

FY2012

WHITE SANDS MISSILE RANGE
Compliance-Related Cleanup
Installation Action Plan

Printed 24 January 2013

Table of Contents

Statement Of Purpose.....	1
Acronyms.....	2
Acronym Translation Table.....	3
Site Alias List.....	4
Installation Information.....	5
Cleanup Program Summary.....	6
Compliance-Related Cleanup.....	7
CC Summary.....	8
CC Contamination Assessment.....	9
CC Previous Studies.....	11
Compliance-Related Cleanup Site Descriptions.....	14
CCWS-01 WASHPAD, DRAIN, OWS @ BLDG 1753.....	15
CCWS-02 HELSTF LSTC WASTEWATER DISCHARGE.....	16
CCWS-03 HELSTF STP DRY POND.....	18
CCWS-11 OB/OD at HTA Site.....	20
CCWS-18 DENVER Spill SITE.....	21
CCWS-20 MALPAIS SPILL SITE.....	22
CCWS-27 HARDIN Ranch AST Site (SWMUs 199/200).....	23
CCWS-29 OSCURA COMMO AST Site.....	24
CCWS-30 HARRIET AST SITE	25
CCWS-31 SE-70 AST SITE	26
CCWS-32 ATOM AST SITE.....	27
CCWS-34 SE-50 AST SITE.....	28
CCWS-35 EC-50 AST SITE	29
CCWS-36 MINNOW AST SITE.....	30
CCWS-37 COWAN AST SITE.....	31
CCWS-38 GRAN JEAN AST SITE.....	32
CCWS-39 NE-50 AST SITE.....	33
CCWS-42 RAM AST SITE.....	34
CCWS-43 Dead Horse AST Site.....	35
CCWS-53 NW-70 AST SITE	36
CCWS-62 Former STP Percolation Ditches.....	37
CCWS-65 TULA PEAK ORDNANCE DISPOSAL SITE.....	39
CCWS-71 LIQ PROPELLANT EVAP/NEUT PITS	41
CCWS-73 ORO GRANDE RANGE CAMP SEWAGE LAGOON.....	42

Table of Contents

CCWS-75 FORMER HELSTF LANDFILL.....	43
CCWS-76 FORMER MAIN POST LANDFILL #3 (SCRAPYARD).....	45
CCWS-78 AAFES Gas Station Fuel Release.....	46
Site Closeout (No Further Action) Summary.....	47
CC Schedule.....	48
CC Milestones.....	48
CC Schedule Chart.....	49

Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multiyear compliance-related cleanup (CC) program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern (AOC), and proposes a comprehensive installation-wide approach, along with costs and schedules associated with conducting investigations and taking the necessary remedial actions (RA).

In an effort to coordinate planning information between the CC manager, Installation Management Command (IMCOM), White Sands Missile Range (WSMR), regulatory agencies, and the executing agencies, an IAP was completed. The IAP is used to track requirements, schedules and budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following persons contributed to the formulation and completion of this Installation Action Plan for WHITE SANDS MISSILE RANGE:

Acronyms

AEDB-CC	Army Environmental Database-Compliance-Related Cleanup
AMRAD	Anti-Missile Radar-Array Facility
AUA	Annual Unit Audit
CMI	Corrective Measures Implementation
CWA	Clean Water Act
DD	Decision Document
DDT	Dichlorodiphenyltrichloroethane
DP	Discharge Permit
DRO	Diesel Range Organics
FY	Fiscal Year
GWQB	Groundwater Quality Bureau
HELSTF	High Energy Laser System Test Facility
HSWA	Hazardous and Solid Waste Amendment
HTA	Hazardous Test Area
HWB	Hazardous Waste Bureau
ID	Identification
IMCOM	Installation Management Command
IRFNA	Inhibited Red Fuming Nitric Acid
IRM	Interim Remedial Measure
LSTC	Laser System Test Center
LUC	Land Use Control
MEK	Methyl Ethyl Ketone
mg/kg	milligrams per kilogram
MTBE	Methyl Tertiary Butyl Ether
MW	Monitoring Well
NM	New Mexico
NMED	New Mexico Environmental Department
NOD	Notice of Deficiency
PSTB	Petroleum Storage Tank Bureau
RC	Response Complete
RPM	Restoration Program Manager
SHPO	State Historic Preservation Officer
SSL	Soil Screening Levels
SVS	Soil Vapor Survey
UDMH	Unsymmetrical Dimethyl Hydrazine
UST	Underground Storage Tank
VCM	Voluntary Corrective Measure
VOC	Volatile Organic Compound
WQCC	Water Quality Control Commission
WSMR	White Sands Missile Range

Acronym Translation Table

CERCLA

Preliminary Assessment(PA)
Site Inspection(SI)
Remedial Investigation/Feasibility Study(RI/FS)
Remedial Design(RD)
Remedial Action (Construction)(RA(C))
Remedial Action (Operation)(RA(O))
Long Term Management(LTM)
Interim Remedial Action(IRA)

RCRA

= RCRA Facility Assessment(RFA)
= Confirmation Sampling(CS)
= RCRA Facility Investigation/Corrective Measures Study(RFI/CMS)
= Design(DES)
= Corrective Measures Implementation (Construction)(CMI(C))
= Corrective Measures Implementation (Operation)(CMI(O))
= Long Term Management(LTM)
= Interim Measure(IM)

Site Alias List

AEDB-CC Site ID to Alias List

AEDB-CC #	Alias
CCWS-01	SWMU-19/20
CCWS-02	SWMU-144
CCWS-03	SWMU-146
CCWS-11	SWMU56,55
CCWS-18	SWMU 166
CCWS-20	SWMU 167
CCWS-27	SWMU199+
CCWS-29	SWMU 203
CCWS-30	SWMU 204
CCWS-31	SWMU 205
CCWS-32	SWMU206+
CCWS-34	SWMU 208
CCWS-35	SWMU 209
CCWS-36	SWMU 210
CCWS-37	SWMU 211
CCWS-38	SWMU 213
CCWS-39	SWMU 214
CCWS-42	SWMU 201
CCWS-43	SWMU 202
CCWS-53	SWMU 212
CCWS-62	SWMU 82
CCWS-65	SWMU 57/61
CCWS-71	SWMU92B/94
CCWS-73	SWMU 132
CCWS-75	SWMU 38/39
CCWS-76	SWMU 65
CCWS-78	

Installation Information

Installation Locale

Installation Size (Acreage): 2048000

City: White Sands

County: Dona Ana, Socorro, Lincoln, Otero, Sierra

State: New Mexico

Other Locale Information

White Sands Missile Range is located in south central New Mexico (NM) spanning five counties: Dona Ana, Socorro, Lincoln, Otero, and Sierra (Figure 1-1). The range is located in an area known as the Tularosa Basin. The headquarters area is 20 miles east of Las Cruces, NM, 50 miles southwest of Alamogordo, NM, and 45 miles north of El Paso, Texas. The range boundaries extend almost 100 miles north to south by 40 miles east to west. At almost 3,200 square miles (2,048,000 acres), the range is the largest military installation in the country. In addition to the main installation, there are two extension areas located adjacent to the north and west boundaries, and several joint-use land areas. These areas add over 3.8 million acres to the range. WSMR is partially bordered on the east by Holloman Air Force Base, and on the south by Fort Bliss Military Reservation. US Highway 70 crosses WSMR from east to west and serves as the main access to the Main Post area. There are no other populated areas located within the boundaries of the installation.

Installation Mission

White Sands Missile Range provides Army, Navy, Air Force, Department of Defense (DoD), and other customers with high quality services for experimentation, test, research, assessment, development, and training in support of the nation at war.

Lead Organization

Lead Executing Agencies for Installation

WSMR Public Works Directorate-Environmental Compliance (EC)

Regulator Participation

Federal US Environmental Protection Agency (USEPA), Region VI, Dallas, TX
State New Mexico Environment Department (NMED), Santa Fe, NM

Installation Program Summaries

CC

Primary Contaminants of Concern: Explosives, Munitions constituents (MC), Nitrate/Nitrite, Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Affected Media of Concern: Groundwater, Soil

Estimated Date for Remedy-In-Place (RIP)/Response Complete (RC): 201606/201606

Prior Funding: \$6,052.3 K

Current Requirements: \$.0 K

Future Requirements: \$39,780.0 K

Cleanup Program Summary

Installation Historic Activity

WSMR was established in 1945 for the development of a missile defense program that started with the testing of captured German V-2 rockets. The range, formerly known as White Sands Proving Ground, was formed from privately held grazing land that was either donated to the government or condemned for the use of the government. WSMR has been active since its establishment with no decrease in land holdings.

The current configuration of WSMR includes launch sites, impact areas, instrumentation sites, and support facilities required to develop and test missiles and rockets. WSMR is designated as a national range focused on the support of missile development and test programs for the Army, Navy, Air Force, National Aeronautics and Space Administration, and other US and foreign governmental agencies. Thousands of missile firings, airdrops, and static tests have been conducted as part of this mission.

Initiation of the IRP began in August 1988 with a Resource Conservation and Recovery Act (RCRA) facility assessment (RFA) of WSMR, performed by A.T. Kearney for the USEPA, Region VI. This report identified 138 solid waste management units (SWMUs) and 26 areas of concern (AOC).

The RFA is considered to be the equivalent to the preliminary assessment (PA) required by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

WSMR is an active installation serving as the US Army's largest rocket and missile development, firing and testing facility. It is a major center for the testing of new missile systems. WSMR performs applied research, field trials of new missile types, and new applications of existing missile systems. The range also hosts inter-forces training of troops in a desert environment using tactical exercises for the North Atlantic Treaty Organization and Allied Forces.

In September 1989, WSMR was issued a RCRA Part B operating permit for the operation of a container storage area (WSMR Hazardous Waste Storage Facility). The Hazardous and Solid Waste Amendment (HSWA) module of this permit addresses the investigation and corrective actions, regarding releases from WSMR SWMUs (many of which are or are contained within IRP sites referenced in this IAP). The HSWA corrective action module of the RCRA Part B Permit contains a listing of WSMR SWMU sites requiring investigation or cleanup.

From 1989 to 1996 the USEPA, Region 6 served as the lead regulatory agency with the NMED, providing review for all work proposed by WSMR. In January 1996, the USEPA relinquished HSWA regulatory authority to NMED. NMED is currently the lead regulatory agency with the USEPA, providing oversight and minimal supplementary assistance.

Since 1988, WSMR has continued to investigate and cleanup sites warranting further action. WSMR has performed numerous voluntary clean up actions and has conducted groundwater monitoring and soil borings to document the presence or absence of contaminants. WSMR has developed remedial work plans outlining the best procedures for clean up at remaining sites, and petitioned the regulatory authority, NMED, for no further action (NFA) rulings on sites at which WSMR has performed clean up actions, and sites determined to have no contamination after completion of investigation(s).

The CC program was initiated in April 2003.

WHITE SANDS MISSILE RANGE
Compliance-Related Cleanup

CC Summary

Total Number of AEDB-CC Sites: 29

Number of sites with site inspection/confirmation sampling complete:15

Number of sites with remedy selected (RI-FS/CMS/RFI complete): 25

Number of sites with construction completed (RA(C)/CMI(C)): 5

Number of sites with closeout complete:7

CC Site Types with Future and/or Underway Phases

- 1 Disposal Pit/Dry Well
(CCWS-71)
- 1 Explosive Ordnance Disposal Area
(CCWS-65)
- 2 Landfill
(CCWS-75, CCWS-76)
- 1 Open Burning/Open Detonation (OB/OD)
(CCWS-11)
- 1 POL (Petroleum/Lubricants) Lines
(CCWS-78)
- 1 Sewage Effluent Settling Ponds
(CCWS-73)
- 16 Spill Site Area
(CCWS-18, CCWS-20, CCWS-27, CCWS-29, CCWS-30, CCWS-31, CCWS-32, CCWS-34, CCWS-35, CCWS-36, CCWS-37, CCWS-38, CCWS-39, CCWS-42, CCWS-43, CCWS-53)
- 3 Surface Impoundment/Lagoon
(CCWS-02, CCWS-03, CCWS-62)
- 1 Washrack
(CCWS-01)

Most Widespread Contaminants of Concern

Explosives, Munitions constituents (MC), Nitrate/Nitrite, Perchlorate, Petroleum, Oil and Lubricants (POL), Volatiles (VOC)

Media of Concern

Groundwater, Soil

Completed Remedial Actions (Interim Remedial Actions / Final Remedial Actions (IRA/FRA))

Site ID	Site Name	Action	Remedy	FY	Cost
CCWS-20	MALPAIS SPILL SITE	FRA	LANDFARMING	2004	\$341.5 K
CCWS-18	DENVER Spill SITE	FRA	LANDFARMING	2006	\$169.8 K
CCWS-65	TULA PEAK ORDNANCE DISPOSAL SITE	FRA	REMOVAL	2012	TBD

CC Contamination Assessment

Contamination Assessment Overview

WSMR submitted a RCRA Part A permit application after the New Mexico Hazardous Waste Management Regulations were published on May 19, 1980. The permit included the waste management activities, at the cleaning facility located at the High Energy Laser System Test Facility (HELSTF), located 18.5 miles northeast of the main post. Through negotiations with the New Mexico Environmental Improvement Division, Hazardous Waste Section, the final design was approved and incorporated into the RCRA Part A permit on Jan. 30, 1984 (Pache, 1984).

WSMR applied for a RCRA Part B Permit in 1984, which included operations at HELSTF. As part of the permit application, WSMR was required to conduct a RFA to determine whether there is a potential or an actual release of hazardous waste or hazardous waste constituents anywhere at its facility. Distinct locations of potential contamination are referred to as SWMUs. Less defined areas of potential contamination are referred to as AOCs.

To date, each WSMR environmental restoration site is referred to by its SWMU or AOC identification (ID) and its IRP ID, when applicable. Under current DoD guidance, those sites contaminated, prior to Oct. 17, 1986, by a now inactive operation, such as a former vehicle maintenance shop, shall be funded under the Defense Environmental Restoration Program (DERP), more specifically, the IRP, if located at an active DoD installation.

WSMR submitted the RFA (A.T. Kearney, Inc., 1988) to the USEPA Region VI in 1988, and identified 138 SWMUs and 26 AOCs. Among these sites, 17 SWMUs and three AOCs were located at HELSTF. This point is considered the initiation of the WSMR IRP. The results of this RFA were used by the USEPA to prepare the HSWA corrective action module of the RCRA Part B Permit. The USEPA approved and issued the permit to WSMR on Sept. 29, 1989. Stipulations of the permit required WSMR to investigate and cleanup 92 SWMU sites and four AOCs.

Before the investigation of SWMUs, the USEPA, Region VI directed WSMR to conduct an interim remedial measure (IRM) to address a leaking underground storage tank (UST) at the HELSTF. An IRM work plan was submitted to USEPA and NMED in December 1991. Since that time, WSMR has been performing the required cleanup to remove floating diesel product from the groundwater. This site is IRP site WSMR-55.

The 92 SWMU sites, identified in Appendices I-IV of the permit, were assessed for releases to the environment during the implementation of the Phase I RCRA facility investigation (RFI). The Phase I RFI Report (I.T. Corp., 1992) identified 80 SWMUs that required further investigation. Of the 80 sites, 24 were approved for no further remedial action planned (NFRAP) in September 1993. A modification to the RCRA Part B permit was initiated, to include this change in the HSWA corrective action module of the permit. The change was made and approved by USEPA, Region VI, in December 1995.

Based on USEPA and NMED direction, WSMR initiated a Phase II work plan to further investigate the presence or absence of contaminants at 52 SWMUs, identified by the Phase I investigation as containing contaminants that may pose a risk to human health or the environment. USEPA and NMED approved the work plan in September 1993.

In December 1994, WSMR completed Phase II of the RFI (Sverdrup, 1994), and submitted the report for regulatory review. WSMR received state and federal USEPA, Region VI comments on the Phase II RFI in 1996. Both the NMED and USEPA, Region VI issued notices of deficiency (Kelley, 1996; Honker, 1996) regarding the report. The NMED emphasized the need to address the SWMUs at HELSTF differently than those at other locations. WSMR provided their final response to the notice of decision (NOD) on Sept. 22, 1997 (Ladd, 1997). Since then, many environmental restoration activities have been initiated and/or completed on a site-by-site basis.

WSMR submitted a series of NFA petitions to the NMED Hazardous Waste Bureau (HWB) beginning in January 2000 for various SWMUs on the WSMR RCRA permit. The petitions were submitted based on the results of previous investigations, and closure reports documenting remedial activities, but were denied by NMED in March 2002 (Frischkorn, 2002) on the basis that further characterization and ecological risk assessment were required. Many of the related IRP sites were designated as response complete (RC) during 2000 in the Army Environmental Database-Restoration (AEDB-R); the denial also included non-IRP sites. During FY02, the SWMUs were subsequently reopened, within WSMR's IRP, for further study, and included 18 SWMUs dispersed among 14 related IRP sites.

The sites reopened in 2002 are being investigated under two distinct groups; those sites located near the main post and those sites located at HELSTF. A Phase III RFI work plan was developed for those sites located on or near the main post. [The work plan was subsequently approved by NMED in March 2005.] This effort is commonly referred to as the Multi-Site Main Post Phase III RFI. This work plan includes 15 SWMUs dispersed among 11 IRP sites.

CC Contamination Assessment

Additionally, and in large part due to the Phase II RFI comments received from NMED in 1996, WSMR has initiated a Phase III RFI investigation at the HELSTF to investigate environmental contamination at HELSTF using a holistic approach. The Phase III effort includes both IRP and CC program sites. The work plan was developed, and includes IRP sites WSMR-52, 53, 54, 55, 78, 83 and 85. (The work plan was subsequently approved by NMED in January 2006.) IRP Sites, WSMR-53, 78 and 83, were part of those sites reopened during FY02, and have one SWMU related to each (See Table 1). This investigative effort is underway and is commonly referred to as the HELSTF Phase III RFI.

In August 2006, discussions between USAEC, IMCOM and WSMR concluded sites WSMR-52, 61 and 62 are IRP ineligible since NMED designates them as operating units.

The CC program was initiated in April 2003.

A multi-site PBA was initiated in September 2008.

Cleanup Exit Strategy

See individual cleanup/exit strategies for additional information.

CC Previous Studies

Year	Sites	Title	Author	Date
1988	CCWS-01, 06, 07, 11, 65, 71, 73, 75, 76, 79	RCRA Facility Assessment PR/VSI Report	A.T. Kearney	AUG-1988
1992	CCWS-76, 79	Final RCRA Facility Investigation (RFI) Report, Appendix I Sites (Vol. I & II)	I.T. Corporation	MAR-1992
	CCWS-01, 02, 03, 05, 06, 65, 71, 73, 75	Final RCRA Facility Investigation (RFI) Report, Appendix II, III and IV Sites (Vol. I & II)	I.T. Corporation	DEC-1992
1993	CCWS-01, 02, 03, 71, 73, 75, 76	Final Phase II Addendum to the RCRA Facility Investigation (RFI) Work Plans, Appendix I, II, III and IV Sites	Sverdrup	OCT-1993
1994	CCWS-01, 02, 03, 71, 73, 75, 76, 79	Phase II RCRA Facility Investigation Appendix I, II, III, and IV Sites (Revision 1)	Sverdrup	DEC-1994
1996	CCWS-01, 02, 03, 71, 73, 75, 76, 79	Notice of Deficiencies Phase II RCRA Facility Investigation (RFI) Report for Appendices I, II, III and IV SWMUs	Honker, W.K.	MAY-1996
	CCWS-65, 71	Close Out Report, SWMU 61, Tula Peak Unexploded Ordnance Incinerator, SWMUs 92-100, Liquid Propellant Storage Area	DOW	AUG-1996
	CCWS-06	Results of Groundwater Sampling and Analyses from Red Rio Munitions Burial Sites [SWMUs 50-54]	MEVATEC Corporation	AUG-1996
	CCWS-01, 02, 03, 71, 73, 75, 76, 79	Notice of Deficiency (NOD) for the Phase II RFI Report for Appendix I, II, III and IV Sites, dated December 1994	NMED (Kelly, Ed)	SEP-1996
1997	CCWS-01, 02, 03, 71, 73, 75, 76, 79	WSMR Final Response to NMED Comments on the WSMR Phase-II RFI-Revision 1, December 1994	Ladd, T.A.	SEP-1997
1998	CCWS-07, 11, 65	Groundwater Monitoring Program at Hazardous Test Area, Tula Peak, Stallion Range Center and Oscura Bombing Range	MEVATEC Corporation	MAR-1998
1999	CCWS-05	Ground-Water Monitoring at the HELSTF, Cleaning Facility RCRA Monitoring Well Sampling	US Geological Survey	FEB-1999
2000	CCWS-01, 73	Petition to Perform Class III Modifications to Remove Solid Waste Management Units 10, 11,	MEVATEC Corporation	JAN-2000

CC Previous Studies

2000	Sites	Title	Author	Date
		16, 17, 19, 20, 80, 132, 140 and 156 from the White Sands Missile Range RCRA Part B Permit		
2001				
	CCWS-76	RCRA Facility Investigation Former Main Post Landfill No. 3 WSMR-61 (SWMU 65)	MEVATEC Corporation	JUN-2001
	CCWS-02, 03 and 79	Petition to Perform Class III Modifications to Remove Solid Waste Management Units 27, 28, 29, 30, 66, 67, 85, 144 and 146 from the White Sands Missile Range RCRA Part B Permit	MEVATEC Corporation	SEP-2001
2002				
	CCWS-75	Report of the Spring 2002 Groundwater Sampling Event at the HELSTF Construction Landfill Site [WSMR-52]	MEVATEC Corporation	OCT-2002
2003				
	CCWS-75	Final Groundwater Monitoring Report, June 2002 Sampling Event at the HELSTF Construction Landfill (WSMR-52; SWMU 38 and 39)	MEVATEC Corporation	FEB-2003
	CCWS-75	Final Groundwater Monitoring Report February 2003 Sampling Event HELSTF Construction Landfill WSMR-52; SWMU 38 and 39	BAE Systems	AUG-2003
2004				
	CCWS-20	Work plan for the Voluntary Corrective Action at the Malpais Site (SWMU 167)	BAE Systems	FEB-2004
	CCWS-18	Final Work plan Voluntary Corrective Action at the Denver Site on White Sands Missile Range	BAE Systems	JUL-2004
	CCWS-75	Final HELSTF Groundwater Monitoring Report July 2003 Sampling Event [WSMR-52, WMSR-54 and WSMR-55	BAE Systems	AUG-2004
	CCWS-75	May 2004 Groundwater Monitoring Sampling Event at the HELSTF Sites: Construction Landfill (WSMR-52, SWMUs 38 & 39), Chromate Spill (WSMR-54, SWMU 143) and Systemic Diesel Spill (WSMR-55, SWMU 154)	BAE Systems	AUG-2004
2005				
	CCWS-75	Combine Results of Spring 2005 [March-May 2005] HELSTF Groundwater Sampling Event (WSMR-52, 54 and 55)	White Sands Technical Services L.L.C.	JUL-2005
	CCWS-02, 03, 05, 75 and 79	Phase III RFI Work plan HELSTF Sites (WSMR-52, 54, 55 and 85)	White Sands Technical Services L.L.C.	AUG-2005
	CCWS-27-39, 42, 43 and 53	Voluntary Correctives Measure Implementation Work plan, Diesel	White Sands Technical Services L.L.C.	NOV-2005

CC Previous Studies

2005	Sites	Title	Author	Date
		Contaminated Soil at 16 AST Sites		
	CCWS-75	2004 Annual Sampling Event HELSTF Groundwater Monitoring Report [WSMR-52, 54 and 55]	White Sands Technical Services L.L.C.	NOV-2005
2006				
	CCWS-06, 07, 09, 11, 16, 75 and 76	Final 2005 Groundwater Monitoring Program Multiple Sites: SWMUs 38, 39, 41-46, 50-56a, 61, 65, 82-83, 108, 114-115, 143, 154-155 and 197-198 [CC and IRP Sites]	White Sands Technical Services L.L.C.	APR-2006
	CCWS-76	Phase III RCRA Facility Investigation Work plan, Former Main Post Landfill No. 3 (Scrap Yard) [WSMR-61; SWMU 65]	White Sands Technical Services L.L.C.	JUN-2006
	CCWS-18	Voluntary Corrective Action Completion Report, Former Diesel AST, Denver Site (SWMU 166)	White Sands Technical Services L.L.C.	JUN-2006
	CCWS-29, 31 and 34	Voluntary Corrective Measures Report, Remediation of Diesel Contaminated Soil at SE-50, SE-70 and ORC Commo Sites	White Sands Technical Services L.L.C.	SEP-2006
	CCWS-02, 03, 05, 75 and 79	Revised Final Phase III RFI Work Plan HELSTF Sites [Multiple Sites]	White Sands Technical Services L.L.C.	OCT-2006

WHITE SANDS MISSILE RANGE
Compliance-Related Cleanup
Site Descriptions

Site ID: CCWS-01
Site Name: WASHPAD, DRAIN, OWS @ BLDG 1753
Alias: SWMU-19/20

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Contaminants of Concern: Metals

Media of Concern: Soil

Phases	Start	End
RFA.....	198805.....	198808
CS.....	199206.....	199212
RFI/CMS.....	200803.....	201309

RIP Date: N/A

RC Date: 201309

Closeout Date: 201309

SITE DESCRIPTION

This site is located immediately north of Building 1753, in the southern part of Main Post. The facility was included in the Phase I and II RFIs (I.T. Corp., 1991 and Sverdrup, 1994 respectively). Sampling included a soil vapor survey (SVS) at depths of 6 feet, and soil samples were taken from one, three, five, and nine feet. No volatile organic compounds (VOCs) were detected. Metals and total petroleum hydrocarbons (TPH) were detected below applicable screening action levels. In comments on the Phase II RFI report, the NMED recommended removal of SWMU 19 and 20 from the HSWA Corrective Action list.

A Class III Permit Modification petition was submitted on January 24, 2000, to the Administrative Authority (NMED), to remove this site from the HSWA Corrective Action Module of the RCRA Part B Permit. The NMED rejected the petition in a March 2002 letter listing SWMU 19 and 20 separately, and requiring that WSMR complete an ecological risk assessment before the petition could be reconsidered.

This site was included in a Class III Permit modification to change the status of the site to Corrective Action Complete without controls in WSMR Haz Waste Permit.

CCWS-01 has been active since approximately 1968 (washpad and drain) and 1984 (sump). The wash pad is a 50 feet by 15 feet concrete pad with an interconnected network of three drains. The drains are spaced 15 feet apart along the center of the pad. Fluids and debris flow via underground pipes to a 500 gallon oil/water separator, located approximately 40 feet southeast of the washpad. The current separator replaced an earlier unit that was considered to be too small. The above-grade separator is constructed of reinforced concrete and is covered by a metal plate. Separation of water, oil and debris is accomplished by gravity. The waste oil and debris from the separator are periodically transferred to an aboveground waste oil tank, while effluent flows to the Sewage Treatment Plant,(SWMU 66 and 67), via the sanitary sewer.

CCWS-01 (SWMU 19), formerly IRP Site WSMR-80, consists of a washpad, drain, and an oil/water separator sump (formerly SWMU 20). White Sands and the NMED agreed in 1999 that SWMU 19 and 20 could be combined as one unit under designation SWMU 19. The decision is documented in a November/December 2000 Final Settlement Agreement between WSMR and the NMED HWB. Additionally, the site was removed from the IRP during CY2000. The March 2002 IAP states that the reason for removal is that the site is an "Active Site Ineligible for Inclusion in the IRP."

Site ID: CCWS-02

Site Name: HELSTF LSTC WASTEWATER DISCHARGE

Alias: SWMU-144

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Contaminants of Concern: Metals

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	199401.....	199410
CS.....	199502.....	199512
RFI/CMS.....	199601.....	201210
LTM.....	201601.....	204601

RIP Date: N/A

RC Date: 201210

Closeout Date: 204601

SITE DESCRIPTION

CCWS-02 (SWMU 144) is a wastewater discharge pit that is approximately 10 feet in diameter and eight feet deep. It is filled with rocks to keep animals from falling into the pit. It is located approximately 430 feet northeast of the Laser System Test Center (LSTC) and was active from the early-1960s to approximately 1997. Originally, the Multi-Function-Array Radar site used the waste line and pit to discharge the non-sewage wastewater.

The 1992 Phase I RFI Report (Appendix II, III and IV sites) indicated that three monitoring wells (MW) were installed (HMW07, HMW08, and HMW18B). HMW07 was screened in the regional aquifer. HMW08 was placed as a background well in the regional aquifer. HMW18B was screened in the shallow perched zone. In addition, a diagonal boring, under the pit, was augured and sampled.

The NMED stated on January 22, 1993 that they concurred with the recommendations of the RFI report provided that WSMR is willing to commit to an ongoing program of groundwater monitoring at the HELSTF area (Morgan, 1993a). The USEPA disagreed with the conclusions reported in the Phase I report. They issued a NOD stating that "HMW-7 has lead exceeding the maximum contaminant level (MCL) limit. A release has occurred which will require delineation of the extent of lead" (Honker, 1993). As a result of USEPA's NOD, a 1994 Phase II RFI was conducted. It included an effluent sample from the wastewater stream within the LSTC, and the installation of four new MWs (HMW25, HMW26, HMW27 and HMW28). Soil samples were collected during drilling of the four new MWs. Groundwater samples were collected from HMW07, HMW18B, HMW26 and HMW28. The MWs, HMW25 and HMW27, had insufficient water to collect a sample.

During CY2000, WSMR filed an application to discharge, Notice of Intent, to the NMED. The site was removed from the IRP during CY2001 on the grounds that the site was an active unit regulated under the NMED GWQB. The site was granted a discharge permit - NM Discharge Permit No. 297.

WSMR submitted a petition for NFA in January 2000 and September 2001. The petition was denied by the NMED on March 11, 2002 because a final RFI report, including an ecological risk assessment, was required (Frischkorn, 2002). Additionally, NMED comments included concerns on arsenic levels in soils, and the source of groundwater contamination. The NMED comments are being addressed in the ongoing HELSTF Phase III RFI being funded through IRP site WSMR-85. Future funding for a Corrective Measure Study CMS, if necessary, will also be through WSMR-85. All other future funding will be through the Compliance Cleanup Program.

CCWS-02 (SWMU 144), formerly IRP Site WSMR-47, is located in the HELSTF area and is being studied under the HELSTF Phase III RFI under IRP Site WSMR-85. The site was removed from the IRP in CY2001. The March 2002 IAP cites the reason for removal as "Active Unit Regulated under NM GWQB." Future CC phase requirements and funding are pending the results of the Phase III study and a Corrective Measure Study (CMS), if necessary.

A 1992 Phase I RFI and a 1994 Phase II RFI were completed. The results of the investigations identified arsenic and lead above regulatory action levels in groundwater. 40 CFR 265 Subpart G and NM regulations apply.

Site ID: CCWS-02

Site Name: HELSTF LSTC WASTEWATER DISCHARGE

Alias: SWMU-144

This site has been designated as SWMU 144 on WSMR's RCRA Permit (2006 Annual Fee list). SWMU 144 is one of many which the NFA petition was rejected by the NMED in March 2002. A March 2002 NMED letter require a final RFI report, an ecological risk assessment, a background study to rule out arsenic as a soil contaminant and data showing that groundwater contamination is from another source. These requirements are being addressed by the HELSTF Phase III RFI being funded under IRP site WSMR-85. As of November 2007, the Phase III RFI conclusions and recommendations find no further action required at this site. These conclusions are pending review and approval from the NMED.

This site is under the PBA to achieve Response Complete by September 2010.

Cleanup Strategy:

Complete and receive approval of the Phase III RFI work plan. Conduct a CMS FY08-09. At this time, there is not adequate data to determine any assumptions. Conduct Eco Risk Assessment. Any groundwater concerns will be addressed under site WSMR-55.

Cleanup Strategy: Complete and receive approval of the Phase III RFI work plan. Conduct a CMS FY08-09. At this time, there is not adequate data to determine any assumptions. Conduct Eco Risk Assessment. Any groundwater concerns will be addressed under site WSMR-55.

Site ID: CCWS-03
Site Name: HELSTF STP DRY POND
Alias: SWMU-146

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Contaminants of Concern: Metals

Media of Concern: Groundwater, Soil

Phases	Start	End
RFA.....	199401.....	199410
CS.....	199502.....	199512
RFI/CMS.....	199601.....	201209
LTM.....	201601.....	204601

RIP Date: N/A

RC Date: 201209

Closeout Date: 204601

SITE DESCRIPTION

CCWS-03 (SWMU 146) reportedly received non-sewage wastewater from the Test Cell 2 Mechanical Building (26115), and overflow from treated wastewater from the sewage lagoons (CCWS-79; SWMU 27-30). The pond continues to receive water through the discharge pipe (building 26115). The ongoing discharge has dissolved the underlying gypsum soils creating a cavity that readily takes in the effluent. The discharge point is surrounded by thick brush. As a result, the pond does not contain any of the effluent, thus giving it the name "Dry Pond". Acetone was the only VOC detected in the soil at this site. It was detected in HMW21 at a depth of 46 and 59 feet. The adjacent well (HMW20) did not have any acetone detected in the soil at a depth of 22 ft bgs. The next closest boring, HMW06 did not contain detectable concentrations of acetone from the surface to a maximum sample depth of 40 feet bgs. All other borings related to SWMU 146 did not contain detectable concentrations of acetone in any of the samples.

WSMR submitted a petition for NFA in September 2001. The petition was denied by the NMED on March 11, 2002, because a final RFI report including an ecological risk assessment was required (Frischkorn, 2002). Additionally, NMED comments included concerns on arsenic levels in soils and the source of groundwater contamination. The NMED comments are being addressed in the ongoing HELSTF Ph III RFI being funded through IRP site WSMR-55.

Site CCWS-03 (SWMU 146) is being studied under a Phase III RFI for IRP Site WSMR-85. Future CC funding is pending the results of this study and a CMS, if necessary. This site has been designated as SWMU 146 on NMED's 2006 Annual Fee listing. The site was formally IRP site WSMR-45 before being removed in CY2000. The March 2002 IAP cites the reason for removal as "Active Discharge Pond". An application was filed and a discharge permit (DP) granted for this site, NM DP No. 297; however, since being granted the permit, the Army has taken the position of sovereign immunity from the DP program since NM does not have Clean Water Act (CWA) authority. The site continues to be regulated as a SWMU under WSMR's RCRA Permit.

CCWS-03 is located approximately 400 ft southwest of the HELSTF sewage lagoons (site CCWS-79; SWMU 27-30). The site consists of an unlined surface impoundment with dimensions of 120 x 120 x 7 ft.

In 1991, Phase I and II RFI investigations were performed. The results of the two investigations identified Arsenic and Selenium above regulatory action levels in groundwater. Additionally, Arsenic was detected in the soil above NM Soil Screening Levels (SSL).

The unit has been active since the 1980s, catching treated wastewater overflow from the HELSTF sewage lagoons (SWMUs 27-30), on an as-needed basis. WSMR is constructing a replacement sewage lagoon system at HELSTF that will be completed in June 2007. No future remediation is anticipated; however, a March 2002 NMED letter requires an ecological risk assessment, final RFI report, determining arsenic background soil levels, and data showing that groundwater contamination is from another source.

These issues are being addressed in the HELSTF Phase III RFI funded under IRP Site WSMR-55. As of November 2007, the Phase III RFI conclusions and recommendations find no further action required as this site. These conclusions are pending review and approval from the NMED. Any future LTM requirements will be addressed under WSMR-55 as well.

This site is under the PBA to achieve Response Complete by September 2010.

Site ID: CCWS-03
Site Name: HELSTF STP DRY POND
Alias: SWMU-146

Cleanup Strategy: Complete and receive approval of the Phase III RFI work plan. Conduct a CMS FY08-09. At this time, there is not adequate data to determine any assumptions.

Assuming that the wastewater treatment system is replaced, the area will be restored to its original contours according to best management practices.

Groundwater issues will be addressed HELSTF wide.

Site ID: CCWS-11
Site Name: OB/OD at HTA Site
Alias: SWMU56,55

STATUS

Regulatory Driver: RCRA C

Risk Score: 1A

Contaminants of Concern: Explosives, Nitrate/Nitrite, Perchlorate

Media of Concern: Groundwater

Phases	Start	End
RFA.....	200012.....	200012
RFI/CMS.....	200012.....	201210
CMI(C).....	201301.....	201306
CMI(O).....	201212.....	201602
LTM.....	201602.....	204602

RIP Date: 201306

RC Date: 201602

Closeout Date: 204602

SITE DESCRIPTION

The site was utilized in the past for demolition of explosives and propellants. Open burning/Open detonation (OB/OD) unit consists of both an open detonation (OD) area, two prepared pits, and an open burning (OB) pan. The two adjacent operations are treated as a single thermal treatment unit for RCRA permitting purposes. OB/OD adjacent operations are treated as a single thermal treatment unit under permit number NM275021123-OB/OD. The OB/OD facility (consisting of two OD units and one OB unit), within the Hazardous Test Area (HTA), on WSMR was used for rendering safe the explosive components of expended test munitions. NMED, in a 12 January 2000 letter, instructed WSMR to cease using the unit by 31 Dec 2000. The unit began operations in 1966, and the last detonation at the OD pits occurred on 30 Nov 2000. The partial closure of OB/OD was completed, according to the provision of the closure plan, under the operating permit. Closure activities were performed in 2001, and are described in Risk Assessment and Closure Report for the OB/OD unit, at the HTA, September 2002. WSMR submitted a closure certification to NMED on 4 November 2002.

SWMU 56, 56A and 55 are listed as operating units OB/OD 1, 2 and 3 on NMED 2006 Annual Fee. Release and Legal Driver: 40 CFR 262 applies. RDX and Nitrates, above regulatory limits, have been identified in groundwater samples. Both a compliance directive and an NOD have already been issued against this site.

A total of 48 wells exist in and around the OB/OD site, of these, 23 are currently utilized for ongoing, and OD are SWMUs 56 and 56a. The USGS is currently monitoring 23 wells on a quarterly schedule.

A risk assessment was performed, which recommended a soil cover, corrective measure study and implementing an annual erosion prevention measures plan. The soil cover has been installed, along with other remedial measures. Work was amended to delineate the extent of a recently discovered perchlorate plume. Installation of new monitoring wells was required in FY00 to map the perchlorate and explosives residue plumes, and demonstrate water flow in the aquifer. The state HWB returned WSMR's OB/OD Post Closure Care Plan, in February 2003, stating that it was administratively incomplete, and requiring that a perchlorate investigation take place under RFI rules, as part of the post closure work plan. The state HWB again returned the Post Closure Care Plan in September 2004, stating that it was administratively incomplete. As of 2007 the HWB plans to add any Post Closure Care requirements within the WSMR RCRA permit, planned to be finalized in 2008-2009.

Cleanup Exit Strategy:

The objective is to achieve an approved Post Closure Care Completion Report. This will be achieved by performing a soil investigation to verify that the contaminant source has been removed in the soil overburden. 15 soil borings will be installed. Five monitor wells will be installed to perform gwm. A soil cover over the secondary and primary detonation pit will be installed. The source area will be remediated using ISEB techniques allowing natural degradation and dilution factors to further reduce plume size. Aquifer tests will determine the extraction efficiency and a bench-scale treatability study will be performed. Post closure activities for the soil cover will be conducted and a five-acre soil cover will be constructed. Semiannual groundwater monitoring on 12 wells will be performed.

Site ID: CCWS-18
Site Name: DENVER Spill SITE
Alias: SWMU 166

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200203.....	200304
RFI/CMS.....	200305.....	200403
CMI(C).....	200403.....	201210

RIP Date: N/A
RC Date: 201210
Closeout Date: 201309

SITE DESCRIPTION

The Denver spill site (CCWS-18; SWMU 166) is an abandoned telemetry station, located at a distance of 45 miles northwest of Alamogordo, NM. This site has not been used since 1992. An AST of approximately 1,800 gallons was present at the site, located north of Range Road 316. The tank was removed from the site in 1998. On 18 February 1999, the product lines, supplying diesel fuel to generators on an equipment rack, located south of Range Road 316, were excavated and removed from service. The product lines located beneath Range Road 316 were abandoned in place. During removal of the product lines, diesel contamination was identified in the soil beneath the equipment rack. The contamination was located beneath a 90 degree connection, in the product lines, approximately 2-ft bgs.

CCWS-18 (SWMU 166), the Denver Spill Site, is located approximately 45 miles northwest of Alamogordo, NM. Environmental sampling has detected two spatially distinct contamination zones at the site. Diesel-contamination, at the Denver site, is the result of releases from a former AST and associated piping and equipment. An unknown amount of diesel fuel was released within the site, at an unknown date in the past.

In accordance with Chapter 6.2, Section 1203 of Title 20 in the New Mexico Administrative Code, the Chief of the GWQB of the NMED was notified verbally of the releases, in February 1999. Corrective actions were then undertaken according to the WQCCR (26.2.NMAC). The soil and groundwater investigations were performed in 1999 and 2001, which defined the horizontal and vertical nature and extent of contamination, and evaluated the hydrogeological characteristics beneath and surrounding the release site. A report was submitted to the NMED, that presented an initial assessment of the extent of contamination.

In 2006, the contaminated soil was removed and wells abandoned. A June 2006 final report was submitted to the NMED. The NMED responded, in a 12 Sep 2006 letter, recognizing the fact that TPH contamination was left under Range Road 316. [Previous narratives and the 12 Sep 2006 NMED letter mistakenly cite contamination being left in place under RR 9; however, this is the same contamination left under RR 316.] As a result, the site was not granted a NFA status and would remain on the RCRA Permit (see 2006 Annual Fee listing).

In July 2007, funding was provided to remove the remaining contamination under RR316. The excavation was conducted under the TASK ORDER #45, the same project that included excavations at multiple former AST sites. The removal action and final report were completed.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-20
Site Name: MALPAIS SPILL SITE
Alias: SWMU 167

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200202.....	200302
RFI/CMS.....	200303.....	200402
CMI(C).....	200403.....	200409
CMI(O).....	200410.....	201209
RIP Date: 200410		
RC Date: 201209		
Closeout Date: 201209		

SITE DESCRIPTION

During the Range-wide AST survey of WSMR, a leaking AST was identified at the Malpais Site. This site is located approximately 40 miles northwest of Alamogordo, NM. The AST was estimated to have been abandoned in excess of 10 years. An unknown amount of diesel fuel was released within the Malpais instrumentation site at an unknown date in the past. An initial survey and report was made to the state after discovery in 1999. On 3 February 1999, the tank contents, tank, and concrete pedestals were removed along with 1 cubic yard of contaminated surface soil. Product lines, likely formerly supplying a field generator, were removed on 18 February 1999. An abandoned building and mounted metal frame tower are still present at the site. The preliminary assessment and RCRA RFI investigation plan was initiated in FY01 and submitted to NMED. In FY 01 a report regarding the results of the RFA was submitted to the NMED that presented an initial assessment of the extent of contamination, the existence of groundwater contamination and clean up action. In 2004 a Voluntary Corrective Action work plan was completed. The work plan was executed between July and September 2004. All the contaminated soil was removed and the wells abandoned. The NMED responded with a 24 January 2006 letter approving the completed actions.

CCWS-20 (SWMU 167), Malpais Spill Site: Final excavation and well abandonment occurred between July and September 2004. NMED concluded that no further action was required in a 24 Jan 06 letter.

Cleanup Exit Strategy:

A class 3 permit mod is required to remove SWMU 167 from the WSMR permit. The permit mod will be submitted during FY09 along with other eligible SWMUs. Site closout documentation will be required. These actions are part of the PBA.

Site ID: CCWS-27

Site Name: HARDIN Ranch AST Site (SWMUs 199/200)

Alias: SWMU199+

STATUS

Regulatory Driver: RCRA C
Risk Score: 1A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201210
RIP Date: N/A		
RC Date: 201210		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Hardin Ranch site is used as an instrumentation and testing site on WSMR, located in the northwest part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

Excavation was completed in 2006 and the final report submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-27 (SWMUs 199/200), Hardin Ranch AST Site, is used as an instrumentation/testing site on WSMR, located in the northwest part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. An unknown amount (estimated to exceed 2,000 gallons) of diesel fuel was released at this site over an extended period ending in FY03.

SWMU-199 and SWMU-200 were discovered in May 2003. An initial investigation was performed and reported to state, in accordance with RCRA Part B Operating Permit in February 2004. State is requiring preparation of formal RFI Workplan, execution of the RFI, remediation of the site, and petition for NFA status. A Corrective Measures work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation and removal of approximately 200 cy soil, and submit a final report to NMED. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

SWMU 199 and 200 were not included in NMED's 2006 Annual Fee Listing; however, these sites should be listed as Corrective Action Units that include an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in 2006. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-29
Site Name: OSCURA COMMO AST Site
Alias: SWMU 203

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200606.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Oscura Commo site is used as an instrumentation/testing site on WSMR, located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

During FY06, approximately 80 cy of contaminated soil was removed. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-29 (SWMU 203), Oscura Commo AST site, is used as an instrumentation and testing site on WSMR, located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. An unknown amount of diesel fuel was released at this site, over an extended period, ending in FY03. The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated Noveber 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site excavation was completed at CCWS-29 during FY06, with the removal of 80 cy (June 2006). The final results will be reported to the NMED in one report covering all 14 CC sites listed above.

SWMU 203 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under "Administrative" costs.

2008 UPDATE: The excavation fieldwork was completed in 2006. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-30
Site Name: HARRIET AST SITE
Alias: SWMU 204

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212

RIP Date: N/A

RC Date: 201212

Closeout Date: 201309

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks presumed to be related to diesel fuel from ASTs, had potentially occurred. Harriet site is used as an instrumentation/testing site on WSMR, located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

During FY07, approximately 130 cy of contaminated soil was removed. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-30 (SWMU 204), Harriet AST, site is used as an instrumentation and testing site on WSMR, located in the northwest part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount of diesel fuel was released at this site, over an extended period, ending in FY03. The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 42, 43, and 53).

Site was discovered in May 2003. Initial investigation was performed and reported to state, in accordance with RCRA Part B Operating Permit in February 2004. Results indicated TPH contamination to a depth of 16 ft.. Beyond this point, TPH results were below NMED residential SSLs of 880 miligram/kilogram (mg/kg).

Planned site excavation includes removal of approximately 130 cy soil, and submit a final report to NMED.

SWMU 204 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in FY07. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for no Further Action at this site. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-31
Site Name: SE-70 AST SITE
Alias: SWMU 205

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200512.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. SE-70 Site is used as an instrumentation/testing site on WSMR, located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

During FY05, approximately 200 cy of contaminated soil was removed. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-31 (SWMU 205), SE-70 AST Site, consists of contaminated soil removed in early FY06, along with SE-50 AST site. Approximately 360 cy total were removed from both sites. Final report still pending submittal to and review by the state. The report will discuss removal actions at 14 various CC sites, all involving ASTs.

In Dec 2005, approximately 200 cys of petroleum contaminated soil was excavated and disposed of, in accordance with the VCM work plan.

Preparation of the NFA petition and Class III Modification will be performed (FY09) for multiple sites (14 sites: CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 42, 43, 53) and submitted to NMED.

The Site was discovered in May 2003, and an unknown amount (estimated to exceed 2,000 gallons) of diesel fuel was released at this site over an extended period ending in FY03.

An initial investigation was performed and reported to the state, in accordance with RCRA Part B Operating Permit, in February 2004. WSMR developed a VCM workplan (dated November 2005), which was submitted to NMED in January 2006. The work plan covered 14 similar CC sites. The presumptive remedy for all sites is excavation and removal of contaminated soil and other debris.

2008 UPDATE: The excavation fieldwork was completed in FY06. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Confirmation samples support No Further Action at this site. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-32
Site Name: ATOM AST SITE
Alias: SWMU206+

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212

RIP Date: N/A
RC Date: 201212
Closeout Date: 201309

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Atom Site is used as an instrumentation/testing site on WSMR, located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

During FY07, approximately 170 cy of contaminated soil was removed. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-32 (SWMU 206 and 207), Atom AST, site is used as an instrumentation/testing site on WSMR, located in the north central part of the Range. The site was combined with CCWS-33 (Atom AST Site #2; SWMU 207); SWMU 206 does not require excavation, as TPH soil levels are below regulatory guidelines. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount (estimated to exceed 2,500 gallons) of diesel fuel was released at this site, over an extended period ending in FY03.

The State is requiring preparation of a formal RFI work plan, execution of the RFI remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site was discovered in May 2003. Initial PA was performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. TPH levels exceeded the State of New Mexico guidelines of 880 mg/Kg at this site; a concentration of 13,000 mg/kg was detected at 4 ft bgs and 1,300 mg/kg detected at 8 ft bgs (SWMU 207).

A Corrective Measure work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation and removal of 170 cy soil and submit a final report to NMED.

SWMU 206/207 were not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr each SWMU). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in FY07. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results to the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-34
Site Name: SE-50 AST SITE
Alias: SWMU 208

STATUS

Regulatory Driver: RCRA C
Risk Score: 2A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200512.....	201212

RIP Date: N/A
RC Date: 201212
Closeout Date: 201309

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. SE-50 Site is used as an instrumentation/testing site on WSMR located in the northeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

2008 UPDATE: The excavation fieldwork was completed in FY06. The final report was submitted in July 2008. No new actions are anticipated.

CCWS-34 (SWMU 208), SE-50 AST Site, consists of contaminated soil removed in early FY06 along with SE-50 AST site. Site was discovered in May 2003. Initial investigation was performed and reported to state in accordance with RCRA Part B Operating Permit in February, 2004. In Dec 2005, approximately 160 cy of petroleum contaminated soil was excavated and disposed of in accordance with the VCM. Preparation of the NFA petition and Class III Modification will be performed (FY09) for multiple sites (14 sites: CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 42, 43, 53) and submitted to NMED.

WSMR developed a VCM work plan dated November 2005, which was submitted to NMED in January 2006. The VCM covered 14 similar CC sites. The presumptive remedy for all sites is excavation and removal of contaminated soil and other debris.

2008 UPDATE: The excavation fieldwork was completed in FY06. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-35
Site Name: EC-50 AST SITE
Alias: SWMU 209

STATUS

Regulatory Driver: RCRA C
Risk Score: 1A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR CC sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. EC-50 site is used as an instrumentation/testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

During FY07, approximately 360 cy of contaminated soil was removed. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-35 (SWMU 209), EC-50 AST Site, is used as an instrumentation/testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount of diesel fuel was released at this site over an extended period ending in FY03.

The State is requiring preparation of formal RFI work plan, execution of the RFI remediation of the site, and petition for NFA status. A VCMs work plan was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53)

Site was discovered in May 2003. Initial investigation was performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. Investigation results indicated TPH contamination to a depth of 15 ft. Beyond this point, TPH were below NMED residential SSLs of 880 mg/kg.

SWMU 209 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: During FY07, approximately 360 cy of contaminated soil was removed. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-36
Site Name: MINNOW AST SITE
Alias: SWMU 210

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR CC sites) in May 2003, where leaks presumed to be related to diesel fuel from ASTs, had potentially occurred. Minnow site is used as an instrumentation/testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

NFA is recommended for this site. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-36 (SWMU 210), Minnow AST Site, is used as an instrumentation/ testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount was released at this site over an extended period ending in FY03.

The State is requiring preparation of formal RFI work plan, execution of the RFI remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site was discovered in May 2003. Initial investigation was performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. TPH results were either non-detect or well below NMED guidelines; therefore, NFA is recommended in the November 2005 work plan.

SWMU 210 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The site was recommended for NFA in the AST POL sites report. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-37
Site Name: COWAN AST SITE
Alias: SWMU 211

STATUS

Regulatory Driver: RCRA C

Risk Score: 1A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212

RIP Date: N/A

RC Date: 201212

Closeout Date: 201309

SITE DESCRIPTION

Cowan site is used as an instrumentation/testing site on WSMR, located in the east central part of the Range.

CCWS-37 (SWMU 211), Cowan AST Site, is used as an instrumentation/ testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount of diesel fuel was released at this site over an extended period ending in FY03. Unexploded Ordnance (UXO) is an issue at this site, which presents a substantial safety concern.

The Site was discovered in May 2003. Initial investigation was performed and reported to State in accordance with RCRA Part B Operating Permit in February, 2004. Investigation results indicated TPH contamination to a depth of 13 ft, beyond this point, TPH were below NMED residential SSLs of 880 mg/kg. The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation and removal of 90 cy soil and submit a final report to NMED. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

SWMU 211 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in FY07. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-38
Site Name: GRAN JEAN AST SITE
Alias: SWMU 213

STATUS

Regulatory Driver: RCRA C
Risk Score: 1A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Gran Jean site is used as an instrumentation/testing site on WSMR, located in the northwest part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

CCWS-38 (SWMU 213), Gran Jean AST Site, is used as an instrumentation/ testing site on WSMR, located in the northwest part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount of diesel fuel was released at this site over an extended period ending in FY03. 40 CFR and multiple parts apply. 20.5.12.1200 NMAC and multiple parts apply.

The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation and removal of 560 cy soil and submit a final report to NMED. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site was discovered in May 2003. Initial investigation was performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. Investigation results indicated TPH contamination to a depth of 15 ft, beyond this point, TPH were below NMED residential SSLs of 880 mg/kg.

SWMU 213 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in FY07. The final report was submitted July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-39
Site Name: NE-50 AST SITE
Alias: SWMU 214

STATUS

Regulatory Driver: RCRA C
Risk Score: 1A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	200312
CMI(C).....	200701.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. NE-50 site is used as an instrumentation/testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-39 (SWMU 214), NE-50 AST Site, is used as an instrumentation/ testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount of diesel fuel was released at this site over an extended period ending in FY03. 40 CFR and multiple parts apply. 20.5.12.1200 NMAC and multiple parts apply.

The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 42, 43, and 53).

Site was discovered in May 2003. Initial investigation was performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. TPH results indicated TPH contamination to a depth of 8ft, beyond this point, TPH were below NMED residential SSLs of 880 mg/kg.

SWMU 214 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: The excavation fieldwork was completed in FY07. The final report was submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Base on the results of the Accelerated Correction Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-42
Site Name: RAM AST SITE
Alias: SWMU 201

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	201212

RIP Date: N/A

RC Date: 201212

Closeout Date: 201309

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Ram site is used as an instrumentation/testing site on WSMR, located in the southeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

NFA is recommended for this site. The final report was submitted in July 2008. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-42 (SWMU 201), Ram AST Site, is used as an instrumentation/testing site on WSMR, located in the southeast part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site potentially contributed to diesel contamination at the site. Two soil borings were made, at the site of the former AST, during the May 2003 direct push geoprobe investigation. No diesel range organics (DRO) were detected at the site. 40 CFR and multiple parts apply. 20.5.12.1200 NMAC and multiple parts apply.

The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site was discovered in May 2003. Initial PA was performed and reported to state in accordance with RCRA Part B Operating Permit in February, 2004. Since no DRO were detected, WSMR recommends No Further Action.

SWMU 201 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: No Further Action was recommended to the NMED in the final report for the former AST POL sites, submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-43
Site Name: Dead Horse AST Site
Alias: SWMU 202

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	201212

RIP Date: N/A
RC Date: 201212
Closeout Date: 201309

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR CC sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Dead Horse site is used as an instrumentation/testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range.

NFA is recommended for this site. Beside administrative costs (NMED fees), no additional project costs are anticipated.

A Class III Permit Modification will be required.

CCWS-43 (SWMU 202), Dead Horse AST Site, is a former AST location. The site was discovered in May 2003. This site was one of 16 AST sites investigated in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. Two soil borings were made, at the site of the former AST, during the direct push geoprobe investigation. No DRO were detected above state of New Mexico reporting requirements of 880 mg/kg (residential screening level for diesel). A minor subsurface TPH DRO result of 17 mg/kg was the only detection.

A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Initial investigations were performed and reported to state in accordance with RCRA Part B Operating Permit in February 2004. Since non-reportable diesel organics were detected, WSMR will submit NFA Documentation, as required by the state of New Mexico.

SWMU 202 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: No Further Action was recommended to the NMED in the final report for the former AST POL sites, submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-53
Site Name: NW-70 AST SITE
Alias: SWMU 212

STATUS

Regulatory Driver: RCRA C
Risk Score: 0A

Phases	Start	End
RFA.....	200301.....	200311
RFI/CMS.....	200301.....	201212
RIP Date: N/A		
RC Date: 201212		
Closeout Date: 201309		

SITE DESCRIPTION

Investigations were performed at 16 locations (14 WSMR sites) in May 2003, where leaks, presumed to be related to diesel fuel from ASTs, had potentially occurred. NW-70 site is used as an instrumentation/testing site on WSMR, located in the north central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site.

NFA is recommended for this site. Beside administrative costs (NMED fees), no additional project costs are anticipated.

CCWS-53 (SWMU 212), NW-70 AST Site, is used as an instrumentation/ testing site on WSMR, located in the east central part of the Range. Former ASTs were used for fueling generators supporting testing operations on the Range. The ASTs at this site contributed to diesel contamination at the site. An unknown amount was released at this site over an extended period ending in FY03.

The State is requiring preparation of formal RFI work plan, execution of the RFI, remediation of the site, and petition for NFA status. A VCM work plan (dated November 2005) was submitted to NMED in January 2006. The presumptive remedy is excavation. A NFA petition and Class III Mod will be prepared for the following 14 CC sites that include 16 AST sites (CCWS-27, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39 42, 43, and 53).

Site was discovered in May 2003. Initial investigation was performed and reported to State in accordance with RCRA Part B Operating Permit in February, 2004. Two soil borings were made, at the site of the former MT, during the May 2003 direct push geoprobe investigation. No DRO were detected above State of New Mexico reporting requirements of 880 mg/kg (residential screening level for diesel); therefore, NFA is recommended in the November 2005 work plan.

SWMU 212 was not included in the NMED 2006 Annual Fee Listing; however, this site should be listed as a Corrective Action Unit that includes an annual fee (\$750/yr). These costs are programmed under Administrative costs.

2008 UPDATE: No Further Action was recommended to the NMED in the final report for the former AST POL sites, submitted in July 2008. No new actions are anticipated.

Cleanup Exit Strategy:

Based on the results of the Accelerated Corrective Action Completion Report, WSMR asserts that this site should be eligible for No Further Action. Site closeout documentation is required. The PBA will be modified to include NFA documentation.

Site ID: CCWS-62
Site Name: Former STP Percolation Ditches
Alias: SWMU 82

STATUS

Regulatory Driver: RCRA C
 Contaminants of Concern: Other (Cyanide)
 Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198808
CS.....	198805.....	198808
RFI/CMS.....	199103.....	201006
CMI(C).....	201006.....	201606
CMI(O).....	201006.....	201606
LTM.....	201607.....	204607
RIP Date: 201606		
RC Date: 201606		
Closeout Date: 204607		

SITE DESCRIPTION

The north drainage ditch (SWMU 82) extends from the STP headgate to an infiltration/evaporation pond. The south drainage ditch (SWMU 83) originates at the STP.

In 1992 a Phase I RFI was conducted. Soil samples were analyzed for VOCs, SVOCs, metals, and total cyanide. Only chromium was detected above action levels.

During the 1994 Phase II RFI, soil samples were analyzed for metals and total cyanide. Total chromium was detected below the hexavalent chromium Subpart S level. Groundwater samples collected indicated total cyanide above federal and state action levels.

In 1997, excavation of soil from the two ditches occurred. Groundwater samples were collected up and down-gradient. A baseline analysis was performed, indicating concentrations of cyanide in excess of the New Mexico Water Quality Control Commission and USEPA standards. A Site Closeout Report (Radian, 1997) was completed and submitted to NMED.

In 1999, a risk assessment was conducted that evaluated the potential for exposure to contaminants. Aluminum, fluoride, iron, lead, nitrate, nitrite and cyanide were detected above their respective Preliminary Remediation Goals. After an evaluation of toxicity, only cyanide posed an unacceptable risk for a residential scenario.

A 1999 Site Characterization Report was filed. The wells were sampled semiannually through 1999 for cyanide and effluent-related constituents. A CMS, completed in CY2000, recommended Monitored Natural Attenuation (MNA). Quarterly groundwater monitoring occurred between 2000 and 2001. Since 2002, wells have been monitored semiannually.

In July 2003, WSMR received state comments on the 2000 CMS in the form of a NOD requesting additional data to support the MNA action plan. Since, several CMS addendums have been submitted by WSMR. NMED responses have generally stated that evidence justifying MNA is inadequate. During 2005, WSMR initiated a study of possible alternative RAs. In 2006, WSMR and NMED agreed to complete an updated CMS using the latest data.

As of March 2008, WSMR is working on a Closure Plan, as well as monitor the groundwater at approximately 30 wells. The groundwater monitoring is conducted semiannually. The collected data will be used to evaluate the various alternatives identified and investigated in the Closure Plan.

CCWS-62, formerly IRP Site WSMR-62, (SWMU 82 and 83; operating unit SI-3) consists of two excavated soil ditches, east of the Sewage Treatment Plant (STP), used from 1958 until 1986 as discharge trenches. The site is listed by the NMED as a RCRA operating unit requiring closure; therefore, the site is ineligible as an IRP site. During an August 2006 teleconference between USAEC, IMCOM-West and WSMR, IRP eligibility was discussed for this site. It was decided to move the site to the CC program beginning in mid-FY08.

Site ID: CCWS-62
Site Name: Former STP Percolation Ditches
Alias: SWMU 82

Clean-Up Exit Strategy:

The objective at STP is to achieve corrective action complete with controls and an approved Closure Plan. Site-specific performance objectives include collecting samples for a laboratory microcosm study to confirm cyanide degradation occurrence. Collect additional groundwater data from wells located within the impact zone over three consecutive events in conjunction with the approved LTM program. Analyze samples for additional parameters necessary to demonstrate the occurrence of in situ biodegradation. In addition, semiannual groundwater monitoring of 26 monitoring wells will be performed

The presumed final remedy is monitored natural attenuation. A pilot study is being conducted to determine potential site closure with a chemical oxidation remedy or a combined natural attenuation and bioremediation remedy.

The presumed final remedy is monitored natural attenuation. A pilot study is being conducted to determine potential site closure with a chemical oxidation remedy or a combined natural attenuation and bioremediation remedy.

Site ID: CCWS-65

Site Name: TULA PEAK ORDNANCE DISPOSAL SITE

Alias: SWMU 57/61

STATUS

Regulatory Driver: RCRA C

Risk Score: 0A

Phases	Start	End
RFA.....	198805.....	198808
CS.....	198805.....	198808
RFI/CMS.....	199408.....	199412
CMI(C).....	200710.....	201203
LTM.....	201210.....	201310

RIP Date: N/A

RC Date: 201203

Closeout Date: 201310

SITE DESCRIPTION

Site consists of former IRP Sites WSMR-20 (Bomblet Burial Sites) and 23 (Tula Peak Burial Pits) as well as IRP Site WSMR-24 (Tula Peak Burial Site Incinerator). The following description excerpts are taken from the February 2000 IRP Installation Action Plan (last plan all three sites appeared in IAP):

WSMR-20 consists of multiple bomblet burial sites within the Tula Peak Burial Pits (SWMUs 57 60). [Combined into SWMU 57 as part of December 2000 Final Settlement Agreement] The majority of sites are located near the Tula Peak Incinerator (SWMU 61). The dates of burial are unknown. In 1995, a CMI was completed at this site, consisting of a fence to restrict access.

In 1995, a CMI was completed at this site, consisting of a fence to restrict access. These areas are RCRA Subpart X units. Semiannual LTM is ongoing at this site.

[Subpart X never obtained; LTM ceased in 2001]

WSMR-23, the Tula Peak Burial Area, is located near the boundary between Holloman Air Force and White Sands Missile Range. The burial pits are approximately 0.4 km (0.25 mi) east of Holloman Air Force Base Road-9 and 130 meters (420 feet) south off an unmaintained dirt road. There are four burial pits within 23 meters (75 feet) of each other.

In February 1992, a Geonics EM-31 and a PPM-500 were used to measure conductivity and the total magnetic field at stations along pre-established grid lines, located in the vicinity of the Tula Peak Burial Site Incinerator (SWMU 61). The grids were emplaced over suspected unexploded ordnance (UXO) burial pits, and adjacent undisturbed native soil.

The geophysical survey map shows a series of possible UXO disposal trenches/pits (some are easily identified by visual observation as well). The trenches/pits vary in size and shape. The largest trench/pit area is approximately 15 meters by 46 meters (60 feet by 150 feet) and the smallest is approximately 7.6 meters by 12 meters (25 feet by 40 feet). UXO and surface debris were observed over the entire geophysical grid of 122 meters by 152 meters (400 feet by 500 feet).

In 1995, a fence was constructed around the site to restrict access. These areas are RCRA Subpart X units. Semiannual LTM is ongoing at this site.

[Subpart X never obtained; LTM ceased in 2001; NMED lists site as requiring a Closure Plan and Closure, 2006 Annual Fee Listing, Oct. 2, 2006 NMED letter]

WSMR-24 is an ordnance incinerator located approximately 3.2 km (2 mi) north of Tula Peak and east of the UXO burial areas (WSMR-23). The unit is currently inactive and the start date is unknown. The incinerator is cylindrical in shape, and is mounted on a steel frame. The cylindrical axis is parallel to the ground, and UXO was manually introduced into the incinerator via a door in one end of the unit. Cluster bomb units (CBU) and other small ordnance were placed in the incinerator, as part of an ordnance disposal procedure. Miscellaneous aircraft and missile parts are observable in the trenches. Partially melted cluster bomb and

Site ID: CCWS-65

Site Name: TULA PEAK ORDNANCE DISPOSAL SITE

Alias: SWMU 57/61

other small ordnance debris were left in the incinerator, and are scattered on the surface of the ground. In 1995, a fence was constructed around the site to restrict access.

Monitoring wells were installed by MEVATEC Corporation in 1997. Groundwater monitoring is conducted biannually.

At the conclusion of the Phase I RFI, USEPA Region VI prepared a Class III Permit Modification dated December 31, 1995. This site was removed from the HSWA Corrective Action Module of the RCRA Part B Permit. No further remedial action is required.

[NMED lists site as requiring a Closure Plan and Closure, 2006 Annual Fee Listing, Oct. 2, 2006 NMED letter]

The objective at STP is to achieve corrective action complete with controls and an approved Closure Plan. Site-specific performance objectives include collecting samples for a laboratory microcosm study to confirm cyanide degradation occurrence. Collect additional groundwater data from wells located within the impact zone over three consecutive events in conjunction with the approved LTM program. Analyze samples for additional parameters necessary to demonstrate the occurrence of in situ biodegradation. In addition, semiannual groundwater monitoring of 26 monitoring wells will be performed

The presumed final remedy is monitored natural attenuation. A pilot study is being conducted to determine potential site closure with a chemical oxidation remedy or a combined natural attenuation and bioremediation remedy.

Site ID: CCWS-71

Site Name: LIQ PROPELLANT EVAP/NEUT PITS

Alias: SWMU92B/94

STATUS

Regulatory Driver: RCRA C

Contaminants of Concern: Petroleum, Oil and Lubricants (POL), Semi-volatiles (SVOC), Volatiles (VOC)

Media of Concern: Soil

Phases	Start	End
RFA.....	198805.....	198808
CS.....	198805.....	199408
RFI/CMS.....	199408.....	199410
DES.....	199408.....	199410
CMI(C).....	200909.....	201206

RIP Date: N/A

RC Date: 201206

Closeout Date: 201206

SITE DESCRIPTION

The pits were constructed in 1958, and provided secondary containment for specific product storage areas, until they were taken out of service in approximately 1992. The unlined pits were approximately 20 ft in diameter and 10 ft deep, and served as secondary containment for adjacent storage areas that held Inhibited Red Fuming Nitric Acid (IRFNA), liquid propellants, monomethyl hydrazine, unsymmetrical dimethyl hydrazine (UDMH), and petroleum oils and lubricants (POL).

In 1956, a spill of 905 gallons of IRFNA was reported. In 1975, five gallons of UDMH was reported spilled. In 1987, 12 to 15 gallons of IRFNA were spilled while filling drums from a storage tank. The spill was flushed to the containment pit, diluted, and neutralized. The RFA suggested a RFI be performed on the site.

CCWS-71 was previously known as IRP Site WSMR-11. Originally, WSMR-11 consisted of ten earthen pits, located 2 mi east of the Main Post, at the Liquid Propellant Storage Area. RCRA Phase II RFI findings indicated high levels of TPH and low levels of solvents. A CMS was recommended for this site.

From June through September 1995, a remedial action was performed, when the existing storage shed drains were plugged, as well as the drain lines leading from the storage shed to the pits. The drain lines were sampled, characterized and properly disposed in the WSMR landfill and scrap yard.

Soil excavated, during removal of the drain lines, was sampled for TPH, VOCs, and SVOCs and characterized as non-hazardous; therefore, the excavated soil was used to backfill the trenches. The close out report, detailing the remedial action at the site, concluded that WSMR should petition for NFA at the site.

Following remedial action, USEPA, Region VI approved a Class III Permit Modification dated December 31, 1995 for SWMUs 92A, 93, and 95-100. These SWMUs were removed from the HSWA Corrective Action Module of the RCRA Part B Permit. SWMUs 92B and 94 remain on the HSWA Corrective Action Module, and has been moved to the CC Program. Furthermore, SWMU 92B and 94 are designated as RCRA Operating Units, requiring closure by the state regulatory agency.

Cleanup Strategy:

The PBA will be modified to add CCWS-71, with Response Complete by June 2011.

Site ID: CCWS-73

Site Name: ORO GRANDE RANGE CAMP SEWAGE LAGOON

Alias: SWMU 132

STATUS

Regulatory Driver: RCRA C

Contaminants of Concern: Pesticides

Media of Concern: Soil

Phases	Start	End
RFA.....	198805.....	198808
CS.....	199112.....	199208
RFI/CMS.....	199205.....	201209

RIP Date: N/A

RC Date: 201209

Closeout Date: 201209

SITE DESCRIPTION

The CCWS-73 (SWMU 132) environmental investigation was halted after the Phase I RFI (IT Corp., 1992) did not find metal contamination above screening levels, but did find pesticides (chlordane and Dichlorodiphenyltrichloroethane (DDT)). It was decided that this site was not the responsibility of WSMR, and was under investigation as part of the Fort Bliss IRP. The Administrative Authority (NMED) commented that the site should be removed from the HSWA Corrective Action list, because it was a duplicate of SWMU 25B on the Fort Bliss RCRA Part B HSWA Corrective Action list.

A Class III Permit Modification petition was submitted on January 24, 2000 to the NMED for removal of this site from the HSWA Corrective Action Module of the RCRA Part B Permit. The petition was rejected in a March 2002 NMED letter with no specific reason cited. The site (SWMU 132) has been listed on the draft WSMR RCRA Permit released on 11 June 2007. [15 June 2007: This action is consistent with a conversation between White Sands Environmental and Ft. Bliss Department of Public Works (DPW), that NMED had removed the SWMU from the Ft. Bliss permit and placed it on WSMR's permit, since it is geographically located on WSMR. Ft. Bliss DPW referenced a NMED letter discussing this topic; WSMR requested the letter from Ft. Bliss Restoration Program Manager (RPM). Ft. Bliss RPM will conduct a search for this letter. Additionally, see 10 March and 1 May 2003 NMED letter addressed to Ft. Bliss, 15 June 2007]

CCWS-73 (SWMU 132), formerly IRP Site WSMR-76, consists of a waste stabilization pond (surface impoundment), located 18 mi east of the Main Post on Range Road 2 near the Fort Bliss Orogrande Range Camp. Sewage generated at the Orogrande facility is piped to the lagoon for evaporation. There is no known information on the dates of operation of this unit. The impoundment is irregularly-shaped, with dimensions of approximately 200 yd x 100 yd, and is surrounded by a berm approximately 6 ft high and 18 ft wide at the base. This site is active, but operated by Ft. Bliss on WSMR property. The site was removed from the WSMR IRP during CY2000. The 2002 WSMR IAP states the site was removed since it was an "active unit regulated by the NM GWQB"; however, this is no longer the case, since WSMR has taken the position that the US Army has sovereign immunity from the CWA (and, thus, the NM GWQB groundwater discharge permit program).

Cleanup Strategy:

Complete RFI under PBA in 2010. CLIN 2003CF to achieve RFI has been exercised. Complete site closeout documentation in 2011.

Site ID: CCWS-75
Site Name: FORMER HELSTF LANDFILL
Alias: SWMU 38/39

STATUS

Regulatory Driver: RCRA C
 Contaminants of Concern: Volatiles (VOC)
 Media of Concern: Groundwater

Phases	Start	End
RFA.....	198805.....	198808
CS.....	198805.....	198808
RFI/CMS.....	199103.....	201209
CMI(C).....	201101.....	201209
LTM.....	201209.....	203809

RIP Date: N/A
RC Date: 201209
Closeout Date: 203810

SITE DESCRIPTION

CCWS-75 consists of two construction landfills located east of the HELSTF. Both landfills were in operation from the early 1960s to 1989, and described as two unlined trenches approximately 300x50x8 ft. They reportedly received non-hazardous construction waste including wood, piping material, paper, and insulation.

RFI work is being funded by DERA #85. CCWS-75 (SWMU 38/39), former IRP Site WSMR-52, consists of two construction landfills located east of the HELSTF. The site was removed from the IRP since the NMED lists both landfills as RCRA regulated units requiring closure. The units are listed by NMED as LDU-6 and 9.

The Phase I RFI included a geophysical survey, surface sediment sampling, and a SVS, and did not show significant levels of contaminants of concern.

The Phase II RFI included a SVS, soil sampling, and groundwater sampling. The SVS did not detect any constituents of concern. Chromium was detected, during the groundwater investigation, above the Federal MCL. Semi-annual groundwater monitoring has been underway since 1997. Five wells are monitored, and data indicates that the area remains impacted from previous releases.

The waste received at this site does not correspond to the types of potential contaminants detected. This may indicate vapor phase constituents, from another source, migrating to this area, or disposal of items not previously identified.

CCWS-75 is one of several sites being addressed under the Phase III HELSTF RFI, currently funded under WSMR-85, to investigate all HELSTF restoration sites holistically. A Conceptual Site Model was developed as part of WSMR-85 efforts.

A HELSTF Phase III RFI commenced in FY03 to address all HELSTF sites under one comprehensive study. The Phase III RFI includes a comprehensive data review, further data collection (groundwater sampling), and an ecological risk assessment. The work includes IRP sites WSMR-52, WSMR-53, WSMR-54, WSMR-55, WSMR-78 and WSMR-83, as well as various sites currently under the CC program.

The Phase III work plan was submitted to the NMED in September 2005. The NMED submitted comments on the work plan in July 2006. WSMR responded, in August 2006, with the commitment that the work plan would be revised in response to NMED comments. However, WSMR requested the fieldwork commence in September 2006, with the understanding that official work plan approval would follow. The NMED agreed. WSMR submitted the revised work plan in January 2007, and the NMED approved it in January 2007. The final Phase III report was submitted in February 2008. Future plans include: 1) Conduct CMS in FY08-09, and 2) Implement groundwater monitoring and appropriate corrective measures in FY10.

During an August 2006 teleconference between AEC, IMCOM-West and WSMR, it was decided that WSMR-52 was not eligible for IRP since it was designated as a RCRA operating unit by NMED. Therefore, if a remedial action is required, it will be addressed and funded under the CC-program. A remedial action is not anticipated for FY09; however, the ongoing semi-annual sampling will be funded under the PBA in the CC-program through FY10.

Site ID: CCWS-75
Site Name: FORMER HELSTF LANDFILL
Alias: SWMU 38/39

Cleanup Strategy:

The assumed remedial action is capping to include land use controls (LUC)(fencing, site restriction). Maintenance of LUCs will be funded by the CC program. Cap maintenance after the end of the PBA will be funded by the garrison. Supplemental Risk assessment completed and no risk was shown. Findings of assessment are included in the Revised Phase III RFI report is under way. Geotechnical sampling will be conducted. A LTM plan will be put into place in order to achieve RIP. The closure plan including the post-closure plan will be completed and submitted to NMED.

Site ID: CCWS-76

Site Name: FORMER MAIN POST LANDFILL #3 (SCRAPYARD)

Alias: SWMU 65

STATUS

Regulatory Driver: RCRA C

Contaminants of Concern: Metals, Munitions and explosives of concern (MEC)

Media of Concern: Soil

Phases	Start	End
RFA.....	198805.....	198808
CS.....	198808.....	198808
RFI/CMS.....	199103.....	201309
DES.....	200903.....	201309
CMI(C).....	201210.....	201309
LTM.....	201310.....	204509

RIP Date: N/A

RC Date: 201309

Closeout Date: 204510

SITE DESCRIPTION

CCWS-76, located in the southeast portion of Main Post, reportedly operated from 1965 to 1982. The landfill's northern portion (approx. five acres), known as the scrapyard, was fenced and used as the WSMR scrap metal accumulation point between 1982 and 1998. During spring 1998, the scrapyard was identified as possibly containing UXO. In 1999, the area's surface was cleared of UXO; however, subsurface UXO concerns still exist. No historical information is available on the design, construction, or operating procedures of the landfill, and no documentation of a release from the unit was found. The NMED has designated this site a RCRA operating unit requiring closure, and it is listed as RCRA Unit LDU-10. Since the unit is a listed RCRA unit requiring closure, it is ineligible for the IRP. During an August 2006 teleconference between USAEC, IMCOM-West and WSMR, it was determined that future requirements will be funded by the CC program beginning in FY08.

CCWS-76 (SWMU 65), former IRP Site WSMR-61, is a former main post landfill, covering between 49 and 63 acres depending on the source. Monitoring wells were installed during the Appendix I Sites' Phase II RFI. Conclusions of the Phase II recommended that a request for a Class III Permit Modification be submitted to terminate the RCRA Facility Investigation/Corrective Measures Study; however, semiannual monitoring of the SWMU was recommended because of its proximity to the aquifer utilized by WSMR for potable water. WSMR conducted groundwater monitoring activities from 1996 until 2001, and ceased after submitting the RFI report. A five-year review determined that no human or environmental risk exists at the site.

In 2003, WSMR received state comments on the RFI report requesting supplemental information, including background soil metals, TPH levels in groundwater and a reevaluation of the groundwater monitoring system. NMED's concerns included alleged deficiencies concerning soil and groundwater background concentrations, TPH levels detected in groundwater, and detections of VOCs, SVOCs, TPH and metals in soil. WSMR response includes a background soil study, groundwater sampling and evaluation of the groundwater monitoring system. The state regulators have requested that additional downgradient monitoring wells be installed. However, an evaluation of the existing groundwater monitoring system will determine the need and placement of additional wells. WSMR submitted a Phase III RFI Work Plan to the NMED in July 2006. The NMED responded with a NOD in January 2007 (nine comments). Major comments included a requirement for additional soil borings around the scrapyard (north central portion of WSMR-61), and upgradient to establish a site-specific metals background levels. WSMR submitted a revised work plan in April 2007.

Cleanup Strategy:

WSMR future plans currently include a 55-acre soil cover in FY15, cap maintenance, LUCs for an indefinite amount of time, and groundwater monitoring for 25 years. Cap maintenance and groundwater monitoring begin in FY16. This site is part of the PBA. WSMR also plans to perform an UXO clearance to remove UXO found during a site visit.

Site ID: CCWS-78
Site Name: AAFES Gas Station Fuel Release
Alias: None

STATUS

Regulatory Driver: RCRA C
 Contaminants of Concern: Petroleum, Oil and Lubricants (POL)
 Media of Concern: Groundwater

Phases	Start	End
RFA.....	200005.....	200005
CS.....	200005.....	200005
RFI/CMS.....	200610.....	201209
LTM.....	201210.....	201310

RIP Date: N/A
RC Date: 201209
Closeout Date: 201310

SITE DESCRIPTION

CCWS-78 is located at the AAFES Gas Station on WSMR.

CCWS-78 is located at the AAFES Gas Station on WSMR. A release, totaling to approximately 130 gallons of gasoline, was discovered in May 2000. At the time, vertical migration was determined to be approximately 15 feet with minimal horizontal migration. An Emergency Response and Spill Report was prepared and submitted to the then Underground Storage Tank Bureau (now the PSTB) of the NMED. Depth to groundwater was determined to be approximately 395 ft and of good water quality. WSMR did not receive a response from the NMED until April 2006, at which point the PSTB requested additional investigation and remediation, if necessary. The HWB, in accordance with NMED policy, is claiming regulatory oversight.

The RFI report was completed and submitted to the State in FY08. This site will be added to the PBA to complete the NFA petition.

Cleanup Strategy:
 Site closeout documentation to be prepared. Pending NMED review and approval of cleanup assessment.

Site Closeout (No Further Action) Summary

Site ID	Site Name	NFA Date	Documentation
CCWS-14	HWSF EVAP TANK, CLOSE PERMITTED FACILITY	200403	ARL Final Closeout Report
CCWS-23	MISSILE GRAVEYARD SITE	200201	

Past Phase Completion Milestones

1988

RFA (CCWS-01 - WASHPAD, DRAIN, OWS @ BLDG 1753, CCWS-14 - HWSF EVAP TANK, CLOSE PERMITTED FACILITY, CCWS-62 - Former STP Percolation Ditches, CCWS-65 - TULA PEAK ORDNANCE DISPOSAL SITE, CCWS-71 - LIQ PROPELLANT EVAP/NEUT PITS , CCWS-73 - ORO GRANDE RANGE CAMP SEWAGE LAGOON, CCWS-75 - FORMER HELSTF LANDFILL, CCWS-76 - FORMER MAIN POST LANDFILL #3 (SCRAPYARD))

CS (CCWS-14 - HWSF EVAP TANK, CLOSE PERMITTED FACILITY, CCWS-62 - Former STP Percolation Ditches, CCWS-65 - TULA PEAK ORDNANCE DISPOSAL SITE, CCWS-75 - FORMER HELSTF LANDFILL, CCWS-76 - FORMER MAIN POST LANDFILL #3 (SCRAPYARD))

1992

CS (CCWS-73 - ORO GRANDE RANGE CAMP SEWAGE LAGOON)

1993

CS (CCWS-01 - WASHPAD, DRAIN, OWS @ BLDG 1753)

1994

CS (CCWS-71 - LIQ PROPELLANT EVAP/NEUT PITS)

1995

RFA (CCWS-02 - HELSTF LSTC WASTEWATER DISCHARGE, CCWS-03 - HELSTF STP DRY POND)

RFI/CMS (CCWS-65 - TULA PEAK ORDNANCE DISPOSAL SITE, CCWS-71 - LIQ PROPELLANT EVAP/NEUT PITS)

DES (CCWS-71 - LIQ PROPELLANT EVAP/NEUT PITS)

1996

CS (CCWS-02 - HELSTF LSTC WASTEWATER DISCHARGE, CCWS-03 - HELSTF STP DRY POND)

2000

RFA (CCWS-78 - AAFES Gas Station Fuel Release)

CS (CCWS-78 - AAFES Gas Station Fuel Release)

2001

RFA (CCWS-11 - OB/OD at HTA Site)

2002

RFA (CCWS-23 - MISSILE GRAVEYARD SITE)

RFI/CMS (CCWS-23 - MISSILE GRAVEYARD SITE)

2003

RFA (CCWS-18 - DENVER Spill SITE, CCWS-20 - MALPAIS SPILL SITE)

2004

CMI(C) (CCWS-20 - MALPAIS SPILL SITE)

RFI/CMS (CCWS-14 - HWSF EVAP TANK, CLOSE PERMITTED FACILITY, CCWS-18 - DENVER Spill SITE, CCWS-20 - MALPAIS SPILL SITE, CCWS-27 - HARDIN Ranch AST Site (SWMUs 199/200), CCWS-29 - OSCURA COMMO AST Site, CCWS-30 - HARRIET AST SITE , CCWS-31 - SE-70 AST SITE , CCWS-32 - ATOM AST SITE, CCWS-34 - SE-50 AST SITE, CCWS-35 - EC-50 AST SITE , CCWS-37 - COWAN AST SITE, CCWS-38 - GRAN JEAN AST SITE, CCWS-39 - NE-50 AST SITE)

RFA (CCWS-27 - HARDIN Ranch AST Site (SWMUs 199/200), CCWS-29 - OSCURA COMMO AST Site, CCWS-30 - HARRIET AST SITE , CCWS-31 - SE-70 AST SITE , CCWS-32 - ATOM AST SITE, CCWS-34 - SE-50 AST SITE, CCWS-35 - EC-50 AST SITE , CCWS-36 - MINNOW AST SITE, CCWS-37 - COWAN AST SITE, CCWS-38 - GRAN JEAN AST SITE, CCWS-39 - NE-50 AST SITE, CCWS-42 - RAM AST SITE, CCWS-43 - Dead Horse AST Site, CCWS-53 - NW-70 AST SITE)

2010

RFI/CMS (CCWS-62 - Former STP Percolation Ditches)

Projected Phase Completion Milestones

See attached schedule

WHITE SANDS MISSILE RANGE CC Schedule

= phase underway

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-01	WASHPAD, DRAIN, OWS @ BLDG 1753	RFI/CMS						
CCWS-02	HELSTF LSTC WASTEWATER DISCHARGE	RFI/CMS						
		LTM						
CCWS-03	HELSTF STP DRY POND	LTM						
CCWS-11	OB/OD at HTA Site	RFI/CMS						
		CMI(C)						
		CMI(O)						
		LTM						
CCWS-18	DENVER Spill SITE	CMI(C)						
CCWS-27	HARDIN Ranch AST Site (SWMUs 199/200)	CMI(C)						
CCWS-29	OSCURA COMMO AST Site	CMI(C)						
CCWS-30	HARRIET AST SITE	CMI(C)						
CCWS-31	SE-70 AST SITE	CMI(C)						
CCWS-32	ATOM AST SITE	CMI(C)						
CCWS-34	SE-50 AST SITE	CMI(C)						
CCWS-35	EC-50 AST SITE	CMI(C)						
CCWS-36	MINNOW AST SITE	RFI/CMS						
CCWS-37	COWAN AST SITE	CMI(C)						
CCWS-38	GRAN JEAN AST SITE	CMI(C)						
CCWS-39	NE-50 AST SITE	CMI(C)						
CCWS-42	RAM AST SITE	RFI/CMS						
CCWS-43	Dead Horse AST Site	RFI/CMS						
CCWS-53	NW-70 AST SITE	RFI/CMS						

WHITE SANDS MISSILE RANGE CC Schedule

SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-62	Former STP Percolation Ditches	CMI(C)						
		CMI(O)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-65	TULA PEAK ORDNANCE DISPOSAL SITE	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-75	FORMER HELSTF LANDFILL	LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-76	FORMER MAIN POST LANDFILL #3 (SCRAPYARD)	RFI/CMS						
		DES						
		CMI(C)						
		LTM						
SITE ID	SITE NAME	PHASE	FY13	FY14	FY15	FY16	FY17	FY18+
CCWS-78	AAFES Gas Station Fuel Release	LTM						

Community Involvement

Community involvement interest will be solicited in FY09 as part of the PBA.

Development of a community involvement plan is scheduled for FY09.

