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FACT SHEET

Rocky Mountain Arsenal Proposed NPL Deletions for the

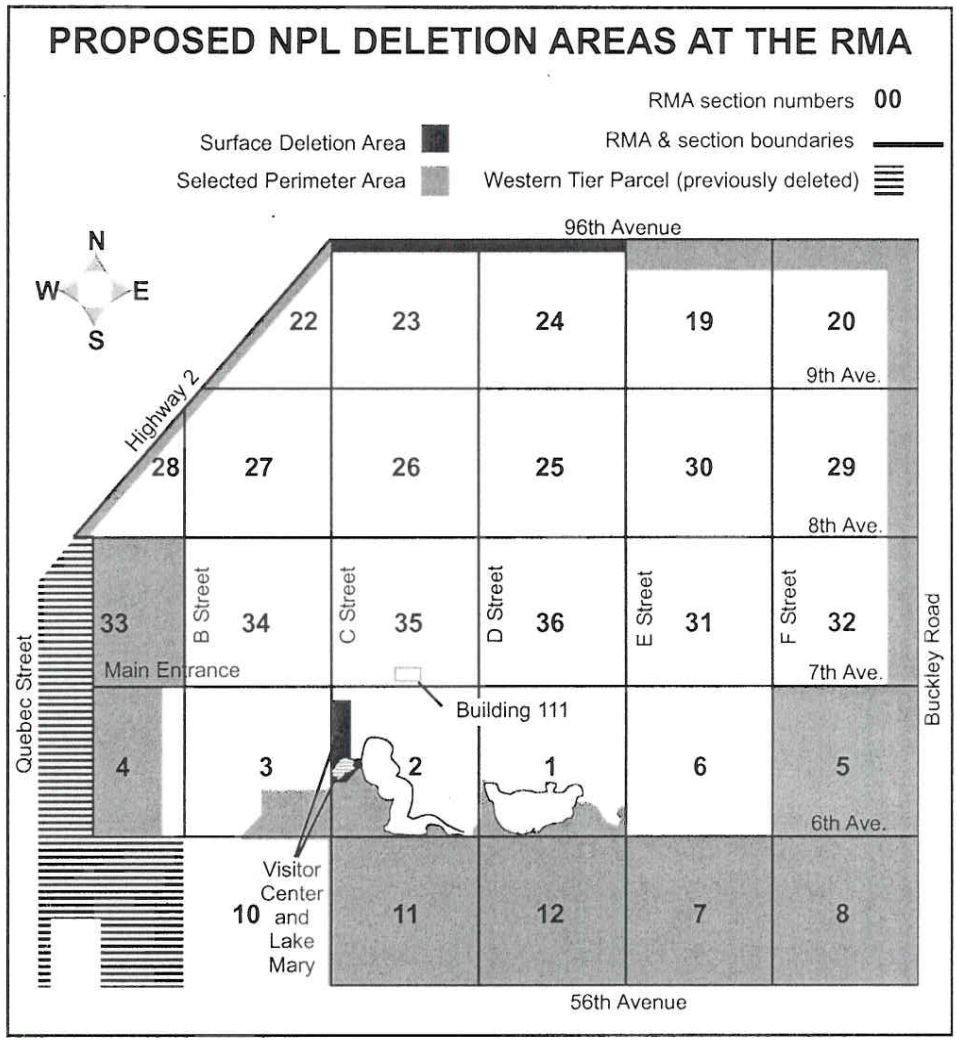
SELECTED PERIMETER AREA & SURFACE DELETION AREA

July 2003

INTRODUCTION

The Environmental Protection Agency (EPA) Region 8 is proposing to delete portions of the Rocky Mountain Arsenal (RMA) site known as the Selected Perimeter Area (SPA) and the Surface Deletion Area (SDA) from the National Priorities List (NPL). The Rocky Mountain Arsenal is located in Adams County, Colorado. The NPL is a national list of environmental sites prioritized for cleanup by the EPA based on potential risk to human health and the environment.

In accordance with the criteria established in the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), sites may be deleted from the NPL where no further response is necessary to protect public health or the environment. As described in 40 CFR 300.425(e)(3), portions of a site deleted from the NPL remain eligible for further remedial actions if warranted by future conditions.



PROPOSED AREAS FOR NPL DELETION

The SPA, one of the areas proposed for NPL deletion, is approximately 4,930 acres on the perimeter of the RMA. The proposed deletion of the SPA includes the soil, structures, and groundwater media of portions of Sections 1, 2, 3, 4, 10, 19, 20, 22, 27, 28, 29, 32, and 33, and all of Sections 5, 7, 8, 11, and 12 (see map).

The other area is the SDA, which is 123 acres directly adjacent to the SPA. The SDA consists of 61 acres that comprise a 250-foot-wide strip along the RMA boundary in Sections 23 and 24, and 62 acres adjacent to Lake Ladora and including Lake Mary in Section 2. For the entire SDA area, the groundwater contaminant concentrations remain above remedial action levels. Therefore, only the soil and structures are included as part of the SDA. The groundwater below the SDA will remain as part of the RMA site.

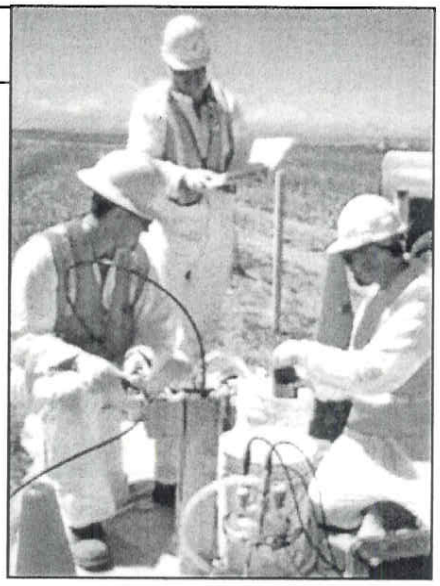
Included in the SPA and SDA proposed deletions is a 100-foot-wide strip immediately inside the RMA boundary along 96th and 56th Avenues, and Highway 2. These were identified in the Rocky Mountain Arsenal National Wildlife Refuge Act of 1992 for conveyance to state or local government for the improvement of public roads.

Upon deletion, the SPA and SDA areas, minus the 100-foot-wide strips, will be transferred to the U.S. Fish and Wildlife Service (USFWS) per the 1992 Wildlife Refuge Act. The SPA and SDA areas are shown in the map above.

REMEDIAL ACTIONS PERFORMED IN THE SPA AND SDA

EPA, with the concurrence of the Colorado Department of Public Health and Environment, has approved the completion of all remedial actions in accordance with the ROD requirements for protection of human health and the environment for the SPA and SDA areas. These actions have resulted in the removal of hazardous substances to a level that allows future use as a national wildlife refuge. In the SPA, soil, structures, and groundwater media are included in the proposed deletion. Groundwater below the SDA remains contaminated above action levels; consequently only surface soils, including Lake Mary, and structures are proposed for deletion.

GROUNDWATER REMEDIATION



SPA Groundwater

Comprehensive sampling has demonstrated that no groundwater contamination flows below the SPA in Sections 1, 2, 3, 5, 7, 8, 10, 11, 12, 19, 20, 29, and 32, and no groundwater remedial actions were required. In SPA Sections 22, 27, and 28, extraction and recharge wells and construction of groundwater treatment systems have reduced concentrations to below health-risk levels.

A portion of the Western Plume Group that flows below Sections 4 and 33 is not attributable to the RMA site. The Klein Water Treatment Facility, constructed in 1989, treats this groundwater flowing onto RMA. The Irondale Containment System has reduced concentrations to below health-risk levels for the Rail Yard and Motor Pool portions of the Western Plume Group that previously flowed below Sections 4 and 33.

SDA Groundwater

The former South Plants Manufacturing Complex was located north and east of the SDA portion of Section 2. A small plume of groundwater contamination originating from the South Plants facility extends beneath portions of the SDA in Section 2. This groundwater plume is extracted and treated by the Northwest Boundary Containment System that was installed to collect and treat contaminated groundwater and prevent further migration off the RMA site.

Current groundwater sampling in this area shows contaminant concentrations above Colorado Basic Standards for groundwater; therefore, only surface soils are included for deletion in the SDA.

Lake Mary is located in the Surface Deletion Area of Section 2. Sampling at Lake Mary shows that the lake itself is not contaminated. However, the deeper portions of groundwater below the lake contain dieldrin. The shallower portions are not contaminated. Groundwater monitoring shows the dieldrin plume does not flow into Lake Mary.

Contamination is also present in the groundwater located beneath the SDA in Sections 23 and 24. This groundwater plume is extracted and treated by the North Boundary Containment System that was installed to collect and treat contaminated groundwater and prevent further migration off the RMA site.

Current groundwater sampling in this area shows contaminant concentrations above Colorado Basic Standards for groundwater; therefore, only surface soils and structures are included for deletion in SDA.

The U.S. Army is responsible for ongoing monitoring and maintenance associated with groundwater wells located on land to be transferred to the USFWS within the SPA and SDA. Four wells located within the 100-foot strips of land to be transferred to local government will be closed. Replacement wells will be located inside the new RMA boundary for long-term monitoring of the groundwater plume.

The U.S. Army will retain access to and control over all monitoring wells that are part of the long-term groundwater network at the RMA. None of the pump and treat systems are included in the SDA or SPA and will remain part of the RMA site and remedy.

SOIL REMEDIATION

SPA Remedial Action for Soil

No soil contamination was identified during sampling or review of historical records in SPA Sections 2, 3, 7, 8, 10, 11, 19, 20, 22, 27, 28, 29, 32, and 33. This includes Contaminants of Concern at or above risk-based action levels, and chemical agent or unexploded ordnance hazards.

All remedial actions for soil contamination specific to the SPA in Sections 1, 4, 5, and 12, have been completed as outlined in the ROD. These actions included soil excavation with no requirements for long-term operation or maintenance.

No chemical agent or unexploded ordnance hazards were identified during this remedial action or the site-wide munitions evaluation, and no long-term operation or maintenance action is required.

Field activities in these Sections were completed and final inspections were conducted to ensure all remediation had been completed.

SDA Remedial Action for Soil

In the SDA, the only soil site requiring remedial action was a portion of the Sand Creek Lateral in Section 2. Contaminated soils were excavated from the Sand Creek Lateral and removed to the on-site Hazardous Waste Landfill in Section 25. Additionally, biota-exceedance soils were excavated and placed in Basin A in Section 36.

No chemical agent or unexploded ordnance hazards were identified during this remedial action or the site-wide munitions evaluation, and no long-term operation or maintenance action is required.

STRUCTURES REMEDIATION

SPA Remedial Action for Structures

Seventeen structures were identified within the SPA. Five of these structures are considered to have historical significance or beneficial future use and were not demolished.

The following applicable actions have been completed for the remaining 12 structures:

- demolition, removal and disposal of structures and foundations,
- removal and disposal or recycling of underground storage tanks,
- removal and disposal of substations,
- recycling of structural steel and other metal components,
- Contingent Soil Volume (CSV) sampling, excavation and disposal,
- removal and disposal of several debris piles,
- contour grading and surveying, and
- soil ripping and revegetation.

SDA Remedial Action for Structures

Three structures were identified in the SDA. Of these, two buildings have been demolished and removed, and one other building, the current Visitor Center, was classified for future use.

LONG-TERM MANAGEMENT ACTIVITIES

Biota Monitoring Requirements

Additional sampling required by the ROD resulted in cleanup boundaries being refined to address potential risk to some small bird species. These additional areas in both the SPA and SDA areas have been remediated.

Aquatic receptors have also been evaluated, including biota in Lake Mary, and no unacceptable risks were identified.

Long-term Management Activities

Long-term terrestrial and aquatic biomonitoring will be performed by the USFWS for their Biomonitoring Program. The U.S. Army also will retain access to and control of all monitoring wells within the SPA and SDA. These activities will be conducted even after the RMA site is deleted from the NPL.

The following is a list of management activities:

- groundwater and surface water monitoring
- biota monitoring,
- prohibitions on use of surface and groundwater as a source of potable water; no residential, agricultural, or industrial use; and no consumption of fish and game from any portion of the RMA, including deleted areas such as the SPA and SDA.

Five-Year Reviews

Five-Year Reviews will include the SPA and SDA areas. The reviews will be conducted every five years to ensure the remedy for RMA remains protective of human health and the environment. Other elements of the review include an evaluation of whether the remedy is functioning as designed and necessary operations and maintenance activities are being performed.

According to Audubon Colorado, more than 200 species of birds have been recorded at the Arsenal, including an annual average of 36 nests of burrowing owls. As the Front Range continues to be developed, this site will become even more important to breeding and migratory birds.

BASIS FOR THE PROPOSED NPL DELETION

EPA must base its proposal to delete the SPA and the SDA of the RMA Site on the determination by EPA, with Colorado Department of Public Health and Environment concurrence, that all appropriate actions under the Comprehensive Environmental Response, Compensation and Liability Act have been implemented.

No hazardous substances remain at the SPA and SDA locations above health-based levels with respect to anticipated uses of and access to the RMA site. These uses are further limited under the Federal Facility Agreement, the Rocky Mountain Arsenal National Wildlife Refuge Act, and the Records of Decision.

These partial deletions pertain only to the SPA and the SDA of the On-Post OU of the RMA site. They do not include the rest of the On-Post OU or the Off-Post OU, which will remain on the NPL.

FUTURE RESPONSIBILITY

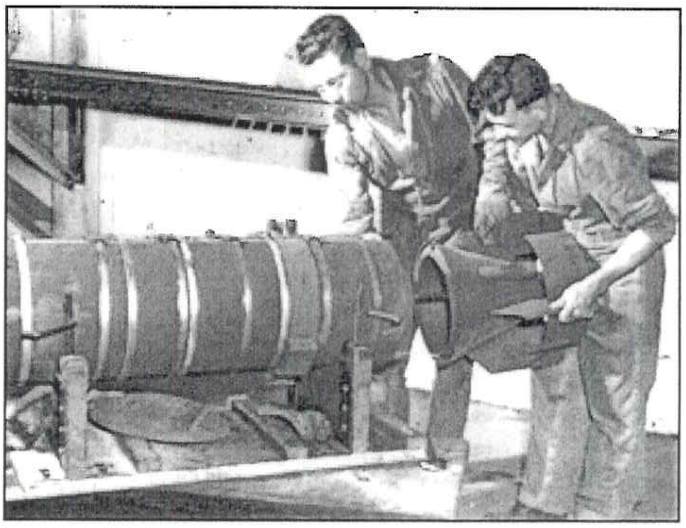
A partial deletion of a site from the NPL does not affect or impede EPA's ability to conduct response activities for portions not deleted from the NPL. Additionally, partial deletion does not affect the liability of responsible parties or impede Agency efforts to recover costs associated with response efforts. The U.S. Army and Shell Oil Company remain responsible for all future remedial actions required at the area deleted if future site conditions warrant such actions.

RMA SITE HISTORY

The RMA was established in 1942 by the U.S. Army to manufacture chemical warfare agents and incendiary munitions for use in World War II. Following the war and through the early 1980s, the facilities continued to be used by the U.S. Army. Beginning in 1946, some facilities were leased to private companies to manufacture industrial and agricultural chemicals. Shell Oil Company, the principal lessee, manufactured pesticides at the site from 1952 to 1982. Common industrial and waste disposal practices resulted in contamination of structures, soil, surface water, and groundwater. After 1982, the only activities at the Arsenal involved environmental cleanup.

In 1987, the RMA was listed on the NPL. A remedial investigation, endangerment assessment, and feasibility study, completed in January 1995, provided information on the type and extent of contamination, potential human and ecological risks, and remedial actions for cleanup.

In June 1996, the U.S. Army, EPA, and the State of Colorado signed the ROD for the On-Post Operable Unit (OU), one of two operable units at RMA. The ROD specifies cleanup actions to be implemented for soil, structures, and groundwater for the On-Post OU of the RMA, which addresses contamination within the fenced



27 square miles of the RMA. The Off-Post OU addresses contamination north and northwest of RMA.

In January 2003, the Western Tier Parcel, a 1.5-square-mile area of the On-Post OU, was determined to meet cleanup requirements, and was deleted from the RMA NPL site. The SPA and SDA together comprise approximately 7.9 square miles. Implementation of the remedy for the remaining 17.6 square miles is ongoing and is scheduled for completion in 2011.

ACRONYMS AND ABBREVIATIONS

CDPHE	Colorado Department of Public Health and Environment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
CSV	Contingent Soil Volume
EPA	Environmental Protection Agency
FFA	Federal Facility Agreement
HHE	Human Health Exceedence
HWL	Hazardous Waste Landfill
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
OU	Operable Unit
RI	Remedial Investigation
RI/EA/FS	Remedial Investigation, Endangerment Assessment, and Feasibility Study
RMA	Rocky Mountain Arsenal
RMA/NPL Site	Rocky Mountain Arsenal/National Priorities List Site
ROD	Record of Decision
SDA	Surface Deletion Area
SPA	Selected Perimeter Area
USFWS	U.S. Fish and Wildlife Service
UXO	Unexploded Ordnance

PUBLIC MEETING

Interested residents are invited to attend a public meeting and provide comments on the RMA SPA and SDA proposed deletions 6-9 p.m., Tuesday, July 29, 2003, at the DoubleTree Hotel, 3203 Quebec Street, Denver.

For further information or to provide comments, please contact:

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REVIEW THE DOCUMENTS

The process for SPA and SDA NPL deletion includes a **public meeting at the DoubleTree Hotel, 3203 Quebec St., 6-9 p.m., July 29, and a 30-day public comment period beginning July 21 through August 19, 2003.** Upon completion of the public comment period, EPA, in consultation with the State of Colorado and the U.S. Army, will evaluate each comment and any significant new data received and prepare a responsiveness summary. A final decision regarding partial deletion will conclude with publication of a notice of the partial deletion in the *Federal Register* and a local newspaper.

The *Federal Register* notice and related documents are available for viewing at EPA's Region 8 Superfund Records Center in Denver, Colorado, by appointment, from 8:00 a.m. to 4:00 p.m., Monday through Friday, excluding holidays. Call (303) 312-6473. Additionally, documents are available for viewing at the Joint Administrative Records Document Facility, Rocky Mountain Arsenal, Building 129, Room 2024, Commerce City, Colorado 80022-1748, (303) 289-0362, from noon to 4:00 p.m., Monday through Friday, excluding holidays, or by appointment.