soil Rem															
TS4-INF	0*	03MAY99A	30SEP99A	100																
					■ Toxic Storage Yard Remediation															
TS4-130000	0*	10JUN99A	08SEP99A	100																
					■ Non-Agent Structure Removal- TXSY															
TS4-150000	0*	10JUN99A	13SEP99A	100																
					■ Excavate Non-Agent/HH Soil - TXSY															
TS4-140000	0*	14JUN99A	15SEP99A	100																
					■ Agent Screening - TXSY															
TS4-179600	0*	08JUL99A	30SEP99A	100																
					■ BOR10 Support to Toxic Storage Yard Soils - TXSY															
TS4-205000	0		15SEP99A	100																
					■ <<<<Imp. Finish Deadline>>>>>- TXSY															
TS4-200000	0*	16SEP99A	30SEP99A	100																
					■ Demobilization - TXSY															
Construction Completion Report																				
TS6-210000	0	14OCT99A	10DEC99A	100																
					■ Prep Construction Cmpl't Report (CCR) - TXSY															
TS6-INF	0*	14OCT99A	20JUN00A	100																
					■ Const Cpl't Rpt (CCR) Process-Toxic Storage Yard															
TS6-210010	0	13DEC99A	12JAN00A	100																
					■ Regulator/Committee Review CCR - TXSY															
TS6-210020	0	13JAN00A	23FEB00A	100																
					■ Incorp/Respond to Comments/Issue Draft CCR - TXS															
TS6-210030	0	24FEB00A	20JUN00A	100																
					■ EPA - State Prepare & Issue Accept Ltr - TXSY															
TS6-210040	0		20JUN00A	100																
					■ Project Complete - Toxic Storage Yard Soil Rem.															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12		
Existing (Sanitary) Landfill Remediation																						
Remedial Design																						
SF2-120000	0	13AUG97A	12JAN98A	100	 Prepare / Revise Design Scope of Work - SANL																	
SF2-122000	0		14OCT97A	100	 <<<<< DesignScope Deadline >>>>>- SANL																	
SF2-125000	0	15OCT97A	18NOV97A	100	 Regulator / RMA Committee Review - SANL																	
SF2-130000	0	19NOV97A	20FEB98A	100	 Prepare 30% (Conceptual) Design - SANL																	
SF2-140000	0	21FEB98A	31MAR98A	100	 Regulator / Committee Rev. & Public Input- SANL																	
SF2-150000	0	23MAR98A	28APR98A	100	 Prepare 60% Design - SANL																	
SF2-160000	0	29APR98A	30MAY98A	100	 Regulator / Committee Review - SANL																	
SF2-170000	0	01JUN98A	22JUN98A	100	 Prepare 95% (Draft Final) Design - SANL																	
SF2-175000	0		22JUN98A	100	 <<<<<< Design Deadline >>>>>> - SANL																	
SF2-180000	0	23JUN98A	20JUL98A	100	 Regulator / Committee Review - SANL																	
SF2-190000	0	23JUL98A	24AUG98A	100	 Prepare 100% Design - SANL																	
SF2-181000	0*	19OCT04A	19MAY05A	100	 ESD for ESL -- All Sections																	
SF2-INF	0*	13AUG97A	19MAY05A	100	 Existing (San) Landfill Remediation Design																	
Remediation Activities																						
SF4-125000	0	22NOV98A		100	 <<<<<< Imp. Start Deadline>>>>>> - SANL																	
SF4-120000	0*	22NOV98A	26JUL99A	100	 Mobilization - Existing (San) Landfill Sec 4 & 1																	
SF4-125500	0*	26MAY99A	22OCT99A	100	 Agent Monitoring Exist. San Landfill Sect 4 & 1																	
SF4-135000	0*	26MAY99A	22OCT99A	100	 Consolidation of Non-HH Soil - Sect 4 & 1 ESL																	



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SF4-130000	0*	02AUG99A	22OCT99A	100																
SF4-200000	0*	15SEP99A	16SEP99A	100																
SF4-140000	0*	26MAY99A	22OCT99A	100																
SF4-130100	0*	08SEP99A	17NOV99A	100																
SF4-INF1	0*	22NOV98A	02DEC99A	100																
SF4-150000	0*	08SEP99A	17NOV99A	100																
SF4-170000	0*	21SEP99A	02DEC99A	100																
SF4-120021	0*	20DEC02A	12MAR03A	100																
SF4-140021	0*	20FEB03A	13MAY03A	100																
SF4-135021	0*	26FEB03A	17JUL03A	100																
SF4-130021	0*	20FEB03A	19AUG03A	100																
SF4-176000	0*	03MAR03A	19AUG03A	100																
SF4-150021	0*	10JUN03A	27AUG03A	100																
SF4-130500	0*	02JUL03A	09JUL03A	100																
SF4-140500	0*	02JUL03A	09JUL03A	100																
SF4-170021	0*	21AUG03A	04SEP03A	100																
SF4-177020	0*	22SEP03A	26SEP03A	100																
SF4-INF2	0*	20DEC02A	26SEP03A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SF4-120001	0*	19NOV03A	23JAN04A	100																
SF4-140001	0*	12JAN04A	14JAN04A	100																
SF4-135001	0*	05JAN04A	27MAY04A	100																
SF4-130001	0*	12JAN04A	14JAN04A	100																
SF4-141001	0*	26APR04A	16JUN04A	100																
SF4-175000	0		16JUN04A	100																
SF4-170001	0*	14JUN04A	16JUN04A	100																
SF4-177000	0*	09JUL04A	20JUL04A	100																
SF4-INF3	0*	19NOV03A	20JUL04A	100																
SF4-190100	0*	22NOV98A	20JUL04A	100																
SF4-INF	0*	22NOV98A	20JUL04A	100																
Construction Completion Report																				
SF6-200100	0	20SEP99A	20NOV99A	100																
SF6-200110	0	21NOV99A	15DEC99A	100																
SF6-200120	0	16DEC99A	28JAN00A	100																
SF6-200130	0	29JAN00A	29FEB00A	100																
SF6-200140	0		29FEB00A	100																
SF6-INF1	0*	20SEP99A	25MAY00A	100																
SF6-200200	0	17NOV99A	19JAN00A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
SF6-200210	0	20JAN00A	22FEB00A	100																
SF6-200220	0	16FEB00A	15MAR00A	100																
SF6-200230	0	16MAR00A	25MAY00A	100																
SF6-200240	0		25MAY00A	100																
SF6-180300	0	25AUG03A	01OCT03A	100																
SF6-INF2	0*	25AUG03A	15JUL04A	100																
SF6-180310	0	06OCT03A	08NOV03A	100																
SF6-180320	0	09NOV03A	12APR04A	100																
SF6-180330	0	13APR04A	15JUL04A	100																
SF6-180340	0		15JUL04A	100																
SF6-180400	0	18JUN04A	23AUG04A	100																
SF6-INF3	0*	18JUN04A	16AUG05A	100																
SF6-180410	0*	29MAR05A	28APR05A	100																
SF6-180420	0*	29APR05A	26MAY05A	100																
SF6-180430	0	26MAY05A	16AUG05A	100																
SF6-180440	0		16AUG05A	100																
SF6-INF	0*	20SEP99A	16AUG05A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Lake Sediments Remediation</b>																				
<b>Remedial Design</b>																				
LS2-120000	0	29SEP97A	09FEB98A	100																
LS2-INF	0*	29SEP97A	13OCT98A	100																
LS2-122000	0		24NOV97A	100																
LS2-125000	0	25NOV97A	29DEC97A	100																
LS2-130000	0	10FEB98A	06APR98A	100																
LS2-140000	0	07APR98A	08MAY98A	100																
LS2-150000	0	07APR98A	08JUN98A	100																
LS2-131000	0		22APR98A	100																
LS2-170000	0	02JUN98A	03AUG98A	100																
LS2-160000	0	08JUN98A	16JUL98A	100																
LS2-180000	0	03AUG98A	04SEP98A	100																
LS2-175000	0		03AUG98A	100																
LS2-190000	0	08SEP98A	13OCT98A	100																
<b>Remediation Activities</b>																				
LS4-125000	0	13DEC98A		100																
LS4-130000	0*	13DEC98A	07OCT99A	100																
LS4-160000	0*	06JUL99A	25AUG99A	100																
LS4-150000	0*	19JUL99A	06AUG99A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
LS4-195000	0		25AUG99A	100																
LS4-190000	0*	01SEP99A	07OCT99A	100																
LS4-210000	0*	13DEC98A	07OCT99A	100																
LS4-INF	0*	13DEC98A	07OCT99A	100																
Construction Completion Report																				
LS6-200000	0	08OCT99A	07DEC99A	100																
LS6-INF	0*	08OCT99A	20APR00A	100																
LS6-200010	0	08DEC99A	08JAN00A	100																
LS6-200020	0	10JAN00A	13FEB00A	100																
LS6-200030	0	14FEB00A	20APR00A	100																
LS6-200040	0		20APR00A	100																
Burial Trenches Soil Remediation																				
Remedial Design																				
BT2-120000	0	22AUG97A	22DEC97A	100																
BT2-INF	0*	22AUG97A	13DEC99A	100																
BT2-122000	0		01OCT97A	100																
BT2-125000	0	02OCT97A	05NOV97A	100																
BT2-130000	0	06NOV97A	15APR98A	100																
BT2-140000	0	16APR98A	29MAY98A	100																
BT2-150000	0	16APR98A	28AUG98A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
BT2-160000	0	31AUG98A	05OCT98A	100						Regulator / Committee Review - BUTR										
BT2-170000	0	05OCT98A	15SEP99A	100						Prepare 95% (Draft Final) Design - BUTR										
BT2-175000	0		15SEP99A	100						<<<<<<Design Deadline>>>>>> - BUTR										
BT2-180000	0	16SEP99A	13OCT99A	100						Regulator / Committee Review - BUTR										
BT2-190000	0*	14OCT99A	13DEC99A	100						Prepare 100% Design - BUTR										
Remediation Activities																				
BT4-125000	0	28FEB00A		100						<<<<<<Imp. Start Deadline>>>>>> - BUTR										
BT4-120000	0*	28FEB00A	28APR00A	100						Mobilization - BUTR										
BT4-160000	0*	28APR00A	15SEP00A	100						Excavate HH/Munitions Debris Soil - BUTR										
BT4-130000	0*	01JUN00A	15SEP00A	100						OE Screening - BUTR										
BT4-200110	0*	27JUL00A	03OCT00A	100						Soil Ammendments- BUTR										
BT4-190000	0*	01SEP00A	09OCT00A	100						Backfill w/Borrow Material - BUTR										
BT4-240000	0*	01SEP00A	09OCT00A	100						BOR10 Support to Burial Trenches - BUTR										
BT4-200120	0*	11SEP00A	13OCT00A	100						Revegetation - BUTR										
BT4-210000	0	10OCT00A	24OCT00A	100						Demobilization - BUTR										
BT4-121000	0*	22JAN01A	08FEB01A	100						Mobilization - Section 4 Trenches										
BT4-131000	0*	12FEB01A	14MAR01A	100						Agent Monitoring - Section 4 Trenches										
BT4-161000	0*	12FEB01A	14MAR01A	100						Excavate Munitions Debris Soil - Sect 4 Trenches										
BT4-250000	0*	14MAR01A	22MAR01A	100						BOR1 Support to Section 4 Trenches - BUTR										





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
BT6-220100	0	02APR01A	25APR02A	100																
BT6-INF1	0*	02APR01A	25SEP02A	100																
BT6-220110	0	26APR02A	28MAY02A	100																
BT6-220120	0	29MAY02A	27JUN02A	100																
BT6-220130	0	28JUN02A	25SEP02A	100																
BT6-220000	0	07MAR03A	01MAY03A	100																
BT6-INF2	0*	07MAR03A	30SEP04A	100																
BT6-220010	0	01MAY03A	02JUN03A	100																
BT6-220020	0	03JUN03A	28SEP04A	100																
BT6-220030	0	29SEP04A	30SEP04A	100																
BT6-220040	0		30SEP04A	100																
BT6-INF	0*	02APR01A	30SEP04A	100																
<b>Munitions (Testing) Soil Remediation</b>																				
<b>Remedial Design</b>																				
MT2-120000	0	22AUG97A	22DEC97A	100																
MT2-INF1	0*	22AUG97A	08MAR00A	100																
MT2-122000	0		01OCT97A	100																
MT2-125000	0	02OCT97A	05NOV97A	100																
MT2-130000	0	06NOV97A	15APR98A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
MT2-140000	0	16APR98A	29MAY98A	100																
MT2-150000	0	24APR98A	28AUG98A	100																
MT2-160000	0	31AUG98A	25SEP98A	100																
MT2-170000	0*	28SEP98A	13OCT99A	100																
MT2-175000	0		15SEP99A	100																
MT2-180000	0	16SEP99A	13OCT99A	100																
MT2-190000	0*	14OCT99A	08MAR00A	100																
MT2-195000	0*	16APR01A	15JAN02A	100																
MT2-200000	0*	16APR01A	15FEB06A	100																
MT2-500000	0*	30SEP05A	15FEB06A	100																
MT2-190300	0*	08MAY06A	03JUL07A	100																
MT2-500090	0*	02OCT06A	30APR07A	100																
MT2-500220	0	15JAN07A	17APR07A	100																
MT2-INF2	0*	16APR01A	30APR07A	100																
MT2-INF	0*	22AUG97A	03JUL07A	100																
Remediation Activities																				
MT4-125000	0	01MAR00A		100																
MT4-120000	0*	01MAR00A	22SEP00A	100																
MT4-140100	0*	24JUL00A	06OCT00A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
MT4-196010	0*	04OCT06A	16OCT07A	100																
MT4-INF2	0*	01MAY02A	16OCT07A	100																
MT4-500100	0	23APR07A	30APR07A	100																
MT4-500120	0*	01MAY07A	29FEB08A	100																
MT4-500130	0	10MAR08A	14MAR08A	100																
MT4-INF3	0*	01MAY07A	14MAR08A	100																
MT4-185001	0		25MAR08A	100																
MT4-200000	0*	01MAR00A	14MAR08A	100																
MT4-INF	0*	01MAR00A	14MAR08A	100																
MT4-500270	0*	26MAR08A	29JUL08A	100																
MT4-500280	0*	26MAR08A	18NOV08A	100																
MT4-300500	0*	14NOV05A	16DEC05A	100																
<b>Construction Completion Report</b>																				
MT6-190000	0	09NOV00A	08JAN01A	100																
MT6-INF1	0*	09NOV00A	15JUL04A	100																
MT6-190010	0	08JAN01A	09FEB01A	100																
MT6-190020	0	03MAR03A	20NOV03A	100																
MT6-190030	0	21NOV03A	15JUL04A	100																
MT6-190040	0		15JUL04A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
MT6-190200	0	01NOV05A	23JAN07A	100																
MT6-INF2	0*	01NOV05A	08APR08A	100																
MT6-190250	0	17JAN07A	23JAN07A	100																
MT6-190260	0	26JAN07A	31JAN07A	100																
MT6-190210	0	01FEB07A	07MAR07A	100																
MT6-190220	0	08MAR07A	11MAY07A	100																
MT6-190230	0	28SEP07A	08APR08A	100																
MT6-190240	0		08APR08A	100																
MT6-INF3	0*	07FEB07A	26MAR08A	100																
MT6-190300	0	30MAR07A	05APR07A	100																
MT6-190310	0	06APR07A	25JUN07A	100																
MT6-190320	0	26JUN07A	01NOV07A	100																
MT6-190330	0	16NOV07A	26MAR08A	100																
MT6-190340	0		26MAR08A	100																
MT6-500110	0*	26MAR08A	27MAY08A	100																
MT6-INF4	0*	26MAR08A	14MAY09A	100																
MT6-500120	0*	30MAY08A	10JUL08A	100																
MT6-500130	0*	11JUL08A	05DEC08A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
MT6-500140	0*	08DEC08A	14MAY09A	100	EPA - State Prep & Iss Acpt Ltr CCR - MT Part IV															
MT6-500150	0		14MAY09A	100	Project Complete - Munitions Testing Part IV															
MT6-INF	0*	09NOV00A	14MAY09A	100	Const Cplrt Rprt (CCR) Process - MT Project															
<b>Miscellaneous Northern Tier Soil Remediation</b>																				
<b>Remedial Design</b>																				
NM2-120000	0	29SEP97A	09FEB98A	100	Prepare / Revise Design Scope of Work - NM															
NM2-INF	0*	29SEP97A	13OCT98A	100	Misc. N. Tier Soil Design															
NM2-122000	0		24NOV97A	100	<<<<< DesignScope Deadline >>>>>- NM															
NM2-125000	0	25NOV97A	29DEC97A	100	Regulator / RMA Committee Review - NM															
NM2-130000	0	10FEB98A	06APR98A	100	Prepare 30% (Conceptual) Design - NM															
NM2-140000	0	07APR98A	08MAY98A	100	Regulator / Committee Rev. & Public Input- NM															
NM2-150000	0	07APR98A	08JUN98A	100	Prepare 60% Design - NM															
NM2-131000	0		22APR98A	100	Transition 30% Design to Foster Wheeler															
NM2-170000	0	04JUN98A	03AUG98A	100	Prepare 95% (Draft Final) Design - NM															
NM2-160000	0	08JUN98A	16JUL98A	100	Regulator / Committee Review - NM															
NM2-175000	0		03AUG98A	100	<<<<<<Design Deadline>>>>>> - NM															
NM2-180000	0	04AUG98A	04SEP98A	100	Regulator / Committee Review - NM															
NM2-190000	0	08SEP98A	13OCT98A	100	Prepare 100% Design - NM															
<b>Remediation Activities</b>																				
NM4-125000	0	22DEC98A		100	<<<<<<Imp. Start Deadline>>>>>> - NM															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
NM4-120000	0*	22DEC98A	16APR99A	100																
NM4-260000	0*	22DEC98A	07OCT99A	100																
NM4-INF	0*	22DEC98A	07OCT99A	100																
NM4-135001	0*	20APR99A	28SEP99A	100																
NM4-135000	0*	04MAY99A	25JUN99A	100																
NM4-130000	0*	04MAY99A	01OCT99A	100																
NM4-137500	0*	11MAY99A	10SEP99A	100																
NM4-157500	0*	11JUN99A	01OCT99A	100																
NM4-240000	0*	05OCT99A	07OCT99A	100																
NM4-245000	0		07OCT99A	100																
Construction Completion Report																				
NM6-250000	0	08OCT99A	07DEC99A	100																
NM6-INF	0*	08OCT99A	20APR00A	100																
NM6-250010	0	08DEC99A	10JAN00A	100																
NM6-250020	0	11JAN00A	13FEB00A	100																
NM6-250030	0	14FEB00A	20APR00A	100																
NM6-250040	0		20APR00A	100																
Miscellaneous. Southern Tier Soil Remediation																				
Remedial Design																				
SM2-120000	0	29SEP97A	09FEB98A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
SM2-122000	0		24NOV97A	100																
SM2-125000	0	25NOV97A	29DEC97A	100																
SM2-130000	0	10FEB98A	06APR98A	100																
SM2-131000	0		06APR98A	100																
SM2-140000	0	07APR98A	08MAY98A	100																
SM2-150000	0	07APR98A	08JUN98A	100																
SM2-170000	0	03JUN98A	03AUG98A	100																
SM2-160000	0	09JUN98A	16JUL98A	100																
SM2-175000	0		03AUG98A	100																
SM2-180000	0	04AUG98A	04SEP98A	100																
SM2-190000	0	08SEP98A	13OCT98A	100																
SM2-185000	0*	22FEB05A	19OCT05A	100																
SM2-190100	0*	20OCT05A	22DEC05A	100																
SM2-INF	0*	29SEP97A	22DEC05A	100																
<b>Remediation Activities</b>																				
SM4-125000	0	22DEC98A		100																
SM4-120000	0*	22DEC98A	22JUL99A	100																
SM4-INF1	0*	22DEC98A	07OCT99A	100																
SM4-140001	0*	12APR99A	17SEP99A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SM4-169000	0*	21NOV06A	22NOV06A	100																Demobilization - Remediation SCL - Misc. ST Soil
SM4-INF3	0*	06JAN06A	22NOV06A	100																MST Soil Remediation - Sand Creek Lateral
SM4-200000	0*	22DEC98A	22NOV06A	100																Project Support - Misc. ST Soils
SM4-INF	0*	22DEC98A	22NOV06A	100																Misc. Southern Tier Soil Remediation
Construction Completion Report																				
SM6-190000	0	08OCT99A	12NOV99A	100																Prep Construction Cmpl't Report (CCR) - SM
SM6-190010	0	12NOV99A	14DEC99A	100																Regulator/ Committee Review CCR - SM
SM6-190020	0	15DEC99A	13FEB00A	100																Incorp/Respond to Comments/Issue Draft CCR - SM
SM6-190030	0	14FEB00A	14JUL00A	100																EPA - State Prepare & Issue Accept Ltr CCR - SM
SM6-190040	0		14JUL00A	100																Project Complete - Misc South Tier Soil Rem
SM6-130500	0	13JUN05A	22JUN05A	100																CCR Addendum -- Deep Acute
SM6-100000	0	21AUG06A	15FEB07A	100																Prep Construction Cmpl't Report (CCR) - SCL
SM6-100010	0	16FEB07A	09APR07A	100																Regulator/Committee Review CCR - SCL
SM6-100020	0*	10APR07A	19JUN08A	100																Incorporate Comments & Resubmit CCR - SCL
SM6-210031	0*	19JUN08A	02SEP08A	100																EPA-State Prep & Issue Accept Ltr CCR - SCL
SM6-INF1	0*	21AUG06A	02SEP08A	100																Const Cpl't Rpt (CCR) Process- SCL (MST)
SM6-100040	0		02SEP08A	100																Project Complete/O&F SCL for SM
SM6-INF	0*	08OCT99A	02SEP08A	100																Const Cpl't Rpt (CCR) Process-SM





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
BD4-125010	0*	13AUG99A	17DEC99A	100																
BD4-250000	0*	23FEB00A	25FEB00A	100																
BD4-255000	0		25FEB00A	100																
BD4-400000	0*	08NOV04A	05AUG05A	100																
BD4-270000	0*	19MAY99A	05AUG05A	100																
BD4-INF	0*	19MAY99A	05AUG05A	100																
<b>Construction Completion Report</b>																				
BD6-260000	0	26FEB00A	28APR00A	100																
BD6-260025	0	03MAR00A	02MAR01A	100																
BD6-260010	0	29APR00A	30MAY00A	100																
BD6-260020	0	31MAY00A	28SEP00A	100																
BD6-260026	0	05MAR01A	01MAY01A	100																
BD6-260027	0	02MAY01A	20DEC01A	100																
BD6-260028	0	04FEB02A	19FEB02A	100																
BD6-260029	0	18MAR02A	21MAR02A	100																
BD6-260040	0	22MAR02A	28FEB03A	100																
BD6-260030	0	04JUN02A	18SEP02A	100																
BD6-260035	0	24SEP02A	11OCT02A	100																
BD6-260110	0	10OCT05A	31JAN06A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
BD6-260120	0	14MAR07A	31MAY07A	100																Reg/Committee Rev interim CCR - BDRS (Constr)
BD6-260122	0	01JUN07A	05JUN08A	100																Prep/iss Revsd Interim (Electronic) CCR-BDRS Con
BD6-260124	0	06JUN08A	07JUL08A	100																Agency Rev Revsd interim CCR (Electronic)-BDRS
BD6-260126	0	08JUL08A	23SEP08A	100																Prep/iss Revsd Draft Final CCR-BDRS Construction
BD6-260140	0	24SEP08A	30SEP08A	100																EPA-State Issue Acpt Ltr Interim CCR-BDRS-Const
BD6-260150	0		30SEP08A	100																Project Compl-Section 36 Bedrock Ridge
BD6-INF	0*	26FEB00A	30SEP08A	100																Const Cplt Rprt (CCR) Process-BDRS
<b>South Plants Structure Demolition and Removal</b>																				
<b>Remedial Design</b>																				
SS2-120000	0	28AUG97A	12FEB98A	100																Prepare / Revise Design Scope of Work - SPST
SS2-INF	0*	28AUG97A	04OCT99A	100																S. Plants Structures Demo Design
SS2-122000	0		20OCT97A	100																<<<<< DesignScope Deadline >>>>> SPST
SS2-125000	0	21OCT97A	20NOV97A	100																Regulator / RMA Committee Review - SPST
SS2-130000	0	21NOV97A	27MAR98A	100																Prepare 30% (Conceptual) Design - SPST
SS2-140000	0	28MAR98A	01MAY98A	100																Regulator / Committee Rev. & Public Input - SPST
SS2-150000	0	30MAR98A	09JUN98A	100																Prepare 60% Design - SPST
SS2-170000	0	13MAY98A	14AUG98A	100																Prepare 95% (Draft Final) Design - SPST
SS2-160000	0	10JUN98A	10JUL98A	100																Regulator / Committee Review - SPST
SS2-180000	0	14AUG98A	17SEP98A	100																Regulator / Committee Review - SPST

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
SS2-175000	0		14AUG98A	100						<<<<<<Design Deadline>>>>>> - SPST										
SS2-190000	0	18SEP98A	19OCT98A	100						Prepare 100% Design - SPST										
SS2-196001	0	20OCT98A	30APR99A	100						Prepare 95% Design - SPST Agent Package #5										
SS2-196032	0	01MAY99A	28MAY99A	100						Regulator Review - SPST Agent Pkg #5										
SS2-196033	0	01JUN99A	04OCT99A	100						Prepare 100% Design - SPST Agent Pkg #5										
Remediation Activities																				
SS4-106000	0	22NOV98A		100						<<<<<<Imp. Start Deadline>>>>>> - SPST										
SS4-105000	0	22NOV98A	16AUG99A	100						Mobilization - SPST										
SS4-170000	0*	22NOV98A	30MAY01A	100						Project Support - South Plants Structure Demo										
SS4-INF	0*	22NOV98A	30MAY01A	100						South Plants Structure Demolition										
SS4-115000	0	01MAR99A	23APR01A	100						Nonagent Structures Demolition - SPST										
SS4-110000	0	01MAR99A	30MAY01A	100						Nonagent Dust and Safety Sampling - SPST										
SS4-120000	0	01MAR99A	30MAY01A	100						Landfill Sig' Contam' Non-agt Mat'l SPST										
SS4-125000	0	01MAR99A	30MAY01A	100						Consolidate Other Nonagent Material - SPST										
SS4-130000	0*	24APR00A	17AUG00A	100						Agent Air Monitoring - SPST										
SS4-135000	0*	24APR00A	17AUG00A	100						Agent Structures Demolition - SPST										
SS4-145000	0*	24APR00A	17AUG00A	100						Landfill Agent Demolition Material - SPST										
SS4-140000	0	17AUG00A	17AUG00A	100						Agent Caustic Treatment - SPST										
SS4-160000	0	30APR01A	30MAY01A	100						Demobilization - SPST										



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SS4-161000	0		30MAY01A	100																
					<<<<<<Imp. Finish Deadline>>>>>> - SPST															
Construction Completion Report																				
SS6-165000	0	01MAY00A	12JUL00A	100																
					Prep Constr Cmplt Report (CCR) - SPST - PH I															
SS6-INF1	0*	01MAY00A	29SEP00A	100																
					Const Cplt Rprt (CCR) Process-SPST															
SS6-165010	0	12JUL00A	17AUG00A	100																
					Regulator/ Committee Review CCR - SPST - PH I															
SS6-165020	0	18AUG00A	08SEP00A	100																
					Inc/Resp Comms/Iss Draft CCR-SPST - PH I															
SS6-165030	0	11SEP00A	29SEP00A	100																
					EPA-State Prep & Iss Accept Ltr CCR-SPST - PH I															
SS6-165040	0		29SEP00A	100																
					Project Complete - S P Structure Demo - PH I															
SS6-165001	0	31MAY01A	18DEC01A	100																
					Prep Constr Cmplt Report (CCR) - SPST - PH II															
SS6-INF2	0*	31MAY01A	02JUL02A	100																
					Const Cplt Rprt (CCR) Process-SPST															
SS6-165011	0	20DEC01A	25JAN02A	100																
					Regulator/ Committee Review CCR - SPST - PH II															
SS6-165021	0	26JAN02A	18APR02A	100																
					Inc/Resp to Comms/Iss Draft CCR-SPST - PH II															
SS6-165031	0*	19APR02A	02JUL02A	100																
					EPA-State Prep & Iss Accept Ltr CCR-SPST - PH II															
SS6-165041	0		02JUL02A	100																
					Project Complete - S P Structure Demo - PH II															
SS6-INF	0*	01MAY00A	02JUL02A	100																
					Const Cplt Rprt (CCR) Process-SPST															
Miscellaneous RMA Structure Demolition & Removal																				
Remedial Design																				
MS2-120000	0	02NOV98A	03FEB99A	100																
					Prepare / Revise Design Scope of Work - MIST															
MS2-125000	0	13NOV98A	08JAN99A	100																
					Regulator / RMA Committee Review - MIST															
MS2-122000	0		13NOV98A	100																
					<<<<< DesignScope Deadline >>>>>- MIST															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
MS2-130000	0	11JAN99A	22FEB99A	100																
MS2-140000	0	23FEB99A	25MAR99A	100																
MS2-150000	0	23FEB99A	02AUG99A	100																
MS2-160000	0	03AUG99A	03SEP99A	100																
MS2-170000	0	03AUG99A	02NOV99A	100																
MS2-175000	0		02NOV99A	100																
MS2-180000	0	03NOV99A	03DEC99A	100																
MS2-190000	0	06DEC99A	24JAN00A	100																
MS2-INF1	0*	02NOV98A	04JUN04A	100																
MS2-190600	0*	29APR03A	14JUL03A	100																
MS2-190700	0*	14JUL03A	14AUG03A	100																
MS2-192500	0*	19APR04A	04JUN04A	100																
MS2-INF2	0*	15NOV06A	06SEP07A	100																
MS2-INF	0*	02NOV98A	01NOV07A	100																
MS2-161600	0*	08AUG07A	01NOV07A	100																
<b>Remediation Activities</b>																				
MS4-106000	0	24FEB00A		100																
MS4-105000	0	24FEB00A	24APR00A	100																
MS4-135000	0*	24APR00A	15DEC00A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
MS4-155000	0*	26APR00A	14JUL00A	100																
MS4-150000	0*	01MAY00A	04DEC00A	100																
MS4-170000	0	01MAY00A	04DEC00A	100																
MS4-140000	0*	28AUG00A	21DEC00A	100																
MS4-180000	0	06NOV00A	19DEC00A	100																
MS4-INF1	0*	24FEB00A	23MAY02A	100																
MS4-135550	0*	06MAR02A	23MAY02A	100																
MS4-107000	0*	18AUG03A	28OCT03A	100																
MS4-116000	0*	29SEP03A	21JAN04A	100																
MS4-136000	0*	29SEP03A	21JAN04A	100																
MS4-156000	0*	16OCT03A	23JAN04A	100																
MS4-170100	0*	16OCT03A	23JAN04A	100																
MS4-171000	0*	16OCT03A	23JAN04A	100																
MS4-182000	0*	30JAN04A	03FEB04A	100																
MS4-171500	0*	25NOV03A	04JUN04A	100																
MS4-204000	0*	03SEP04A	10SEP04A	100																
MS4-136510	0*	03SEP04A	29OCT04A	100																
MS4-INF2	0*	18AUG03A	29OCT04A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
MS4-130555	0*	28OCT04A	29OCT04A	100																Misc. Debris Piles - Demobilization
MS4-314000	0*	18MAR06A	18MAR06A	100																Demolition of Building 143 - With SCL Remed.
MS4-145100	0*	21SEP07A	18DEC07A	100																Sec. 25 ACM Debris Removal - MIST
MS4-100312	0*	08JAN08A	26JUN08A	100																Phase III ACM Abatement - Phase III MIST
MS4-108000	0*	29FEB08A	14APR08A	100																Mobilization - Phase III Demo - MIST
MS4-137000	0*	07APR08A	22DEC08A	100																Rmg Nonagnt Structure Demo - Phase III - MIST
MS4-145000	0*	17APR08A	31JUL08A	100																Consolidate Rmg Nonagnt Mat'l to Basin A - MIST
MS4-350090	0*	25AUG08A	07MAY09A	100																DSR-Misc Structures Demo & Rmvl Ph III Sec25 CSV
MS4-340024	0	18SEP08A	18SEP08A	100																Pre-Final Inspection - Phase III MSDR
MS4-340026	0	07MAY09A	07MAY09A	100																Pre-Final Inspect - Struc. 628 - Phase III MSDR
MS4-172500	0	30OCT08A	06NOV08A	100																Revegetate Demolished Areas - Phase III MSDR
MS4-340030	0	02MAR09A	29JUL09A	100																Prepare DCN-MSD3-022 and Obtain Agency Approval
MS4-340025	0	13AUG09A	13AUG09A	100																Final Inspection - Phase III MSDR
MS4-INF3	0*	29FEB08A	13AUG09A	100																FIELD-Misc Structures Demo & Removal - PhIII
MS4-117200	0*	28SEP09A	31AUG10A	100																URS - D&D of CERCLA WTP Process Equipment
MS4-117150	0	09MAR10A	12JUL10A	100																CERCLA WTP Demo DCN/Procurement
MS4-117300	0	15JUL10A	20AUG10A	100																Submittals for CERCLA WTP Demolition
MS4-117100	0	01SEP10A	03NOV10A	100																Demo CERCLA WTP (Offsite Disposal)





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
MS6-185032	0	21JUN05A	30MAR06A	100																
MS6-185042	0		30MAR06A	100																
MS6-185003	0*	01AUG08A	21OCT08A	100																
MS6-INF3	0*	01AUG08A	08DEC09A	100																
MS6-185013	0	21OCT08A	20NOV08A	100																
MS6-185023	0*	21NOV08A	05NOV09A	100																
MS6-185033	0	06NOV09A	08DEC09A	100																
MS6-185043	0		08DEC09A	100																
MS6-117110	0	01OCT10A	20JAN11A	100																
MS6-INF5	0*	01OCT10A	13JUL11A	100																
MS6-117120	0	21JAN11A	21FEB11A	100																
MS6-117130	0*	22FEB11A	21APR11A	100																
MS6-117140	0	22APR11A	13JUL11A	100																
MS6-177145	0		13JUL11A	100																
MS6-INF	0*	18DEC00A	13JUL11A	100																
<b>Phase II - South Plants Area</b>																				
<b>Buried M-1 Pits Soil Remediation</b>																				
<b>Predesign Activities</b>																				
M11-100000	0*	16DEC98A	12APR00A	100																
M11-INF	0*	16DEC98A	12APR00A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
M12-120000	0*	03JAN00A	14APR00A	100																
M12-122000	0		17MAR00A	100																
M12-INF	0*	03JAN00A	25JAN01A	100																
M12-125000	0	17MAR00A	10APR00A	100																
M12-130000	0	18APR00A	28JUN00A	100																
M12-140000	0	29JUN00A	28JUL00A	100																
M12-170000	0	28JUL00A	18OCT00A	100																
M12-180000	0	18OCT00A	17NOV00A	100																
M12-175000	0		18OCT00A	100																
M12-190000	0	01NOV00A	25JAN01A	100																
Remediation Activities																				
M14-125000	0	01FEB01A		100																
M14-120000	0*	09FEB01A	15JUN01A	100																
M14-145000	0*	17MAY01A	15JUN01A	100																
M14-140000	0*	19JUN01A	16OCT01A	100																
M14-150000	0*	19JUN01A	16OCT01A	100																
M14-170000	0*	19JUN01A	16OCT01A	100																
M14-160000	0*	19JUN01A	16OCT01A	100																
M14-180000	0*	11JUL01A	24OCT01A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
M14-220000	0*	09FEB01A	01NOV01A	100																
M14-INF	0*	09FEB01A	01NOV01A	100																
M14-200000	0*	21SEP01A	01NOV01A	100																
M14-140100	0*	26SEP01A	25OCT01A	100																
M14-205000	0		01NOV01A	100																
Construction Completion Report																				
M16-210000	0	02NOV01A	31DEC01A	100																
M16-INF	0*	02NOV01A	18JUL02A	100																
M16-210010	0	02JAN02A	01FEB02A	100																
M16-210020	0	01FEB02A	01MAR02A	100																
M16-210030	0	04MAR02A	18JUL02A	100																
M16-210040	0		18JUL02A	100																
Hex Pit Soil Remediation																				
Predesign Activities																				
HX1-110000	0	09SEP96A	13JUN97A	100																
HX1-INF1	0*	09SEP96A	06MAR00A	100																
HX1-120000	0	16JUN97A	16FEB98A	100																
HX1-125000	0	02SEP97A	30SEP98A	100																
HX1-130000	0*	01MAR99A	06MAR00A	100																
HX1-150000	0*	24JUN02A	06NOV02A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
Predesign Activities																					
HX1-140000	0*	24JUN02A	17APR03A	100	Hex Pit ROD Amendment																
HX1-INF2	0*	24JUN02A	17APR03A	100	Hex Pit Leachate Production Study/ROD Amendment																
HX1-INF	0*	09SEP96A	17APR03A	100	Hex Pit Treatability Study/ROD Amendment																
Remedial Design																					
HX2-120000	0	08FEB00A	22MAR00A	100	Prepare / Revise Design Scope of Work - HEXP																
HX2-INF1	0*	08FEB00A	20MAR01A	100	Hex Pit Design (ISTD)																
HX2-125000	0	16FEB00A	01MAR00A	100	Regulator / RMA Committee Review - HEXP																
HX2-122000	0		16FEB00A	100	<<<<< DesignScope Deadline >>>>> - HEXP																
HX2-130000	0*	22FEB00A	25APR00A	100	Prepare 30% (Conceptual) Design - HEXP																
HX2-150000	0	26APR00A	25APR00A	100	Prepare 60% Design (waived) - HEXP																
HX2-160000	0	26APR00A	25APR00A	100	Regulator / Committee Review (waived) - HEXP																
HX2-140000	0	26APR00A	25MAY00A	100	Regulator / Committee Rev. & Public Input - HEXP																
HX2-170000	0	26APR00A	02AUG00A	100	Prepare 95% (Draft Final) Design - HEXP																
HX2-180000	0	02AUG00A	07SEP00A	100	Regulator / Committee Review - HEXP																
HX2-175000	0		02AUG00A	100	<<<<<<Design Deadline>>>>>> - HEXP																
HX2-170500	0*	27OCT00A	28DEC00A	100	Prepare 95% Design Addendum - HEXP																
HX2-180500	0	29DEC00A	29JAN01A	100	Regulator / Committe Review 95% Addendum - HEXP																
HX2-190000	0*	29DEC00A	20MAR01A	100	Prepare 100% Design - HEXP																
HX2-120500	0*	24OCT02A	18MAR03A	100	Prepare/Revise Design SOW - Hex Pit Redesign																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
HX2-122200	0		21MAR03A	100																
					DesignScope Deadline - HEXP															
HX2-120520	0*	18MAR03A	04APR03A	100																
					Regulator/RMA Committee Review -DSOW Redesign															
HX2-130500	0*	04MAR03A	02JUN03A	100																
					Prepare 30% Design - Hex Pit Redesign															
HX2-140500	0*	03JUN03A	29JUL03A	100																
					Regulator/Committee Rev - 30% Redesign															
HX2-INF2	0*	24OCT02A	30OCT03A	100																
					Hex Pit Redesign (Excavation)															
HX2-170510	0*	01JUL03A	26AUG03A	100																
					Prepare 95% Design - Hex Pit Redesign															
HX2-150500	0*	29JUL03A	29JUL03A	100																
					Prepare 60% Design - Hex Pit Redesign															
HX2-160500	0*	29JUL03A	29JUL03A	100																
					Regulator/Committee Rev - 60% Redesign															
HX2-180520	0*	26AUG03A	25SEP03A	100																
					Regulator / Committee Review - 95% Redesign															
HX2-175200	0		26AUG03A	100																
					95% Design Deadline - HEXP															
HX2-190500	0*	02SEP03A	30OCT03A	100																
					Prepare 100% Design - Hex Pit Redesign															
HX2-INF	0*	08FEB00A	30OCT03A	100																
					Hex Pit Design															
Remediation Activities																				
HX4-125000	0	21MAR01A		100																
					Imp. Start Deadline - HEXP															
HX4-120000	0*	22MAR01A	14FEB02A	100																
					Mobilization - HEXP															
HX4-INF1	0*	22MAR01A	27JUN02A	100																
					HEX Pit Thermal Treatment - HEXP															
HX4-130000	0*	31OCT01A	31OCT01A	100																
					Agent Air Monitoring															
HX4-140000	0*	15FEB02A	17APR02A	100																
					Hex Pit Treatment - HEXP															
HX4-180000	0*	18APR02A	27JUN02A	100																
					Demobilization - HEXP															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
HX4-185000	0		27JUN02A	100																
HX4-125200	0	19NOV03A		100																
HX4-120200	0*	20NOV03A	01DEC03A	100																
HX4-INF2	0*	20NOV03A	28JAN04A	100																
HX4-140200	0*	01DEC03A	31DEC03A	100																
HX4-140300	0*	01DEC03A	08JAN04A	100																
HX4-180200	0*	22JAN04A	28JAN04A	100																
HX4-185200	0		28JAN04A	100																
HX4-200000	0*	22MAR01A	28JAN04A	100																
HX4-INF	0*	22MAR01A	28JAN04A	100																
<b>Construction Completion Report</b>																				
HX6-191000	0	28JAN04A	29MAR04A	100																
HX6-INF	0*	28JAN04A	21JUL04A	100																
HX6-191100	0	30MAR04A	30APR04A	100																
HX6-191110	0	30APR04A	28MAY04A	100																
HX6-191120	0	29MAY04A	21JUL04A	100																
HX6-191130	0		21JUL04A	100																
<b>SP BOA &amp; CPA Soil Remediation - PH II</b>																				
<b>Remedial Design</b>																				
SC2-120000	0	01JUN98A	16NOV98A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
SC2-122000	0		04SEP98A	100																
SC2-125000	0	05SEP98A	08OCT98A	100																
SC2-130000	0	17NOV98A	22FEB99A	100																
SC2-140000	0	23FEB99A	23MAR99A	100																
SC2-150000	0	23MAR99A	26MAY99A	100																
SC2-160000	0	26MAY99A	25JUN99A	100																
SC2-170000	0*	26MAY99A	15DEC99A	100																
SC2-180000	0	15DEC99A	16JAN00A	100																
SC2-175000	0		15DEC99A	100																
SC2-190000	0	17JAN00A	24MAR00A	100																
SC2-170001	0*	27MAR00A	07AUG00A	100																
SC2-175001	0		07AUG00A	100																
SC2-180001	0	08AUG00A	02NOV00A	100																
SC2-190101	0*	03NOV00A	05JUN01A	100																
SC2-121000	0*	28APR03A	13MAY04A	100																
SC2-123000	0*	13JAN05A	08JUN06A	100																
SC2-124000	0*	09JUN06A	29SEP06A	100																
SC2-110000	0*	28APR03A	29SEP06A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
SC2-174100	0	02JAN07A	03APR07A	100																Prepare/Revise 95% ICS Design - SP
SC2-174105	0	04APR07A	03MAY07A	100																Reg. Review Revised 95% ICS Design - SP
SC2-174110	0	30APR07A	23JUL07A	100																Prepare/Revise 100% ICS Design - SP
SC2-174112	0	25JUL07A	23AUG07A	100																Reg Review Revised 100% ICS Design - SP
SC2-121001	0*	28APR03A	23AUG07A	100																SP- Prep/Issue/Reg. Approval of DCN - Cover
SC2-INF	0*	01JUN98A	22APR08A	100																South Plants BOA and CPA Design
SC2-174113	0	24AUG07A	23OCT07A	100																Revise & Submit Final 100% ICS Design - SP
SC2-174114	0	24OCT07A	20NOV07A	100																Reg. Agencies Review R2 100% ICS Design - SP
SC2-174120	0	21NOV07A	22APR08A	100																Prepare DCN & Obtain Agency Approval - SP
Remediation Activities																				
SC4-125000	0	03DEC01A		100																<<<<<<Imp. Start Deadline>>>>>> - SPCP
SC4-120000	0*	03DEC01A	18MAR02A	100																Mobilization - SPCP
SC4-155000	0*	14MAR02A	01OCT02A	100																Excavate Non-Agent/HH Soil - SPCP
SC4-170000	0*	14MAR02A	22JAN03A	100																Consolidate Mat Fm SP Bal as Back/Gradefill-SPCP
SC4-160000	0*	21MAR02A	01OCT02A	100																Landfill Agent/HH Soil - SPCP
SC4-140000	0*	21MAR02A	06DEC02A	100																Excavate Agent/HH Soil - SPCP
SC4-170100	0	01MAY02A	01MAY02A	100																BOR3 Support to SP CPA Soils - Not Required
SC4-148000	0*	19JUN02A	30AUG02A	100																Excavate / Plug Agent Chemical Sewers - SPCP
SC4-158000	0*	19JUN02A	30AUG02A	100																Excavate / Plug Non-Agent Chemical Sewers - SPCP





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SC4-300040	0	19MAR09A	09APR09A	100																RCRA Soil Placement - SP CPA Wedge (Remaining)
SC4-240010	0	12MAR09A	22APR09A	100																CBL/Cover Soil/Perimeter GF - SP CPA Wedge
SC4-240120	0	19MAY09A	26MAY09A	100																Soil Amendments - SP CPA Wedge
SC4-240130	0	07JUL09A	15JUL09A	100																Perm Reveg & Irrigation Setup - SP CPA Wedge
SC4-243000	0*	07JAN08A	24OCT08A	100																BA10 Support for RCRA Equiv. Cover - SP Cover
SC4-120101	0	31JAN08A	15FEB08A	100																Subgrade Prep - SP CPA Cover
SC4-180000	0	11FEB08A	22OCT08A	100																BBM Placement - SP CPA Cover & Wedge (Partial)
SC4-202030	0	07MAY08A	24NOV08A	100																Choke Surface - SP CPA Cover & Wedge (Partial)
SC4-240000	0	10SEP08A	24OCT08A	100																CBL/Cover Soil/Perimeter GF - SP CPA Cover
SC4-201098	0	16OCT08A	21MAY09A	100																Prefinal Inspection - SP CPA Cover
SC4-250110	0	03NOV08A	26MAY09A	100																Soil Amendments - SP CPA Cover
SC4-251010	0	10NOV08A	15JUL09A	100																Perm Revegetation - SP CPA Cover
SC4-201200	0	23JUL09A	23JUL09A	100																Prefinal Inspection Conference - SP
SC4-250000	0	24FEB09A	24JUL09A	100																Irrigation Setup - SP CPA Cover
SC4-626000	0	25JUL09A	12SEP09A	100																Irrigation - SP CPA Cover & Wedge
SC4-201099	0	21APR10A	21APR10A	100																Final Inspection - SP CPA Cover
SC4-241000	0	22SEP08A	18MAY09A	100																Subgrade Prep & Construction - SP 3 Ft Cover
SC4-244000	0*	22SEP08A	19MAY09A	100																BA 3 Support for 1' B/F & 3' Cover - SP Cover

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
SC4-246000	0	07OCT08A	19MAY09A	100																Cover Soil Placement - SP 3 Ft Cover
SC4-251000	0	10NOV08A	25JUL09A	100																Perm Revegetation - SP 3 Ft Cover
SC4-201061	0	13NOV08A	02JUL09A	100																Prefinal Inspection - SP 3 Ft Cover
SC4-250120	0	17NOV08A	25JUL09A	100																Soil Amendments - SP 3 Ft Cover
SC4-266025	0*	29DEC08A	26MAR09A	100																DSR-SouthPlants BOA&CPA Ph II-Add'l Biota Soils
SC4-201093	0	25JUL09A	12SEP09A	100																Irrigation - SP 3 Ft Cover
SC4-626120	0	04MAR10A	04MAR10A	100																Pre Final Inspection (Eng. Controls) - SP Covers
SC4-201191	0	21APR10A	21APR10A	100																Final Inspection - SP 3 Ft Cover
SC4-201100	0	20FEB09A	27MAR09A	100																Transition from 3' Cover to 1' Backfill - SP
SC4-201110	0	20FEB09A	25JUL09A	100																Perm Revegetation - SP Transition Area
SC4-201130	0	24FEB09A	24JUL09A	100																Irrigation Setup - Army-Maintained Area
SC4-201120	0	11JUL09A	15JUL09A	100																Soil Amendments - SP Transition Area
SC4-201094	0	08AUG09A	30SEP09A	100																Soil Amendments - SP 1 Ft Backfill
SC4-201300	0*	13MAY09A	17JUL09A	100																South Plants Middle Pond
SC4-201400	0*	16MAY09A	28AUG09A	100																South Plants West Pond
SC4-201140	0	25JUL09A	12SEP09A	100																Irrigation - Army-Maintained Area
SC4-201095	0	01JUN09A	21APR10A	100																Borrow Area 3 Restoration
SC4-INF3	0*	31JAN08A	12SEP09A	100																FIELD-SP BOA & CPA Ph II - RCRA-Eq Cover Const

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
Remediation Activities																					
SC4-270200	0*	23JUL09A	16NOV10A	100																CERT REPORT-SP BOA&CPA Ph II-RCRA-Eq Cover	
SC4-218900	0	14SEP09A	02MAR10A	100																Construct Engineering Controls - South Plants	
SC4-626110	0	01OCT09A	02MAR10A	100																Remove RMA Primary Haul Roads - SP	
SC4-260001	0*	21APR10A	30APR10A	100																Demobilization - SP Covers	
SC4-265000	0		16NOV10A	100																<<<<<<Imp. Finish Deadline>>>>>>Cover	
SC4-INF4	0*	31JAN08A	16NOV10A	100																FIELD-SP BOA & CPA-3-Ft Cvr & 1-Ft BF Constr	
SC4-280001	0*	03DEC01A	16NOV10A	100																Project Support - SP CPA Subgrade	
SC4-INF	0*	03DEC01A	16NOV10A	100																SP BOA & CPA Soil Remediation Phase II	
Construction Completion Report																					
SC6-260000	0*	05JUN03A	14AUG03A	100																Prepare Draft CCR - South Plant BOA & CPA II	
SC6-260010	0*	15AUG03A	14NOV03A	100																RVO & Regulat.Review Draft CCR - SP BOA & CPA II	
SC6-260020	0*	17NOV03A	17MAR05A	100																Incorp. Reg. Com. Draft CCR - SP BOA & CPA II	
SC6-260011	0*	18MAR05A	06MAY05A	100																RVO & Regulat.Review Rev. CCR - SP BOA & CPA II	
SC6-260021	0*	06MAY05A	22SEP05A	100																Incorp. Com. - Prep. Final CCR - SP BOA & CPA II	
SC6-269950	0	15SEP08A	02DEC08A	100																PMC - Prep Draft CCR Part I - ICS SP	
SC6-INF0	0*	15SEP08A	12FEB09A	100																CCR Part I Draft - ICS South Plants	
SC6-269960	0	02DEC08A	12FEB09A	100																Agency - Review Draft CCR Part I - ICS SP	
SC6-260031	0	17DEC08A	10MAR09A	100																Incorporate Biota Soil Removal into CCR	
SC6-260032	0	10MAR09A	04MAY09A	100																Agencies-Review CCR SG & Comments-SPBOA Rem	

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
SC6-INF1	0*	05JUN03A	19JAN10A	100	CCR - South Plants BOA & CPA Phil-Remediation SG															
SC6-260026	0*	05MAY09A	04NOV09A	100	Incorporate Comments & Resubmit CCR - SPBOA Rem															
SC6-260030	0	06NOV09A	19JAN10A	100	EPA-State Prep & Iss Accpt Ltr CCR - SP BOA Rem															
SC6-260040	0		19JAN10A	100	CCR Complete - SP BOA															
SC6-INF2	0*	15SEP08A	26JAN11A	100	CCR-South Plants BOA & CPA - ICS RCRA-Eq Covers															
SC6-270000	0	01FEB10A	01APR10A	100	Prep Draft Constr Complt Rep (CCR)-ICS Covers															
SC6-270010	0	02APR10A	13MAY10A	100	Regulator/Committee Review CCR- ICS Cover															
SC6-270020	0*	14MAY10A	08SEP10A	100	Incorp/Resp to Comments/Issue Drft CCR-ICS Cover															
SC6-270030	0	09SEP10A	26JAN11A	100	EPA-State Prep & Issue Accept Ltr CCR-ICS Covers															
SC6-270040	0		26JAN11A	100	CCR Complete - ICS Covers															
SC6-INF	0*	05JUN03A	26JAN11A	100	Const Cplt Rprt (CCR) Process-SP BOA & CPA															
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
SC7-660000	0	05OCT09A	30NOV10A	100	SP Cover - Begin 5 Year Veg Obs & Rpt Period															
SC7-100000	0*	08SEP09A	30NOV10A	100	<<<< Short-Term M&M >>>> - SP Cover															
<b>SP BOA &amp; CPA Soil Remedation - PH I</b>																				
<b>Remedial Design</b>																				
SR2-120000	0	01JUN98A	16NOV98A	100	Prepare / Revise Design Scope of Work															
SR2-122000	0		04SEP98A	100	<<<<< DesignScope Deadline >>>>>- SPBA															
SR2-125000	0	05SEP98A	08OCT98A	100	Regulator / RMA Committee Review - SPBA															
SR2-130000	0	17NOV98A	22FEB99A	100	Prepare 30% (Conceptual) Design - SPBA															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
SR2-140000	0	23FEB99A	23MAR99A	100																
SR2-150000	0	23MAR99A	26MAY99A	100																
SR2-160000	0	26MAY99A	25JUN99A	100																
SR2-170000	0*	26MAY99A	15DEC99A	100																
SR2-180000	0	15DEC99A	16JAN00A	100																
SR2-175000	0		15DEC99A	100																
SR2-190000	0*	17JAN00A	24MAR00A	100																
SR2-INF	0*	01JUN98A	24MAR00A	100																
<b>Remediation Activities</b>																				
SR4-125000	0	28FEB00A		100																
SR4-120000	0*	28FEB00A	07JUL00A	100																
SR4-160000	0	08JUN00A	31AUG00A	100																
SR4-153000	0*	23JUN00A	28SEP01A	100																
SR4-155000	0*	23JUN00A	28SEP01A	100																
SR4-158000	0*	23JUN00A	28SEP01A	100																
SR4-190000	0*	23JUN00A	12OCT01A	100																
SR4-200000	0*	08AUG00A	28SEP01A	100																
SR4-180000	0	31AUG00A	31AUG00A	100																
SR4-240000	0	03OCT01A	12OCT01A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
SR4-245000	0		12OCT01A	100																
SR4-230100	0	14NOV01A	13DEC01A	100																
SR4-260000	0	28FEB00A	13DEC01A	100																
SR4-INF	0*	28FEB00A	13DEC01A	100																
<b>Construction Completion Report</b>																				
SR6-250000	0	15OCT01A	11DEC01A	100																
SR6-INF	0*	15OCT01A	24SEP02A	100																
SR6-250010	0	12DEC01A	25JAN02A	100																
SR6-250020	0	26JAN02A	08FEB02A	100																
SR6-250024	0*	08FEB02A	02JUL02A	100																
SR6-250030	0	03JUL02A	24SEP02A	100																
SR6-250040	0		24SEP02A	100																
<b>Phase III - Sections 35 &amp; 36 Sites &amp; North Plant</b>																				
<b>Sanitary Sewer Manhole Plugging - Phase II</b>																				
<b>Remedial Design</b>																				
S22-120000	0*	14JAN02A	25JUL02A	100																
S22-INF1	0*	14JAN02A	25JUL02A	100																
S22-122000	0		12FEB02A	100																
S22-125000	0	13FEB02A	14MAR02A	100																
S22-130000	0	15MAR02A	15MAR02A	100																
S22-140000	0	15MAR02A	15MAR02A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
S22-150000	0	15MAR02A	15MAR02A	100																
S22-160000	0	15MAR02A	15MAR02A	100																
S22-170000	0*	02JUL07A	18SEP07A	100																
S22-175000	0		18SEP07A	100																
S22-180000	0	20SEP07A	22OCT07A	100																
S22-190000	0*	23OCT07A	20NOV07A	100																
S22-INF2	0*	02JUL07A	24JAN08A	100																
S22-INF	0*	14JAN02A	24JAN08A	100																
<b>Remediation Activities</b>																				
S24-125000	0	13DEC07A		100																
S24-120000	0	03APR08A	17APR08A	100																
S24-130000	0	18APR08A	10JUL08A	100																
S24-145100	0		12AUG08A	100																
S24-160000	0*	03APR08A	10SEP08A	100																
S24-INF	0*	03APR08A	10SEP08A	100																
S24-140000	0	21AUG08A	10SEP08A	100																
<b>Construction Completion Report</b>																				
S26-150000	0*	26JUL08A	04SEP08A	100																
S26-150010	0	05SEP08A	13OCT08A	100																
S26-150020	0*	14OCT08A	22DEC08A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
S26-150030	0	23DEC08A	17FEB09A	100																EPA/State-Prep & Iss Accept Ltr CCR-SS MHP Ph II
S26-150040	0		17FEB09A	100																Project Complete - Ph II San Sewer Manhole Plug
S26-INF	0*	26JUL08A	17FEB09A	100																CCR-Sanitary Sewer Manhole Plugging Ph II
Section 36 Balance of Areas Soil Rem																				
Remedial Design																				
T62-120000	0	19DEC00A	22MAY01A	100																Prepare/Revise Draft Design Scope of Work - 36BA
T62-122000	0		06FEB01A	100																<<<<< Design Scope Deadline >>>>> - 36BA
T62-125000	0	06FEB01A	07MAR01A	100																Regulatory Agency / RMA Committee Review - 36BA
T62-130000	0	02JAN01A	22MAY01A	100																Prepare 30% (Conceptual) Design - 36BA
T62-140000	0	23MAY01A	22JUN01A	100																Regulatory Agency Rev. & Public Input - 36BA
T62-150000	0*	23MAY01A	07FEB02A	100																Prepare 60% Design Phase I - 36BA
T62-160000	0*	07FEB02A	13MAR02A	100																Regulatory Agency Rev. 60% Des. Ph. I - 36BA
T62-170000	0*	08FEB02A	13MAR02A	100																Prepare 95% (Draft Final) Design Phase I - 36BA
T62-155000	0*	13MAR02A	24JUN02A	100																Prepare Revised 60% (Draft Final) Design - 36BA
T62-195030	0*	03JUN02A	22OCT02A	100																Prepare ESD
T62-165000	0*	25JUN02A	08AUG02A	100																Regulatory Agency Rev. Revised 60% Des. - 36BA
T62-171000	0*	25JUN02A	26NOV02A	100																Prepare 95% (Draft Final) Design - 36BA
T62-175000	0		26NOV02A	100																<<<<<<Design Deadline>>>>>> - 36BA
T62-195034	0*	22OCT02A	21NOV02A	100																Agencies Review ESD

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
T62-195035	0*	22NOV02A	13MAR03A	100																
T62-180000	0*	26NOV02A	15JAN03A	100																
T62-190000	0*	27NOV02A	29APR03A	100																
T62-195080	0*	14MAR03A	24MAR03A	100																
T62-195083	0*	29APR03A	29MAY03A	100																
T62-122010	0*	13JAN05A	08JUN06A	100																
T62-INF	0*	19DEC00A	08JUN06A	100																
Remediation Activities																				
T64-125000	0	19MAY03A		100																
T64-120000	0*	16JUN03A	29AUG03A	100																
T64-120020	0*	23JUN03A	29AUG03A	100																
T64-154010	0*	21JUL03A	27APR04A	100																
T64-165010	0*	21JUL03A	27APR04A	100																
T64-170000	0*	21AUG03A	03OCT03A	100																
T64-160000	0*	28AUG03A	05JAN04A	100																
T64-185000	0*	28AUG03A	27APR04A	100																
T64-190000	0*	28AUG03A	29APR04A	100																
T64-154000	0*	04SEP03A	30SEP03A	100																
T64-165020	0*	03OCT03A	10MAR04A	100																





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
T64-220500	0*	19SEP05A	23NOV05A	100																Demobilization - 36BA Part 2 - Phase I
T64-315000	0*	29NOV05A	28SEP06A	100																S36 BOA Grading-Drainage from CAT N of B.A. {S3}
T64-314000	0*	20FEB06A	09MAR06A	100																S36BOA - Fire Station Demolition
T64-313000	0*	25OCT05A	20SEP06A	100																S36 BOA Subgrade & Site Grading by CAT {S3}
T64-213000	0*	16OCT06A	20OCT06A	100																Revegetation - 36BOA Part 2 & related BA
T64-252000	0	03JUL06A	17JUL06A	100																Mobiliz.- Sec 36 Subgrade (w/Basin A North Subg)
T64-312000	0*	05JUL06A	14NOV06A	100																S36 BOA Site Grading by Basin A North
T64-INF2	0*	12APR05A	14NOV06A	100																Sect. 36 BOA Grading (Subgrade) Constr - Part 2
T64-225000	0		14NOV06A	100																<<<<<Imp. Finish>>>>> - 36BA
T64-340000	0*	16JUN03A	14NOV06A	100																Sec 36 BOA - Project Support
T64-INF	0*	16JUN03A	14NOV06A	100																Sect. 36 Balance of Area Soils Remediation
T64-230245	0	08APR08A	11APR08A	100																Section 36 Removal of Storm Water Drain Pipe
T64-230260	0*	01JUL08A	20NOV08A	100																DSR - Section 36 BOA - Part 1
T640230250	0	17NOV08A	13AUG09A	100																Section 36 Rock Removal and Discing
T64-330260	0*	22AUG08A	04DEC08A	100																DSR - Section 36 BOA - Part 2
T64-330300	0*	16DEC08A	08OCT09A	100																ESD - Section 36 BOA - Soil Volume/Cost Changes
<b>Construction Completion Report</b>																				
T66-230100	0	25JAN05A	06APR06A	100																Prep Constr. Completion Rpt (CCR) Part 1-36BOA
T66-230101	0	07APR06A	30MAR07A	100																Regulator/Committee Review CCR Part 1-36BOA

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
T66-230102	0	01MAY08A	19AUG08A	100																PMC Revise Draft CCR - S36 BOA Pt1
T66-230110	0*	20AUG08A	20JAN09A	100																Regulator/Committee Review Drft CCR -S36 BOA Pt1
T66-INF1	0*	25JAN05A	05MAY09A	100																CCR - Section 36 BOA - Part 1
T66-230120	0*	21JAN09A	19FEB09A	100																Incorp. Comments & Resubmit CCR - S36 BOA Pt1
T66-230130	0*	20FEB09A	05MAY09A	100																EPA-State Prep & Issue Acpt Ltr CCR -S36 BOA Pt1
T66-230140	0		05MAY09A	100																Project Complete - Section 36 BOA Part 1
T66-230000	0	01MAY08A	16JUN09A	100																Prep Constr Completion Rpt (CCR)-S36BOA 2
T66-230010	0	19JUN09A	24JUL09A	100																Regulator/Committee Review CCR - S36BOA 2
T66-230020	0*	27JUL09A	19NOV09A	100																Incorp/Resp to Cmts/Issue Draft CCR-S36 BOA Pt2
T66-230030	0*	24NOV09A	22FEB10A	100																EPA-State Prep & Issue Acpt Ltr CCR-S36 BOA Pt2
T66-230040	0		22FEB10A	100																Project Complete - Section 36 BOA Part 2
T66-INF2	0*	01MAY08A	22FEB10A	100																CCR - Section 36 BOA - Part 2
T66-INF	0*	25JAN05A	22FEB10A	100																Const Completion Report (CCR) Process - 36BOA
<b>Secondary Basins Soil Remediation</b>																				
<b>Remedial Design</b>																				
SB2-120100	0	23AUG99A	10DEC99A	100																Prepare/Revise Design Scope of Work - SEHH
SB2-122100	0		17SEP99A	100																<<<<< DesignScope Deadline >>>>>- SEHH
SB2-121100	0	18SEP99A	17OCT99A	100																Regulator/RMA Committee Review Draft SOW - SEHH
SB2-130100	0	18OCT99A	10DEC99A	100																Prepare 30% (Conceptual) Design - SEHH



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
SB2-140100	0	11DEC99A	09JAN00A	100																
SB2-150100	0	10JAN00A	10MAR00A	100																
SB2-160100	0	11MAR00A	09APR00A	100																
SB2-170100	0	10APR00A	26MAY00A	100																
SB2-175100	0		26MAY00A	100																
SB2-180100	0	27MAY00A	25JUN00A	100																
SB2-INF1	0*	23AUG99A	25AUG00A	100																
SB2-190100	0	26JUN00A	25AUG00A	100																
SB2-200100	0*	28AUG00A	16OCT01A	100																
SB2-200200	0*	17OCT01A	31JAN02A	100																
SB2-INF	0*	23AUG99A	31JAN02A	100																
Remediation Activities																				
SB4-120100	0*	21MAR01A	21AUG01A	100																
SB4-125100	0	21MAR01A		100																
SB4-130100	0*	08JUN01A	24AUG01A	100																
SB4-140000	0*	08JUN01A	24AUG01A	100																
SB4-130150	0*	20AUG01A	31AUG01A	100																
SB4-178500	0*	20AUG01A	31AUG01A	100																
SB4-170100	0*	04SEP01A	09NOV01A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
SB6-180140	0		15JUL04A	100																
SB6-190100	0	17APR08A	17JUN08A	100																
SB6-190110	0	18JUN08A	17JUL08A	100																
SB6-190120	0*	23OCT08A	20JAN09A	100																
SB6-190115	0	22JAN09A	25FEB09A	100																
SB6-190125	0*	26FEB09A	07MAY09A	100																
SB6-190130	0	08MAY09A	15JUN09A	100																
SB6-INF2	0*	17APR08A	15JUN09A	100																
SB6-190140	0		15JUN09A	100																
SB6-INF	0*	27FEB03A	15JUN09A	100																
<b>Complex(Army)Disposal Trenches Remediation-Cover</b>																				
<b>Remedial Design</b>																				
CT2-120000	0	17DEC02A	22MAY03A	100																
CT2-122000	0		06MAR03A	100																
CT2-125000	0	07MAR03A	18APR03A	100																
CT2-130000	0	23MAY03A	12AUG03A	100																
CT2-140000	0	13AUG03A	19SEP03A	100																
CT2-151100	0	07JUN04A	18JUN04A	100																
CT2-130010	0*	03MAR03A	15OCT04A	100																





Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
CT2-195120	0	21NOV07A	22APR08A	100																Prepare DCN & Obtain Agency Approval - CAT
Remediation Activities																				
CT4-125000	0	27JUL05A		100																<<<<<Imp. Start Deadline>>>>> - CXTR
CT4-120000	0*	07SEP05A	24OCT05A	100																Mobilization - Gradefill -- CXTR
CT4-179520	0*	02NOV05A	16JAN06A	100																BOR 10 Suppt Complex Disp Trenches G/F
CT4-160000	0*	24OCT05A	31AUG06A	100																Install Gradefill - CXTR {S3}
CT4-169000	0*	31JUL06A	29SEP06A	100																Demobilization - Gradefill -- CXTR
CT4-INF1	0*	07SEP05A	21MAR07A	100																CAT Subgrade Construction
CT4-160500	0*	16MAR07A	21MAR07A	100																Temporary Revegetation (Gradefill) - CXTR
CT4-170100	0	13SEP07A	16NOV07A	100																Subgrade Prep - CAT
CT4-171000	0	19SEP07A	04JAN08A	100																BBM Placement - CAT
CT4-171010	0	29OCT07A	24JAN08A	100																Choke Surface - CAT
CT4-179440	0*	29OCT07A	22JUL08A	100																BOR 10 Support CAT Cover
CT4-170001	0	07APR08A	22JUL08A	100																CBL/Cover Soil/Perimeter GF - CAT
CT4-182001	0	22JUL08A	02JUL09A	100																Prefinal Inspection Process - CAT
CT4-182003	0	21OCT08A	25NOV08A	100																Perm Reveg - CAT
CT4-182004	0	24FEB09A	24JUL09A	100																Irrigation Setup - CAT
CT4-182010	0	17MAR09A	29JAN10A	100																CAT Access Road Construction - CAT
CT4-182011	0	23JUL09A	23JUL09A	100																Prefinal Inspection Conference - CAT

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
CT4-186001	0	25JUL09A	12SEP09A	100																Irrigation - CAT
CT4-INF2	0*	13SEP07A	12SEP09A	100																CAT RCRA-Equivalent Cover Construction
CT4-200200	0*	23JUL09A	16NOV10A	100																CERT REPORT-Complex Army Trenches-RCRA-Eq Cover
CT4-187000	0	14SEP09A	02MAR10A	100																Construct Engineering Controls - CAT
CT4-187010	0	04MAR10A	04MAR10A	100																Pre Final Inspection (Enginrng Controls) - CAT
CT4-180001	0	21APR10A	21APR10A	100																Final Inspection - CAT
CT4-186110	0	01OCT09A	02MAR10A	100																Remove RMA Primary Haul Roads - CAT
CT4-190000	0*	21APR10A	30APR10A	100																Demobilization - CAT Cover
CT4-195000	0		16NOV10A	100																<<<<<<Imp. Finish Deadline>>>>>> - CAT
CT4-210000	0*	07SEP05A	01APR11A	100																Project Support - Complex (Army) Trenches Rem
CT4-180011	0	28FEB11A	01APR11A	100																Formal Records Review
CT4-INF	0*	27JUL05A	01APR11A	100																FIELD-Complex Army Disposal Trenches-RCRA Eq Cvr
<b>Construction Completion Report</b>																				
CT6-210000	0	06NOV06A	09JAN07A	100																SG - Prep Constr. Cmplt Report (CCR) - CXTR
CT6-INF1	0*	06NOV06A	17JUL08A	100																Subgrade - Const Cplt Rprt (CCR) Process CXTR
CT6-210010	0	10JAN07A	24JAN07A	100																SG - Regulator/ Committee Review CCR - CXTR
CT6-210020	0	25JAN07A	21FEB08A	100																SG- Incorp/Resp. to Comments/Issue Dr. CCR - CXTR
CT6-210030	0	08MAY08A	17JUL08A	100																EPA - State Prep. & Iss. Accept Ltr CCR - CAT SG
CT6-210040	0		17JUL08A	100																Subgrade CCR Complete Complex Army Trench



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
CT6-199950	0	15SEP08A	02DEC08A	100																PMC - Prep Draft CCR Part I - ICS CAT
CT6-INF0	0*	15SEP08A	12FEB09A	100																CCR Part I Draft - ICS CAT
CT6-199960	0	02DEC08A	12FEB09A	100																Agency - Review Draft CCR Part I - ICS CAT
CT6-INF2	0*	15SEP08A	26JAN11A	100																CCR-Complex Army Disp Trench-ICS RCRA-Eq Covers
CT6-200000	0*	01FEB10A	01APR10A	100																Prep Constr Cmpl Report (CCR)-ICS Covers
CT6-200010	0*	02APR10A	13MAY10A	100																Regulator/Committee Review CCR-ICS Covers
CT6-200020	0*	14MAY10A	08SEP10A	100																Incorp/Resp to Comments/Iss Draft CCR-ICS Covers
CT6-200030	0	09SEP10A	26JAN11A	100																EPA-State Prepare & Iss Accept Ltr CCR-ICS Cover
CT6-200040	0		26JAN11A	100																CCR Complete - ICS Covers
CT6-INF	0*	06NOV06A	26JAN11A	100																Const Cplt Rprt (CCR) Process-CXTR
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
CT7-600000	0	21SEP09A	30NOV10A	100																CAT Cover-Begin 5 Year Veg. Obs. & Rprt Period
CT7-100000	0*	21SEP09A	30NOV10A	100																<<<< Short-Term M&M >>>> - CAT Cover
<b>Shell Disposal Trenches Remediation - Cover</b>																				
<b>Remedial Design</b>																				
ST2-120000	0	17DEC02A	22MAY03A	100																Prepare / Revise Design Scope of Work - SHTR
ST2-122000	0		06MAR03A	100																<<<<< DesignScope Deadline >>>>>- SHTR
ST2-125000	0	07MAR03A	18APR03A	100																Regulator / RMA Committee Review - SHTR
ST2-130000	0	23MAY03A	12AUG03A	100																Prepare 30% (Conceptual) Design - SHTR
ST2-140000	0	12AUG03A	19SEP03A	100																Regulator / Committee Rev. & Public Input - SHTR



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
ST2-174114	0	24OCT07A	20NOV07A	100																Reg. Agencies Review R2 100% ICS Design - SHTR
ST2-174120	0	21NOV07A	22APR08A	100																Reg Review Revised 100% ICS Design - SHTR
ST2-INF	0*	17DEC02A	22APR08A	100																Shell Disposal Trenches Design - Cover
Remediation Activities																				
ST4-125000	0	04FEB05A		100																<<<<<<Imp. Start Deadline>>>>>> - SHTR
ST4-120100	0*	12APR05A	24MAY05A	100																Subgrade S/C Mobilization - SHTR
ST4-130000	0*	02MAY05A	26JUL05A	100																Install Gradefill - SHTR
ST4-120110	0	27JUL05A	23SEP05A	100																Subgrade S/C- Demobilization- SHTR
ST4-INF1	0*	12APR05A	26JUL05A	100																SDT RCRA-Equivalent Cover Subgrade Construction
ST4-440000	0*	02NOV05A	16DEC05A	100																Stockpile AZ Soils & Sample AZ in BA 10 - SHTR
ST4-120000	0*	09AUG06A	06SEP06A	100																Cover S/C - Mobilization - SHTR
ST4-142200	0*	11SEP06A	20SEP06A	100																Demonstration Pad - SHTR
ST4-142000	0	26SEP06A	11DEC06A	100																Install Biota Barrier - SHTR
ST4-140000	0*	05MAR07A	18JUN07A	100																Install RCRA-Equivalent Cover System - SHTR
ST4-190110	0*	13JUN07A	19JUN07A	100																Place Soil Amendments - SHTR
ST4-179900	0*	02NOV05A	19JUN07A	100																BOR10 Support to Shell Disp Trenches Cover
ST4-190000	0*	20JUN07A	23JUN07A	100																Seed Perm. Vegetation Over Soil Cover/Cap- SHTR
ST4-190120	0*	04JUN07A	15SEP07A	100																Setup / Irrigate Veget. / Inst. Er. Monum. SHTR
ST4-200000	0*	18JUN07A	16OCT07A	100																Cover Construction S/C Demobilization - SHTR







Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
ST6-209950	0	15SEP08A	02DEC08A	100																PMC - Prep Draft CCR Part I - ICS SDT
ST6-INF0	0*	15SEP08A	12FEB09A	100																CCR Part I Draft - ICS SDT
ST6-209960	0	02DEC08A	12FEB09A	100																Agency - Review Draft CCR Part I - ICS SDT
ST6-INF2	0*	15SEP08A	26JAN11A	100																CCR-Shell Disposal Trenches-ICS 2FT Covers
ST6-210001	0*	01FEB10A	01APR10A	100																Prep Constr. Cmplt Rpt. (CCR) - ICS Covers
ST6-210011	0*	02APR10A	13MAY10A	100																Regulator/Committee Review CCR - ICS Covers
ST6-210021	0*	14MAY10A	08SEP10A	100																Incorp/Resp to Comm/Issue Draft CCR-ICS Covers
ST6-210031	0*	09SEP10A	26JAN11A	100																EPA-State Prep & Issue Accept Ltr CCR-ICS Covers
ST6-210032	0		26JAN11A	100																CCR Complete - ICS Covers
ST6-INF	0*	21DEC06A	26JAN11A	100																Const Cplt Rprt (CCR) Process-SHTR
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
ST7-600000	0	29OCT07A	30NOV10A	100																5 Year Veget. Obs & Report Period - SHTR
ST7-100000	0*	02JUL07A	30NOV10A	100																<<<< Short-Term M&M >>>> - SDT Cover
<b>North Plants Soil Remediation</b>																				
<b>Remedial Design</b>																				
NP2-110000	0*	05JUN03A	07NOV03A	100																Prepare / Revise Sampling Analysis Plan - NP
NP2-125500	0	03NOV03A	03NOV03A	100																Prepare Feasibility Study - NP
NP2-110500	0*	10NOV03A	07MAY04A	100																Perform Sampling and Analysis
NP2-120000	0*	19JUL04A	14SEP04A	100																Prepare / Revise Design Scope of Work - NP
NP2-122000	0		14SEP04A	100																<<<<< DesignScope Deadline >>>>>- NP



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
NP2-125000	0*	14SEP04A	02NOV04A	100																
NP2-130000	0*	30AUG04A	25JAN05A	100																
NP2-140000	0*	25JAN05A	04MAR05A	100																
NP2-150000	0	25JAN05A	25JAN05A	100																
NP2-170000	0*	25JAN05A	25JAN05A	100																
NP2-171000	0	03OCT05A	22FEB06A	100																
NP2-180130	0*	23JUL07A	28DEC07A	100																
NP2-170100	0*	23JUL07A	16APR08A	100																
NP2-510550	0*	23JUL07A	06JAN09A	100																
NP2-175000	0		06JAN09A	100																
NP2-INF	0*	05JUN03A	06JAN09A	100																
					</															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
T52-160000	0	30SEP00A	29OCT00A	100																
T52-170000	0	30OCT00A	20NOV01A	100																
T52-175000	0		20NOV01A	100																
T52-180000	0	21NOV01A	21DEC01A	100																
T52-190000	0	26DEC01A	15FEB02A	100																
T52-185000	0*	22FEB05A	27SEP05A	100																
T52-INF	0*	01DEC98A	27SEP05A	100																
<b>Remediation Activities</b>																				
T54-125000	0	28JUN02A		100																
T54-120000	0*	28JUN02A	31JAN03A	100																
T54-190000	0*	10SEP02A	17JAN03A	100																
T54-160000	0*	10SEP02A	03FEB03A	100																
T54-170000	0*	15NOV02A	03FEB03A	100																
T54-153000	0*	24SEP02A	13JAN03A	100																
T54-155000	0*	24SEP02A	13JAN03A	100																
T54-158000	0*	24SEP02A	13JAN03A	100																
T54-202000	0*	09JAN03A	21FEB03A	100																
T54-177000	0*	09JAN03A	21FEB03A	100																
T54-200000	0*	09JAN03A	21FEB03A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
T54-240000	0*	30JAN03A	14MAR03A	100																
T54-245000	0		26FEB03A	100																
T54-326000	0*	06JAN06A	14MAR06A	100																
T54-420210	0*	20FEB06A	20JUN06A	100																
T54-305200	0*	21FEB06A	21APR06A	100																
T54-305100	0*	10APR06A	26APR06A	100																
T54-306000	0*	27MAR06A	28JUL06A	100																
T54-307000	0*	27MAR06A	28JUL06A	100																
T54-500000	0*	20JUL06A	28JUL06A	100																
T54-360500	0		28JUL06A	100																
T54-INF3	0*	06JAN06A	28JUL06A	100																
T54-260000	0*	15JUL02A	28JUL06A	100																
T54-INF	0*	28JUN02A	28JUL06A	100																
Construction Completion Report																				
T56-250000	0	27FEB03A	21AUG03A	100																
T56-INF1	0*	27FEB03A	15JUL04A	100																
T56-250010	0	21AUG03A	18SEP03A	100																
T56-250020	0	19SEP03A	15NOV03A	100																
T56-250030	0	16NOV03A	15JUL04A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
T56-250040	0		15JUL04A	100	Project Complete - Section 35 Soil Remediation															
T56-100000	0	07AUG06A	15FEB07A	100	Prep Construction Cmplt Report (CCR) - SCL-S35															
T56-100010	0	16FEB07A	09APR07A	100	Regulator/Committee Review CCR - SSC - S35															
T56-100020	0*	10APR07A	17JUN08A	100	Incorp/Respond to Comments/Issue Draft CCR - SCL															
T56-100030	0	19JUN08A	02SEP08A	100	EPA - State Prepare & Issue Accept Ltr CCR - SCL															
T56-INF2	0*	07AUG06A	02SEP08A	100	Const Cplt Rprt (CCR) Process - SCL (S35)															
T56-100040	0		02SEP08A	100	Project Complete - Section 35 Soils Rem SCL															
T56-INF	0*	27FEB03A	02SEP08A	100	Const Cplt Rprt (CCR) Process-35S															
North Plants Structure Demolition and Removal																				
Remedial Design																				
NS2-120000	0*	28FEB00A	09JUN00A	100	Prepare / Revise Design Scope of Work - NPST															
NS2-125000	0	31MAR00A	29APR00A	100	Regulator / RMA Committee Review - NPST															
NS2-122000	0		31MAR00A	100	<<<<< Design Scope Deadline >>>>>- NPST															
NS2-130000	0*	12JUN00A	18AUG00A	100	Prepare 30% (Conceptual) Design - NPST															
NS2-140000	0*	19AUG00A	18SEP00A	100	Regulator / Committee Rev. & Public Input - NPST															
NS2-150000	0*	21AUG00A	19DEC00A	100	Prepare 60% Design - NPST															
NS2-160000	0*	20DEC00A	23JAN01A	100	Regulator / Committee Review - 60% Design - NPST															
NS2-150001	0*	10JUL00A	20OCT00A	100	Specialized Equip Destruction 95% Design															
NS2-160100	0*	21OCT00A	19NOV00A	100	Regulator / Committee Review - 95% Design NPSED															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
NS2-150003	0*	20NOV00A	18JAN01A	100																
NS2-160101	0*	19JAN01A	17FEB01A	100																
NS2-150002	0*	19FEB01A	12APR01A	100																
NS2-160200	0	31MAR01A	29APR01A	100																
NS2-170000	0*	20DEC00A	18APR01A	100																
NS2-175000	0		18APR01A	100																
NS2-180000	0*	19APR01A	18MAY01A	100																
NS2-190000	0*	19APR01A	13JUL01A	100																
NS2-110550	0*	10MAY04A	28SEP04A	100																
NS2-INF	0*	28FEB00A	28SEP04A	100																
Remediation Activities																				
NS4-105200	0*	21MAR01A	10AUG01A	100																
NS4-130100	0	23JUL01A	10AUG01A	100																
NS4-135100	0*	23JUL01A	17AUG01A	100																
NS4-116000	0*	30JUL01A	17AUG01A	100																
NS4-160100	0*	10AUG01A	20SEP01A	100																
NS4-105000	0	07AUG01A	21DEC01A	100																
NS4-144100	0*	27NOV01A	05FEB02A	100																
NS4-116200	0*	12DEC01A	14MAY02A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
NS4-135200	0*	12DEC01A	14MAY02A	100																
NS4-140000	0	13DEC01A	13DEC01A	100																
NS4-146000	0*	13DEC01A	05FEB02A	100																
NS4-132000	0*	31DEC01A	29APR02A	100																
NS4-142100	0*	31DEC01A	29APR02A	100																
NS4-142000	0*	31DEC01A	02MAY03A	100																
NS4-110000	0*	03JAN02A	15MAY02A	100																
NS4-135000	0*	03JAN02A	19FEB03A	100																
NS4-144000	0*	09JAN02A	23JAN03A	100																
NS4-115000	0*	14JAN02A	19DEC03A	100																
NS4-125000	0*	06FEB02A	29MAY03A	100																
NS4-120000	0*	08FEB02A	28JAN03A	100																
NS4-145000	0*	08FEB02A	28JAN03A	100																
NS4-130000	0*	01MAR02A	12DEC02A	100																
NS4-178000	0*	18MAR02A	29APR02A	100																
NS4-178500	0*	18MAR02A	29APR02A	100																
NS4-150000	0*	18MAR02A	30MAY03A	100																
NS4-155000	0*	18MAR02A	30MAY03A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
NS4-105100	0*	20MAY02A	27MAR03A	100																
NS4-105300	0*	31MAR03A	16APR03A	100																
NS4-142200	0*	02APR03A	29MAY03A	100																
NS4-105400	0*	11APR03A	18APR03A	100																
NS4-161000	0		04JUN03A	100																
NS4-160000	0*	09JUN03A	11JUN03A	100																
NS4-170000	0*	21MAR01A	11JUN03A	100																
NS4-INF	0*	21MAR01A	11JUN03A	100																
<b>Construction Completion Report</b>																				
NS6-165000	0	05JUN03A	12AUG03A	100																
NS6-INF	0*	05JUN03A	30SEP04A	100																
NS6-165010	0	08AUG03A	05OCT03A	100																
NS6-165020	0	06OCT03A	30MAR04A	100																
NS6-165030	0*	30MAR04A	30SEP04A	100																
NS6-165040	0		30SEP04A	100																
<b>Phase IV - Basin F/Lime Basins</b>																				
<b>Basin F Wastepile Remediation</b>																				
<b>Predesign Activities</b>																				
WP1-110000	0*	08FEB99A	14NOV00A	100																
WP1-INF	0*	08FEB99A	31JAN01A	100																
WP1-115000	0*	07JAN00A	31JAN01A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
WP2-120000	0	16OCT00A	05APR01A	100																
WP2-122000	0		31JAN01A	100																
WP2-125000	0	31JAN01A	01MAR01A	100																
WP2-130000	0	02MAR01A	23MAY01A	100																
WP2-140000	0	23MAY01A	22JUN01A	100																
WP2-145000	0	23MAY01A	03AUG01A	100																
WP2-150000	0	22JUN01A	24JAN02A	100																
WP2-160000	0	24JAN02A	22FEB02A	100																
WP2-170000	0	25FEB02A	01JUL02A	100																
WP2-180000	0	01JUL02A	01AUG02A	100																
WP2-175000	0		01JUL02A	100																
WP2-185000	0	24JUL02A	23AUG02A	100																
WP2-184000	0		24JUL02A	100																
WP2-190000	0	01AUG02A	07NOV02A	100																
WP2-200000	0	08NOV02A	17DEC02A	100																
WP2-210000	0		17DEC02A	100																
WP2-250000	0*	07DEC04A	02JUN05A	100																
WP2-INF	0*	16OCT00A	02JUN05A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
WP4-125000	0	30MAR05A		100																
WP4-120000	0*	30MAR05A	15JUN05A	100																
WP4-129500	0*	24MAY05A	30JAN06A	100																
WP4-129000	0*	22AUG05A	31MAR06A	100																
WP4-162000	0*	03APR06A	17MAY06A	100																
WP4-130000	0*	03APR06A	29JUN07A	100																
WP4-140000	0*	25OCT06A	02AUG07A	100																
WP4-130100	0*	14SEP05A	02AUG07A	100																
WP4-134000	0*	03APR06A	27JUL07A	100																
WP4-135000	0*	10MAR06A	27JUL07A	100																
WP4-150000	0*	02JUL07A	10AUG07A	100																
WP4-155000	0		10JAN08A	100																
WP4-170000	0*	30MAR05A	10JAN08A	100																
WP4-220020	0*	02JUL07A	21AUG08A	100																
WP4-030060	0*	30JUN08A	30APR09A	100																
WP4-INF	0*	30MAR05A	30APR09A	100																
<b>Construction Completion Report</b>																				
WP6-160000	0*	07AUG07A	07JAN08A	100																
WP6-160010	0*	07JAN08A	15FEB08A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
WP6-160020	0*	15FEB08A	22MAY08A	100																Incorp Comments & Resubmit CCR
WP6-160030	0	23MAY08A	15JUN09A	100																EPA-State Prepare & Issue Accept Ltr CCR-BFWP
WP6-INF	0*	07AUG07A	15JUN09A	100																CCR - Basin F Wastepile - Soils Remediation
WP6-160040	0		15JUN09A	100																Project Complete - Basin F Wastepile
Former Basin F Principal Threat Soil Remediation																				
Predesign Activities																				
FS1-100000	0*	02APR01A	06APR05A	100																Basin F Solidification Treatability Study
FS1-INF	0*	02APR01A	06APR05A	100																Basin F Solidification Treatability Testing
Remedial Design																				
FS2-120010	0*	19AUG05A	05JAN06A	100																Prepare / Revise Design Scope of Work - FBFS
FS2-125010	0*	01NOV05A	02DEC05A	100																Regulator / RMA Committee Review - FBFS
FS2-122010	0		01NOV05A	100																<<<<< DesignScope Deadline >>>>>- FBFS
FS2-130010	0*	05DEC05A	28FEB06A	100																Prepare 30% (Conceptual) Design - FBFS
FS2-140010	0*	28FEB06A	30MAR06A	100																Regulator / Committee Rev. & Public Input - FBFS
FS2-150010	0*	31MAR06A	26JUN06A	100																Prepare 60% Design - FBFS
FS2-160010	0*	27JUN06A	27JUL06A	100																Regulator / Committee Review 60% Design - FBFS
FS2-170010	0*	28JUL06A	14NOV06A	100																Prepare 95% Design (Amend Closure Plan) - FBFS
FS2-175010	0		14NOV06A	100																<<<<<<<Design Deadline>>>>>>> - FBFS
FS2-180010	0*	15NOV06A	16DEC06A	100																Regulator / Committee Review 95% Design - FBFS
FS2-175020	0*	14SEP06A	30AUG07A	100																Prepare Drying Facility Closure Plan



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
FS2-185010	0	14DEC06A	31JAN07A	100												Public Comment 95% Design & Closure Plan - FBFS				
FS2-190010	0*	18DEC06A	13FEB07A	100												Prepare 100% Design - FBFS				
FS2-200000	0*	14FEB07A	16MAR07A	100												Regulator / Committee Review - FBFS				
FS2-210000	0		29MAR07A	100												CDPHE Approval of 100% Design - FBFS				
FS2-220000	0	09APR07A	09MAY07A	100												Closure Plan Amendment Process - FBFS				
FS2-230000	0		09MAY07A	100												CDPHE Approval of Closure Plan Amendment - FBFS				
FS2-060090	0*	09APR07A	17AUG07A	100												Basin F Key Cut DCN				
FS2-250000	0	24NOV07A	20DEC07A	100												Basin F DF Closure Plan Approval Process				
FS2-250500	0		20DEC07A	100												CDPHE Approval of DF Closure Plan				
FS2-INF	0*	19AUG05A	20DEC07A	100												Former Basin F Principal Threat Soils Rem Design				
Remediation Activities																				
FS4-125010	0	03APR07A		100												<<<<<<Imp. Start Deadline>>>>>> - FBFS				
FS4-120010	0	01MAY07A	13JUL07A	100												Mobilization of Principal Threat Soil				
FS4-130010	0*	11JUL07A	01NOV07A	100												Excavation of Principal Threat Soil - FBFS				
FS4-130020	0*	16JUL07A	20FEB08A	100												Consolidation of FBFS to ELF				
FS4-130030	0*	01AUG07A	20FEB08A	100												Excavation of Additional HHE Soil - FBFS				
FS4-130040	0	27AUG07A	27MAR08A	100												Backfill BFPT Excavation Areas				
FS4-230235	0	17DEC07A	21MAR08A	100												Excavate Basin F Key Cut				
FS4-230236	0	04MAR08A	10MAR08A	100												Remove BA-4 TRER Soil - BFPT				

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
FS4-230238	0	12MAR08A	12MAR08A	100																Pre-Final Inspection - BFPT
FS4-230237	0	04APR08A	14APR08A	100																BA-4 TRER Soil Amendments - BFPT
FS4-230239	0	16APR08A	16APR08A	100																Final Inspection - BFPT
FS4-220010	0	04APR08A	16APR08A	100																Demobilization BFPT Soil
FS4-240010	0*	01MAY07A	16APR08A	100																Project Support - Basin F Principal Threat Soil
FS4-220030	0*	13MAR08A	01JUL09A	100																CERT REPORT - Basin F PT-Part 2 Closure (PT/HHE)
FS4-220020	0*	17MAR08A	24OCT08A	100																CERT REPORT-Basin F PT-Prt 2 Closure-Drying Fac
FS4-040020	0*	17APR08A	29JUL08A	100																DSR Process - FBPT
FS4-225010	0		24OCT08A	100																<<<<<<Imp. Finish Deadline>>>>>> FBFS
FS4-INF	0*	01MAY07A	24OCT08A	100																FIELD-Basin F PT - Soils Remediation
<b>Construction Completion Report</b>																				
FS6-230100	0	17APR08A	28AUG08A	100																Prep Construction Cmpl't Report (CCR) - FBPT
FS6-230110	0	29AUG08A	13OCT08A	100																Regulator/Committee Review CCR - FBPT
FS6-230120	0*	14OCT08A	12MAR09A	100																Incorporate Comments & Resubmit CCR
FS6-230130	0	13MAR09A	16JUL09A	100																EPA - State Prepare & Issue Accept Ltr CCR-FBPT
FS6-230140	0		16JUL09A	100																Project Complete - Former Basin F Princ. Threat
FS6-INF	0*	17APR08A	16JUL09A	100																CCR - Former Basin F PT - Soils Remediation
<b>Basin F and Basin F Exterior Remediation</b>																				
<b>Remedial Design</b>																				
FC2-120100	0	23AUG99A	10DEC99A	100																Prepare/Revise Design Scope of Work - FBHH



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
FC2-122100	0		17SEP99A	100																
FC2-INF1	0*	23AUG99A	28AUG00A	100																
FC2-121100	0	17SEP99A	17OCT99A	100																
FC2-130100	0	18OCT99A	10DEC99A	100																
FC2-140100	0	11DEC99A	09JAN00A	100																
FC2-150100	0	10JAN00A	10MAR00A	100																
FC2-160100	0	11MAR00A	09APR00A	100																
FC2-170100	0	10APR00A	26MAY00A	100																
FC2-175100	0		26MAY00A	100																
FC2-180100	0	27MAY00A	26JUN00A	100																
FC2-190100	0	27JUN00A	28AUG00A	100																
FC2-120200	0	16MAR01A	28AUG01A	100																
FC2-122200	0		15MAY01A	100																
FC2-125200	0	16MAY01A	15JUN01A	100																
FC2-130200	0	18JUN01A	01JUL02A	100																
FC2-140200	0	02JUL02A	30JUL02A	100																
FC2-140250	0	25JUL02A	23AUG02A	100																
FC2-150200	0	31JUL02A	22MAY03A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
FC2-160200	0	23MAY03A	25JUL03A	100																
FC2-170200	0	28JUL03A	30DEC03A	100																
FC2-175200	0		30DEC03A	100																
FC2-180200	0	31DEC03A	14APR04A	100																
FC2-186220	0*	12JAN04A	25JUN04A	100																
FC2-185200	0	01MAR04A	30MAR04A	100																
FC2-180240	0		26FEB04A	100																
FC2-180250	0	15APR04A	30SEP05A	100																
FC2-200300	0*	13APR07A	18OCT07A	100																
FC2-175300	0		18OCT07A	100																
FC2-200400	0*	19OCT07A	19NOV07A	100																
FC2-200800	0	19OCT07A	19NOV07A	100																
FC2-200200	0*	01FEB08A	03MAR08A	100																
FC2-200700	0*	04MAR08A	20MAR08A	100																
FC2-210200	0		14MAY08A	100																
FC2-190200	0*	17MAY04A	14MAY08A	100																
FC2-210400	0*	14APR08A	14MAY08A	100																
FC2-210300	0		14MAY08A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
FC2-INF2	0*	16MAR01A	14MAY08A	100																
					Basin F & F Exterior Design - Part II															
FC2-INF	0*	23AUG99A	14MAY08A	100																
					Basin F & F Exterior Design															
<b>Remediation Activities</b>																				
FC4-125100	0	20DEC01A		100																
					<<<<<<Imp. Start Deadline>>>>>> - FBHH															
FC4-120100	0*	20DEC01A	08MAR02A	100																
					Mobilization HHE Soil Excavation - FBHH															
FC4-141100	0*	06MAR02A	08OCT02A	100																
					Excavate HHE Soil - FBHH															
FC4-137100	0*	06MAR02A	08OCT02A	100																
					Landfill HH - FBHH															
FC4-230215	0*	08MAR02A	13SEP02A	100																
					Excavate Basin A Biota Soils - FBBS															
FC4-130211	0*	08MAR02A	13SEP02A	100																
					Consolidation of Basin A Biota Soil - FBBS															
FC4-141200	0*	17APR02A	08JAN03A	100																
					Excavate CSV Soil - FBHH															
FC4-176000	0*	16JUL02A	29JAN03A	100																
					Topsoil Support to Basin F/Exterior Biota - FBBA															
FC4-176500	0*	16JUL02A	29JAN03A	100																
					Topsoil Support Basin F/Exterior HHE Soil - FBHH															
FC4-240100	0*	27SEP02A	30DEC02A	100																
					Backfill HHE Excavation w/Borrow Material - FBHH															
FC4-240210	0*	27SEP02A	30DEC02A	100																
					Backfill Basin A Biota Excavat. w/Borrow - FBBS															
FC4-250100	0*	18NOV02A	14FEB03A	100																
					Revegetation of HHE Excavations - FBHH															
FC4-250210	0*	18NOV02A	14FEB03A	100																
					Revegetation of Basin A Biota Excavation - FBBS															
FC4-290210	0*	27JAN03A	14FEB03A	100																
					Demobilization Basin A Biota Excavation - FBBS															
FC4-291200	0		24JAN03A	100																
					<<<<<<Imp. Finish Deadline>>>>>> - FBBS															
FC4-120101	0*	24AUG04A	17SEP04A	100																
					Mobilization Deep Acute Soil Excavation															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
FC4-310099	0*	24AUG04A	07JAN05A	100																
FC4-137101	0*	13SEP04A	23SEP04A	100																
FC4-141101	0*	13SEP04A	23SEP04A	100																
FC4-240101	0*	13SEP04A	23SEP04A	100																
FC4-250101	0*	13DEC04A	17DEC04A	100																
FC4-290211	0*	07JAN05A	07JAN05A	100																
FC4-250220	0	14DEC04A	16DEC04A	100																
FC4-290220	0	10JAN05A	11JAN05A	100																
FC4-INF1	0*	20DEC01A	07JAN05A	100																
FC4-125300	0	03APR07A		100																
FC4-230225	0	25OCT07A	15FEB08A	100																
FC4-130221	0*	25OCT07A	15FEB08A	100																
FC4-230238	0	12MAR08A	12MAR08A	100																
FC4-230226	0	01APR08A	14APR08A	100																
FC4-230239	0	16APR08A	16APR08A	100																
FC4-040020	0*	26APR08A	05AUG08A	100																
FC4-120300	0	28MAY08A	28JUL08A	100																
FC4-260300	0	04JUN08A	25JUL08A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
FC4-179000	0*	04JUN08A	07MAY09A	100																BOR4 Support to Basin F/Exterior Cap - FBSC
FC4-120400	0	04JUN08A	25JUL08A	100																Basin F Subgrade Prep - FBSC
FC4-270500	0	02JUL08A	14NOV08A	100																Basin F BBM Placement - FBSC
FC4-180010	0*	30JUN08A	29OCT10A	100																Basin F Closure Groundwater Monitoring
FC4-180030	0*	07JUL08A	09NOV09A	100																REPORT-2006-2007 Basin F Closure GW-Annual Rpt
FC4-180040	0*	09MAR09A	12JAN10A	100																REPORT - 2008 Basin F Closure GW-Annual Rpt
FC4-270510	0	16JUL08A	14NOV08A	100																Basin F Choke Surface - FBSC
FC4-040010	0	21JUL08A	27AUG08A	100																BF Cover Dgn DCN Process - Sewer Grouting - FBSC
FC4-040015	0	21JUL08A	10NOV08A	100																BF Cver Dgn DCN Process - Cover Extension - FBSC
FC4-040018	0	01AUG08A	31DEC08A	100																ESD - Basin F/F Exterior - Chem Sewer
FC4-040016	0	15AUG08A	15AUG08A	100																Chemical Sewer Test Pitting - FBSC
FC4-280410	0	29AUG08A	02SEP08A	100																Chemical Sewer Grouting - FBSC
FC4-280510	0	23SEP08A	04OCT08A	100																Deep Acute HHE Excavation - FBSC
FC4-350090	0*	06OCT08A	30APR09A	100																DSR - Basin F/F Exterior - Perimeter Soil
FC4-270400	0	13OCT08A	07MAY09A	100																Basin F CBL/Cover Soil/Perimeter GF - FBSC
FC4-400020	0*	24NOV08A	26FEB09A	100																CERT REPORT-Basin F CQAE Rpt Executive Summary
FC4-280210	0	12DEC08A	04MAY09A	100																Pre-Final Inspection Process - FBSC
FC4-280200	0	12MAR09A	11APR09A	100																Basin F Soil Amendments - FBSC

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
FC4-280400	0	09MAR09A	26JUN09A	100																Basin F Perm Reveg & Irrigation Setup - FBSC
FC4-290000	0	27JUN09A	04SEP09A	100																Basin F Irrigation - FBSC
FC4-400000	0*	04MAY09A	29SEP10A	100																CERT REPORT-Basin F/F Exterior-Pt 3 Closure-Cvr
FC4-211115	0	13JUL09A	15OCT09A	100																Borrow Area 4 Restoration
FC4-280500	0	08SEP09A	01MAR10A	100																Basin F Engineering Controls - FBSC
FC4-280420	0	02MAR10A	02MAR10A	100																Final Inspection - FBSC
FC4-290400	0	02MAR10A	19MAR10A	100																Demobilization - Basin F Cover
FC4-180050	0	25JAN10A	01JUL10A	100																REPORT-2009 Basin F Closure GW-Annual Report
FC4-291400	0		29SEP10A	100																<<<<<<Imp. Finish Deadline>>>>>> - FBSC
FC4-INF2	0*	04JUN08A	29SEP10A	100																FIELD-Basin F/F Ext-Part II RCRA-Eq Cover Constr
FC4-310100	0*	20DEC01A	29SEP10A	100																Project Support Basin F & Basin F Ext Rem
FC4-INF	0*	20DEC01A	29SEP10A	100																Basin F & Basin F Exterior Remediation
FC4-500000	0*	09AUG10A	10FEB11A	100																ESD-Basin F/F Exterior-Pt 3
FC4-210000	93*	15NOV10A	30NOV11	75																PLAN - Basin F Post Closure Plan
FC4-600302	61*	20DEC10A	27OCT11	80																PLAN - Long Term Care Plan Rev. 2
<b>Construction Completion Report</b>																				
FC6-300100	0	25JAN03A	27MAY03A	100																Prep Construction Cmpl't Report (CCR) - FBHH
FC6-INF1	0*	25JAN03A	21SEP06A	100																Const Cplt Rpt (CCR) Process-BF Part I
FC6-300110	0	27MAY03A	27JUN03A	100																Regulator/ Committee Review CCR - FBHH



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Construction Completion Report																				
FC6-300120	0*	30JUN03A	17FEB05A	100	Incorp/Respond to Comments/Issue Draft CCR -FBHH															
FC6-300130	0	17FEB05A	21SEP06A	100	EPA - State Prepare & Issue Accept Ltr CCR-FBHH															
FC6-300140	0		21SEP06A	100	Project Complete - HHE Excavation - FBHH															
FC6-230100	0	17APR08A	17JUN08A	100	Prep Construction Cmplt Report (CCR) - BFBS															
FC6-INF0	0*	17APR08A	09DEC08A	100	CCR - Basin F/F Exterior-Biota Soils Excavation															
FC6-230110	0	18JUN08A	24JUL08A	100	Regulator/Committee - Review CCR - BFBS															
FC6-230120	0*	25JUL08A	13OCT08A	100	Incorp/Respond to Comments/Issue Draft CCR -FBBS															
FC6-230130	0	31OCT08A	09DEC08A	100	EPA/State - Prepare & Iss Accept Ltr CCR - BFBS															
FC6-230140	0		09DEC08A	100	Project Complete - Basin F Exterior															
FC6-300200	0	03MAR10A	28APR10A	100	Prep Construction Cmplt Report (CCR) - FBSC															
FC6-INF2	0*	03MAR10A	25AUG11A	100	CCR - Basin F/F Exterior - RCRA Eq Cover															
FC6-300210	0	29APR10A	09JUN10A	100	Regulator/ Committee Review CCR - FBSC															
FC6-300220	0	10JUN10A	19AUG10A	100	Incorp/Respond to Comments/Issue Draft CCR -FBSC															
FC6-300230	0	20AUG10A	25AUG11A	100	EPA - State Prepare & Issue Accept Ltr CCR-FBSC															
FC6-300240	0		25AUG11A	100	Project Complete - Soil Cover - FBSC															
FC6-INF	0*	25JAN03A	25AUG11A	100	Const Cplt Rprt (CCR) Process- BF II															
Short-Term Monitoring/Maintenance/Operations																				
FC7-100000	0*	08SEP09A	30NOV10A	100	<<<< Short-Term M&M >>>> - Basin F Cover															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Section 36 Lime Basins Soil Remediation</b>																				
<b>Predesign Activities</b>																				
LB1-110000	0*	12APR99A	02NOV00A	100																
LB1-010032	0*	04OCT04A	24NOV04A	100																
LB1-010040	0*	04OCT04A	09MAR05A	100																
LB1-010018	0*	23SEP04A	20OCT05A	100																
LB1-210000	0*	01FEB05A	07NOV06A	100																
LB1-INF	0*	12APR99A	07NOV06A	100																
<b>Remedial Design</b>																				
LB2-120000	0	08OCT01A	02JUL02A	100																
LB2-INF1	0*	08OCT01A	16JUN04A	100																
LB2-125000	0*	16MAY02A	17JUN02A	100																
LB2-122000	0		16MAY02A	100																
LB2-125100	0*	07JUN02A	06JAN03A	100																
LB2-130000	0*	07JAN03A	26MAR03A	100																
LB2-140000	0*	27MAR03A	28APR03A	100																
LB2-140500	0*	06JUN03A	16SEP03A	100																
LB2-150000	0*	02SEP03A	04NOV03A	100																
LB2-160000	0*	31OCT03A	01DEC03A	100																
LB2-170500	0*	03DEC03A	16JUN04A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remedial Design																				
LB2-220000	0*	08AUG05A	30DEC05A	100																
LB2-225000	0*	01NOV05A	02DEC05A	100																
LB2-222000	0		01NOV05A	100																
LB2-230000	0*	06DEC05A	10APR06A	100																
LB2-240000	0*	11APR06A	26MAY06A	100																
LB2-250000	0*	15MAY06A	16AUG06A	100																
LB2-260000	0*	17AUG06A	20SEP06A	100																
LB2-270000	0*	21SEP06A	13DEC06A	100																
LB2-280000	0*	14DEC06A	24JAN07A	100																
LB2-175010	0		14DEC06A	100																
LB2-290000	0*	25JAN07A	29MAR07A	100																
LB2-INF2	0*	08AUG05A	26JUN07A	100																
LB2-27CVR1	0	27SEP05A	08JUN06A	100																
LB2-28CVR2	0	09JUN06A	10JUL06A	100																
LB2-29CVR3	0	09JUN06A	29SEP06A	100																
LB2REVCVR1	0	02JAN07A	03APR07A	100																
LB2REVCVR2	0	04APR07A	03MAY07A	100																
LB2REVCVR3	0	30APR07A	23JUL07A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remedial Design</b>																				
LB2REVCVR4	0	25JUL07A	23AUG07A	100																
LB2-INF3	0*	27SEP05A	23AUG07A	100																
LB2-195113	0	24AUG07A	23OCT07A	100																
LB2-195114	0	24OCT07A	20NOV07A	100																
LB2-195120	0	21NOV07A	22APR08A	100																
LB2-INF	0*	08OCT01A	22APR08A	100																
<b>Remediation Activities</b>																				
LB4-125010	0	20APR07A		100																
LB4-220000	0*	17AUG07A	07SEP07A	100																
LB4-244000	0*	31AUG07A	04APR08A	100																
LB4-270000	0	11SEP07A	18OCT07A	100																
LB4-244010	0	21FEB08A	21FEB08A	100																
LB4-290000	0	21APR08A	13JUN08A	100																
LB4-290020	0	28MAY08A	06JUN08A	100																
LB4-290010	0	10JUN08A	11AUG08A	100																
LB4-290040	0	19JUN08A	25JUN08A	100																
LB4-290050	0	04AUG08A	07AUG08A	100																
LB4-340010	0	23FEB09A	03APR09A	100																
LB4-300030	0	06MAY09A	08MAY09A	100																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Remediation Activities																				
LB4-260000	0	08MAY09A	08MAY09A	100																Demobilization Slurry Wall - 36LB
LB4-340025	0	14MAY09A	14MAY09A	100																Final Inspection - 36LB
LB4-INF1	0*	20AUG07A	08MAY09A	100																FIELD-Section 36 Lime Basin-Slurry Wall Instl
LB4-312000	0*	03APR08A	01AUG08A	100																36LB (Partial) Subgrade Construction
LB4-312010	0*	03APR08A	23JAN09A	100																BOR10 Suppt to 36LB RCRA-Equiv Cover Constr
LB4-329999	0	30JUL08A	01AUG08A	100																36LB (Remaining) Subgrade Construction
LB4-330000	0	07OCT08A	22OCT08A	100																BBM Placement - 36LB
LB4-300000	0*	07OCT08A	22OCT08A	100																Install Ph 1 Protective Casings over Mon Wells
LB4-331001	0	17OCT08A	24NOV08A	100																Choke Surface - 36LB
LB4-300020	0*	17NOV08A	23JAN09A	100																Install Ph 2 Protective Casings over Mon Wells
LB4-340000	0	17NOV08A	23JAN09A	100																CBL/Cover Soil/Perimeter GF - 36LB
LB4-355010	0	05JAN09A	02MAR09A	100																Lime Basins Access Road Construction
LB4-355000	0	05MAY09A	12MAY09A	100																Soil Amendments - 36LB
LB4-365000	0	13MAY09A	22JUL09A	100																Perm Revegetation & Irrigation Setup - 36LB
LB4-355001	0	21MAY09A	21MAY09A	100																Pre-Final Inspection - 36LB
LB4-355020	0	23JUL09A	23JUL09A	100																Pre-Final Inspection Conference - 36LB
LB4-190200	0*	23JUL09A	16NOV10A	100																CERT REPORT - Section 36 LB - RCRA-Eq Cover
LB4-366000	0	25JUL09A	12SEP09A	100																Irrigation - 36LB

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
LB4-189000	0	28SEP09A	02MAR10A	100																Construct Engineering Controls - 36LB
LB4-366110	0	01OCT09A	02MAR10A	100																Remove RMA Primary Haul Roads - 36LB
LB4-366120	0	04MAR10A	04MAR10A	100																Pre Final Inspection Engineering Controls - 36LB
LB4-365001	0	21APR10A	21APR10A	100																Final Inspection - 36LB
LB4-360000	0	21APR10A	30APR10A	100																Demobilization - 36LB
LB4-367000	0		16NOV10A	100																<<<<<<Imp. Finish Deadline>>>>>> - 36LB
LB4-INF2	0*	03APR08A	16NOV10A	100																FIELD-Sect 36 Lime Basin-Subgrade-RCRA Eq Cover
LB4-400000	0*	20APR07A	16NOV10A	100																Sec 36 Lime Basin Project Support
LB4-INF	0*	20APR07A	16NOV10A	100																Sec. 36 Lime Basins Soil Remediation
<b>Construction Completion Report</b>																				
LB6-180000	0*	15MAY09A	16JUL09A	100																Prep Construction Cmpl't Report (CCR) - 36LB SW
LB6-INF1	0*	15MAY09A	06JAN11A	100																CCR-Sect 36 Lime Basin-Slurry Wall Installation
LB6-180010	0*	17JUL09A	05FEB10A	100																Regulator/Committee Review CCR - 36LB SW
LB6-180030	0*	27AUG10A	06JAN11A	100																EPA-State Prepare & Issue Acpt Ltr CCR-36LB SW
LB6-180040	0		06JAN11A	100																Slurry Wall CCR Complete- Section 36 Lime Basins
LB6-180020	0*		26AUG10A	100																Incorp/Respond to Comm./Issue Draft CCR -36LB SW
LB6-189950	0	15SEP08A	02DEC08A	100																PMC - Prep Draft CCR Part I - ICS Lime Basins
LB6-INF0	0*	15SEP08A	12FEB09A	100																CCR Part I Draft - ICS Lime Basins
LB6-189960	0	02DEC08A	12FEB09A	100																Agency-Review Draft CCR Part I - ICS Lime Basins



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
LB6-190000	0*	01FEB10A	01APR10A	100																
LB6-INF2	0*	01FEB10A	26JAN11A	100																
LB6-190010	0*	02APR10A	13MAY10A	100																
LB6-190020	0*	14MAY10A	09SEP10A	100																
LB6-190030	0	09SEP10A	26JAN11A	100																
LB6-190040	0		26JAN11A	100																
LB6-INF	0*	15SEP08A	26JAN11A	100																
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
LB7-500000	0*	14SEP09A	17NOV09A	100																
LB7-600000	0	21SEP09A	30NOV10A	100																
LB7-100000	0*	21SEP09A	30NOV10A	100																
<b>Site-Wide Programs</b>																				
<b>RCRA Cap Equivalency</b>																				
<b>Predesign Activities</b>																				
RC1-110000	0	03JUN96A	02MAY97A	100																
RC1-INF	0*	03JUN96A	04SEP01A	100																
RC1-111000	0	05MAY97A	12SEP97A	100																
RC1-112000	0	01AUG97A	30JAN98A	100																
RC1-113000	0*	05JAN98A	27MAR98A	100																
RC1-114000	0*	17MAR98A	18SEP98A	100																
RC1-114100	0*	17MAR98A	18SEP98A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Predesign Activities</b>																				
RC1-114500	0*	19MAY98A	31AUG00A	100																
RC1-115000	0	01SEP00A	31AUG01A	100																
RC1-116000	0	04SEP01A	04SEP01A	100																
<b>+ Borrow Areas Design; Prep &amp; Closure</b>																				
	0	28AUG97A	30DEC10A	100																
<b>+ Site-Wide Biota Monitoring - BAS</b>																				
	118	11JUN96A	15FEB12	94																
<b>+ Site-Wide Air Monitoring - APA</b>																				
	0	11JUN96A	30SEP10A	100																
<b>+ Site-Wide Plume Management</b>																				
	105	11JUN96A	27JAN12	95																
<b>+ Confined Flow System Well Monitoring</b>																				
	0*	11JUN96A	18JAN11A	100																
<b>+ Site-Wide Medical Monitoring Program</b>																				
	32	06DEC95A	12OCT11	98																
<b>Site-Wide Traffic Management</b>																				
<b>+ Remedial Design</b>																				
	0	28AUG97A	27MAY05A	100																
<b>+ Remediation Activities</b>																				
	0	07SEP05A	02NOV05A	100																
<b>+ Construction/Operations/Closure</b>																				
	0	20JUL98A	31MAY11A	100																
<b>+ Geophysical Investigation</b>																				
	0	23MAR98A	01FEB99A	100																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
+ UXO Emergency Response																					
	0	01JAN99A	29JUL11A	100																	
+ Biota Barrier																					
	0	05DEC00A	18MAR05A	100																	
+ Site Wide Revegetation & Irrigation																					
	86	03NOV98A	30DEC11	98																	
+ Drummed Waste Planning																					
	0	01DEC98A	28APR00A	100																	
+ Site Wide Well Abandonment																					
	0*	23JAN02A	29JUL05A	100																	
Water Treatment / Monitoring																					
So Adams Co. Water Supply/Henderson Distribution																					
Remediation Activities																					
SA4-100000	0		06OCT96A	100	■ 1st Annual SACWSD Payment - SAWH																
SA4-110000	0		26SEP97A	100	■ 2nd Annual SACWSD Payment - SAWH																
SA4-200000	0		14AUG98A	100	■ Distribution Line Hookup Complete - SAWH																
SA4-210000	0		01FEB99A	100	■ Water Supply Under Contract																
SA4-120000	0		28APR00A	100	■ Final SACWSD Payment - SAWH																
Short-Term Monitoring/Maintenance/Operations																					
SA7-100000	0	10JUN96A	28APR00A	100	■ SACWSD Water Supply Program Oversight																
SA7-200000	0		28APR00A	100	■ SACWSD Water Supply Operations																
On-Post Water Supply																					
Predesign Activities																					
OP1-100000	0	03JUN96A	26JAN97A	100	■ Preliminary On-Post Water Evaluation																
OP1-110000	0	27JAN97A	23MAY97A	100	■ Develop Preferred Alternative																



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Predesign Activities</b>																				
OP1-120000	0	27JAN97A	23OCT98A	100	Environmental Assessment															
OP1-130000	0	26OCT98A	30NOV98A	100	Selection of Preferred Alternative															
OP1-140000	0*	01DEC03A	05OCT04A	100	On-Post Wtr Alt. (To Hln Canal) Supply Devlp															
<b>Confined Flow System Well Closure</b>																				
<b>Remedial Design</b>																				
DA2-120000	0	02SEP97A	21JAN98A	100	Prepare / Revise Design Scope of Work - DWA															
DA2-INF 00	0*	02SEP97A	12JAN99A	100	Confined Flow System Well Closure Design															
DA2-122000	0		22SEP97A	100	<<<<< DesignScope Deadline >>>>>- DWA															
DA2-125000	0	23SEP97A	22OCT97A	100	Regulator / RMA Committee Review - DWA															
DA2-130000	0	23OCT97A	06FEB98A	100	Prepare 30% (Conceptual) Design - DWA															
DA2-150000	0	06FEB98A	06FEB98A	100	Prepare 60% Design - DWA (submission waived)															
DA2-160000	0	06FEB98A	06FEB98A	100	Regulator / Committee Review - DWA (NA)															
DA2-140000	0	07FEB98A	09MAR98A	100	Regulator / Committee Rev. & Public Input - DWA															
DA2-170000	0	09FEB98A	30MAR98A	100	Prepare 95% (Draft Final) Design - DWA															
DA2-175000	0		30MAR98A	100	<<<<<<Design Deadline>>>>>> - DWA															
DA2-180000	0	31MAR98A	30APR98A	100	Regulator / Committee Review - DWA															
DA2-190000	0	11AUG98A	12JAN99A	100	Prepare 100% Design - DWA															
<b>Remediation Activities</b>																				
DA4-125000	0	22MAR99A		100	<<<<<<Imp. Start Deadline>>>>>> - DWA															
DA4-120000	0*	22MAR99A	14JUN99A	100	Mobilization - DWA															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Remediation Activities</b>																				
DA4-270000	0*	22MAR99A	07OCT99A	100																
					Project Support - DWA - Confined Flow System															
DA4-INF 00	0*	22MAR99A	07OCT99A	100																
					Confined Flow System Well Closure															
DA4-130075	0*	28JUN99A	10AUG99A	100																
					Close Remaining Wells Outside of CRA															
DA4-130025	0*	27JUL99A	03SEP99A	100																
					Close Wells Within the CRA															
DA4-130000	0*	09AUG99A	08SEP99A	100																
					Close Wells Within South Plants/BEMA															
DA4-250000	0*	17SEP99A	07OCT99A	100																
					Demobilization - DWA															
DA4-255000	0		24SEP99A	100																
					<<<<<Imp. Finish Deadline>>>>> - DWA															
<b>Construction Completion Report</b>																				
DA6-260000	0	08OCT99A	08DEC99A	100																
					Prep Construction Cmpl't Report (CCR) - DWA															
DA6-INF	0*	08OCT99A	27SEP00A	100																
					Const Cpl't Rpt (CCR) Process-DWA															
DA6-260010	0	09DEC99A	10JAN00A	100																
					Regulator/Committee Review CCR - DWA															
DA6-260020	0	11JAN00A	07JUL00A	100																
					Incorp/Respond to Comments/Issue Draft CCR-DWA															
DA6-260030	0	08JUL00A	27SEP00A	100																
					EPA - State Prepare & Issue Accept Ltr CCR-DWA															
DA6-260040	0		27SEP00A	100																
					Project Complete - Confined Flow System															
<b>Irondale Containment System</b>																				
<b>Construction Completion Report</b>																				
IR6-INF2	34*	12JAN04A	30SEP11	0																
					CCR-Shutdown Motorpool Well Field															
IR6-300041	0	24MAR11A	29APR11A	100																
					Agency Review / Comments															
IR6-300042	0		09SEP11	0																
					EPA & State Sign / Approve DD															
IR6-300043	5	12SEP11	16SEP11	0																
					Incorporate DD and Issue CCR															

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
IR7-100000	0*	11JUN96A	01OCT10A	100	<<<Short-Term Monitoring/Ops-Thru FY10  >>>															
<b>Basin A Neck System</b>																				
<b>Remedial Design</b>																				
AN2#200190	0*	15DEC08A	04MAR10A	100	DESIGN-A-Neck Expansion/Lime Basin Dewatering															
<b>Construction/Operations/Closure</b>																				
AN5#200370	85*	17MAR10A	29DEC11	0	A-Neck Expansion/Lime Basin Dewatering - Const															
<b>Construction Completion Report</b>																				
AN6-730405	12	30JUN11A	08SEP11	0	Prep/Submit Drft CCR to Agencies-A-Neck Epansion															
AN6-INF1	127*	30JUN11A	07JAN12	0	CCR-Lime Basins GW Trtmnt Relocation to A-Neck															
AN6-730410	30*	09SEP11	08OCT11	0	Regulator/Committee Review CCR-A-Neck Expansion															
AN6-730420	70*	09OCT11	19DEC11	0	Incorp/Resp to Comnts/lss Draft CCR - A-Neck Exp															
AN6-730440	15	20DEC11	07JAN12	0	EPA - State Prep & lss Accept Ltr CCRA-Neck Exp															
AN6-730460	0		07JAN12	0	Project Comp-LB GW Trtmnt Relocation to A-Neck															
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
AN7-100.00	0	11JUN96A	01OCT10A	100	<<<<Short-Term Monitoring/Operations >>>> - BANS															
<b>CERCLA Wastewater Treatment Facility</b>																				
<b>Remediation Activities</b>																				
CE4A300090	0	22SEP06A	23JUN10A	100	FIELD-Op CERCLA Water Treatment System-Mass Rmvl															
CE4B100000	0	28SEP09A	30APR10A	100	Ops Shutdown-Decmng Out of Serv Proc Equip-Ph II															
CE4B100020	0	28JUN10A	31AUG10A	100	Ops Shtdwn-Decmng Mass Removal Proc Equip-Ph III															
CE4B100010	0*	02AUG10A	13AUG10A	100	Ops Shtdn-Decmng Equip/Relocate to A-Neck-Ph I															
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
CE7-100000	0*	11JUN96A	23JUN10A	100	Continued CERCLA WWTP Operations															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	
Northwest Boundary Containment Sys																					
Short-Term Monitoring/Maintenance/Operations																					
NW7-100000	0	11JUN96A	01OCT10A	100	<<<<Short-Term Monitoring/Operations>>>> - NWBS																
North Boundary Containment System																					
Remediation Activities																					
NB46250050	0*	26NOV07A	14MAY09A	100	REPORT-Monitoring Termination - for HRC																
Short-Term Monitoring/Maintenance/Operations																					
NB7-100000	0	11JUN96A	01OCT10A	100	<<<< Short-Term Monitoring/Operations >>>> - NBS																
NB77200000	0	01OCT08A	30SEP09A	100	REPORT-Operational Assessment-Grdwtr Trmt FY2008																
NB78200010	0	01OCT09A	23SEP10A	100	REPORT-Operational Assessment Grdwtr Trmt FY2009																
Report Preparation																					
NBS9300000	0	05JAN09A	31DEC09A	100	REPORT-Quarterly Effluent Treatment-FY2009																
NBS9300010	0	04JAN10A	21DEC10A	100	REPORT-Quarterly Effluent Treatment-FY2010																
South Lakes Plume Management																					
Short-Term Monitoring/Maintenance/Operations																					
SL7-100000	0*	11JUN96A	18JAN11A	100	<<<<Short-Term Monitoring/Operations>>>> - SLPM																
Mass Removal Syst-So Tank Farm & LB																					
Predesign Activities																					
MR1H100000	0	14MAR05A	27JUN05A	100	Pre-design Investigation-Mass Removal Sys (MRS)																
Remedial Design																					
MR2H-INF	0*	14MAR05A	31JAN06A	100	Design of Mass Removal System - MRS																
Remediation Activities																					
MR4H-INF	0*	15NOV05A	12NOV07A	100	Mass Removal Systems-Installation/start-up																
Construction Completion Report																					
MR6-730400	0*	06DEC10A	23FEB11A	100	Prep Constr Cmplrt Report (CCR) -Costr/Ops - MRS																
MR6-INF1	61*	06DEC10A	27OCT11	0	CCR-Mass Removal System-Construction & Operation																

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Construction Completion Report</b>																				
MR6-730410	0*	24FEB11A	07APR11A	100																Regulator/Committee Review CCR - MRS
MR6-730420	47*	08APR11A	13OCT11	0																Incorp/Resp to Comments/Issue Draft CCR - MRS
MR6-730440	14	14OCT11	27OCT11	0																EPA - State Prep & Iss Accept Ltr CCR - MRS
MR6-730460	0		27OCT11	0																Project Complete - Mass Removal Systems
<b>Short-Term Monitoring/Maintenance/Operations</b>																				
MR71200010	0*	24APR06A	11JUN09A	100																REPORT-Operational Assmt-Mass Rem Sys FY06-FY07
MR72200010	0	03DEC08A	04FEB10A	100																REPORT-Operational Assmt-Mass Removal Sys FY2008
MR73200020	0	01OCT09A	10MAR11A	100																REPORT-Operational Assmt-Mass Reml Sys FY2009-10
<b>North Plants LNAPL Remediation</b>																				
<b>Remedial Design</b>																				
LR2-000060	0*	14JAN08A	25MAR09A	100																REPORT-North Plants LNAPL Recvry-Technical Memo
<b>Remediation Activities</b>																				
LR4-200000	67*	13JAN09A	02DEC11	91																Well System Installation and Recovery - LNAPL
LR4-INF	0*	13JAN09A	10MAR10A	100																FIELD-North Plants LNAPL Recvry-Instl/Startup
LR40100090	0*	11MAR10A	21APR11A	100																REPORT-North Plants LNAPL Recovery-Summary Rprt
<b>Lime Basins DNAPL RI/FFS</b>																				
<b>Predesign Activities</b>																				
DN11100060	0*	30NOV09A	14MAY10A	100																Investigation Process-DNAPL
<b>Report Preparation</b>																				
DNS2100190	0*	22APR10A	21DEC10A	100																RI Summary Report and Iterim Decision Doc-DNAPL
DNS3100270	0*	04OCT10A	13JUL11A	100																Lime Basins RI/FS Report Preparation-DNAPL
DNS-INF1	74*	28JUN11A	09NOV11	0																ESD-Lime Basins-DNAPL

Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
<b>Report Preparation</b>																				
DNS-INF	0*	30NOV09A	13JUL11A	100	REPORT-Lime Basins RI/FS Document-DNAPL															
<b>Remediation Venture Office</b>																				
<b>+ Program Management</b>																				
	277	11JUN96A	28SEP12	94																
<b>+ RVO Remedy Support and Operations</b>																				
	277	11JUN96A	28SEP12	99																
<b>+ Remedy Execution</b>																				
	277	11JUN96A	28SEP12	96																
<b>+ USFWS</b>																				
	277	11JUN96A	28SEP12	93																
<b>+ Program Controls</b>																				
	277	11JUN96A	28SEP12	94																
<b>+ 5 Year Review - Report Preparation</b>																				
	34	01NOV99A	14OCT11	99																
<b>+ Environmental Management System</b>																				
	82*	24APR08A	17NOV11	99																
<b>+ Program Management</b>																				
	24	11JUN96A	30SEP11	99																
<b>+ Closeout Reporting</b>																				
	34	16FEB11A	30SEP11	81																
<b>RMA Off-Post Operable Unit</b>																				
<b>Off-Post Remedy - (Reference Only)</b>																				
<b>Off-Post Surficial Soil</b>																				
<b>Remediation Activities</b>																				
OS4-130000	0	04MAR96A	26AUG97A	100	Off Post Soil Tillage and Seeding Task															



Activity ID	Rem Dur	Start	Finish	% Comp	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Off-Post Water Treatment Plant																				
Short-Term Monitoring/Maintenance/Operations																				
WT7-100000	0	11JUN96A	01OCT10A	100	Short-Term Monitoring/Operations - OPWT															
Report Preparation																				
WTS-300040	0	29DEC08A	09SEP09A	100	REPORT-Ready For Re-Use-Off Post OU															
WTS-300050	0*	15JUN09A	29OCT10A	100	REPORT-2009 CSRG Exceedence Map Preparation															
Design Change Notice																				
WTZ-100150	0*	16FEB09A	01JUL09A	100	DCN-Northern Pathway System Modification-Final															
Off-Post Well Closure																				
Remediation Activities																				
OW4-100000	0	03JUN96A	16DEC98A	100	Evaluation / Closure of Off-Post Wells-S/C Cpl															
OW4-INF	0*	03JUN96A	16DEC98A	100	Off-Post Well Closure															
OW4-100010	0		24NOV98A	100	Milestone-Cpl Well Closures & Constr. New Wells															
OW4-100020	0		16DEC98A	100	Final Inspection Held - Off-Post Well Closures															
Construction Completion Report																				
OW6-100030	0	17DEC98A	26FEB99A	100	Prep Draft Const Cpl Report(CCR)-Off-Post Wells															
OW6-INF1	0*	17DEC98A	30SEP99A	100	Const Cpl Rprt (CCR) Process-Off Post Wells															
OW6-150100	0	27FEB99A	19MAR99A	100	Regulator/Committee Review CCR															
OW6-150200	0	20MAR99A	28JUL99A	100	Incorp/Respond to Comments/Issue Final Draft CCR															
OW6-150300	0	29JUL99A	30SEP99A	100	EPA-State Review/Prepare & Issue Acceptance Ltrs															
OW6-150400	0		30SEP99A	100	Off-Post Well Closure Project Complete															