

CHAPTER 6

► TECHNICAL AND OTHER ISSUES TO BE RESOLVED ◀

This chapter summarizes technical and other issues that are yet to be resolved. These issues include information management; the usability of historical data; data gaps; natural (background) levels of elements and compounds in soil, groundwater, surface water, and sediments; risk assessment; state cleanup standards; and program initiatives to complete cleanup requirements as required to meet property transfer schedules.

6.1 Information Management

This section identifies issues that need to be resolved with regard to managing information gathered and used in the installation environmental restoration and compliance programs. Issues include:

- ▶ Improve coordination of, access to, and management of environmental restoration and real estate-type data generated at UMDA;
- ▶ Ensure all UMDA data are loaded into the Installation Restoration Data Management Information System (IRDMIS) and DENIX. These electronic data management systems are used by UMDA;
- ▶ Require all contractors to submit data in electronic format that can be readily loaded into IRDMIS or DENIX;
- ▶ Establish method and procedure for the distribution of data to parties (USEPA, ODEQ, Real Property Contractors, UMDA etc.) with need for an installation perspective on activities at UMDA; and
- ▶ Develop provisions for real time data input of field decisions to expedite BRAC field work progression.

6.1.1 BCT Action Items

There is currently one BCT action item that should be addressed at UMDA in order to manage data during the environmental restoration BRAC process. The information transfer system, DENIX, should be made available to each BCT member.

6.1.2 Rationale

As the number of agencies and contractors associated with UMDA disposal and environmental restoration program grows, it is important that all parties involved be able to share data for decision making. The establishment and maintenance of an electronic information transfer station containing sampling and analysis data and spatial data (e.g., real estate and environmental condition of property maps) is the most efficient method of sharing data among parties.

6.1.3 Status/Strategy

A summary of the current status of information management relative to BRAC cleanup activities at UMDA and strategies which have been developed to address information management requirements is provided below:

- ▶ All historical data generated at UMDA are available at the BEC office. Data regarding environmental sampling for investigations at UMDA have been loaded into IRDMIS;
- ▶ Data generated in the future will be loaded into IRDMIS as it is generated on a quarterly basis, subject to inclusion of this requirement being added to or included into contracts; and
- ▶ Necessary contract modifications will be made by the U.S. Army's Service Center/Service Agent to ensure that data from ongoing efforts are submitted electronically in accordance with IRDMIS and DENIX guidance.

6.2 Data Usability

This section summarizes unresolved issues pertaining to the validity of using historical data sets in the installation environmental restoration program.

6.2.1 BCT Action Items

Eight RODs and one DD have been signed for UMDA. Historical data sets do not need to be reviewed.

6.2.2 Rationale

Historical analytical data can contribute to the completion of site characterizations and risk assessments by filling data gaps. These steps have been completed at the Depot. Eight RODs and one DD have been signed for UMDA.

6.2.3 Status/Strategy

The BCT is no longer reviewing existing environmental documents. RD or RA activities have been initiated for all of the OUs at the installation.

6.3 Data Gaps

This section summarizes unresolved issues pertaining to the determination and collection of data needed to complete UMDA's environmental restoration program.

6.3.1 BCT Action Items

The most significant data gap related to UMDA is the characterization of the ADA Area with regard to the amount and location of buried UXO.

6.3.2 Rationale

It is necessary to know the amount and location of UXO at the ADA Area in order to determine the amount of time needed to clear the property of UXO. This information is important for determining how the RA will affect other potential reuse options.

6.3.3 Status/Strategy

The ROD for the ADA Area was signed in September 1994. The ROD has a phased approach for addressing the UXO. Phase I will involve a magnetometer survey to identify location, and Phase II will involve clearance of UXO based on the reuse option, safety factors, and any regulatory requirements. Phase I will also include surface clearance of UXO identified during the magnetometer survey.

6.4 Background Levels

This section summarizes unresolved issues, BCT action items, and status and strategy related to background levels at UMDA. Nitrate/nitrite concentrations are high in off-site wells. ODEQ has been sampling and analyzing groundwater and has added analytical parameters of interest to the U.S. Army. In turn, the U.S. Army has allowed ODEQ access to UMDA groundwater wells.

6.4.1 BCT Action Items

The BCT will continue to allow ODEQ access to UMDA groundwater wells in exchange for off-site groundwater data.

6.4.2 Rationale

This exchange of information is valuable in planning remediation of contaminated groundwater at UMDA.

6.4.3 Status/Strategy

The BCT will continue to direct the ongoing exchange of information with regard to background information.

6.5 Risk Assessments

This section summarizes unresolved issues pertaining to the completion of risk assessments required to support UMDA environmental restoration and compliance programs.

6.5.1 BCT Action Items

The collection of toxicity information for an explosive parameter, 1,3,5-trinitrobenzene, is ongoing.

6.5.2 Rationale

New information regarding this constituent is expected to lower uncertainty factors and raise clean-up levels at the Explosives Washout Lagoons Groundwater OU.

6.5.3 Status/Strategy

Table 6-1 presents a summary of future land use risk for development of remedy selections. Only those sites/OUs where remediation is occurring are listed. New information regarding the toxicity of hazardous constituents such as those for the Explosives Washout Lagoons will be incorporated into DDs as soon as possible so that RAs/strategies can be reviewed or changed.

6.6 Installation-Wide Remedial Action Strategy

An installation-wide RA strategy has been developed which addresses the ongoing environmental restoration efforts at UMDA. This section summarizes unresolved issues relative to this strategy.

6.6.1 BCT Action Items

The RA strategy for clean-up of contaminated sites at UMDA has been established and is presented in the work plan and DDs for the Depot. Final reuse decisions regarding the ADA Area have not been made. Reuse options for this area will determine UXO clearance standards.

6.6.2 Rationale

The installation-wide RA strategy is structured to achieve expedited RAs while controlling costs. The strategy is also designed to meet all BRAC and FFA investigation and restoration requirements.

TABLE 6-1. FUTURE LAND USE RISK ASSESSMENT FOR DEVELOPMENT OF REMEDY SELECTIONS

Site ID	Risks	Contaminants			Current Use	Adjacent Uses	Anticipated Uses
		Groundwater	Soil	Surface/Sediment			
Site 1/OU 1	Lead	--	Lead contamination	Lead contamination	Remediation activities	Warehousing	Industrial Warehousing
Site 4/OU 2	Explosives-contaminated soil	--	Explosives residues	Explosives residues	Remediation activities	Former Production Areas	Wildlife Reserve
Site 4/OU 3	Explosives-contaminated groundwater	Explosives contaminants	--	--	Remediation activities	Former Production Areas	Wildlife Reserve
Sites 15, 17, 19, 32, 32 (II)/OU 4	Heavy metals contamination	--	Heavy metals contamination	--	Site 32 only; site active - banning propellant trays	ADA Area	Firing Range/Impact Area
Sites 22 and 36/OU 5	Lead and cadmium	--	Lead and cadmium contamination	--	Site 22 only; site active - DRMO	Vehicle Maintenance Building	Education/Training Area
Site 5/OU 6	Explosives risks	--	--	Building contains explosives residues	Not active	Former Production Area	House Groundwater Remediation Equipment

6.6.3 Status/Strategy

The RAs outlined in the RODs are in the process of being implemented based on the schedule for these activities. Restoration activities related to compliance issues such as USTs are also completed, ongoing or planned. Planning of these activities is integrated through the BCP process and provides for the comprehensive and effective restoration of the UMDA on an installation-wide basis.

6.7 Interim Monitoring of Groundwater and Surface Water

Interim monitoring of groundwater will be conducted as requested for specific remedial activities. No surface water exists at UMDA. Action items, rationale, status and strategies for interim groundwater monitoring at UMDA are presented in the following subsections.

6.7.1 BCT Action Items

At the present time, no interim monitoring of groundwater has been requested in conjunction with any remedial activities or closed landfills.

6.7.2 Rationale

When groundwater interim monitoring is requested, the monitoring will be conducted as a required task under the ROD.

6.7.3 Status/Strategy

The BCT will develop a plan to monitor groundwater in conjunction with the ROD requiring the monitoring.

6.8 Excavation of Contaminated Materials

Excavation of contaminated materials at UMDA will occur during the remediation of five OUs as outlined in four RODs and one DD.

6.8.1 BCT Action Items

The BCT will ensure that the excavated contaminated soils at OU 1 - Deactivation Furnace Soils, OU 2 - Explosives Washout Lagoons Soil, OU 4 - ADA Area, OU 5 - Miscellaneous Sites, and OU 9 - SRI Study Sites and Transformer Locations, will be disposed of properly, as specified in the RODs and the DD. The BCT will evaluate the effectiveness of this treatment technology.

6.8.2 Rationale

The excavation and on-site treatment/disposal of contaminated materials were identified as a cost-effective method of remediating five OUs as the selected remedy in the RODs and the DD.

6.8.3 Status/Strategy

The excavation of contaminated material and on-site disposal was the selected remedy for OUs 1, 2, 4, 5, and 9, as documented in four RODs and one DD. These remedies will be implemented following FFA and RD/RA Work Plan schedules specified.

6.9 Protocols for Remedial Design Reviews

UMDA has developed RDs based on protocols established in the FFA for RD. This section summarizes unresolved issues and action items related to these protocols.

6.9.1 BCT Action Items

UMDA will continue to follow UMDA developed protocols in the FFA for RD and review the RDs.

6.9.2 Rationale

Review of RDs is critical to ensure they will achieve cleanup goals and that they are technically and administratively feasible. In addition, the solicitation of public comments on RDs can aid in the identification of community concerns which are outside technical and administrative criteria so that they can be addressed before they impact the implementation of RA.

6.9.3 Status/Strategy

RDs are reviewed by staff at the installation, USACE and the state at the 30 percent design stage. The design may be revised based on the technical comments from the reviewer(s). RDs are reviewed again at the 90 percent design stage. The RD may be revised based on the technical comments and finalized. In addition, copies of RD documents will be provided to members of the BCT, the RAB, and other interested parties for review in a manner consistent with the protocols specified under CERCLA Section 120, and in accordance with all ARARs specified in Chapter 4 and Chapter 6.11 of this document.

6.10 Conceptual Models

Conceptual site models have not been prepared for sites/OUs at UMDA. If prepared, the conceptual site model summaries will be provided in Appendix E.

6.10.1 BCT Action Items

There are currently no action items related to the development of conceptual site models for the UMDA. Models were not determined to be necessary during the completion of the installation RI and no other applications requiring the preparation of conceptual site models have been identified.

6.10.2 Rationale

In the event that an application requiring the preparation of conceptual site models is identified at UMDA, models will be developed based on the results of past, current, and future restoration activities.

6.10.3 Status/Strategy

The BCT will continue to monitor environmental restoration activities at UMDA to determine the need to prepare conceptual site models.

6.11 Cleanup Standards

Cleanup standards are used to identify remedial alternatives capable of achieving cleanup goals and the time at which remediation is complete. Action items, rationale, and the status/strategy related to the establishment of cleanup standards for UMDA are presented in the following sections.

6.11.1 BCT Action Items

UMDA has established cleanup standards with the regulatory agencies as part of the CERCLA and FFA process. The BCT will continue to meet the cleanup standards established in the installation DDs and the FFA.

6.11.2 Rationale

UMDA entered into an FFA with the USEPA and ODEQ. Under the FFA, regulatory obligations, such as the remediation of sites to established cleanup standards, are to be completed.

6.11.3 Status/Strategy

The BCT will continue to ensure that the cleanup standards established in the RODs and DD are met.

6.12 Initiatives for Accelerating Cleanup

Initiatives for accelerating cleanup will continue at the Depot. Action items, rationale status and strategies related to developing these initiatives are described in the subsections below.

6.12.1 BCT Action Items

The Depot has realigned and its new mission is currently the static storage of chemical agents and in the future, the incineration of chemical agents. Following the conclusion of chemical demilitarization, which is expected to take five years after construction of the chemical agent deactivation incinerator, the Depot will close.

The BCT will continue to implement and oversee remedial activities so that they are complete or well underway at closure. Groundwater remediation at the Explosives Washout Lagoons Groundwater OU is expected to be completed in approximately 10 to 20 years.

6.12.2 Rationale

It is desirable to accelerate remedial activities at UMDA, even though most of the property cannot be transferred prior to closure or during chemical agent demilitarization activities.

6.12.3 Status/Strategy

Remedial activities will continue based on established schedules. These schedules were developed with consideration of ongoing mission requirements, expedited cleanup and disposal of excess property and community planning goals. It is desirable that remedial activities be completed prior to closure. (Completion of groundwater remediation may not be possible before closure of the Depot).

6.13 Remedial Action

This section summarizes unresolved issues pertaining to the implementation of RAs performed as part of UMDA's environmental restoration program. Currently, the major issues regarding RAs are quality assurance of RAs and RA contracting issues.

6.13.1 BCT Action Items

The BCT will ensure that technical issues that affect remedial activities are addressed in a timely manner. Contracting issues regarding remedial activities will also be addressed as they arise. Also, the U.S. Army real estate office will be kept apprised of RAs which will continue past transfer. Issues relative to access, liability, impact or redevelopment and conflicts with construction will be resolved.

6.13.2 Rationale

Technical issues must be addressed in a timely manner to ensure that remedial activity schedules are not adversely affected.

6.13.3 Status/Strategy

At this time, there are no unresolved technical issues affecting quality assurance of remedial activities or RA contracting issues at UMDA. UMDA will develop a QA program sufficient to cover quality assurance oversight of RA and RA contracting issues which are implemented prior to initiation of RA.

6.14 Review of Selected Technologies for Application of Expedited Solutions

At this time, all of the technologies for expedited RA have been selected for OUs at UMDA. Action items, rationale, and status/strategy for selected technologies are described below.

6.14.1 BCT Action Items

As selected technologies for application of expedited solutions are developed, they will be reviewed and assessed for appropriateness.

6.14.2 Rationale

It is desirable to expedite evaluation of remedial technologies at UMDA in order to facilitate the property transfer process. Remedial solutions have already been proposed at the UMDA, as of April 1994, so that no other selections remain to be expedited. Previously, the Explosives Washout Lagoons Soils OU was separated out from the site-wide RI/FS to expedite the composting of explosives-contaminated soils. At the time, the only technology proven for explosives was incineration, and success of the test led UMDA and the regulators to consider that composting would be the best technology for an expedited cleanup of the lagoons. A separate risk assessment, FS, and ROD was conducted for the lagoons soils. The ROD was signed in September 1992, approximately one year and nine months earlier than the expected RODs for most of the other UMDA sites.

For metals-contaminated soil at the UMDA deactivation furnace, solidification was considered the most likely choice for RA. Because the site was fairly well-defined, and the cleanup technology was known, this site was also broken out as a separate OU. The ROD was signed in January 1993, approximately one and a half years ahead of the expected RODs for most of the other sites.

6.14.3 Status/Strategy

The BCT will continue to evaluate technologies for expedited cleanups as these technologies become known and available.

6.15 Hot Spot Removals

There have been no hot spot removals at UMDA. Action items, rationale, and status/strategy related to this issue are described in more detail in the following subsections.

6.15.1 BCT Action Items

If any hot spots are identified at UMDA, the BCT will review the situation to determine if removal of the hot spots will expedite cleanup and property transfer efforts. If these efforts will be expedited by a hot spot removal, the BCT may elect to incorporate this approach into the RA strategy for the Depot.

6.15.2 Rationale

Hot spot removals may expedite any required cleanup effort and facilitate property transfer. If appropriate, and if hot spot removals are identified, they will be used to achieve these goals.

6.15.3 Status/Strategy

Should information arise which would suggest the need for immediate action in order to protect human health and the environment, the BCT in conjunction with USEPA Region X and ODEQ will make decisions regarding hot spot removals.

6.16 Identification of Clean Properties

The identification of clean properties has been completed at UMDA. The status and strategy for the continued evaluation of these properties is described in the following subsections.

6.16.1 BCT Action Items

As areas at UMDA are remediated, the BCP and associated environmental-condition-of-property and suitable-property-for-transfer maps will be updated to reflect the changes. Similarly, if additional contamination is identified at the installation, appropriate modifications to the maps will be made.

6.16.2 Rationale

It is necessary to identify clean properties as part of the property transfer effort. SARA Title I, Section 120 to CERCLA addresses the transfer of federal property on which any hazardous substances were stored during any one year period, or that is known as the site of any release or disposal of hazardous substances. SARA Title I, Section 120 to CERCLA also requires any deed for the transfer of this federal property to contain, to the extent such information is available on the basis of a complete search of agency files, the following information:

- ▶ A notice of the type and quantity of any hazardous substance storage, release, or disposal;

- ▶ A notice of the time at which such storage, release, or disposal took place;
- ▶ A description of what, if any, RA has occurred; and
- ▶ A covenant warranting that appropriate RA will be taken.

Under CERCLA Section 120, federal property which has had a release cannot be transferred unless the release has been remediated or has a remedy in place.

In October 1992, Public Law 102-426, CERFA amended Section 120(h) of CERCLA and established new requirements with respect to contamination assessment, cleanup, and regulatory agency notification/concurrence for federal facility closures. CERFA requires the federal government, before termination of federal activities on real property, to identify property where no hazardous substances were stored, released, or disposed. The primary CERFA objective is for federal agencies to quickly identify real property offering the greatest opportunity for immediate reuse and redevelopment.

6.16.3 Status/Strategy

Chapters 3.4 and 3.5, Environmental Condition of Property and Suitable Property for Transfer, outline the steps UMDA has taken to define the environmental condition of property and identify that property which is suitable for transfer as required under CERCLA Section 120 and CERFA.

The CERFA Investigation for the installation was completed in April 1994. An environmental-condition-of-property map was generated as part of that effort and is provided as Figure 3-2 in Chapter 3.4 of the BCP. The map identifies property in four environmental categories on a one-acre grid basis.

The CERFA map has been further refined as part of the BCP process. A suitable-property-for-transfer map has been developed using information from the CERFA investigation, the installation RI/FS and other sources. The map identifies UMDA properties in seven categories based on historical evidence of storage or release of hazardous substances or POL and the status of related restoration activities. This map is provided in Appendix F as Figures 3-3A and 3-3B. The map was created using Geographical Information System (GIS) technology.

The environmental-condition-of-property map and suitable property-for-transfer map will be updated as areas of UMDA are remediated so that an accurate visual portrayal of property available for transfer is maintained.

6.17 Overlapping Phases of the Cleanup Process

RDs for RAs will continue to be developed. Specific action items, rationale, and strategies necessary to accomplish this are described in the following subsections.

6.17.1 BCT Action Items

The BCT will review the RDs to evaluate where opportunities exist for combining RAs in order to eliminate duplication of effort.

6.17.2 Rationale

Overlapping RAs can eliminate redundant efforts and facilitate property transfer. The RI and FS phases overlapped significantly because of the need to conduct a second phase of the RI. The overall RI was completed to define the groundwater contamination at the washout lagoons, and the extent of soil contamination at some sites. A second phase of the RI was conducted from the fall of 1992 until the fall of 1993 to collect more information, and the information was added to the ongoing draft and draft final FS reports in early and late 1993.

For the Washout Lagoons Soils OU, the ROD was signed in September 1992 with the specification that composting would be conducted using either a mechanically agitated vessel or windrow method. Costs for windrows were specified in the ROD, and although it was expected that windrows would be successful, only the agitated vessel method had been demonstrated. A windrow treatability study was initiated in the fall of 1992 and completed in 1993, concurrent with the RD. Windrow composting was shown to be successful, and was retained in the final RD.

During September 1994, the RODs for the ADA area, Miscellaneous Sites, the Explosive Washout Plant, the Explosives Washout Lagoons Groundwater, and the DD for the SRI Study Sites were signed. Limited RD is expected. No significant change is expected in the remedies prior to ROD signature, so an early start on RD will expedite completion of the RAs.

6.17.3 Status/Strategy

Some RAs planned at UMDA could be combined. For example, UXO removal and site remediation could occur at several sites concurrently.

6.18 Improved Contracting Procedures

Efficient and cost-effective contracting procedures are necessary to expedite the restoration process. Specific action items, rationale, and status/strategy for improved contracting procedures are outlined in the subsections below. Improved contracting procedures include pre-placed indefinite delivery contracts, which are being utilized for UST removal and petroleum-contaminated soil remediation. These contracts help to expedite the BRAC cleanup. These contracts include pre-negotiated unit pricing, scope of work for analytical data acquisition, RA management plans, and regulatory reporting requirements.

6.18.1 BCT Action Items

The BCT will continue to investigate approaches for expediting contract procedures for cleanup work.

6.18.2 Rationale

Timeliness in the contracting process is important for completing restoration work. To expedite removal of contamination from the washout lagoon soils, the action was separated into two phases. In the first phase, the soil was excavated and stockpiled. This effort was well defined and standard materials handling equipment and procedures were used. An invitation for bid was used to select the contractor.

A request for proposal was used for the more complex second phase composting of the stockpiled soil. Technical requirements were advertised and distributed to the remediation industry for proposals. The contractor was selected based on technical merit and price. The request for proposal solicitation allows the evaluation of different and often innovative technical approaches to achieve remediation goals.

6.18.3 Status/Strategy

UMDA's use of pre-placed indefinite delivery contracts and the phased approach using invitations for bids and requests for proposals will allow the Depot to complete restoration work in a timely manner.

6.19 Interfacing with the Community Reuse Plan

Interfacing with a community reuse plan is desirable to expedite implementation of RAs and identify and transfer of parcels to the community. This section identifies issues that need to be resolved relative to this process. The plan was drafted in late 1993, and was considered in the preparation of this BCP. The reuse plan will be revised, as limitations on future property use are identified and incorporated into the planned use of the different reuse parcels at UMDA. The UXO in the ADA Area is the greatest limitation for property reuse on the Depot. The reuse map included in this BCP is the latest version available.

Reuse of UMDA is also affected by the U.S. Army "footprint", which is the property that the U.S. Army must retain in order to continue its chemical munitions storage mission and chemical stockpile demilitarization effort. This footprint is continuing to evolve and the latest version is included in this BCP.

6.19.1 BCT Action Items

The BCT will advise the local redevelopment authority of property conditions if new environmental discoveries are made at UMDA. The BCT should be prepared to modify the BCP as the reuse plan is modified and finalized.

6.19.2 Rationale

Coordination with the community reuse plan contributes to the selection of appropriate cleanup standards and facilitates implementation of remedial alternatives, ultimately resulting in a successful transfer of property.

6.19.3 Status/Strategy

The community reuse plan or the BCP will be revised according to the reuse needs, which are based on the desires of the community and the budget available.

6.20 Bias for Cleanup Instead of Studies

Specific action items and strategies related to this topic are provided in the subsections below. At this time, all investigations of the sites/OU's at UMDA have been completed. During the investigations at UMDA, several of the most contaminated sites were separated out of the overall investigation so that cleanup of these sites could be expedited. This action allowed the cleanup of these sites to begin approximately 1-2 years prior to the cleanup of the other sites.

6.20.1 BCT Action Items

The BCT will make every effort to implement any necessary RAs as soon as possible to facilitate transfer of UMDA. Investigations which identify and delineate contamination will be completed in a timely manner, so cleanup can commence.

6.20.2 Rationale

Although cleanup is preferred in lieu of extensive studies, extensive studies at UMDA have provided sufficient justification for no action decisions at 72 of the 83 sites identified in the RI/FS.

6.20.3 Status/Strategy

Where appropriate, for any future sites that are identified, the BCT will promote studies instead of cleanup to expedite the transfer of property.

6.21 Expert Input on Contamination and Potential Remedial Actions

It is necessary that proper resources are used to evaluate contamination and associated RAs. The following sections outline action items, rationale, and strategies related to this issue. The UMDA has utilized services of and consulted with various contractors and expert agencies in conducting the environmental work. The USAEC has conducted most of the RI/FS work and other surveys for asbestos, radon, and USTs. The UMDA has used the services of the USACE to conduct all of the RA work. During the RI/FS, the USAEC has consulted with the following agencies:

- ▶ The U.S. Army Corps of Engineers-Seattle District,
- ▶ The U.S. Army Corps of Engineers-Waterways Experiment Station,
- ▶ The Oregon Water Resources Department,
- ▶ The University of Washington, and
- ▶ The National Audubon Society.

6.21.1 BCT Action Items

The BCT is currently utilizing several resources to evaluate potential RAs and technologies.

6.21.2 Rationale

The use of several entities involved in the restoration of UMDA will promote the expedited property transfer process.

6.21.3 Status/Strategy

The BCT will continue to ensure that the proper resources are used to evaluate contamination and potential RAs.

6.22 Generic Remedies

The USEPA has issued guidance on "generic" or "presumptive" remedies for a few specific contamination scenarios. For example, one of the generic remedies for vadose zone volatile organic compound contamination is soil vapor extraction. Generic remedies were not used for the operable units at UMDA. Where RAs were needed, an FS was conducted which included screening of technologies and remedial alternatives. Action items, rationale, and status/strategies related to generic remedy implementation at UMDA are described in the following subsections.

6.22.1 BCT Action Items

The BCT does not need to consider generic remedies to expedite implementation of the installation's RA strategy.

6.22.2 Rationale

FSs for RAs have been conducted for all OUs at UMDA.

6.22.3 Status/Strategy

Generic remedies will not be used because UMDA's FSs have been conducted and RAs have been started for several sites.

6.23 Partnering (using innovative management, coordination, and communication techniques)

Partnering is the process of fostering cooperation and communication between key players in the BRAC process. Outstanding issues relative to this process are described in the following subsections. The FFA between UMDA, USEPA, and ODEQ provides the framework for all three parties to work together to be in accordance with CERCLA and State of Oregon laws.

6.23.1 BCT Action Items

At the present time, the BCT is actively fostering partnerships with USAEC, USEPA, ODEQ, and the community through scheduled meetings and the document review process.

6.23.2 Rationale

Close cooperation and coordination between UMDA, USAEC, the community, and regulators helps foster good working relationships, and can accelerate implementation of the installation's RA strategy by keeping "key players" informed of the status of environmental efforts, soliciting their input, and addressing potential concerns in the remediation process.

6.23.3 Status/Strategy

The BCT plans to continue its activities and to encourage information transfer between UMDA, USAEC, the community and regulators.

6.24 Updating the CERFA Report and Natural/Cultural Resources Documentation

Outstanding issues related to updating the CERFA and natural/cultural resource documents for UMDA are outlined in this section.

6.24.1 BCT Action Items

Natural and cultural resource information has been documented at UMDA. The BCT will update the environmental-condition-of-property and suitable-property-for-transfer maps as necessary when RAs at UMDA are complete.

6.24.2 Rationale

Updates of the environmental-condition-of-property and suitable-property-for-transfer maps are necessary to reflect changes in property classification based on completion of RAs.

6.24.3 Status/Strategy

As new information regarding natural and cultural resources is documented in the Disposal and Reuse EIS, new programs for management will be developed. The BCT will continue to manage natural and cultural resources at the Depot as per the current program. The BCP will

periodically review the CERFA report in conjunction with new data from RAs to determine if parcels can be reclassified to allow property transfer.

6.25 Implementing the Policy for On-site Decision Making

Most decisions for cleanup actions have been made as of April 1994. No impediments to quick decision making are expected in the future. Formal U.S. Army approval of RODs has remained with the installation Commander and Deputy Assistant Secretary, Installation, Logistic, and Environmental level. This section describes outstanding issues relative to the implementation of policies for such on-site decision making.

6.25.1 BCT Action Items

If additional decisions for cleanup actions are necessary, the BCT will consult the appropriate U.S. Army representatives.

6.25.2 Rationale

Close cooperation and coordination between the decision making groups has helped to foster good working relationships. It has also helped to accelerate implementation of the installation-wide RA strategy by keeping the "key players" informed of the status of environmental efforts by soliciting their input, allowing effective on-site decision making, and addressing potential concerns in the remediation process.

6.25.3 Status/Strategy

The BCT plans to continue its activities and to encourage information transfer between the UMDA, USEPA, ODEQ, and the community.

6.26 Structural and Infrastructural Constraints to Reuse

The most significant constraint on future reuse is a limitation on the use of groundwater wells at UMDA. Outstanding issues relative to structural and infrastructural constraints to reuse are identified in this section.

The State of Oregon grants UMDA the right to use the existing UMDA water supply wells in order to operate the Depot; however, it is unknown whether future owners would be permitted to access groundwater at these wells.

6.26.1 BCT Action Items

As new information regarding this significant constraint becomes available, the BCT will evaluate approaches for overcoming this constraint or new constraints that may be identified in the future.

6.26.2 Rationale

Potential structural and infrastructural constraints must be overcome, or alternative reuses must be identified, to allow transfer of UMDA property.

6.26.3 Status/Strategy

BCT will await the decision of the State of Oregon who will determine if future property owners will have access to the groundwater from the existing UMDA water supply wells.

6.27 Other Technical Issues to be Resolved

There are no other technical issues to be resolved at UMDA.

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