

# CHAPTER 4

## ► INSTALLATION-WIDE STRATEGY FOR ENVIRONMENTAL RESTORATION ◀

This chapter describes the installation-wide environmental restoration and compliance strategy for UMDA.

Prior to the official announcement of realignment in December 1988, IRP projects were underway to identify, characterize, and remediate environmental contamination at UMDA. The restoration strategy implemented during this period focused on protection of human health and the environment and the ongoing and continued use of the installation by the U.S. Army. As a result of the realignment announcement, the installation's strategy shifted from supporting the existing U.S. Army mission to responding to realignment considerations and eventual disposal and reuse of the property. In March 1989, USAEC was assigned the responsibility for managing the BRAC IRP. As a result of realignment, additional environmental investigations beyond those being conducted under the active IRP were mandated. The UMDA environmental restoration strategy was modified to address these new issues of realignment and future closure. An FFA under CERCLA Section 120, was signed October 1989. The FFA is a binding agreement between the U.S. Army, USEPA Region X, and the ODEQ. The agreement outlines the procedural requirements and schedules for the investigation and restoration of the UMDA in compliance with CERCLA and the NCP. Under the direction of USAEC, a strategy was developed which incorporated BRAC and FFA requirements and standards and provided for comprehensive and expeditious investigation and restoration of the UMDA. This strategy has included the completion of an RI/FS, Human Health Baseline Risk Assessment and a SRI.

UMDA has proceeded with the selection and documentation of remedial actions through the ROD and DD process. Eight RODs and a DD have been signed for the nine OUs at UMDA. A public comment period was held for each ROD and the DD to solicit continued community input in the remedy selection process. Restoration has been completed at OU 1 and remedial activities have started at another OU. RD is underway for the four other OUs at the installation.

At the inception of the BCT, the past strategy was reviewed to verify that the appropriate regulatory programs applicable to the areas of contamination were considered prior to the fast track process. Current strategies for remedial activities are being developed and managed by the BCT. The UMDA BEC will continue to hold Project Team meetings to discuss progress of the risk assessments to ensure appropriateness of remedies with particular consideration of the criteria identified above and community reuse goals for the property.

The following sections define various elements of the UMDA environmental restoration strategy including the designation of zones and OUs, sequencing of OU restoration actions, early action

programs, the remedy selection approach process and integrated environmental compliance planning. Schedules for the implementation of this strategy are described in Chapter 5.

#### **4.1 OU Designation and Strategy**

The designation of zones and OUs is part of the environmental restoration process. Zones define an installation's investigative strategy. They are tools for organizing and defining areas of investigation. OUs define an installation's remedial strategy. They are derived from an evaluation of hydrogeologic and chemical analytical data for various sites or zones. OU types may be based on geographic area, common media (soil, groundwater, surface water, other), common treatment technology, priorities, or schedules. OUs establish a logical sequence of discussions that address contamination releases in a comprehensive fashion.

The strategies for designating zones and OUs at UMDA are described in the following subsections.

##### **4.1.1 Zone Designations**

Zone designations were not utilized during the RI. The Depot was divided into eight areas prior to the RI, but these areas were not utilized in grouping sites. Sites were grouped into OUs during the risk assessment process.

##### **4.1.2 OU Designations**

Ten OUs were originally designated during the RI. These OUs were originally groups of sites that were geographically proximate and, therefore shared common human exposure pathways, environmental impacts, and/or similar remedial measures. Following the RI, the OUs were reassessed and were regrouped for the risk assessment process into nine OUs based on historical activities at the sites. All OUs with the exception of OU 4 (ADA Area), OU 5 (Miscellaneous Sites), and OU 9 (SRI Study Sites and PCB Transformer Locations) are site-specific. The following is a summary of the nine OUs:

**OU 1 - Deactivation Furnace (Site 1) Soils OU.** This furnace was used to incinerate unserviceable or obsolete munitions up to 50 caliber (e.g., cartridges, mines, boosters, primes, fuses, grenades, charges, and detonators). The furnace operated from the early 1960s to November 1988. Windblown deposition of furnace stack particulates and occasional spilling and/or pumping of residual furnace ash and munitions incineration debris have contaminated soils surrounding the furnace and downwind from the furnace site. The contaminants are heavy metals. Contamination is highest in the upper few inches of soil and progressively decreases with depth at rates varying according to the specific metal. Lead and cadmium were found to be the most widespread contaminant in the soils. This OU was based on a single site and contaminant source.

**OU 2 - Explosives Washout Lagoon Soils OU.** The Explosives Washout Plant processed munitions to remove and recover explosives using a pressurized hot water system. The washwater was discharged via an open metal trough to the two infiltration lagoons located

northwest of the plant. The lagoons were constructed in the 1950s and used until 1965, when plant operations and all discharges to the lagoons ended. A total of 85,000,000 gallons of effluent is estimated to have been discharged to the lagoons. Investigation of the lagoons resulted in the identification of explosives in the lagoon soils and what appeared to be a 45-acre plume of Royal Detonation Explosive (RDX) in the shallow groundwater beneath the lagoons. On July 22, 1987, the Explosives Washout Lagoons were formally listed on the NPL. The OU was based on contaminant source and contaminant media.

**OU 3 - Explosives Washout Lagoons Groundwater OU.** The washwater from the Explosives Washout Lagoons seeped from the unlined lagoons and contaminated the shallow groundwater beneath the lagoons. The type of contamination is explosive compounds, primarily TNT and RDX. The plume is approximately 45 acres. The OU was based on contaminant source and contaminant media.

**OU 4 - ADA Area OU.** Since 1945, the ADA Area has been utilized by the U.S. Army to dispose of ordnance and other solid wastes by burning, detonation, dumping, or burial. Activities were conducted at a number of locations throughout the ADA Area. Twenty sites have been identified as actual or possible locations of U.S. Army activities at the ADA Area. In addition to possible chemical contamination at these 20 sites, ADA activities also resulted in the presence of unknown quantities of UXO at unknown locations across the entire ADA Area. No sites within the ADA Area are currently being utilized. The sites within OU 4 are shown on Table 3-1. This OU is based on geographic location and common contaminant media.

**OU 5 - Miscellaneous Sites OU.** The Miscellaneous Sites OU consists of 32 sites located throughout UMDA. Most of these sites are clustered in the southwestern or southern portions of the Depot. The Miscellaneous Sites have served a wide variety of specific functions, including sewage treatment and storm water discharges, munitions disassembly, Defense Reutilization Marketing (DRMO) Area (recycled materials stockpile), ground storage of raw materials, metal ingot storage, pesticide storage, paint spray and removal area, paint sludge discharge areas, boiler/laundry wastewater discharge areas, disposal pits, and hazardous waste storage. This OU is based on common contaminant media and remedial strategy. Only two sites, 22 and 36, require remedial action in this OU. The 32 sites in this OU are shown on Table 3-1.

**OU 6 - Explosives Washout Plant OU.** During RI activities at UMDA, wipe samples were taken from the inside surfaces of the washout plant building (Building 489). Four explosives were found to be present. An additional area where larger concentrations of the explosives may possibly be found is inside the process equipment and piping. The process equipment was steam cleaned following the close of the washout operations, but some explosives (possibly at action levels), may remain in the joints, corners, etc. of this equipment. No investigation has been performed to determine the extent of contamination within the equipment. The assumption has been made that the equipment is contaminated internally. This OU is based on explosives contamination within a single building.

**OU 7 - Active Landfill OU.** The Active Landfill OU is a five-acre disposal area located in the northeastern portion of UMDA. The landfill is a former gravel pit and is approximately fifty

feet in depth. The landfill has been operated since 1968 and the ODEQ issued a landfill permit to the U.S. Army in 1979. Municipal waste from UMDA was disposed at the site and covered weekly. Currently, the landfill accepts only solidified soils from remediation activities in the Depot. All municipal waste is transported off-site and disposed of in a local permitted landfill. The landfill is scheduled to close in 1997. This OU is based on its distinct geographic location.

**OU 8 - Inactive Landfills OU.** The Inactive Landfills OU is composed of six former disposal areas. The six inactive landfills include: the Northern Inactive Landfill, the Northern Inactive Landfill Extension, the Southern Inactive Landfill, the Southern Inactive Landfill Extension, the Western Inactive Drum Site, and the Southeastern Inactive Landfill. Materials disposed of in these areas were primarily non-hazardous and included demolition debris, garbage, asbestos from brake linings, explosives sludges, and possibly ash from the Deactivation Furnace. These landfills were operated from the early 1940s into the mid-1980s. Much of the activity ceased in the mid-1960s when the Active Landfill opened. This OU is based on historical activities at six geographically close inactive landfills.

**OU 9 - SRI Study Sites and PCB Transformer Locations OUs.** The SRI study sites include new portions of Site 12 (Inactive Landfills) and 13 additional study areas, as well as 79 PCB transformer locations. These sites are within OU 9 and were investigated by the U.S. Army. A DD between UMDA, the U.S. Army, and ODEQ was signed in September 1994. This OU is based on a group of sites that were investigated in the SRI and have a common contaminant media.

The relationship between IRP sites, OUs, and reuse parcels is depicted in Table 4-1. Installation OUs are shown in Figure 3-1.

#### *4.1.3 Sequence of OUs*

A comprehensive environmental restoration strategy has been developed by the UMDA BCT. This strategy consolidates sites identified in the ENPA into OUs for investigation in the RI/FS, and then defines a logical sequence of OUs addressing all past releases associated with these sites in installation RODs and DDs. The following sections outline this sequencing strategy.

**4.1.3.1 Sequencing Strategy.** The UMDA BCT has developed an approach to identify the logical sequence of OU site investigation and restoration activities. In order to obtain an integrated and comprehensive evaluation at the installation, and to meet FFA requirements, an installation-wide RI was completed. In order to address data gaps for several sites, the RI was followed up with an SRI. Data from the RI was used to prioritize restoration utilizing at the UMDA. The sequencing of OUs was determined based on the following criteria.

- ▶ Prioritization of cleanup necessary for realigned mission operations.
- ▶ Compliance with FAA and ROD stipulated schedules.
- ▶ Consideration of time constraints and compliance hammer dates.
- ▶ Consideration of community reuse planning priorities.

**TABLE 4-1. RELATIONSHIP BETWEEN RESTORATION  
SITES, OUS, AND PARCELS**

Reuse Parcel	OU	Site
B	1	Site 1
M	2	Site 4 soils
M and L	3	Site 4 groundwater
A	4	Sites 7, 8, 13, 14, 15, 16, 17, 18, 19, 21, 31, 32, 38, 41, 55, 56, 57, 58, 59, and 60
B, D, E, F, I, J, M, O, and Q	5	Sites 3, 6, 9, 10, 22, 25-I, 25-II, 26, 27, 29, 30, 33, 34, 35, 36, 37, 39, 44-I, 44-II, 45, 46, 47, 48, 49, 50, 52, 53, 67, 80, 81-I, 81-II, and 82
M	6	Site 5
L	7	Site 11
M and N	8	Site 12
B, C, D, H, I, L, M, N, O, and PCB Transformer Locations	9	Sites 12, (two additional areas); 68, 69, 64, 70, 75, 76, 77, 83, 61, 62, 65, 66, 79, and PCB Transformer Locations

Implementation of this strategy has resulted in the following OU and site sequencing priority.

- ▶ ***OU 1 Small Arms Deactivation Furnace Soils.*** The ROD for this OU was signed in September 1992. Restoration of this site is complete. Remedial activities were completed in December 1994.
- ▶ ***OU 2 Explosives Washout Lagoons Soils.*** This site was "fast tracked" following the RI, so remedial activities could be expedited. A separate FS and risk assessment was conducted for this OU. The ROD for this site was signed January 1993. Phase I of the RA for this OU has been completed. Phase II was started in April 1994.
- ▶ ***OU 8 Inactive Landfills and OU 7 Active Landfill.*** The RI indicated these OUs did not present a threat to human health or the environment and therefore required no further action. No further action remedy RODs for these sites were signed in March and August 1993, respectively.
- ▶ ***OU 4 Ammunition Demolition Activity Area.*** The ROD for this OU was signed September 30, 1994. Phase I of the remedial activities, the UXO Survey and Surface Clearance was started in August 1994. Phase II the remediation of contaminated soil, is scheduled to begin July 1995. Of the 20 sites in this OU, only Sites 15, 17, 19, 31, and 32 require soil remediation because of high metal content.
- ▶ ***OU 5 Miscellaneous Sites.*** The ROD for this OU was signed September 30, 1994. The soil remediation that is required at two sites within this OU is scheduled to begin in July 1995.
- ▶ ***OU 6 Explosive Washout Plant (Building 489) OU.*** The ROD for this OU was signed September 30, 1994. Remedial activities at this OU are scheduled to begin July 1995. The Explosive Washout Plant, also known as Site 5, is to go through hot gas decontamination and partial demolition. The hot gas decontamination will vaporize and release explosive particulates that are present in the building.
- ▶ ***OU 3 Explosives Washout Lagoons Groundwater OU.*** The ROD for this site was signed September 30, 1994. Pump and treat tests are scheduled to begin in 1995 with large scale remedial activities to begin in 1996. Remedial action involves extensive groundwater remediation which may extend past the Depot's anticipated closure date of September 2006.
- ▶ ***A Decision Document for OU 9.*** A DD for OU 9 SRI Study sites and PCB Transformer Locations was signed September 1994. The U.S. Army and the ODEQ have agreed that these sites and locations do not pose sufficient risk to require cleanup and recommended that no RA is necessary under CERCLA. Two small soil removals at Site 75 and transformer location No. 229 will be conducted

to comply with the State of Oregon's background level rule because the amount of soil is small and therefore, it is feasible and cost effective to remove the contaminated soil. Transite siding is to be removed at Site 12.

The OU cleanup sequence for the installation is summarized in Table 4-2.

**TABLE 4-2. CLEANUP SEQUENCE**

Reuse Parcel	OU	Environmental Risk	Reuse Priority	Cleanup Sequence	Reconcile Comments
B	1	None after soil remediation	Undetermined	1	NA
M	2	None after soil remediation	Undetermined	2	NA
M and L	3	Groundwater contamination	Undetermined	3	Remedial action will continue past closure
A	4	None after soil remediation and UXO clearance	Undetermined	4	NA
B, D, E, F, I, J, M, O, Q	5	None after soil remediation	Undetermined	5	NA
M	6	None after thermal treatment	Undetermined	6	NA
L	7	None	Undetermined	NFA	NA
M and N	8	None	Undetermined	NFA	NA
B, C, D, H, I, K, L, M, N, O	9	None	Undetermined	NFA	NA

Key: NFA = No Further Action  
 NA = Not Applicable

**4.1.3.2 Remediation Timelines and Documents.** A number of environmental studies have been designed and completed at this installation in an effort to identify sites, determine degree and extent of contamination, evaluate risk, identify and implement RAs. Figure 4-1 identifies the timeline for the completion of those documents necessary to complete these OU cleanup activities and comply with FFA and ROD/DD requirements for the installation.

The schedule was developed using the critical path analysis method with the following components:

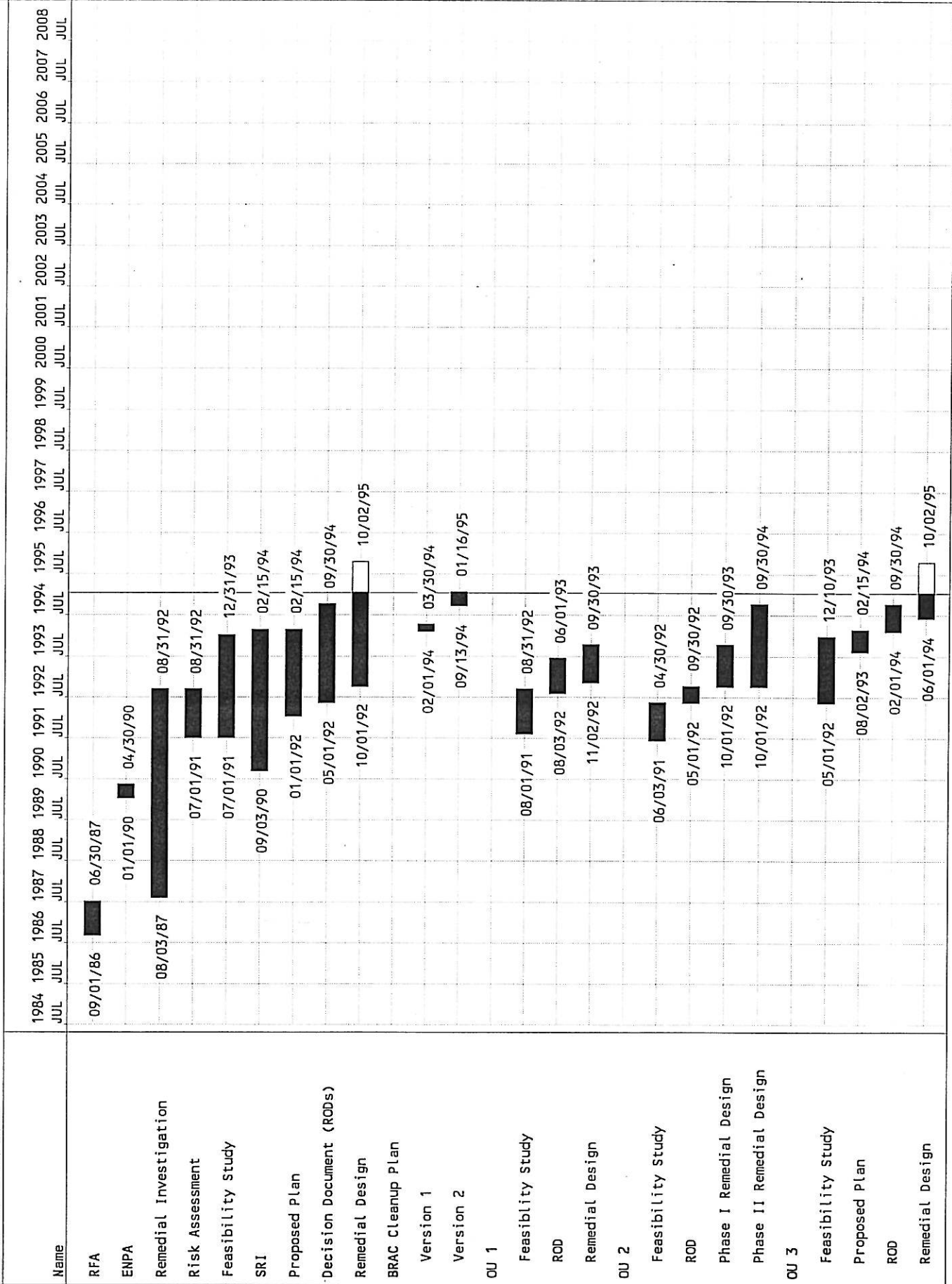
- ▶ **Critical.** Critical jobs are those in which any extension in their duration will cause an equivalent delay in the project. This is often referred to as the critical path.

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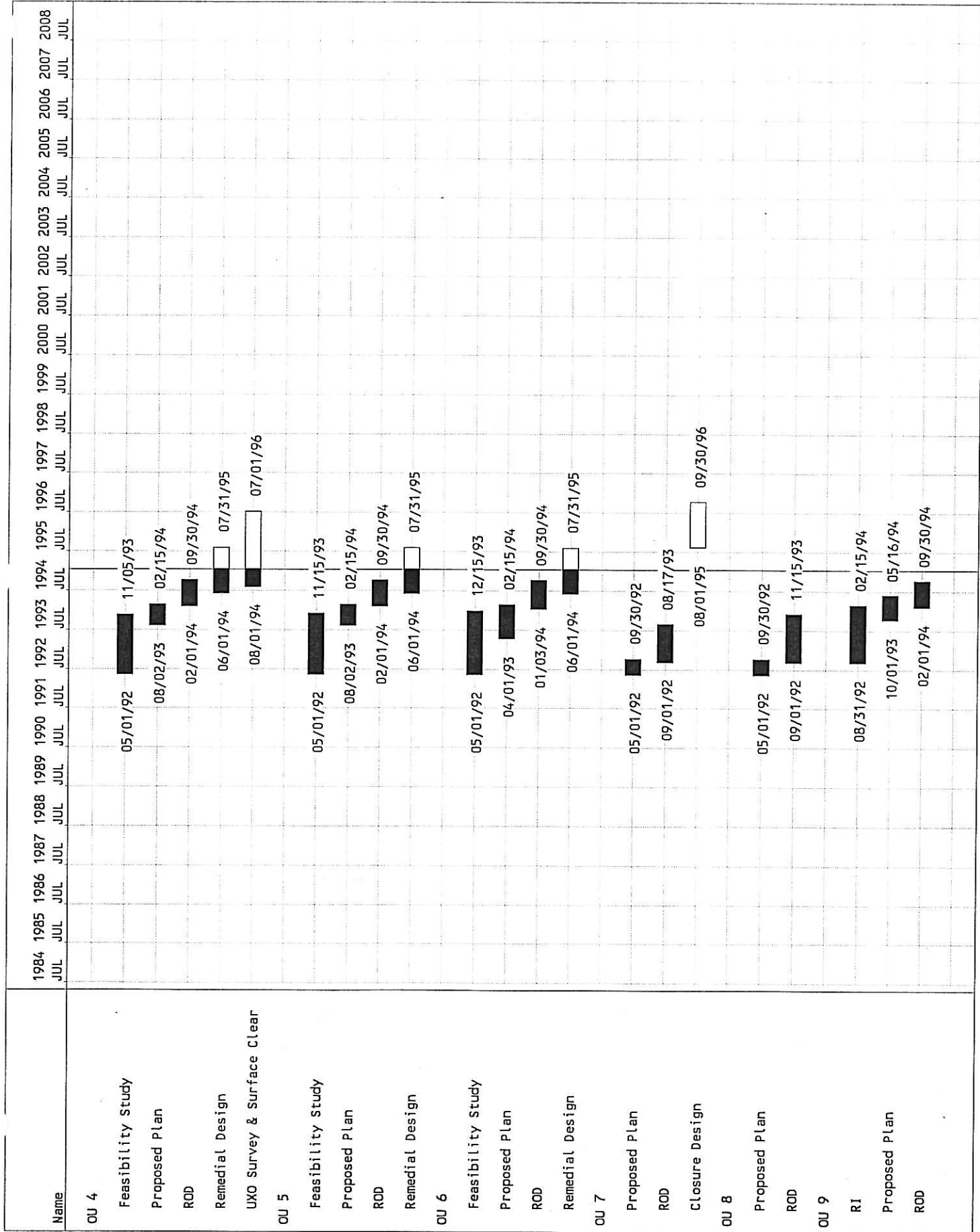


PROJECT: Umatilla  
 MANAGER:  
 CURRENT DATE: 01/16/95

Figure 4-1 Primary Documents



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- ▶ **Noncritical.** Noncritical jobs are usually subtasks required to accomplish the critical job.
- ▶ **Baseline.** A set of "original" schedule dates that can be compared with the current schedule to determine if the project has slipped.
- ▶ **Completed Duration.** A measure in time periods of the portion of a job that is completed.
- ▶ **Milestone.** A project event that represents a checkpoint, a major accomplishment, or a deliverable result.
- ▶ **Total Float.** The total length of time that a noncritical job can be delayed before it causes the project or a critical job to slip or causes a job to not meet its target date.
- ▶ **Free Float.** The length of time a noncritical job can be delayed without affecting another job.
- ▶ **Delay.** A waiting period that prevents the job from starting at its earliest possible start time.
- ▶ **Conflict.** The amount of time a job overruns its target date.

The graphical information regarding the primary documents generated for each OU at UMDA which is shown in Figure 4-1 is summarized below:

- ▶ **OU 1 (Deactivation Furnace)**

ENPA	April 1990
RI	August 1992
Risk Assessment	March 1992
FS	August 1992
Proposed Plan	August 1992
DD	January 1993
RD	September 1993
  
- ▶ **OU 2 (Explosives Washout Lagoon Soils)**

ENPA	April 1990
RI	April 1992
Risk Assessment	March 1992
FS	April 1992
Proposed Plan	April 1992
DD	September 1992
RD	April 1994

▶	<b>OU 3 (Explosives Washout Lagoons Groundwater )</b>	
	ENPA	April 1990
	RI	December 1993
	Risk Assessment	December 1993
	FS	December 1993
	Proposed Plan	February 1994
	DD	September 1994
	RD	September 1995
▶	<b>OU 4 (ADA Area)</b>	
	ENPA	April 1990
	RI	August 1992
	Risk Assessment	November 1993
	FS	August 1993
	Proposed Plan	February 1994
	DD	September 1994
	RD	July 1995
▶	<b>OU 5 (Miscellaneous Sites)</b>	
	ENPA	April 1992
	RI	August 1992
	Risk Assessment	August 1993
	FS	November 1993
	Proposed Plan	February 1994
	ROD	September 1994
	RD	July 1995
▶	<b>OU 6 (Washout Plant)</b>	
	ENPA	April 1990
	RI	August 1992
	FS	August 1993
	Risk Assessment	August 1993
	Proposed Plan	February 1994
	ROD	September 1994
	RD	July 1995
▶	<b>OU 7 (Active Landfill)</b>	
	ENPA	April 1990
	RI/FS	August 1992
	Risk Assessment	August 1992
	Proposed Plan	September 1992
	ROD	August 1993
▶	<b>OU 8 (Inactive Landfill)</b>	
	ENPA	April 1990
	RI/FS	August 1992

Risk Assessment  
 Proposed Plan  
 ROD

August 1992  
 September 1992  
 March 1993

▶ **OU 9 (Supplementary Sites)**

ENPA  
 RI/FS  
 Risk Assessment  
 Proposed Plan  
 DD

April 1990  
 September 1993  
 September 1993  
 February 1994  
 September 1994

**4.1.4 Environmental Restoration Early Actions Strategy**

There have been no environment restoration early actions at UMDA. All remedial activities conducted at UMDA have occurred following the Proposed Plan and DD process.

The environmental studies to characterize environmental conditions at UMDA have been comprehensive; therefore it is not anticipated that any currently unidentified contamination will arise. Should any additional environmental contamination be identified which pose a risk to human health and the environment, the BCT will evaluate the need for early actions.

Table 4-3 has been provided should any future early actions occur. The strategy for developing early actions will be based on the risk posed to human health and the environment, and the negative and positive impacts that the action will have on future use of the parcel.

**TABLE 4-3. ENVIRONMENTAL RESTORATION PLANNED EARLY ACTIONS**

Site	Action	Objective	Time Frame
	All early actions have been taken. No further early actions planned at UMDA.		

#### 4.1.5 Remedy Selection Approach

Site investigations at UMDA, including the ENPA, RI/FS, risk assessment, SRI, and separate RI, FS, and risk assessment for the Explosives Washout Lagoons, have been completed. Remedies for each of the OUs have been selected in accordance with statutory NCP criteria and CERCLA.

Two FSs were prepared, one for the Explosives Washout Lagoons and one for the other sites/OUs at UMDA. These FSs evaluated restoration alternatives for each OU identified at the Depot based on criteria including regulatory compliance, effectiveness, implementability, and cost. Preferred remedies for each OU were identified in proposed plans. A public comment period was held to solicit community input in the remedy selection process. Following the public comment period, a DD was prepared which identified the chosen risk assessment for each OU. Particular attention will be given to the following during the evaluation of alternatives.

- ▶ **Applicable or Relevant and Appropriate Requirements (ARARs).** Applicable requirements for anticipated remedial actions were identified in the site-specific RI/FS process. The effectiveness of alternatives in reducing concentrations of contaminants to chemical-specific ARARs will be evaluated. Chemical-specific ARARs set health- or risk-based concentration limits or discharge limitations in various environmental media for specific hazardous substances, pollutants, or contaminants. Waivers will be considered where treatment to standards is technically impractical.
- ▶ **Future Land Use/Risk Assessment.** The reuse of any parcel of land defines the required level of remediation. Risk assessment protocols incorporated future land use in exposure scenarios.
- ▶ **Applicable Remedies.** The FS for the installation identified and screened a variety of remedial technologies to address the potential risk to human health and the environment posed by the contamination present at UMDA. The FS considered factors including cost, implementability and treatment effectiveness. The most applicable alternatives were determined through the ROD process. A DD was signed for one OU.
- ▶ **POL Remedies.** Source-specific actions for POLs are being addressed under the state UST program as POL releases at UMDA have occurred as a result of leaking USTs.

#### 4.2 Compliance Strategy

This section describes the strategies for addressing compliance-related environmental issues at UMDA prior to installation closure and/or property transfer. These environmental compliance strategies have been developed to ensure that installations are compliant with federal and state regulatory programs, DoD, and U.S. Army directives and regulations throughout the BRAC process.



An important element in the UMDA compliance program is the identification and implementation of compliance related early actions to remove contamination sources and reduce risk posed by releases or potential releases. A number of compliance early actions have been completed at the installation (see Section 3.1). In addition, a number of future compliance early actions are planned to insure compliance with regulatory requirements and proactively address existing or potential compliance program threats to human health or the environment. These future compliance early actions are identified in Table 4-4. A detailed discussion of strategies and schedules for individual compliance programs is provided in the following sections.

#### *4.2.1 Storage Tanks*

The following strategies have been developed to manage USTs and ASTs at UMDA.

*4.2.1.1 USTs.* UST program compliance activities will be continued at numerous locations. Twenty-nine of the 100 USTs at UMDA have been removed. In Fiscal Year 1995, an additional seventeen USTs will be removed in compliance with ODEQ regulations. Final clean-up levels for soils surrounding any leaking USTs will be determined by ODEQ. Nineteen active USTs are required to support the realigning mission of UMDA. These tanks will be upgraded in Fiscal Year 1995. The remaining 35 USTs listed in Table 3-7 which were identified through documentation, but not confirmed with geophysical surveys during the UST survey are presumed to have been previously removed, since no physical anomalies were discovered during the geophysical survey.

*4.2.1.2 ASTs.* The 38 aboveground storage tanks at UMDA will remain active and in compliance until the Depot's closure date or until it is decided that tanks are not needed on a case-by-case basis.

#### *4.2.2 Hazardous Substance Management*

Hazardous substance management activities at UMDA will continue to be managed in compliance with federal requirements outlined in the SARA Title III, SPCC requirements in 40 CFR 110 and 112 ODEQ regulations, AR 200-1 and other applicable federal, state, and local regulations.

Hazardous substance inventories and MSDS sheets will continue to be maintained at the Depot until closure. Spill response coordination with Depot Fire Department will continue. UMDA will continue to follow the guidance set forth in the UMDA Pesticide Management Plan when dealing with pesticides. Tenant agencies have been instructed that all hazardous substances currently located at tenant locations must be managed properly in accordance with applicable regulations. As a precaution, the Depot will be conducting a survey of each tenant activity to ensure that there are no hazardous substances left after tenants vacate the property.

**TABLE 4-4. ENVIRONMENTAL COMPLIANCE PLANNED EARLY ACTIONS**

Site	UST No.	Action	Objective	Time Frame
Building 1	1	Upgrade Tank	Compliance	1995
Building 7	3	Upgrade Tank	Compliance	1995
Building 10	4	Upgrade Tank	Compliance	1995
Building 30	6	Upgrade Tank	Compliance	1995
Building 38	8	Upgrade Tank	Compliance	1995
Building 416	9	Remove Tank	Compliance	1995
Building 419	10	Upgrade Tank	Compliance	1995
Building 612	11	Remove Tank	Compliance	1995
Building 617	12	Remove Tank	Compliance	1995
Building 208	13	Remove Tank	Compliance	1995
Building 622	14	Remove Tank	Compliance	1995
Building 654	15	Upgrade Tank	Compliance	1995
Building 655	16	Upgrade Tank	Compliance	1995
Building 660	17	Upgrade Tank	Compliance	1995
Building 28	18	Upgrade Tank	Compliance	1995
Building 28	19	Upgrade Tank	Compliance	1995
Building 37	20	Remove Tank	Compliance	1995
Building 31	21	Remove Tank	Compliance	1995
Building 31	22	Remove Tank	Compliance	1995
Building 31	23	Remove Tank	Compliance	1995
Building 131	24	Remove Tank	Compliance	1995
Building 433	25	Remove Tank	Compliance	1995
Building 15A	26	Upgrade Tank	Compliance	1995
Building 15B	27	Upgrade Tank	Compliance	1995
Building 16A	28	Upgrade Tank	Compliance	1995
Building 16B	29	Upgrade Tank	Compliance	1995
Building 35	30	Upgrade Tank	Compliance	1995
Building 55	31	Remove Tank	Compliance	1995
Building 116	32	Remove Tank	Compliance	1995
Building 129	33	Remove Tank	Compliance	1995
Building 51	51	Upgrade Tank	Compliance	1995
Building 654	58/95	Upgrade Tank	Compliance	1995
Building 486	93	Remove Tank	Compliance	1995
Building 433	94	Remove Tank	Compliance	1995
Building 433	97	Remove Tank	Compliance	1995
Building 486	98	Remove Tank	Compliance	1995

#### *4.2.3 Hazardous Waste Management*

Hazardous waste generated at UMDA will continue to be managed in compliance with federal, state, and U.S. Army regulations. Wastes generated at the installation will be properly stored at Building 203 for less than 90 days before being transported offsite for disposal by a licensed hazardous waste hauler. As the Depot's ultimate closure date approaches, the Depot will conduct a survey to ensure tenant activities have not left hazardous materials and hazardous wastes on the Depot property.

#### *4.2.4 Solid Waste Management*

Solid waste generated at UMDA is currently being transported off-site by a contractor to a local state permitted landfill. Solid waste will continue to be transported off-site until the Depot's closure.

The Inactive Landfills (OU 8, Site 12) are closed and a ROD which requires No Further Action has been finalized for this OU. The Active Landfill (OU 7, Site 11) is no longer accepting municipal waste. This landfill is currently accepting solidified soils from remedial activities on the Depot. A ROD requiring No Further Action has been signed for this OU.

#### *4.2.5 Polychlorinated Biphenyls (PCBs)*

All PCB transformers have been taken out of service and removed from the Depot. Therefore, no PCB monitoring is necessary at UMDA.

#### *4.2.6 Asbestos*

Asbestos present at UMDA will continue to be managed in compliance with regulations and the U.S. Army guidance "Lead-based Paint and Asbestos in U.S. Army Properties Affected by Base Realignment and Closure," dated June 1993 until installation closure. Friable asbestos has been remediated throughout the installation. Periodic inspections will be conducted to assess the condition of asbestos remaining at the installation. Any friable asbestos will be abated.

#### *4.2.7 Radon*

The radon reduction program at UMDA will continue to be conducted in compliance with AR 200, Chapter 11, U.S. Army Radon Reduction Program. One-year and 90-day testing were conducted at UMDA. One-year radon testing indicated that radon in Buildings 1 and 5 tested equal to or greater than the USEPA-recommended level of 4.0 pCi/L. Ninety-day testing indicated that radon levels exceed 4 pCi/L in Building 1, and seven igloos in three igloo blocks. (Only ten percent of the 1,001 igloos were surveyed).

At this time, no action will be taken for the radon in Building 5 as the sample was collected from the only below-grade structure in the building, an unoccupied boiler room which is no longer in use. A radon venting system will be installed in the basement of Building 1 during

Fiscal Year 1995 as a radon mitigation system and radon in the igloos will be addressed when a reuse for the structures has been identified.

#### **4.2.8 RCRA Facilities (SWMUs)**

Building 203 is UMDA's RCRA Part B permitted hazardous waste storage facility. This building will remain a storage area following realignment and will close when the Depot no longer needs to store hazardous waste. The closure of this facility may take place before chemical agent incineration is complete. The facility closure will be completed following RCRA regulatory requirements and guidance.

#### **4.2.9 Wastewater Discharges**

Currently, UMDA does not generate wastewater discharges that require a NPDES permit. The only wastewaters generated at the Depot are sanitary wastewaters which go to the sewage treatment plant's tile leaching field. Wastewater associated with the planned chemical agent deactivation incinerator may require a NPDES permit. The BCT is investigating this requirement. In the event that a permit is required, the installation will prepare and submit the permit application.

#### **4.2.10 Oil/Water Separators**

There is one oil/water separator at UMDA which is currently not in use. At this time, there are no plans to repair the oil/water separator. The oil/water separator will be closed according to regulatory requirements.

#### **4.2.11 Pollution Prevention**

UMDA will continue to practice pollution prevention, waste minimization and recycling at the installation during realignment and until closure.

#### **4.2.12 NRC Licensing**

UMDA is covered under an U.S. Army-wide NRC materials license for the use of Model M43A1 Chemical Agent Detectors which contain Americium-241 in a closed-cell. These alarms are stored in Building 656 and used to inspect the K Block igloos, where chemical agents are stored. These alarms will be necessary to monitor the chemical weapons at the Depot, as the Depot continues its new mission of static storage of chemical munitions and its future mission of demilitarization of these chemical munitions. Following closure of the chemical agent demilitarization operation, these alarms will be handled as specified in the NRC license and returned or destroyed according to the manufacturer's instructions.

#### **4.2.13 Mixed Wastes**

There is no mixed waste generated at UMDA; therefore, there are no compliance requirements or strategies under this program for the Depot.

#### *4.2.14 Radiation*

There are no radioactive wastes generated at UMDA. Radioactive source materials will be handled as described in Section 4.2.12.

#### *4.2.15 Lead-Based Paint*

The U.S. Army is currently developing a policy on lead-based paint for closure sites. The BCT will continue to follow the guidance provided. A lead-based paint survey is planned for Fiscal Year 1995. Should existing building(s) be found to contain lead-based paint be identified for use as homeless shelters, the U.S. Army will evaluate the impacts on lead-based paint within those buildings.

#### *4.2.16 Medical Waste*

Medical waste generated at UMDA by the Occupational Health Clinic will continue to be containerized and shipped off-site to Ft. Lewis, Washington. No medical wastes have been landfilled at the Depot.

#### *4.2.17 Unexploded Ordnance*

UXO has been identified as existing in the ADA Area and possibly existing at the QA Function Range.

The ROD for the ADA Area (OU 4) addressed the remediation of UXO for the area in a phased approach. Phase I will consist of a magnetometer survey of the entire 1,716 acres to determine the location and quantity UXO. Phase I will also include surface clearance of UXO discovered during the magnetometer survey. Phase II will be include subsurface clearance of UXO based on future reuse of the area and clearance will occur as needed, based on reuse and regulatory requirements. Phase I is scheduled to begin in 1996.

The QA Function Range will be surveyed for UXO before being relinquished, as a safety precaution. This survey is anticipated to be completed in 1996.

#### *4.2.18 National Environmental Policy Act*

The USACE Fort Worth District has prepared the BRAC Final EIS for UMDA. A Disposal and Reuse EIS will be contracted by the USACE, Seattle District as soon as the U.S. Army has identified the property to be retained for the Chem Demil operation.

#### *4.2.19 Air Emissions*

The Air Contaminant Discharge Permit No. 25-0024 for the Depot will continue to be maintained, even though two of the three emission sources at the Depot are no longer in use. The small arms deactivation furnace (Site 1, OU 1) has been closed and soil remediation at the site has been completed. The open detonation pits (Site 16) and the open burning trays (Site 32)

are no longer utilized. Open burning of packaging and crating dunnage contaminated with explosives is no longer practiced. The space heating systems consisting of three heating plants greater than 750,000 BTU/hr and fifty heating plants less than 750,000 BTU/hr are still operational. These systems will continue to be operated in compliance with permit requirements.

The chemical agent deactivation incinerator will need an Oregon Air Contaminant Discharge Permit prior to the facility becoming operational. The installation will prepare the appropriate application materials during the design phase for the incinerator.

### **4.3 Natural and Cultural Resources Strategies**

This section discusses the strategies for natural and cultural resource programs developed at UMDA developed to manage these resources throughout the BRAC realignment and closure.

#### **4.3.1 Vegetation**

UMDA will continue to maintain the ornamental vegetation in the Administration Area through realignment and until closure. The vegetation on the remainder of the Depot is in its natural state.

#### **4.3.2 Wildlife**

Varied wildlife exist at the UMDA outside the Administration Area. The Oregon Department of Fish and Wildlife manages a prong-horned antelope herd outside the Administration Area and ADA Area. Wildlife will be allowed to continue using the Depot ground as a habitat throughout realignment and closure activities. Reuse of UMDA may impact some species currently using the Depot. These impacts will be evaluated in the Disposal and Reuse EIS that is to be prepared in the near future.

#### **4.3.3 Wetlands**

There are no wetlands at UMDA; therefore, no wetland strategies are necessary for the Depot.

#### **4.3.4 Designated Preservation Areas**

There are no designated preservation areas at UMDA; therefore, no strategies are planned.

#### **4.3.5 Rare, Threatened and Endangered Species**

During the Ecological Assessment conducted in 1992, six state-listed and one federally-listed sensitive species were observed. A sensitive species is one that has the potential for becoming threatened if specific habitats are not preserved. Swainson's hawk, the long-billed curlew, the burrowing owl, grasshopper sparrow, Lewis' woodpecker, and the bobolink are listed as state-sensitive species, and the loggerhead shrike appears on the federal sensitive bird species list. These threatened and endangered species will continue to inhabit the Depot grounds through

realignment and closure activities. Reuse of UMDA may impact some of these species. These impacts will be evaluated in the Disposal and Reuse EIS.

#### **4.3.6 Cultural Resources**

UMDA has two buildings which were declared eligible for listing on the National Register of Historic Places (NRHP). At this time, these buildings have not been listed on the NRHP. If these buildings are placed on the NRHP, appropriate action will be taken to insure the resources are properly managed.

Care will be taken during implementation of any reuse of the Depot so that there would be no impact on the two known archaeological and historic sites at UMDA. In the event that any additional sites are found on the Depot, care will be taken to avoid inadvertent disturbance of archaeological resources, and further studies will be conducted.

#### **4.3.7 Other Resources**

There are no other resources that the BCT is currently reviewing.

### **4.4 Community Involvement/Strategy**

The establishment of a RAB is a requirement of the Fast Track Cleanup Policy at BRAC installations where community interest is high and property will be available for transfer to the community. Until December 15, 1993, UMDA had an active TRC. This TRC was expanded to become a RAB, rather than create a separate committee. The expansion included the addition of community representatives, a community co-chairperson, and representatives from the UMDA Reuse Task Force.

The RAB will act as a forum for the exchange of cleanup information between the community and the government, to ensure that community reuse plans are adequately addressed and to ensure that community input is fully considered in decision making for the cleanup program. The RAB consists of U.S. Army, USEPA, and ODEQ representatives along with members of the community. The RAB is jointly chaired by the U.S. Army and a community representative.

In addition to the formation of the RAB, the UMDA BCT has adopted the following strategy to support a proactive community relations program in accordance with the CERCLA requirements:

- ▶ Update the existing Community Relations Plan (CRP).
- ▶ Maintain an information repository at the Depot and in Hermiston, Oregon.
- ▶ Continue to publish fact sheets on the progress of environmental restoration and disposal programs.
- ▶ Continue coordination with the Umatilla Reuse Task Force or Umatilla Depot Reuse Authority.

- ▶ Maintain and update the mailing lists at the Depot and the USACE, Seattle District.
- ▶ Continue to solicit participation of representatives from all affected communities through the reuse planning outreach programs.