



Hanford Long-Term Stewardship Program Plan



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Hanford Long-Term Stewardship Program Plan

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HISTORY
HANFORD LONG-TERM STEWARDSHIP PROGRAM PLAN

Revision	Date	Description
1	April 2012	Program Plan revised to incorporate changes from lessons learned. Terminology revised to use “geographic area” instead of “segment” to describe parcels of land moving into the LTS Program. Communication section (and Example Communication and Commitment Tracking) added to the content of the Plan. Attachment A, Transition and Turnover Package Checklist, replaces example transition checklist.

TERMS

AMMS	Office of Assistant Manager Mission Support
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
DOE	U.S. Department of Energy
Ecology	Washington State Department of Ecology
EM	U.S. Department of Energy, Office of Environmental Management
EPA	U.S. Environmental Protection Agency
HCP EIS	DOE/EIS-0222-F, <i>Final Hanford Comprehensive Land-Use Plan - Environmental Impact Statement</i>
LIGO	Laser Interferometer Gravitational Wave Observatory
LM	U.S. Department of Energy, Office of Legacy Management
LTS	long-term stewardship
National Monument	Hanford Reach National Monument
NEPA	<i>National Environmental Policy Act of 1969</i>
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RL	U.S. Department of Energy, Richland Operations Office
ROD	record of decision
S&M	surveillance and maintenance
TTP	transition and turnover package
Tri-Party Agreement	Ecology et al., 1989, <i>Hanford Federal Facility Agreement and Consent Order</i>
USFWS	U.S. Fish and Wildlife Service

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1.0 INTRODUCTION

This plan describes the U.S. Department of Energy (DOE), Richland Operations Office (RL) Hanford Long-term Stewardship (LTS) Program Plan for managing post-cleanup obligations at the Hanford Site in a safe and cost-effective manner. Remediated geographic areas of land will transition into the Hanford LTS Program when their required cleanup activities are completed. A comprehensive overview of the Hanford Site cleanup is provided in DOE/RL-2009-10, *Hanford Site Cleanup Completion Framework*, which describes the cleanup of all three main components of Hanford Site cleanup (i.e., the River Corridor, Central Plateau, Tank Waste) and the relationship of the cleanup to LTS. Additional information regarding the cleanup of the Central Plateau is provided in DOE/RL-2009-81, *Central Plateau Cleanup Completion Strategy*, which describes DOE's vision for completion of Central Plateau cleanup, the technical and regulatory path forward, and the decisions needed to achieve the vision. RL's objective is to reduce the footprint of the Site's active cleanup operations by 64% by calendar year 2011 and 91% in 2015, respectively, as described in DOE/RL-2010-18, *Hanford Site Active Cleanup Footprint Reduction*.

Definition of Long-Term Stewardship

Long-term stewardship refers to all activities necessary to ensure protection of human health and the environment following completion of cleanup, disposal, or stabilization at a site or a portion of a site. Long-term stewardship includes all engineered and institutional controls designed to contain or to prevent exposures to residual contamination and waste, such as surveillance activities, record-keeping activities, inspections, groundwater monitoring, ongoing pump and treat activities, cap repair, maintenance of entombed buildings or facilities, maintenance of other barriers and containment structures, access control, and posting signs.

DOE/EM-0563, *The Report to Congress: Long-Term Stewardship*

The Hanford LTS Program manages the geographic areas for which active cleanup has been completed. This management is performed in accordance with the post-cleanup requirements specified in the associated cleanup decision documents. These cleanup decision documents include, but are not limited to, the *Comprehensive Environmental Response, Compensation and Liability Act of 1980* (CERCLA) record of decisions (RODs) and *Resource Conservation and Recovery Act of 1976* (RCRA) corrective action decisions and post-closure plans. In addition to managing the post-cleanup completion obligations, the Hanford LTS Program manages Site natural and cultural resources through the framework of DOE/EIS-0222-F, *Final Hanford Comprehensive Land-Use Plan - Environmental Impact Statement* (HCP EIS), and 64 FR 61615, "Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)," and in accordance with federal laws, executive orders, Tribal Nations' treaties, DOE directives, and Hanford Site procedures.

RL will manage the Hanford LTS Program until all DOE Office of Environmental Management (EM) missions at the Hanford Site are complete. When continuing missions and cleanup at the Site are complete, the management of the Hanford Site is currently expected to transition to the DOE Office of Legacy Management (LM). LM is responsible for conducting LTS activities at DOE sites that have been cleaned up and for which there is no continuing DOE mission. Until then, RL will manage the Hanford LTS Program in a manner consistent with LM's goals, policies, and procedures.

1.1 PURPOSE

This plan fulfills the following purposes:

- Serves as a management plan for the Hanford LTS Program that identifies the program's responsibilities and activities
- Describes the relationship between cleanup projects and the Hanford LTS Program
- Better defines the process that is used to transition land management responsibility from cleanup projects to the Hanford LTS Program.
- Incorporates Transition and Turnover Package (TTP) and TTP Checklist (TTP Checklist was produced by merging the TTP Template and the Transition Checklist. Example Transition Checklist was removed from the previous revision of this Plan).
- Incorporates proposed transition timeframes and schedules.
- Incorporates lessons learned from the transition of Segment 1 into the LTS Program.

The Hanford LTS Program Plan also serves as one of the implementing procedures and controls for the HCP EIS.

1.2 BACKGROUND

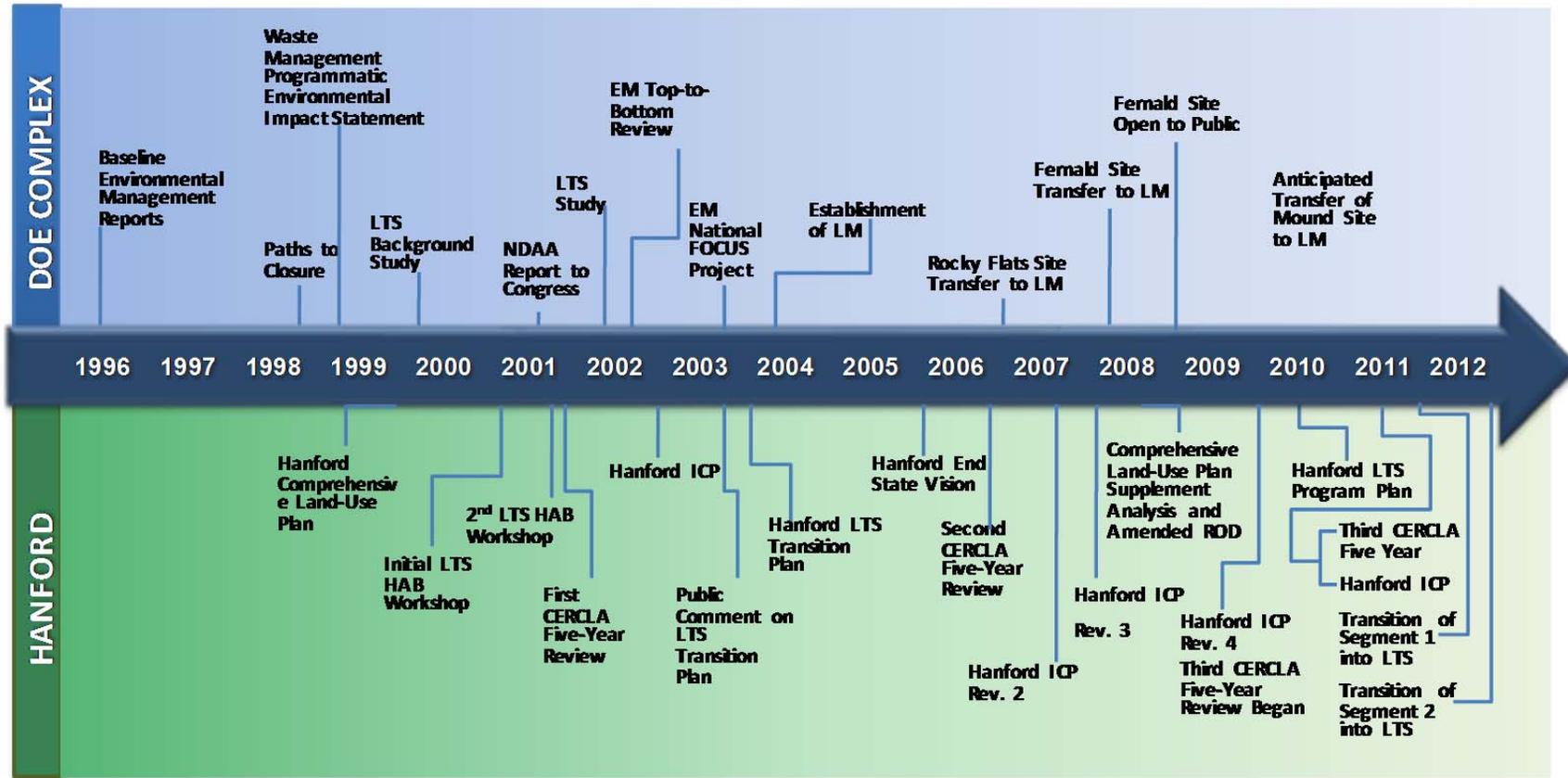
Figure 1-1 illustrates the evolution of the DOE complex-wide LTS program through a series of reports and studies. The top half of the timeline is focused at the national level, the bottom half is focused on Hanford-specific activities. At the national level, DOE recognized the significance of LTS in the 1990's when it issued several reports that addressed cleanup and management of land upon completion of the cleanup mission at its sites. In 2003, DOE established LM as the office responsible for conducting LTS activities at sites where there is no longer a DOE mission. LM manages former EM sites where cleanup has been completed (e.g., Rocky Flats, Fernald), sites remediated by the U.S. Army Corps of Engineers, and remediated uranium processing sites. Although LM will not take land management responsibility of the Hanford Site until cleanup of the entire Hanford Site is completed, the Hanford LTS Program is managed consistent with current LM policies and procedures. More information about LM is available on the DOE web site at www.lm.doe.gov. At the Hanford Site, the HCP EIS identified the need to develop a LTS program plan, which was issued in 2003 as DOE/RL-2003-39, *Hanford Long-Term Stewardship Program and Transition: Preparing for Environmental Management Cleanup Completion*. CERCLA RODs identified a need for a Sitewide institutional controls plan, which was first issued in 2001, and most recently revised as DOE/RL-2001-41, Rev. 5, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions and RCRA Correction Actions*. The Hanford LTS Program Plan builds off the foundation of these earlier documents and replaces DOE/RL-2003-39 as the Site progresses from LTS planning to implementation.

1.3 LONG-TERM STEWARDSHIP AT THE HANFORD SITE

Hanford LTS Program responsibility begins for a geographic area when remedy cleanup objectives and goals are met, as defined by the applicable CERCLA and RCRA decision documents (Figure 1-2). The Hanford LTS Program includes post-cleanup obligations such as the maintenance of remedies and institutional controls, the CERCLA five-year review assessments, and the operations and maintenance of groundwater treatment systems that are

operational and functional. Section 2.1 provides more information on the transition of geographic areas into the Hanford LTS Program. In addition, the Hanford LTS Program consists of the management of the Site's resources, such as the cultural, biological, and natural resources, through the framework of the HCP EIS and its implementing procedures and controls. The following sections detail the Hanford LTS Program objectives.

Figure 1-1. DOE Complex-Wide and Hanford Long-term Stewardship Timelines. –



DOE/RL-2010-35, REV. 1

1-4

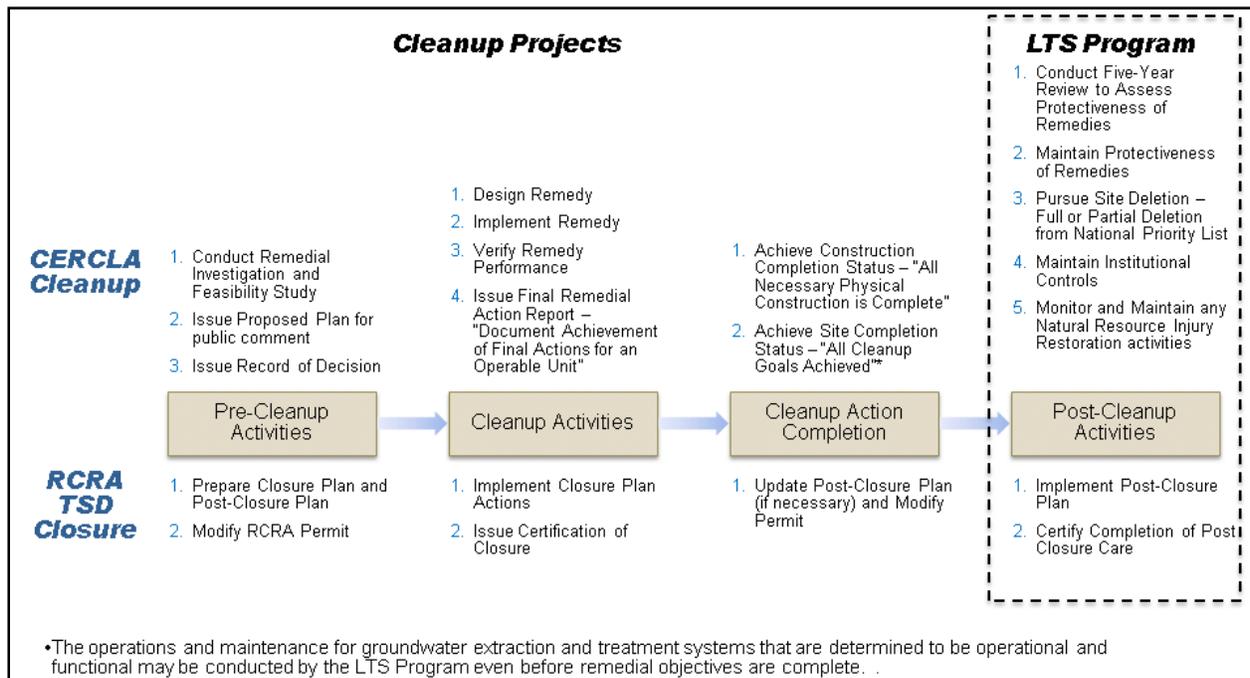
The top half shows reports, studies, and activities that developed the complex-wide LTS approach. The lower half shows Hanford-specific LTS activities.

HAB = Hanford Advisory Board.

ICP = Institutional Controls Plan (DOE/RL-2001-41, *Sitewide Institutional Controls Plan for Hanford CERCLA Response Actions*).

NDAAs = *National Defense Authorization Act*.

Figure 1-2. Hanford Site Cleanup Completion Phases.



Sources: DOE, 2008, *CERCLA Remedial Action Site Closure Guidance*.
 EPA/540/R-98/016, *Close Out Procedures for National Priorities List Sites*.
 Ecology et al., 1989, *Hanford Federal Facility Agreement and Consent Order*.
 TSD = treatment, storage, and disposal.

1.3.1 Protectiveness of the Remedies

One of the key objectives of LTS ensures the continued protectiveness of remedies, as defined by CERCLA and RCRA cleanup decision documents. Regulatory decisions may not result in remediation of all areas to a condition that would allow unrestricted use or unrestricted surface use. In addition, some waste generated by past nuclear weapons production activities will be disposed to onsite permitted disposal cells. The Hanford LTS Program manages the post-cleanup requirements of the remedies, as defined in the cleanup decision documents, including any required long-term operations and maintenance of groundwater remedies.

1.3.2 Protectiveness of the Resources and the Environment

The other key objective of LTS includes the consideration of the unique biological, natural, and cultural resources on the land. These resources are managed at the Hanford Site by using Resource Management Plans and Area Management Plans as described in the HCP EIS, Chapter 6. Site resource examples include the following:

- Surface water, groundwater, land, natural gas, minerals, and other natural resources
- Fish, wildlife, and plant populations and their habitats
- Prehistoric archaeological sites
- Native American sacred and ceremonial places
- Historical resources.

1.4 REQUIREMENTS

As a major federal land management agency, DOE's obligations under the *Atomic Energy Act of 1954* and other federal laws are the fundamental bases for the Hanford LTS Program. The *Department of Energy Organization Act of 1977* clarified Congressional intent related to DOE's environmental functions. The Act states:

The Department of Energy, by consolidating environmental considerations and procedures...should provide an effective vehicle for identifying potential environmental, health, safety, socioeconomic, institutional, and control technology issues associated with technology development. It provides a single, coordinated mechanism for determining necessity and timing of environmental impact assessments and environmental impact statements in order to respond to the needs of specific technologies or resources. It ensures a complete and fully integrated program with respect to environmental, health and safety impact research and engineering applications.

LTS requirements are specifically defined in DOE O 430.1B, *Real Property Asset Management*, and DOE O 450.1A, *Environmental Management Program*. DOE O 430.1B explains the need for planning for LTS and notes that LTS includes "... the physical controls, institutions, information, and other mechanisms needed to ensure protection of people and the environment where DOE has completed, or plans to complete, disposition."

Additional sources of the key regulatory and DOE requirements related to LTS include but are not limited to the following.

- The Tri-Party Agreement (Ecology et al., 1989, *Hanford Federal Facility Agreement and Consent Order, as amended*) requires the establishment and maintenance of an Administrative Record for each operable unit and treatment, storage, and disposal group that contains all of the documents with information considered in arriving at a ROD, Corrective Action Decision (CAD) or permit modification. The Tri-Party Agreement also requires the establishment and maintenance of the Waste Information Data System, which identifies known and reported waste sites. The Waste Information Data System includes the type and location of a site, when a site was operated, general dimensions and description, general descriptions of waste placed at a site (e.g., estimated quantities of radionuclides and chemicals), and describes the current status of each unit. Waste Information Data System also includes information regarding completed waste sites and their required institutional controls.
- Remedial action objectives and other cleanup requirements are contained in CERCLA regulatory decision documents, including RODs, ROD amendments, explanation of significant differences, and action memorandums. Controls also may be summarized in remedial action reports. LTS requirements from CERCLA decision documents may specify institutional controls and the maintenance and monitoring of physical remedies. Further requirements may be specified in operations and maintenance plans.
- The RCRA corrective action decisions and post-closure permits and plans describe LTS requirements following the completion of cleanup. Such requirements may include maintaining institutional controls (e.g., fences, signs, surveys of where hazards remain) and monitoring activities.

LTS requirements may be derived from a Natural Resource Injury Assessment. In addition to remediation of past releases, in certain circumstances, CERCLA requires that injuries to natural resources resulting from certain past releases be identified and restored. The Natural Resource Injury Assessment Process includes collecting, compiling, and analyzing information to assess the extent of injury to a natural resource and determine appropriate ways of restoring that injury. Although the Natural Resource Injury Assessment Process is separate from the Hanford LTS Program, the Hanford LTS Program is responsible for any required monitoring and maintenance of natural resources once restoration activities have been completed.

1.5 HANFORD LTS PROGRAM WITHIN THE FRAMEWORK OF THE HANFORD COMPREHENSIVE LAND-USE PLAN

The Hanford LTS Program Plan is one of the implementing procedures and controls of the Comprehensive Land-Use Plan (identified in the HCP EIS, Chapter 6). The HCP EIS adopted the Comprehensive Land-Use Plan for the Hanford Site in accordance with DOE's responsibilities under the *Atomic Energy Act of 1954* and pursuant to Congress's direction in the *National Defense Authorization Act for Fiscal Year 1997*. DOE issued the HCP EIS in September 1999 and a record of decision (64 FR 61615) in November 1999, which established the Comprehensive Land-Use Plan. In June 2008, the HCP EIS underwent a review through a *National Environmental Policy Act of 1969* (NEPA) Supplement Analysis (DOE/EIS-0222-SA-01, *Hanford Comprehensive Land-Use Plan and Environmental Impact Statement Supplement Analysis*). The result of the review was an amended ROD (73 FR 6450-01-P, "Amended Record of Decision for the Hanford Comprehensive Land-Use Plan Environmental Impact Statement") dated June 2008, which clarified the following points.

- When considering land-use proposals, DOE will use regulatory processes in addition to the implementing procedures in Chapter 6 of the HCP EIS to ensure consistency with Comprehensive Land-Use Plan designation.
- DOE will continue to apply the process under the HCP EIS Chapter 6, to modify and amend the Comprehensive Land-Use Plan, as needed.

The following four elements of the Comprehensive Land-Use Plan address land-use activities and protect and manage unique resources of the Site.

- A land-use map depicts designated land uses for areas of the Hanford Site and supports full implementation of the DOE mission elements assigned to the Hanford Site.
- Land-use designations define the purpose, intent, and principal uses of each geographic area shown by the final Comprehensive Land-Use Plan map.
- Land-use policies direct land-use actions and help ensure that individual land-use actions collectively advance the Comprehensive Land-Use Plan's goals and objectives over time.
- Land-use plan implementation procedures and controls and administrative procedures are used to review and approve proposed land-use requests. In addition, these procedures are used to make recommendations on actions to be undertaken under the land-use plan to align and coordinate Hanford Site area and resource management plans (e.g., DOE/RL-98-10, *Hanford Cultural Resource Management Plan*; DOE/RL-96-32, *Hanford Site Biological Resource Management Plan*). These types of plans are used by

RL as implementing procedures and controls to ensure consistency in land-use activities on the Hanford Site. This includes consideration and management of the land; facilities; infrastructure; and unique biological, natural, and cultural resources on the Hanford Site.

The Hanford LTS Program Plan provides an integral part of implementing the Comprehensive Land-Use Plan to address post-cleanup activities and requirements when considering and managing land-use activities on the Hanford Site. When evaluating land-use requests through the Comprehensive Land-Use Plan implementing procedures and controls, the Hanford LTS Program provides important information to ensure protectiveness of the remedies and the environment. Like the Hanford LTS Program Plan, each of the management plans described in the HCP EIS, Chapter 6, directs unique resources and key activities, but together provide a comprehensive approach for the management of land and facilities at the Hanford Site.

1.6 CONTENT OF THE PLAN

This plan defines DOE's approach to LTS for the Hanford Site. It details how DOE intends to meet its responsibilities to maintain the protectiveness of the cleanup remedies in accordance with regulatory requirements and to protect and manage the resources and the environment. Chapter 2.0 defines when LTS begins, identifies the activities of the Hanford LTS Program, and discusses the planning needed to prepare for LTS activities. Chapter 3.0 describes how DOE transitions land management responsibility from the cleanup projects to the Hanford LTS Program. Chapter 4.0 defines the implementation of each LTS activity.

1.7 REVISIONS TO THIS PLAN

As a newly-established program at the Hanford Site, the Hanford LTS Program is dynamic, active, and flexible to address issues as they arise and incorporate lessons learned from the experiences of the Hanford LTS Program, as well as experiences of other sites. RL will continue to consult with the Tribal Nations as it implements the Hanford LTS Program and updates this plan. This plan is intended to be a living document that will be updated as the Hanford LTS Program gains experience in conducting activities and as requirements continue to be defined in future cleanup decision documents.

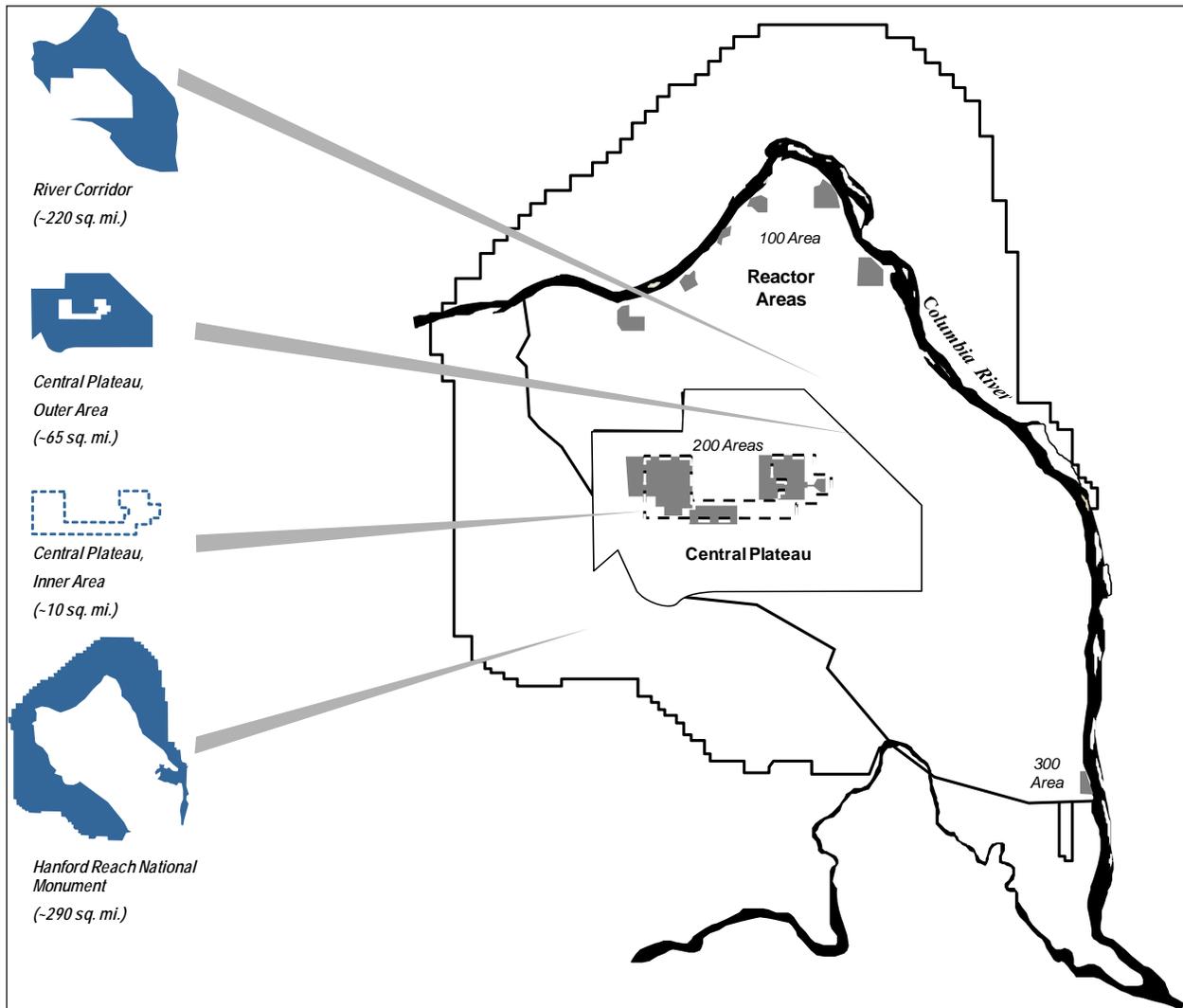
2.0 PLANNING FOR LONG-TERM STEWARDSHIP

This chapter describes the preparations for the transition of remediated geographic areas of land, or ROD areas, into the Hanford LTS Program. For this plan, a ROD area is the geographic area that corresponds to a particular ROD for which cleanup has been completed and for which land management responsibility is being transitioned to the Hanford LTS Program. For some ROD areas, the parcels have been further divided into segments. For the purposes of this LTS Program Plan, the term geographic area will be used to describe the parcels of the land (whether segment, zone or reactor area) that will be transitioned into the Hanford LTS Program.

2.1 COMPLETION OF CLEANUP AND COMMENCEMENT OF LONG-TERM STEWARDSHIP

RL's near-term cleanup objective is to significantly reduce the footprint of active cleanup operations within the next five years for the Hanford Reach National Monument and the River Corridor (Figure 2-1).

Figure 2-1. Geographic Components of Active Cleanup Footprint Reduction.



The anticipated schedule for the cleanup of the three major geographic components of the Hanford Site (Figure 2-1), includes the following.

Hanford Reach National Monument - The Hanford Reach National Monument (National Monument) cleanup component, which includes removal of debris piles, excess facilities, and abandoned experiments, was completed in fiscal year 2011. Cleanup of monument lands to the south and west of the Columbia River (e.g., the reactor areas) were completed as part of the River Corridor cleanup.

River Corridor – With a few exceptions, cleanup of the River Corridor component is planned for completion in calendar year 2015. The River Corridor is being cleaned up to the criteria specified in the associated interim RODs. Over half of the River Corridor work scope is now complete and by 2015 all geographic areas of the River Corridor will be cleaned up consistent with the interim and final RODs. Groundwater remediation activities have been implemented and will continue after cleanup of the River Corridor component is completed.

The River Corridor has six geographic areas for which final RODs are being developed (Figure 2-2):

- a. 100-B/C Area
- b. 100-K Area
- c. 100-N Area
- d. 100-D and 100-H Areas
- e. 100-F Area combined with 100-IU-2/IU-6 Areas (because of the significant size of this ROD area, it is further subdivided into multiple geographic areas called segments)
- f. 300 Area, including nearby 600 Area waste sites.

Figure 2-2 shows the locations of these six ROD areas, including the segments of the 100-F/IU-2/IU-6 ROD Area.

After completion of the River Corridor final RODs, CERCLA Five-Year Review process may still determine that additional cleanup is required or warranted beyond what was performed under the RODs. The River Corridor RODs are planned to be finalized in 2014.

Central Plateau - The Central Plateau area will be dedicated to long-term waste management and containment of residual contamination. Disposal and other areas will necessitate long-term management activities. The outer area non tank farm waste sites are being cleaned to levels comparable with the River Corridor cleanup. The outer area non tank farm waste sites will be cleaned up to the criteria specified in the Outer Area CERCLA and/or RCRA cleanup decision documents, with cleanup completion planned between 2015 and 2020. Completion of the inner area will follow.

Prior to the completion of cleanup for a final remedy of a geographic area, the Hanford LTS Program begins to work with the cleanup projects to identify and define the following:

- The cleanup completion schedule
- The geographic area boundaries and end state conditions
- The required LTS activities
- The estimated life-cycle costs for LTS of the geographic area
- The related information and data that will be needed to support LTS for the geographic area.

The geographic area then is transitioned to the Hanford LTS Program when cleanup is completed, as shown in Figure 2-3.

Geographic areas for which cleanup to the interim ROD have been completed may require interim surveillance and maintenance (S&M) activities prior to the development of the final RODs. The responsibility for conducting the associated interim S&M activities may be transitioned to the Hanford LTS Program, prior to the development of the final RODs. Section 2.4 describes the interim S&M activities associated with interim RODs.

DOE Order 458.1, *Radiation Protection of the Public and the Environment*, requires that a radiological release of property be performed when that property is transferred out of DOE control. Since the geographic areas in the LTS Program are still under DOE control, this radiologic release procedure is not completed prior to transition into the LTS Program. If at any point a portion of land is transferred out of DOE control, the radiologic release will be completed.

When all remedial actions are complete for the three major geographic components, the Hanford LTS Program responsibilities are anticipated to be transitioned to LM, as shown in Figure 2-3. The transition will follow LM transition policies and procedures in place at that time.

Figure 2-3. Relationship of Cleanup, S&M, and LTS Activities.



2.2 ACTIVITIES

The Hanford LTS Program is comprised of a group of activities designed to ensure the continued protection of human health and the environment, and to manage and protect Site resources. The activities listed in this section have been identified based on a review of LTS activities at other sites through the RL benchmarking efforts and lessons learned through the current Hanford LTS Program. Section 2.5 has more information regarding RL’s lessons learned and benchmarking efforts. The Hanford LTS Program includes the following activities:

- Conduct administrative activities
- Conduct S&M of the physical remedies and institutional controls
- Conduct CERCLA five-year reviews
- Conduct environmental monitoring of the remedies
- Protect and manage Site resources
- Manage LTS information
- Prepare for emergencies, contingency planning, and corrective actions
- Manage post-cleanup completion infrastructure
- Conduct monitoring and maintenance of completed natural resource injury restoration projects
- Ensure the safety and health of LTS workers
- Provide quality assurance
- Manage and budget necessary funding
- Communications
- Improve the Hanford LTS Program continuously.

These activities are described in greater detail in Chapter 4.0.

2.3 HANFORD LTS PROGRAM TRANSITION AND TURNOVER PACKAGE (TTP) AND TTP CHECKLIST

When cleanup is completed for a geographic area of land and it is ready for transition, the transitioning cleanup organization and the Hanford LTS Program will use the transition checklist to ensure all preliminary activities have been completed and that the associated documentation of those activities is in place in the form of a Transition and Turnover Package. The TTP will contain the information needed to transition the geographic area from the cleanup program to the LTS Program, including as-left facilities and infrastructure, surveillance and maintenance requirements for the area, cleanup that was completed and active real estate agreements in the area.

The Hanford LTS Program has developed a TTP checklist (Appendix A) that must be completed and signed off by the RL cleanup projects and the Hanford LTS Program prior to transition of land management responsibility of the defined geographic areas of the Hanford Site.

The transition checklist is based on the LM Site Transition Framework, which is the starting point used by LM to develop site-specific transition criteria for transitioning EM sites into the LM Program, and is customized for use at the Hanford Site. Although the transition of the entire Hanford Site is not anticipated for several decades, the transition checklist is designed to ensure the land is managed by the Hanford LTS Program in a manner consistent with the current LM Program. The Hanford LTS Program will periodically evaluate changes to the LM Program to update how we implement LTS at Hanford for long-term consistency.

2.4 INTERIM SURVEILLANCE AND MAINTENANCE ACTIVITIES PRIOR TO CLEANUP COMPLETION

Although LTS follows the completion of cleanup to RODs, interim S&M activities will begin upon completion of the active cleanup to interim RODs (Figure 2-2). Once cleanup to the interim

ROD was completed, the responsibility to perform interim S&M activities for Segment 1 was transitioned to the Hanford LTS Program.

Although the Hanford LTS Program conducts S&M activities for geographic areas transitioned following cleanup to interim RODs, the RL cleanup projects remain responsible for, and will continue to follow, all other CERCLA requirements to reach cleanup completion of the geographic area to the final RODs (e.g., development of the final ROD, implementation of the final ROD, development of the final remedial action reports, as shown in Figure 1-2). Once the RL cleanup projects have completed cleanup to the final RODs for these areas, the full land management responsibility will be transitioned to the Hanford LTS Program using the process described in Chapter 3.0.

The Hanford LTS Program working with the cleanup projects has developed the specific schedule for the transition of the geographic areas, to identify the regulatory requirements for the interim S&M activities, to develop the life-cycle cost estimate, and to obtain necessary funding for conducting the interim S&M activities. In addition, a transition and turnover package (TTP) is developed for every geographic area that defines the boundaries of the area being transitioned, documents the cleanup history, describes the current status of the area (including existing infrastructure and other information needed to support land management activities), and identifies post-cleanup requirements. The TTP also documents any remaining regulatory activities to be conducted by the RL cleanup projects to reach final ROD completion. The TTP identifies key records that document the cleanup and will be archived and retained for the long-term. The TTP checklist is used to ensure the TTP for each geographic area is complete and comprehensive.

An LTS S&M plan will be developed for each area as part of the TTP, as it is transitioned, to define how the area will be managed to meet post-cleanup requirements. The LTS S&M plan will address all activities (e.g., maintaining institutional controls required by RODs, keeping LTS records, conducting inspections, monitoring groundwater, repairing caps, maintaining entombed buildings or facilities, maintaining barriers and containment structures, controlling access, posting signs) necessary to ensure protection of human health and the environment following completion of remediation, disposal, or stabilization of a site or a portion of a site.

2.5 INCORPORATION OF LESSONS LEARNED

A number of sites across the country have already completed cleanup and entered LTS. During preparation of this plan and through previous LTS planning efforts, RL has reviewed, and will continue to consider, the lessons learned. The review included other DOE sites, such as Rocky Flats and Fernald (currently being managed by LM), LM transition policies, and Department of Defense sites (e.g., Rocky Mountain Arsenal in Colorado), environmental policy, and guidance documents. The benchmarking efforts for the Hanford Site include the following:

- Review of lessons learned at major EM closure sites
- Review of LM policies regarding transition of sites from EM to LM
- Review of the long-term surveillance and maintenance plans at major LM sites
- Interviews of personnel from other DOE sites engaged in LTS activities to identify best practices

- Review of cleanup to LTS transition practices at U.S. Department of Defense sites
- Review of studies regarding LTS developed by external organizations.

Based on the benchmarking efforts, the key lessons learned identified to support the development of the Hanford LTS Program include the following:

- The importance of feedback from Tribal Nation representatives, advisory boards, and regulators
- The importance of planning for LTS significantly ahead of the completion of cleanup, working in close partnership with the cleanup projects to clearly define the completion of cleanup and ensure a smooth transition to LTS
- Active, dynamic management, particularly to ensure the remedies remain protective over the long-term and that the institutional controls continue to perform successfully to meet their objectives
- A well-prepared and comprehensive long-term surveillance and maintenance plan will help to ensure continued protection of human health and the environment
- The collection and management of documents describing the cleanup decisions and LTS requirements immediately upon completion of cleanup and to ensure preservation and accessibility of these documents for the long-term.

The lessons learned through these benchmarking efforts have served as key input for the development of this Hanford LTS Program Plan and were considered in the development of the transition process for land management responsibilities and in the development of the Hanford LTS Program responsibilities. Furthermore, the Tribal Nations and Hanford Advisory Board have been engaged to provide feedback in the development of the Hanford LTS Program Plan.

After the transition of the first geographic area of land into the LTS Program, a workshop was held to examine the transition process and program documents and to compile some lessons learned. The workshop identified several key improvements to the process that are being incorporated into the program. One of the more notable improvements was combining the TTP Template and the LTS Program TTP Checklist (checklist) into a single document.

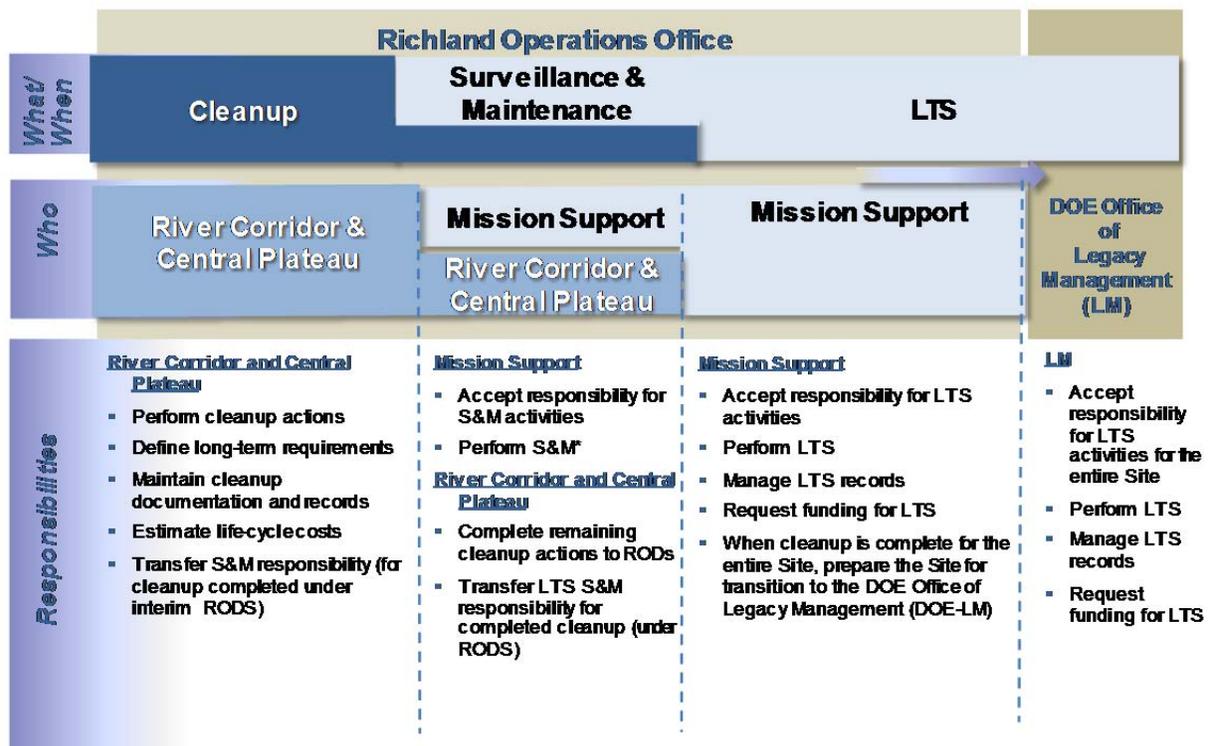
3.0 TRANSITION OF LAND MANAGEMENT RESPONSIBILITIES

This chapter identifies when the cleanup projects or Hanford LTS Program is responsible for the transition activities, provides a description of the transition process, and presents information on the development of the transition schedule.

3.1 RESPONSIBILITIES

Figure 3-1 summarizes the responsibilities of the RL cleanup projects and the Hanford LTS Program for the transition process. The RL cleanup projects are responsible for performing the cleanup actions through the regulatory completion and providing the documentation of the work performed to the LTS Program. Figure 1-2 defines when cleanup ends and LTS begins. Cleanup responsibilities include developing the final ROD and implementing the remedies, even while the Hanford LTS Program may be conducting interim S&M activities. The Hanford LTS Program is responsible for the post-cleanup completion requirements (e.g., monitoring remedies, managing resources), as well as interim S&M activities that may be required prior to the development of the final RODs.

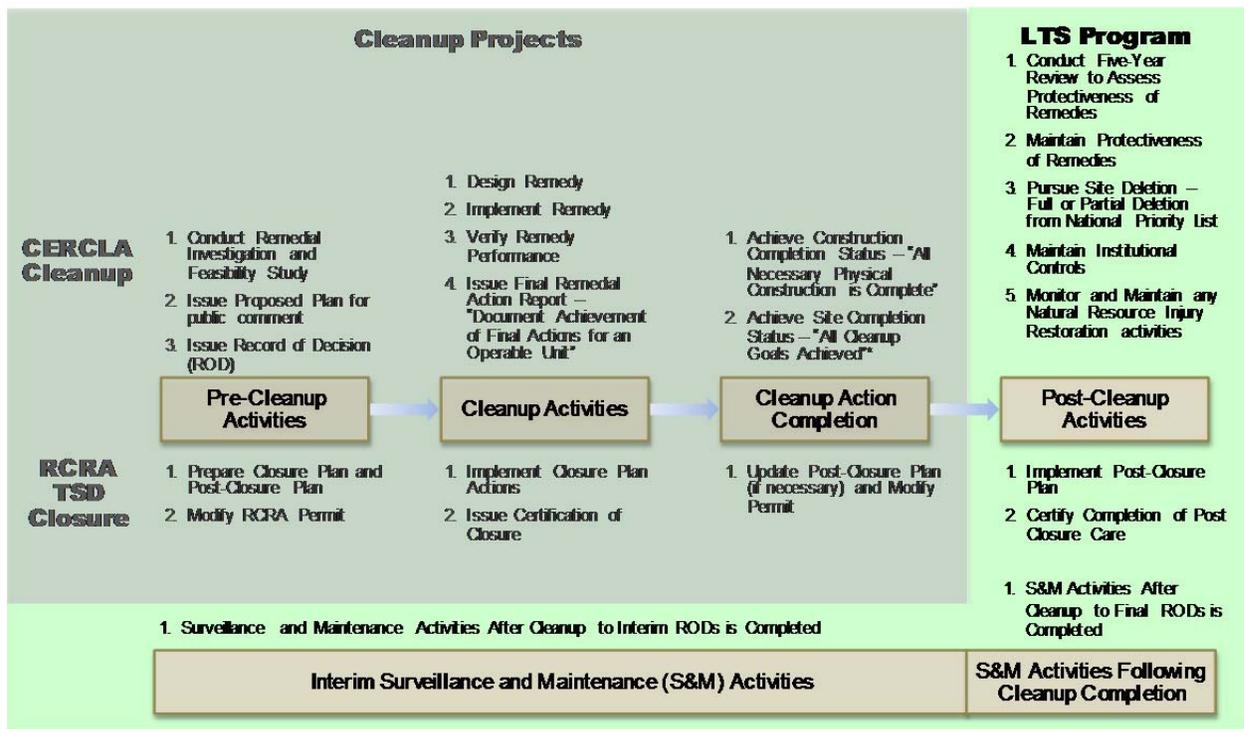
Figure 3-1. Program Responsibilities During Transition.



*The operations and maintenance for groundwater extraction and treatment systems that are determined to be operational and functional may be conducted by the LTS Program even before remedial objectives are complete.

To further clarify the distinction between the cleanup projects and Hanford LTS Program responsibilities from a regulatory basis, Figure 3-2 shows the specific steps towards cleanup completion and the transition of each geographic area to the Hanford LTS Program. Figure 3-2 is based on the information in Figure 1-2, with modifications to more clearly show the distinction between cleanup activities and LTS activities for S&M. As described in Chapter 2.0, S&M activities for some geographic areas will begin prior to the development of the final ROD. The Hanford LTS Program will be responsible for conducting those S&M activities for geographic areas transitioned to the Hanford LTS Program.

Figure 3-2. Responsibilities of the Cleanup and Hanford LTS Programs.



* The operations and maintenance for groundwater extraction and treatment systems that are determined to be operational and functional may be conducted by the LTS Program even before remedial objectives are complete.

Sources: DOE, 2008, *CERCLA Remedial Action Site Closure Guidance*.
 EPA/540/R-98/016, *Close Out Procedures for National Priorities List Sites*.
 Ecology et al., 1989, *Hanford Federal Facility Agreement and Consent Order*.
 TSD = treatment, storage, and disposal.

3.2 TRANSITION PROCESS

Steps for transitioning the responsibilities for S&M to the Hanford LTS Program include the following: (some of these steps may be taken concurrently).

1. The cleanup projects identify that active cleanup is complete, per the applicable interim RODs, for a particular geographic area.

2. The Hanford LTS Program, in collaboration with the cleanup projects, prepare the Transition and Turnover Package (TTP) to compile the necessary information needed to transition the geographic area into the LTS Program.
3. The Hanford LTS Program works with the cleanup projects to identify and analyze the life-cycle S&M costs, including the scope definition, resource loading, and estimated cost profile.
4. RL requests the necessary funding to conduct LTS S&M activities as part of its annual congressional appropriation.
5. RL provides direction to the cleanup projects and Hanford LTS Program contractors to transition responsibility of S&M activities for geographic areas from cleanup to LTS.
6. The cleanup projects and Hanford LTS Program will then complete the TTP and approve the TTP, which includes the transfer of information required to conduct S&M and meet the applicable regulatory requirements to the interim ROD. Once the ROD is issued and if there is additional cleanup necessary for a particular geographic area, the Hanford LTS Program will coordinate with the cleanup project to assure cleanup is completed by the following steps.
 - a) The cleanup projects will take steps to implement the final ROD cleanup completion activities as necessary.
 - b) The cleanup projects will identify that cleanup is complete.
 - c) The Hanford LTS Program will work with the cleanup projects to identify and analyze the Hanford life-cycle LTS costs.
 - d) RL will request the necessary funding to conduct LTS activities as part of its annual congressional appropriation.

The cleanup projects and Hanford LTS Program will then complete and sign-off on the final TTP checklist, which includes the transfer of any additional information required to manage the area for the long-term and to meet the applicable regulatory requirements applicable to the final ROD.

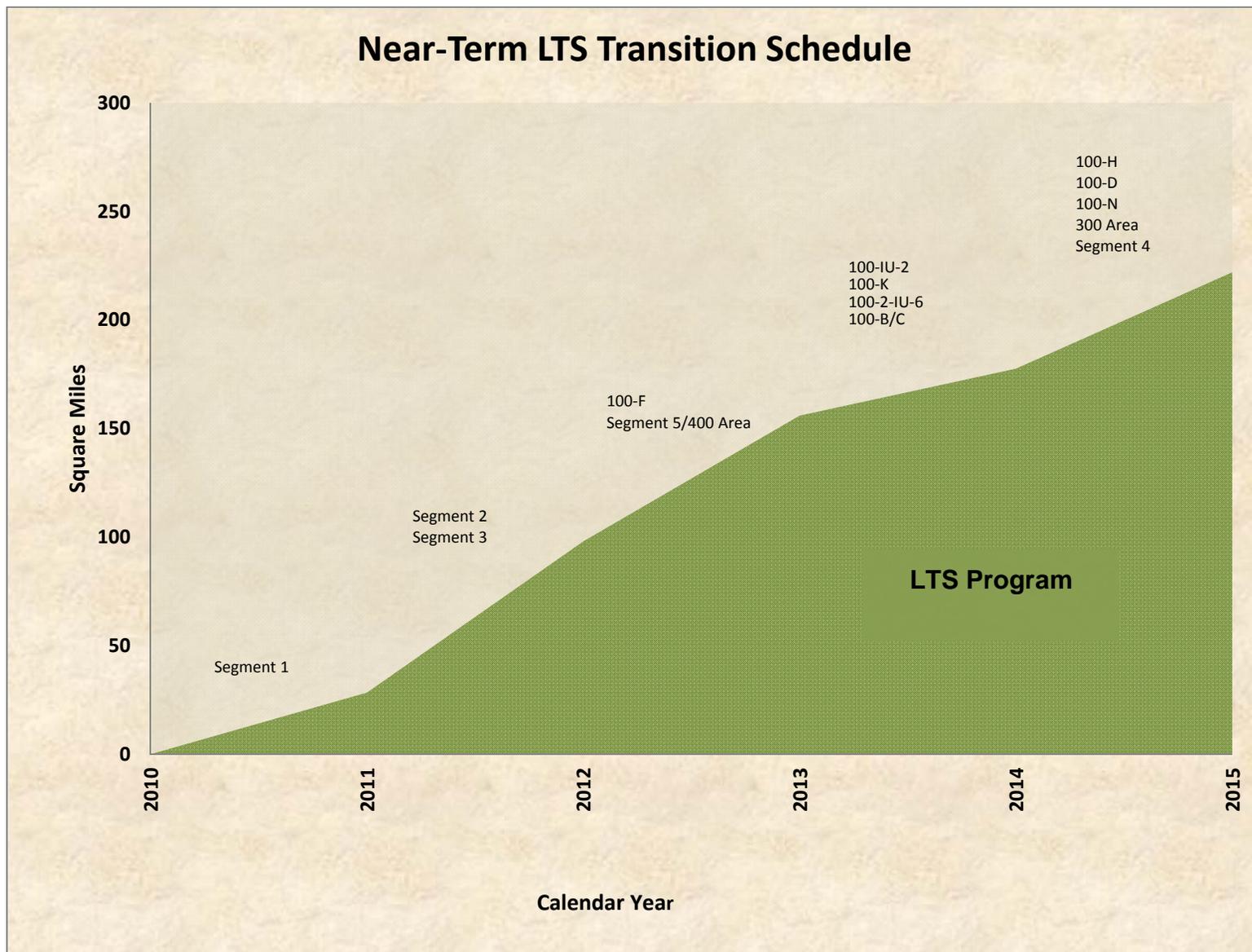
3.3 TRANSITION SCHEDULE

The schedule for the transition of land management responsibilities from the cleanup projects to the Hanford LTS Program has been developed by RL and it will continue to be updated as cleanup activities progress.

3.4 TRANSITION PROGRESS

Active cleanup of Segment 1 of the 100-F/IU-2/IU-6 ROD Area was completed in December 2010. After preparation and approval of the TTP, and the necessary contract changes, Segment 1 became the responsibility of the LTS Program in December 2011. Segment 2 of the 100-F/IU-2/IU-6 ROD Area became part of the LTS Program responsibilities in spring 2012. Figure 3-3 shows the anticipated land area growth of the LTS Program as geographic areas of land are transitioned.

Figure 3-3. Land Area Transitioning into the LTS Program (in Square Miles)



4.0 LONG-TERM STEWARDSHIP PROGRAM IMPLEMENTATION

The Hanford LTS Program is managed in an active way that enables it to meet the LTS objectives and associated requirements. The Hanford LTS Program ensures the continued protectiveness of the remedies and the environment for those geographic areas of the Hanford Site transitioned to its responsibility, while remaining adaptable to lessons learned, advice obtained, and nationwide experience gained during the LTS implementation. The Hanford LTS Program is an active component to protect and manage the resources within the framework of the Comprehensive Land-Use Plan and in accordance with the requirements of the applicable cleanup decision documents.

This chapter describes the key activities of the Hanford LTS Program. As described in Chapter 2.0, the activities have been identified based on a review of LTS activities at other sites through the DOE benchmarking efforts, and lessons learned through the current Hanford LTS Program.

4.1 CONDUCT ADMINISTRATIVE ACTIVITIES

Management of the Hanford LTS Program is the responsibility of the Office of Assistant Manager for Mission Support (AMMS) organization within RL. AMMS executes its LTS responsibilities within the framework of the RL organizational structure (e.g., budget, finance, legal support), and LTS activities through the Mission Support Contract.

AMMS is responsible for ensuring that Hanford LTS Program activities comply with all environmental laws, regulations, and procedures applicable to the work being performed under its contract with DOE. This includes, but is not limited to, compliance with applicable federal, state, and local laws and regulations; interagency agreements, such as the Tri-Party Agreement, consent orders, consent decrees, and settlement agreements between DOE and regulatory agencies; and DOE orders.

The LTS activities will be implemented using a flow down of requirements from the Hanford LTS Program Plan to internal DOE procedures and the contractors via prime contract direction and procedures. RL issues letters of direction and contract modifications to the cleanup projects and Hanford LTS Program contractors to initiate the transition of geographic areas from cleanup to LTS. TTPs and the TTP checklist will be used to ensure all transition steps have been taken, that the post-cleanup requirements have been fully identified, and that the corresponding requisite records and data generated during the cleanup mission, necessary to support LTS and required under the regulatory process, is preserved and available for the future. RL also integrates existing site procedures (e.g., safety, budget, finance) required to implement LTS responsibilities and assigned actions.

4.2 SURVEILLANCE AND MAINTENANCE OF PHYSICAL REMEDIES AND INSTITUTIONAL CONTROLS

The Hanford LTS Program is responsible to conduct S&M, as required by applicable cleanup decision documents, of the physical remedies and institutional controls to ensure continued protection of human health and the environment. S&M of the physical remedies and institutional controls enables RL to verify that the remedies remain effective, the institutional controls remain

in place, and that human health and the environment are protected. S&M includes the following activities.

- **Maintenance and oversight** - Maintenance and oversight activities are performed on physical components (e.g., physical remedies, fences) to keep them functioning as designed. An example is the S&M required for the interim safe storage of the reactors. The Hanford LTS Program responsibility also may include the operations and maintenance of groundwater extraction and treatment systems that are operational and functional.
- **Required surveillances and inspections** - LTS surveillance and inspection activities include observing real-time activities to verify conformance of the physical remedies and institutional controls with their specified regulatory requirements.
- **Emergencies** - This includes responding to unexpected conditions and emergencies, and is detailed in Section 4.7.

The Site-wide Institutional Controls Plan for Hanford CERCLA Response Actions and RCRA Corrective Actions (DOE/RL-2001-41) describes the institutional controls required by cleanup decision documents. When a new cleanup decision document listing institutional control requirements is issued, RL is required to update the plan. RL evaluates the implementation and effectiveness of institutional controls annually, taking corrective actions to address any deficiencies that may be identified. The Hanford LTS Program is responsible for the S&M of institutional controls for those remedies that are completed to interim and RODs.

The Hanford LTS Program will implement and manage these activities through an LTS S&M plan that is developed under the Mission Support Contract for each geographic area as it is transitioned to the Hanford LTS Program. The LTS S&M plan for each geographic area will address the LTS activities identified in this chapter and will identify the post-closure requirements particular to each geographic area.

4.3 CONDUCT CERCLA FIVE-YEAR REVIEWS

The Hanford LTS Program is responsible for conducting CERCLA five-year reviews. Conducting a CERCLA five-year review is required to assess the protectiveness of remedial actions where hazardous substances, pollutants, or contaminants remain and are above levels that allow for unlimited use and unrestricted exposure. For waste sites where cleanup has been completed, the review is an evaluation of the performance of the remedy to ensure it remains protective of human health and the environment.

CERCLA requires that the lead agency review all remedial actions taken that resulted in hazardous substances, pollutants, or contaminants remaining at a site above levels that allow for unlimited use and unrestricted exposure, no less often than every five years after the initiation of the selected remedial action. The review determines for waste sites where cleanup has been completed if the measures taken are still successful in protecting the worker, the public, and the environment. The five-year review also evaluates current and future protectiveness relative to remedial actions that are ongoing.

For waste sites where cleanup has been completed, the review may conclude that the remedy is protective and that no further action is necessary. Alternatively, the review may conclude that

further evaluation is needed, may recommend certain actions to improve the efficiency of a remedy, or may recommend changes in the remedy. This review process can also provide a forum for introducing new information and how changes in assumptions will be managed in the future. If cleanup decisions are required to be revisited, the applicable regulatory process is to be followed.

RL conducts the CERCLA five-year reviews and submits the reports to the U.S. Environmental Protection Agency (EPA) for its review of the protectiveness determinations made by RL.

The scope of the review is limited and does not include all of the activities covered by the Tri-Party Agreement. In addition to CERCLA, the Tri-Party Agreement addresses regulated RCRA units and past practice units regulated under RCRA or CERCLA. The five-year review covers operable units listed as past-practice units under CERCLA and those past-practice units under RCRA but being remediated under CERCLA. Active treatment, storage, or disposal units regulated under RCRA, such as the tank farms, are not part of this review.

EPA completed the first five-year review in 2001. DOE completed the second in 2006. The third five-year review was completed in 2011. Hanford LTS Program will conduct the next five-year review, with input from the cleanup projects for ongoing remedial actions in 2016.

4.4 CONDUCT ENVIRONMENTAL MONITORING OF THE REMEDIES

LTS activities include environmental monitoring regarding the performance of the remedies, if such monitoring is stipulated in the cleanup decision documents or is required by federal and state requirements and regulations. Monitoring is conducted to verify that the remedies remain effective and that contaminant migration is prevented to protect human health and the environment. Activities may include monitoring the performance of groundwater extraction and treatment systems that are operational and functional and monitoring ecological receptors (e.g., wildlife, vegetation).

4.5 PROTECT AND MANAGE SITE RESOURCES

The Hanford Site includes significant resources (e.g., endangered, protected, listed species) managed under applicable federal and state laws, executive orders, Tribal Nation treaties, DOE orders, the Comprehensive Land-Use Plan, and Hanford Site procedures.

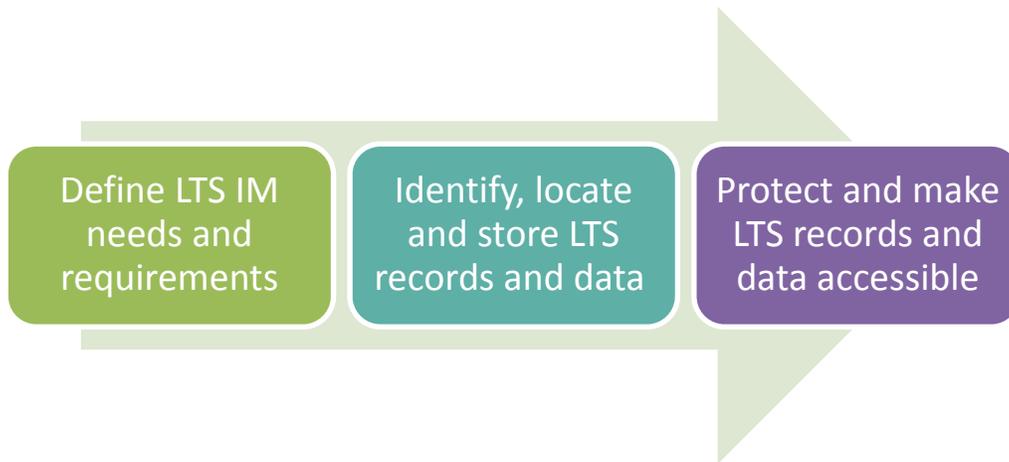
Site resources are managed and protected at the Hanford Site through the use of resource management plans and area management plans within the framework of the Comprehensive Land-Use Plan. These resource management plans have been developed to protect and provide the policies, goals, and objectives for the management of the Site's biological, natural, and cultural resources. These plans address the ongoing surveillance, protection, and controlled use of the Site's resources. The Hanford LTS Program is an active component to work with the resource and environmental monitoring programs to ensure the ongoing protection of the Site resources. This LTS Program Plan is an implementing control of the CLUP and is listed as a management plan, alongside the RMPs and AMPs.

4.6 MANAGE LTS INFORMATION

Information management is a critical component required to ensure the Hanford LTS Program will have ready access to complete and accurate information about the cleanup activities, and the associated requirements, including DOE's regulatory obligations. It is also important for LTS information to be accessible to those who live and work in the surrounding communities and to those responsible for community planning and development.

Figure 4-1 shows RL's strategic approach to ensure LTS records and data are collected, maintained, and retrievable in a manner consistent with RL's overall information management plan. The strategic approach reflects the significant amount of LTS-related information currently managed in multiple media and in multiple records and data repositories. The LTS information management approach will support the ability of current and future generations to access and understand the Hanford Site's LTS information. When possible, the preference will be to retain records and data in electronic formats to support easier and quicker searching and retrieval. The LTS information management approach is integrated with Hanford Site information management program plans.

Figure 4-1. LTS Information Management Strategic Approach



The key information management approach includes the following:

- **Identify** the records and data needed to support LTS. The TTP is used to identify the LTS records and data in a Records Identification Table (RIT).
- **Document the location** (e.g., IDMS, Records Holding Area (RHA), Administrative Record) and appropriate metadata (e.g., document attributes, document number, date, originator) of the records and data needed to support LTS.

- **Store** the LTS records and data in an approved records-keeping system. It also includes ensuring they are scheduled with the appropriate National Archives and Records Administration (NARA) record (retention) schedules.
- **Protect** the LTS records and data to prevent loss, damage, or unauthorized destruction or disclosure by implementing protective measures to keep records from physical hazards, control unauthorized access, and protect records from alteration or destruction. Protection will include the appropriate information protection levels of control as defined by DOE policies and NARA requirements.
- **Make accessible** the LTS records and data to the Hanford LTS Program by creating finding aids, as needed, and providing records management and retrieval education and training for LTS Program staff. The Hanford LTS Program also will look for opportunities to make LTS records and data available to other entities, such as stakeholders and the public, as needed.

The Hanford LTS Program will help to ensure that the requisite records and data generated during the cleanup mission, necessary to support LTS and required under the regulatory process, are preserved and available for the future in a timely, cost-effective, and understandable manner.

4.7 PROVIDE EMERGENCY SERVICES AND RESPONSE

LTS activities include responding to unexpected conditions and emergency situations. Examples of such situations include the deterioration of a physical control beyond predicted levels, extreme weather conditions, and the identification of previously undiscovered contamination.

Emergency measures are the actions DOE takes in response to unusual injury or disruption of land in LTS that threatens or compromises safety or security. Certain circumstances may arise that require implementation of contingency actions.

Site inspections, monitoring, and maintenance activities conducted as part of the S&M activities are designed to identify potential problems before they develop into a need for corrective action. However, in the unlikely case that extreme natural events, vandalism, or unanticipated events result in a need for corrective actions, DOE will notify EPA, the Washington State Department of Ecology (Ecology), the Washington Department of Health, and other affected parties as soon as an emergency situation is known to exist.

DOE will notify the appropriate regulatory agencies if regulatory thresholds are exceeded. Any releases of hazardous substances in excess of quantities reportable under CERCLA will be immediately reported to the National Response Center and EPA. Spills or discharges of hazardous substances or dangerous wastes to the environment will be reported to EPA or the state in accordance with applicable state or federal law.

DOE's response measures to such events may include modifying processes, such as making adjustments to the type and frequency of monitoring and maintenance activities, modifying existing controls, establishing new controls, and initiating new cleanup actions.

The Hanford LTS Program ensures that emergency management program and occurrence reporting requirements are established in accordance with DOE/RL-94-02, *Hanford Emergency Response Plan*, and appropriate DOE orders (e.g., DOE O 150.1, *Continuity Programs*;

DOE O 151.1C, *Comprehensive Emergency Management System*; DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*).

If previously undiscovered contamination for land in the Hanford LTS Program is identified, RL takes the following steps.

1. Address emergency and immediate safety needs.
2. Notify the appropriate entities, including the regulatory agencies (e.g., EPA, Ecology).
3. Conduct an initial investigation to assess the type of discovery, the scope and geographical extent of the discovery, and the potential hazards associated with the discovery.
4. Develop and implement response measures, following the appropriate approved regulatory process.

During LTS, DOE retains liability as the potential responsible party, as required under CERCLA.

4.8 MANAGE POST-CLEANUP COMPLETION INFRASTRUCTURE

Post-cleanup completion infrastructure is being maintained to ensure sufficient access and support remains for S&M activities. This infrastructure includes Site roads, facilities, and utilities. It also includes services required to ensure protection of government property (e.g., emergency response, waste management, power, water).

The Hanford LTS Program ensures that the minimum infrastructure required to support its activities will be provided and maintained. Current land management and potential future land uses are addressed through the framework of the Comprehensive Land-Use Plan. The Hanford LTS Program assists in the strategic planning process for Site infrastructure to ensure the necessary and sufficient infrastructure is available to support LTS.

4.9 CONDUCT MONITORING AND MAINTENANCE OF COMPLETED NATURAL RESOURCE INJURY RESTORATION PROJECTS

The Hanford Natural Resource Trustees are conducting an injury assessment for the Hanford Site. The assessment is designed to evaluate the extent to which natural resources in and around the Hanford Site have been impacted by hazardous contaminants released from the Hanford Site. To the extent such impacts are identified, the Trustees will quantify the injuries and establish the type and quantity of restoration necessary to compensate for the injured natural resources and the lost services associated with the injured resources.

Although the Natural Resource Injury Assessment process is separate from the Hanford LTS Program, the Hanford LTS Program's activities include the monitoring and maintenance of completed natural resource injury restoration projects.

4.10 ENSURE THE SAFETY AND HEALTH OF LTS WORKERS

The safety and health of LTS workers must be protected. Providing a safe working environment for all workers and maintaining high standards of performance that comply with all applicable

regulations and requirements for worker protection are important. The Integrated Safety Management System (ISMS) at the Hanford Site extends to all LTS activities.

4.11 PROVIDE QUALITY ASSURANCE

Quality assurance for environmental monitoring activities includes programmatic and overall project quality assurance to ensure such activities meet or exceed the applicable requirements. This includes environmental monitoring activities such as field sampling, data analysis, and equipment calibration. The LTS Program manages the programmatic activities necessary to perform and assess such work.

4.12 MANAGE AND BUDGET NECESSARY FUNDING

Managing the LTS costs and obtaining the budget necessary to fund LTS are important activities. RL requests the necessary funds to conduct LTS activities through the DOE budget process. RL obtains such funds as part of its annual appropriation process. During the transition of geographic areas to LTS, the cleanup projects and the Hanford LTS Program are responsible for the costs of their respective transition activities.

LTS cost estimates are initially be developed by the cleanup projects, based on the requirements of the applicable cleanup decision documents, and updated by the Hanford LTS Program after cleanup is completed. The Hanford LTS Program uses the following general approach to develop its cost estimates as each geographic area is transitioned to the LTS Program.

1. The scope and schedule of LTS activities for the geographic area are defined based on the requirements in the applicable cleanup decision documents.
2. The corresponding work breakdown structure then is developed.
3. The costs are estimated using project management estimating tools and incorporating knowledge gained from LTS activities at the Hanford Site and other DOE sites.

The Hanford LTS Program is tracking and collecting data regarding costs and schedule. Relevant data may be made available to the cleanup projects to better understand potential long-term stewardship costs.

4.13 COMMUNICATIONS

It is a priority of the Hanford LTS Program to have a communications strategy that identifies the outreach forums and information tools needed to facilitate a comprehensive understanding and build confidence in the Hanford Long-term Stewardship Program. The objective is to identify key messages, provide a template and tools for communicating the key messages, and identify the key audiences by:

- Developing and providing timely, accurate, and accessible informational/educational materials on the Hanford LTS Program
- Working to produce documents and presentations that are in plain language and appropriate for the given audience

- Fostering opportunities for two-way dialogue among external audiences including the Tribal Nations, and stakeholders and the LTS Program managers to identify and understand issues and concerns and ensure views are represented and considered throughout the development and implementation of the LTS Program.
- Striving to ensure a transparent and open process to facilitate acceptance and understanding of the Hanford LTS Program

The communication strategy uses an approach that includes disseminating the key messages through: (1) various communication media; (2) face to face meetings/workshops & (3) other opportunities. Potential communication media forums include:

- Briefings
- Fact sheets/ Brochures
- Web site
- Public documents
- Frequently Asked Questions
- Personal communications
- Databases
- Reading room

The identification of the internal and external organizations that have a vested interest in the LTS Program is an important element in the communication strategy. These organizations cover a diverse group and present a unique challenge to the LTS Program. One tool the program will use to meet this challenge is a Communication & Commitment Tracking Plan. An example template for the plan is attached in Appendix B. Once completed, it will identify by audience:

- The current point of contact
- The issues
- Preferred communication forum
- Anticipated timing for communication
- Commitments made
- Other comments

This form will allow the LTS program to plan, document and track its commitments to other organizations. It will allow the program to tailor its communication strategy to fit each group's particular need.

These internal and external organizations are identified in the table below and described in the following sections.

Table 4-1. LTS Program Audiences

Internal Audiences	External Audiences
<ul style="list-style-type: none"> • DOE-RL • DOE- ORP • Site Contractors • Subcontractors 	<ul style="list-style-type: none"> • DOE-EM • Tribal Nations • Regulatory agencies • State of Oregon • Hanford Advisory Board • Oregon Hanford Cleanup Board • Site Tenants • Legacy Management • PNSO • USFWS • Hanford Natural Resources Trustee Council • Hanford Communities • Community Organizations • Media

4.13.1 Interface with Other Hanford Site Programs

The cleanup projects within DOE-RL and ORP are key internal audiences. The Hanford LTS Program is working closely with the cleanup projects to develop schedules for transition of geographic areas of the Hanford Site, and understanding S&M activities in those geographic areas. This includes the preparation of the TTP that documents the transition of the geographic areas. To further support a smooth transition from the cleanup projects, the Hanford LTS Program has developed associated site procedures regarding the TTP, the program schedule (including the transition schedule), and the criteria for transitioning geographic areas from the cleanup projects to the Hanford LTS Program.

Interfaces with the cleanup projects will include working with the groundwater and environmental monitoring programs to define which organization will be responsible for the long-term treatment and monitoring. Also, as the LTS Program conducts the CERCLA five-year reviews and updates to the IC Plan, the program works closely with the cleanup projects regarding the review of ongoing remedial actions.

4.13.2 Interface with External Entities

Interfacing with External Audiences includes consulting with the Tribal Nations EPA, Washington State Department of Ecology, state and local governments, and stakeholders are key activities.

The LTS Program will continue to build on the collaborative relationship it has developed with the tribal nations. The Program will continue to provide the tribal nations with opportunities to review the program as changes are made through briefings to the tribal working group and

individual tribes as needed. The schedule to transition geographic areas of land into the program will include specific actions to brief the tribal nations at key points in the program.

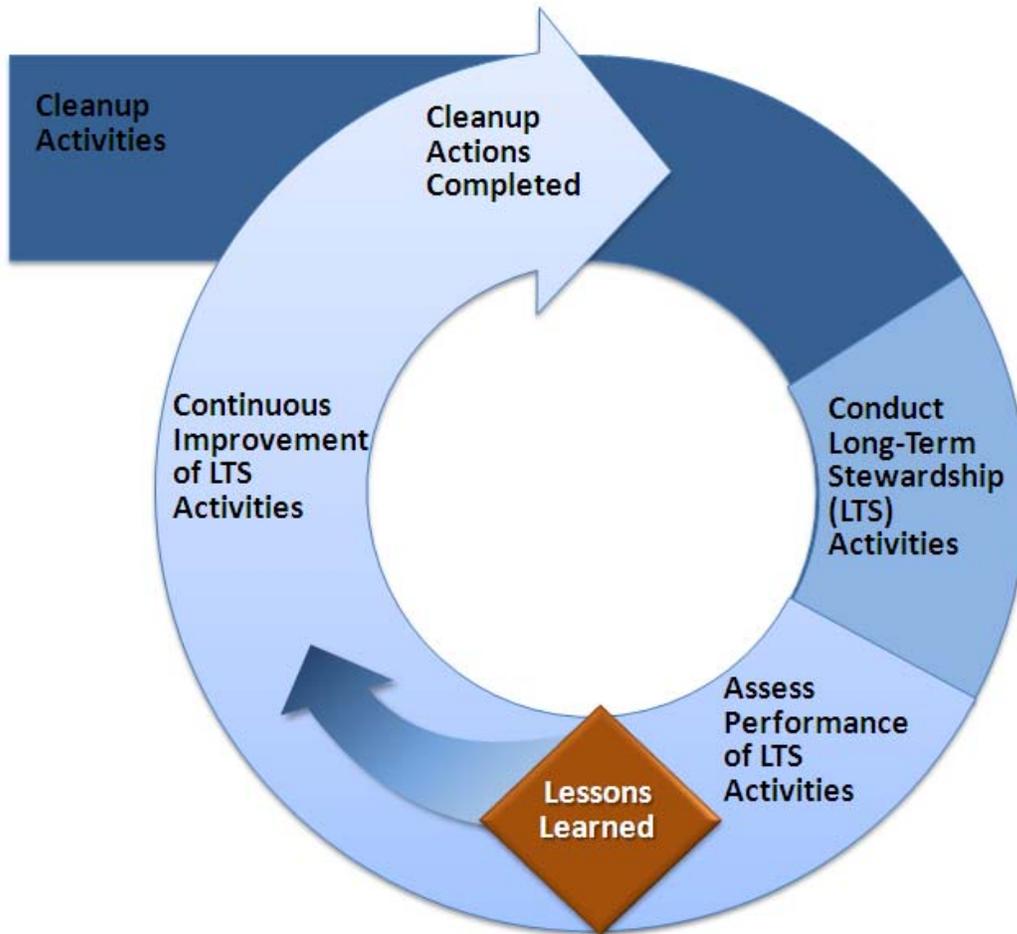
The interface with the regulators and local governments comes through regular briefings to the Hanford Advisory Board (HAB). The LTS Program has been providing briefings to the HAB River and Plateau subcommittee on a routine basis and to the Committee of the Whole as requested. The LTS Program provided a workshop during the development of the initial Program Plan and afforded the HAB the opportunity to comment. The program intends to continue this type of interface with the HAB as the program continues to mature.

Another key set of external audiences include non-DOE entities that operate at the Hanford Site, including the U.S. Fish and Wildlife Service (USFWS), US Ecology, Energy Northwest, Bonneville Power Administration, and the Laser Interferometer Gravitational Wave Observatory (LIGO). These entities are responsible for ongoing operations on the Hanford Site under leases, permits and MOUs. Access agreements, easements, institutional controls, and land-use restrictions are a vital component of the post-cleanup requirements, as well any existing LTS-type requirements included in permits, agreements, or leases. The Hanford LTS Program is responsible for ensuring LTS requirements are included in current and future real estate instruments (e.g., lease, license, permit) with external entities located on the Hanford Site. Any LTS responsibilities resulting from RL cleanup of DOE's waste sites within the proximity of the operations are the responsibility of the DOE through the Hanford LTS Program, when that land has transitioned into the LTS Program.

4.14 CONTINUOUS PROCESS IMPROVEMENT

As a dynamic, active, and flexible program, the Hanford LTS Program addresses issues as they arise and incorporates lessons learned (Figure 4-2). LTS activities include a continual evaluation of the performance of LTS and of ways to improve the LTS process. Improvements are identified through efforts such as continued benchmarking efforts with DOE and other sites. This includes LM sites, other federal government sites (e.g., Department of Defense sites), and the Hanford Site.

Figure 4-2. Dynamic Nature of the Hanford LTS Program.



DOE has conducted its first lessons learned workshop on the program in October 2011. The workshop was held after all the key program documents and procedures had been finished and the transition of the first geographic area from the cleanup program into the LTS program complete. The workshop identified several key improvements to the process that are being incorporated into the program. One of the more notable improvements was combining the TTP Template and the LTS Program TTP Checklist (checklist) into a single document. The example LTS Program Transition Checklist (Attachment A in Rev. 0) has been replaced with the actual TTP Checklist being used. The requirements of from the TTP Template were added so the checklist now can be used as a guide for both developing a TTP and assessing the completeness of a TTP.

Advances in science and technology are monitored and deployed where appropriate to increase the effectiveness and reduce the costs of LTS activities. LTS activities can benefit from the latest scientific knowledge and the use of advanced technologies in the following areas:

- Monitoring technologies used to evaluate the effectiveness of institutional controls and engineered barriers
- Technologies related to resource management to support the preservation of biological, natural, and cultural resources

- Information management technologies used to preserve LTS information.

Science and technology will continue to advance over the life of the stewardship. The Hanford LTS Program evaluates such advances for their potential to increase the efficiency and effectiveness of LTS activities.

5.0 REFERENCES

36 CFR 1220, “Federal Records”

36 CFR 1236, “Management of Vital Records”

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APPENDIX A

**LONG-TERM STEWARDSHIP PROGRAM TRANSITION AND TURNOVER
PACKAGE (TTP) CHECKLIST**

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APPENDIX A
LONG-TERM STEWARDSHIP PROGRAM TRANSITION AND TURNOVER
PACKAGE (TTP) CHECKLIST

This Hanford Long-Term Stewardship Program Transition and Turnover Package Checklist provides guiding criteria for the cleanup and service contractors to use in the development of the Transition and Turnover Packages (TTP). DOE-RL also will use this checklist to review and approve the TTPs.

The purpose of the TTP, as defined in Section 3.2 of the *Hanford Long-term Stewardship (LTS) Program Plan* (DOE/RL-2010-35) is to document that the active cleanup of a geographic area of land is complete, to support the transition of the land from the cleanup project to the Hanford LTS Program, and to provide the information needed to support Hanford LTS activities.

The checklist is intended to address various stages of LTS transition ranging from transition of surveillance and maintenance (S&M) responsibilities after cleanup to interim records of decision (ROD) to the transition after cleanup to final RODs. Consequently, some aspects of the checklist may not be required for all transitions. Should a checklist item be determined to not be applicable, it should be documented as part of the DOE-RL review of the TTP along with explanation as to why the item is not applicable.

The TTP Checklist is a list of the information requirements and a description of what may be provided to meet those requirements. These descriptions are suggestions on what may be provided, with the determination of compliance to the requirement being the decision of the Subject Matter Expert (SME). The TTP Checklist is intended to be used in conjunction with the SME's expertise to determine that all the required information for each segment is provided in each TTP.

The cleanup contractor(s) and the service contractor will collaborate to write the TTPs, with some input provided by DOE-RL. Table A-1 lists the responsible organization for each section.

Table A-1. Organizations Responsible for TTP Preparation

Section	Responsible Organization
Executive Summary	Service contractor
1.0 Introduction	Cleanup and service contractor
1.1 Property Description	Cleanup and service contractor
1.2 Historical Uses	Cleanup and service contractor
1.3 Real Property Information	DOE-RL Real Estate Officer
2.0 Site Assessment	Cleanup contractor
3.0 Clean-up Activities	Cleanup contractor
3.1 Facilities	Cleanup contractor
3.2 Reactors	Cleanup contractor
3.3 Waste Sites	Cleanup contractor
3.4 Miscellaneous Restoration	Cleanup contractor
3.5 Prior Cleanup Actions	Cleanup contractor

3.6 National Environmental Policy Act	Cleanup contractor (waste site specific) and service contractor (site-wide)
3.7 Natural Resource Damage Activities	DOE RL
4.0 As-Left Condition	Cleanup contractor
4.1 Remedies	Cleanup contractor
4.2 As-Left Facilities and Infrastructure	Cleanup contractor (cleanup activity-related infrastructure) and service contractor (all other as-left facilities and infrastructure)
4.3 Site-Wide Utilities and Infrastructure	Service contractor
4.4 Quarries and Borrow Pits	Cleanup and service contractor
4.5 Hanford Site Wells	Groundwater cleanup contractor
4.6 Stewardship Elements	Cleanup contractor
5.0 Remaining Regulatory Actions	Cleanup contractor
6.0 Resource Management	Service contractor (Site-wide) Cleanup contractor (if any site-specific resource management requirements)
7.0 Information Management Turnover Plan	Cleanup and service contractor
8.0 Surveillance and Maintenance Requirements	Service contractor
8.1 Post-Cleanup Surveillance & Maintenance Requirements	Cleanup contractor
8.2 Site-Wide Monitoring Activities	service contractor
9.0 Cost	Cleanup and service contractor
10.0 Key Terms and Definitions	Cleanup and service contractor
Appendix A Long-Term Surveillance and Maintenance Plan	Service contractor
Appendix B Punch List of Remaining Turnover Package Actions	Cleanup and service contractor and DOE-RL
Appendix C Record Identification Table	Service contractor
Appendix D Data Source Table	Service contractor

The main text of the TTP documents the cleanup history, describes the current status of the geographic area (including existing infrastructure and other information needed to support land management activities), and identifies post-cleanup requirements. The main text also documents any remaining cleanup activities to be conducted by the cleanup projects to reach final record of decision (ROD) completion. The information that is to be contained in each of the sections of the main text is described below.

Appendix A, Long-Term Surveillance and Maintenance Plan (S&M Plan) defines how the geographic area will be managed by the service contractor to meet post-cleanup requirements. The S&M Plan addresses all activities, as applicable (e.g., maintaining institutional controls required by RODs, preserving Hanford LTS records, inspecting, monitoring groundwater,

repairing caps, maintaining entombed buildings or facilities, maintaining barriers and containment structures, controlling access, posting signs) necessary to ensure protection of human health and the environment following completion of cleanup.

The S&M Plan is written by the service contractor.

Appendix B Punchlist of Remaining Turnover Package Actions includes geographic area-related issues that require additional time to resolve but do not affect the transition process.. For example, the punch list identifies the regulatory actions that remain for the geographic area, e.g., completion of the final ROD(s). The punchlist also identifies the completion schedule and the responsible organization(s). The punch list is developed and must be agreed to by all TTP authoring organizations and DOE-RL.

Appendix C Record Identification Table identifies all documents referenced in the TTP and provides information on where the documents are located in Hanford site records management systems. Appendix C is developed by the services contractor.

Appendix D Data Source Table. identifies all Hanford Site databases used in the development of the TTP. For each of the databases, Appendix D provides detailed information regarding the database content, system documentation, access controls and other key information. Appendix D is compiled by the service contractor. The detailed information about each of the databases is provided by the respective organizations that own each database.

EXECUTIVE SUMMARY

The TTP Executive Summary provides a brief summary description of the information presented in the document, including the following:

- Which organization is transitioning what geographic area to the LTS Program and the overall schedule for the transition
- Summary description of the geographic area including remaining facilities and infrastructure, real property agreements associated with area, and any elements of the area not being transitioned (e.g., groundwater cleanup activities)
- Cleanup history
- Post-cleanup S&M requirements
- Punch list transition items
- Special considerations regarding the geographic area

The service contractor is responsible for completing the Executive Summary.

1.0 PROPERTY DESCRIPTION

This chapter provides a brief description regarding the real property on the geographic area of land.

The cleanup contractor is responsible for completing Chapter 1.0 with the exception of the real property information. The service contractor is responsible for gathering this information and completing the real property information if it is determined there is a need for additional real property records or information.

Requirement: The description regarding the real property on the geographic area of land includes descriptive and geographic information on the boundary of the geographic area of land.

Description:

- Cadastral coordinates, metes and bounds surveys of the property, global positioning system coordinated, or other information to clearly define the property and distinguish it from other properties.
- A map showing boundaries of the geographic area to be transitioned (e.g., geographic area, waste sites). The map will refer to where corresponding electronic information is located regarding the boundaries of the site (i.e., the actual map).
- Information sufficient to clarify whether a particular portion of the land is within or outside of the boundary and to ensure that there are no gaps in the assignment of geographic areas of land

➤ **Requirement:** The description regarding the geographic area includes historical use information.

Description:

- Types of activities before 1943 (pre Hanford).
- Historical reactor and/or operational areas, if any.

➤ **Requirement:** Real property agreements (e.g., access rights, licenses, easements) associated with the geographic area are identified.

Description

- Access rights, licenses, easements, borrow rights, mineral rights, right-of-ways, quit claim deeds, Treaties and Tribal interest, Memorandum of Agreements, Memorandum of Understanding, in and outgrants, and other property records, as appropriate.
- Location of the agreements.
surface/subsurface rights (including utility easements) identified and recorded in legal documents, MOUs or contracts

➤ **Requirement:** Existing restrictions on the property are codified or memorialized into the recorded legal documents (e.g., deed, local government records).

Description:

- Deed, local government records
- Identification of the organizations that has jurisdiction and enforcement authority
- Identification of the criteria for terminating the restriction (if any).

➤ **Requirement:** Legislative and executive constraints on this land (e.g., the establishment of the Hanford Reach National Monument) have been identified.

Description: A description of the constraint and the source of the constraint must be provided.

2.0 SITE ASSESSMENT

This chapter provides a brief description regarding the historical assessments conducted for the land. Possible text includes providing information on the remedial investigation/feasibility study process and the Orphan Sites Evaluation process.

The cleanup contractor is responsible for completing Chapter 2.0.

- **Requirement:** The results of previous environmental site assessments conducted for this land have been documented.

Description: Results of the assessments may be available in the following types of documents:

- Phase I Environmental Site Assessment (and any follow-on assessments that may have been conducted, including a Phase II Environmental Site Assessment), which should include, but not be limited to, the following information:
 - Site history
 - Physical description
 - Waste site cleanup and status
 - Presence of hazardous materials
 - Biological and cultural resources
- The latest version of the Hanford Site Waste Management Units Report (DOE/RL-88-30), which should include, but not be limited to, the following information regarding waste management units located on the property:
 - Description
 - Status
 - WIDS reports for waste management units
- Other similar assessment documents

- **Requirement:** A description of the determinations of prior hazards must be included.

Description: This includes the following information:

Polychlorinated Biphenyls (PCBs)

- The presence and location of PCBs and PCB articles must be identified
- Data on the extent of contamination and decontamination measures, including records and certification of decontamination, as required by the Toxic Substances Control Act of 1976, and Certification for Compliance with 40 CFR Part 761 must be available
- The fire department or fire brigade that would normally be called upon for the initial response to a fire involving a PCB Transformer must be identified

Asbestos

- Information on the type, location, and condition (friable, non-friable) of each individual asbestos-containing material item or homogeneous asbestos-containing material area for each building or facility must be available
- The sampling and analysis results of materials suspected to contain asbestos must be available
- Data on extent of contamination and decontamination measures must be available
- All individual and homogeneous sampling areas suspected or confirmed as asbestos-containing building material must have been assessed and assigned one of the seven categories of damage

Lead-based Paints

- Data on extent of contamination and decontamination measures must be available
Hazardous Substance (Any hazardous substance stored for one year or more, or a known release or disposal of a hazardous substance)

- Information on the type and quantity of such hazardous substance and the time at which such storage, release, or disposal took place must be available

- Data on extent of contamination and decontamination measures must be available
Hazardous Wastes

- Data on extent of contamination and decontamination measures must be available
Petroleum Products (or their derivatives)

- Data on extent of contamination and decontamination measures must be available

Underground Storage Tanks (USTs)

- Data on extent of contamination and decontamination measures must be available
- Excavation zone assessment records must be available
- The regulatory authority having jurisdiction must be identified

Radioactive Substances and Contamination

- Data on extent of contamination and decontamination measures must be available
- All radioactive surface contamination must be cleaned up to levels specified in "Generic Guidelines for Residual Radioactive Material" in DOE Order 5400.5
- Information on presence and location of equipment with radioactive substances must be available
- Information on cleanup and assurance of compliance with requirements on residual radioactive materials must be available

3.0 CLEAN-UP ACTIVITIES

This chapter provides a brief history of the cleanup activities (e.g., *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* [CERCLA] and *Resource Conservation and Recovery Act of 1976* [RCRA]) and points to the associated cleanup decision documents.

The cleanup contractor is responsible for completing most of Chapter 3.0. In addition, the service contractor contributes to the discussion regarding *National Environmental Policy Act of 1969* activities and DOE-RL provides the description of Natural Resource Damage Assessment (NRDA) requirements and activities.

- **Requirement:** For each of the individual sections in this chapter, an overview of the cleanup actions is to be provided, including any Critical Decision -4 (CD-4) documentation that has been generated to document the completion of cleanup.

Description: The overview of the cleanup actions in the following sections should provide information regarding the following:

- A description of the regulatory framework used in arriving at the cleanup decisions including interim RODs A timeline of key cleanup decisions and documents issued, as well as the contractor responsible for the cleanup activities
- A description of any unique characteristics of this land in terms of cleanup

Examples of Cleanup Documents that may be Referenced in the TTP

CERCLA

- TPA Administrative Record
- Documents used to develop the cleanup decision, which may include, but not be limited to, the following:
 - Remedial Investigation/Feasibility Study
 - Interim Action Record of Decision
 - Remedial Investigation/Feasibility Study (RI/FS) and Baseline Risk Assessment (Final)
 - Record of Decision (Final)
 - Record of Decision Amendment
 - Explanation of Significant Differences (ESD)
 - Applicable or relevant and appropriate requirements
 - The initial Action Memorandum and any follow-up related memorandums for removal actions
 - Engineering evaluation/cost analysis for non-time-critical removal actions
 - Expedited Response Action for time critical removal actions
 - Documents describing the remedial design and remedial action, which may include, but not be limited to, the following:
 - Work plans
 - Remedial Design Report
 - Documents describing the completion of cleanup, which may include, but not be limited to, the following:
 - Remedial Action Report or interim Remedial Action Report (if groundwater system)
 - Construction Completion Report
 - No Action Record of Decision
 - Closure Verification Package/ site closeout documents (e.g., Calculation Brief) (as applicable)
 - Final Closeout Report
 - Documents related to the operation and maintenance of a remedy, which may include, but not be limited to, the following:

Examples of Cleanup Documents that may be Referenced in the TTP

- Operation and Maintenance (O&M) Plan
- O&M Manual
- Operating Properly and Successfully determination
- Five Year review reports
- Documents related to the deletion of a geographic area from the NPL, which may include, but not be limited to, the following:
- Notice of Intent to Delete or Notice of Intent to Delete (partial)
- Responsiveness summary
- Notice of Deletion or Notice of Deletion (partial)

RCRA

- TPA Administrative Record
- If an operational facility, available documents should include the following:
 - Contingency plan
 - Emergency procedure
 - Inspection records
 - Training procedures
 - Interim status requirements
 - Permit application
 - Permit
- If a closed RCRA facility, available documents should include the following:
 - Closure plan, in accordance with Washington Administrative Code (WAC) requirements
 - Closure plan amendments
 - Certification of closure
 - For waste disposal units, the notice that must be given to the local land authority
 - For waste disposal units, the notice that must be placed in the deed to the property
 - Post-closure plan, in accordance with WAC requirements
 - Post-closure plan modifications
 - Certification of completion of post-closure care
 - The Certification by the Washington Department of Ecology (Ecology) of completion of post-closure care must be available for geographic areas where post-closure care has been completed. At this time, there does not appear to be a regulatory requirement for this type of certification.
- If a clean closed facility, available documents should include the following:
 - The clean closed certification
 - The notice that must be given to the local land authority (e.g., survey plat), as required by the WAC, if a disposal unit
 - The notice that must be placed in the deed to the property, if a disposal unit

Examples of Cleanup Documents that may be Referenced in the TTP
<p>AEA</p> <ul style="list-style-type: none"> • Available documents and information regarding completed cleanup activities conducted under AEA should include the following, as applicable: <ul style="list-style-type: none"> • Historical site assessments related to the operational history or environmental characterization of the land • Requests for Authorized or Supplemental Limits, including all supporting technical documents for any such requests • As low as reasonably achievable (ALARA) assessments related to the radiological clearance of the land • The final radiological clean-up/clearance criteria for the land • The description of any post-closure/clearance controls or use restrictions on the land and how they will be implemented
<p>TPA</p> <ul style="list-style-type: none"> • TPA Administrative Record

3.1 FACILITIES

The cleanup contractor is responsible for completing Section 3.1

- **Requirement:** Include a general overview and description of facility decommissioning and demolition activities. Remaining facilities are addressed in Section 4.2.

Description:

- Include a summary table listing each facility in the area, including the facility name, operation dates, demolition dates, reference documents, contractor organization, and other identifying and descriptive information as needed. For older facilities (e.g., facilities torn down in the 1970's), include the scope of information that is known.
- Provide key cleanup decision documents, such as action memorandum, (see aforementioned "*Examples of Cleanup Documents that may be Referenced in the TTPs*" for a listing of cleanup decision documents).
- Provide Post-Demolition Summary Report for buildings included in the cleanup contractor's contract.

3.2 REACTORS

The cleanup contractor is responsible for completing Section 3.2.

- **Requirement:** Provide a general overview and description of the interim site stabilization (ISS) activities for reactors.

Description:

- Provide a summary table listing the reactor, operation dates, demolition and ISS dates, contractor organization, and other identifying and descriptive information as needed.
- Provide key cleanup decision documents, such as interim RODs, explanation of significant difference, and ROD amendments (see aforementioned “*Examples of Cleanup Documents that may be Referenced in the TTP*” for listing of cleanup decision documents).
- Include additional documents, including the following:
 - Decommissioning documentation, such as ISS Report
 - S&M surveillance documents

3.3 WASTE SITES

The cleanup contractor is responsible for completing Section 3.3.

- **Requirement:** Provide a general overview and description of the cleanup activities for waste sites.

Description:

- Provide a summary table listing waste sites, title, type, location, contractor organization, and other identifying and descriptive information as needed.
- Provide key cleanup decision documents, such as interim RODs, explanation of significant difference, and ROD amendments (see aforementioned “*Examples of Cleanup Documents that may be Referenced in the TTP*” for listing of cleanup decision documents).
- Provide applicable closure verification packages (CVPs)/remaining sites verification packages.

3.4 MISCELLANEOUS RESTORATION

The cleanup contractor is responsible for completing Section 3.4, as applicable.

- **Requirement:** Provide a general overview and description of the cleanup activities for miscellaneous restoration debris.

Description:

- Provide a summary table listing item identification, removal dates, description of item removed, quantities, contractor organization, and other identifying and descriptive information as needed.
- Provide key cleanup decision documents (see aforementioned “*Examples of Cleanup Documents may be Referenced in the TTP*” for listing of cleanup decision documents).

- Include additional documents, such as the Removal Summary Report, if applicable

3.5 PRIOR CLEANUP ACTIONS

The cleanup contractor is responsible for completing Section 3.5.

- **Requirement:** Provide identification of cleanup actions completed and closed out by previous contractors.

Description: Include cleanup actions completed prior to the current cleanup contractors. To the extent the information is available, include the same type of information summarized in earlier sections.

3.6 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) (IF APPLICABLE)

The cleanup contractor is responsible for completing Section 3.7.

- **Requirement:** Provide a description of the results of any *National Environmental Policy Act of 1969* (NEPA) decisions related to the geographic area of property

Description:

- Provide a reference to corresponding applicable NEPA documents. This includes NEPA environmental assessments, environmental impact statements, categorical exclusions, finding of no significant impacts, and RODs.
- Provide a description of Site-wide applicable NEPA actions that impact the geographic area.

3.7 NATURAL RESOURCE INJURY ACTIVITIES (IF APPLICABLE)

This section identifies any natural resource injury activities that have been completed and any associated requirements. Because natural resource injury activities are ongoing and not anticipated to be completed in the immediate future, there may be no completed activities for a particular geographic area of land. This section also will include a description of activities that have been completed (if applicable). The natural resource injury process is a separate process from the Hanford LTS program; however, it is important to know what activities have been conducted (if any).

The service contractor will work with DOE-RL to complete Section 3.8.

- **Requirement:** Identify any natural resource injury activities that have been completed, are underway or planned, and any associated requirements.

Description:

- Because natural resource injury activities are ongoing and not anticipated to be completed in the immediate future, there may also be no completed activities for a particular geographic area of land.

- Activities completed under NRDA (if any) are to be documented and identified in the reference list, including the pre-assessment screen, the injury assessment plan, the Report of Assessment, as well as any other related documentation.
- The following documents should be referenced, as applicable:
 - Legal ruling information
 - Settlement information
 - Description of further legal actions pending or expected
 - Injury determination reports
 - Restoration plans
 - Monitoring and O&M plans for restored sites

4.0 AS-LEFT CONDITION

This chapter describes the condition of land, facilities and infrastructure at the time of transition.

Each section is to include a summary table providing the location, description and other key information, as appropriate. Also, a map of the items also is to be provided.

4.1 REMEDIES

The purpose of this section is to document the cleanup remedies in the transitioned geographic area of land and any surveillance and maintenance requirements for those remedies as documented in the cleanup decision documents.

The cleanup contractor is responsible for completing Section 4.1.

- **Requirement:** The documents describing the condition of physical cleanup remedies at the time of transition, as well as their location and description.

Description:

- The location and description of engineered components, including applicable performance history assessments indicating successful operation, must be provided
 - The condition of the engineered barriers must be assessed (e.g. inspection, independent assessment) to ensure they meet the requirements of the applicable cleanup decision documents
 - The physical (e.g., signs, fences) and administrative institutional controls
 - The institutional controls required for this geographic area of land must be identified, along with the following information:
 - Description of the controls
 - Geographic location of the control (if applicable)
 - Whether the control is applicable to a geographic area in addition to or other than the property being considered in this checklist and if so, that area must be identified

4.2 AS-LEFT FACILITIES AND INFRASTRUCTURE

The purpose of this section is to identify and document the condition and purpose of any remaining facilities and infrastructure.

The cleanup and service contractors are to identify the remaining facilities and infrastructure for which they have been responsible.

- **Requirement:** Provide the condition of remaining buildings and facilities managed by the cleanup projects.

Description:

- Information regarding the facilities and other ancillary structures that will be transitioned, including, but not limited to, the following:
 - Location
 - Condition including any known residual contaminants
 - Operation and maintenance requirements
- Information regarding the roads that will be transitioned, including, but not limited to, the following:
 - Operation and maintenance requirements
 - Location
 - Condition

- **Requirement:** Provide the condition of remaining utilities and infrastructure systems managed by the cleanup projects.

Description: Information regarding the utilities that will be transitioned, including, but not limited to, the following:

- Location
- Type
- Condition
- Operation and maintenance requirements

- **Requirement:** Provide the condition of remaining infrastructure services managed by the cleanup projects.

Description: Information regarding the existing infrastructure services that will be transitioned with the land, including, but not limited to, the following:

- Service provider
- Type
- Description
- Contract information
- The current public/private utility companies, vendors, and suppliers of the closure have been notified of the change of contact information (if any)

- **Requirement:** Provide the condition of remaining abandoned structures (e.g., ancillary structures, fencing, miscellaneous equipment) managed by the cleanup projects.

Description: Information regarding the abandoned structures, including, but not limited to, the following:

- Location
- Type
- Condition
- Disposition completion confirmation

- **Requirement:** Provide the requirements for post-cleanup security and emergency services on the geographic area.

Description: This includes the following, as applicable:

- Guards
- Law enforcement
- Medical response
- Criminal investigation
- Gates
- If there is a need for agreement with local government to provide services, the agreement should be developed and signed by the appropriate parties

- **Requirement:** Provide the requirements for post-cleanup emergency preparedness actions.

Description: An emergency response plan includes response measures for events such as fires; spills and other chemical or radionuclide releases; natural disasters (such as catastrophic storm events), earthquakes, or tornados; and operational emergencies (workplace accidents).

- DOE has updated its list of local contacts in the case of emergency to include the receiving organization as an adjacent landowner

4.3 SITE-WIDE UTILITIES AND INFRASTRUCTURE

The purpose of this section is to identify and describe the facilities and infrastructure that are the responsibility of the service contractor as part of site-wide utilities or infrastructure systems. Also documented in this section are for the purposed of the utilities and infrastructure to remain in place.

The service contractor is responsible for completing Section 4.3.

- **Requirement:** Include a description of known requirements to maintain existing Site-wide utilities and infrastructure to support post-cleanup activities.

Description:

- Provide information regarding known requirements for the following:
 - Facilities and structures
 - Utilities

- Utility Services
 - Identify and reference applicable site-wide infrastructure plans
- **Requirement:** Include a description of known requirements to access Site-wide utilities and infrastructure to support post-cleanup activities.

Description:

- Provide information regarding known requirements for the following:
 - Facilities and structures
 - Utilities
 - Utility Services
- Identify and reference applicable site-wide infrastructure plans

4.4 QUARRIES AND BORROW PITS

The cleanup contractor and the service contractor is responsible for completing Section 3.6.

- **Requirement:** The cleanup contractor provide information regarding any quarries or gravel pits for which they are responsible that were previously in use or currently remain in use.

Description: Provide the following information:

- Location of the quarry or gravel pit
- Its current status, including whether in use or closed The permit number, or other identification regarding the permit, that was used to operate the pit Restoration actions that may have been taken, including which organization performed the restoration actions, what the restoration actions were and when they were performed, documents describing and validating the restoration actions.

4.5 HANFORD SITE WELLS

The groundwater contractor is responsible for completing Section 4.4

- **Requirement:** Provide the condition of remaining groundwater wells not used for monitoring purposes (e.g., potable wells, abandoned wells) managed by the cleanup projects.

Description:

- The location and description of groundwater wells,
- The condition of the groundwater wells

- **Requirement:** The condition of the wells (if responsibility for the wells is to be transitioned along with the land) at the time of transition, as well as their location and description.

Description: Information regarding wells, including, but not limited to, the following:

- Location

- Status (operating or decommissioned)
- Type
- Purpose of the well
- Construction records
- Design life

➤ **Requirement:** Ongoing monitoring and maintenance requirements identified.

Description: Information regarding the activities needed to maintain the groundwater monitoring wells must be provided. Also, the monitoring schedule and processes must be identified.

➤ **Requirement:** Any groundwater monitoring wells that are on the land but are not being transitioned, (i.e., groundwater monitoring wells) and will continue to be monitored and maintained by the Soil & Groundwater Project, including text that notes the presence of such wells and reference to the Soil & Groundwater Project.

Description: Descriptive and location information regarding groundwater wells.

4.6 STEWARDSHIP ITEMS

The cleanup contractor is responsible for completing Section 4.5.

➤ **Requirement:** Include the condition of prior hazards at the time of transition, as well as their location and description.

Description: Provide information regarding the description, location and condition of stewardship items such as underground storage tanks, septic systems, PCBs, hazardous substances, radioactive substances and contamination, and other hazards. This includes overall information regarding the Orphan Sites Evaluation Report, including information about what is included in the scope of the activities described in the report and what is not.

5.0 REMAINING REGULATORY ACTIONS

The cleanup contractor is responsible for completing chapter 5.0.

➤ **Requirement:** Describe the cleanup regulatory actions that remain to be completed for the geographic area.

Description:

- Follow-on cleanup regulatory actions may include, but not be limited to, the following: the development of the final RODs and deletion from the National Priorities Listing, including the preparations of Final Remedial Action Report, Preliminary Closeout Report, Final Close Out, and Report Certificate of Completion.
- Provide information on the responsible parties for conducting the follow-on activities

- Ensure the remaining regulatory actions and their responsible parties are included on the punch list

6.0 RESOURCE MANAGEMENT

This chapter describes the Site-wide resource management process and geographic area-specific resource information. The resources are managed in accordance with the *Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement* (HCP EIS) and its associated resource and area management plans as referenced in Chapter 6.0 of the HCP EIS.

The service contractor is responsible for discussing the Site-wide approach to manage the biological, cultural, and natural resources associated with the geographic area.

The cleanup contractor is responsible for identification of any unique resource requirements for the individual geographic area of land. This includes any NEPA, cultural or biological reviews, or actions that apply to the cleanup activities in this geographic area of land.

- **Requirement:** Discuss the Site-wide approach to manage the biological, cultural, and natural resources associated with the geographic area.

Description: Information should be provided that describes how resource management of this geographic area of land is integrated into the Site-wide approach to manage biological, cultural and natural resources.

- **Requirement:** Identify any unique resource requirements for the individual geographic area.

Description: This information should include the following:

- Any unique requirements for biological, cultural and natural resources for this geographic area.
- Any unique NEPA, cultural or biological reviews, or actions that apply to the cleanup activities in this geographic area of land.
- Identification of any unique biological resource management requirements (e.g., protective actions and their frequency), cultural resource management requirements or natural resource management requirements, including:
 - Source of requirement (e.g., MOA, NEPA ROD)
 - Identification of the organization that will meet the requirement (e.g., receiving organization, transitioning organization)
 - Description of the requirement, including protective actions and their frequency
 - Support activities required for Tribal consultation

7.0 INFORMATION MANAGEMENT

The service contractor is primarily responsible for writing this chapter.

The cleanup contractor is responsible for providing information on data system(s) used to develop the TTP.

7.1 INFORMATION SYSTEMS

- **Requirement:** Provide a description of the plan to ensure all necessary records are turned over and that appropriate data systems (or data subsets of such systems) are migrated to the receiving organization

Description: The plan should include the following, as applicable:

- Address how records/documents will be transitioned
 - Provide related closure and sampling reports that contain information regarding the sampling results from tracking contaminants present at the site; monitoring their migration potential; and identifying threats to drinking water, soils and air.
 - May include referencing the Administrative Record for many of the documents
 - Reference applicable documents available in IDMS and/or already archived to the Records Holding Area
 - Identify the recipient for the records/document (e.g., DOE, service contractor)
- Address how electronic information will be transitioned
 - For existing primary electronic information systems (e.g., WIDS), provide a description of information available in the system and a determination on whether there is a need to provide access to the service contractor and/or electronically transfer information
 - Provide associated geographical information system data to the service contractor responsible for maintaining (e.g., waste site information, miscellaneous restoration items, stewardship elements, well information)
 - Describe the information available regarding the waste sites in WIDS
- Address how data will be stored and made accessible
 - Data will be stored in formats acceptable to IDMS including: PDF, PDF/A, HEML, JPG, GIF, TIFF, TXT, XML, PNG, WMV, MPEG, Word, Excel, PowerPoint, and Outlook with preferable formats of JPG or PDF, or XML.

- **Requirement:** Identify the information systems used to develop the TTP.

Description: The TTP should provide sufficient information to answer the following questions:

- The information systems containing data cited as data sources in the TTP are identified in Appendix D, the Data Source Table?
- Appendix D describes the sufficient objective evidence to allow understanding of the information systems
- Appendix D describes the objective evidence of conducting periodic reviews of electronic information systems.

7.2 RECORDS MANAGEMENT

- **Requirement:** Provide information addressing management of records related to the TTP

Description: Include the following information:

- The applicable records management requirements
- The acceptable records repositories that may be used to store TTP records.
- The identification of the source documents for information cited in each section of the TTP
- The completion of Appendix C, Records Identification Table for all g documents cited in the TTP been entered into Appendix C Records Identification Table (RIT) including their metadata been provided for each document in the RIT (e.g., document number, revision, date and location)?

8.0 SURVEILLANCE AND MAINTENANCE

8.1 POST-CLEANUP S&M REQUIREMENTS

The cleanup contractor is responsible for completing Section 8.1

- **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for physical remedies to ensure continued protection of human health and the environment

Description: For each engineered barrier and physical control required for post-cleanup, the following must be identified for post-cleanup requirements:

- The source of the requirements (ROD, ROD ESD,)
- Description of the control
- Frequency and description of surveillance and monitoring
- Criteria for terminating the engineered barrier or physical control, if any, or whether it is required for in perpetuity
- The O&M manual must be available, if required
- The O&M procedures must be available, if required
- The following information must be available, as appropriate:
 - Remedy maintenance records
 - Repair and replacement records
 - Inspection records and logs

- **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for institutional controls to ensure continued protection of human health and the environment.

Description: For each institutional control required for post-cleanup, the following must be identified:

- The source of the requirements (ROD, ROD ESD,)
- Description of the requirement
- Frequency and description of surveillance and monitoring
- Criteria for terminating the institutional control, if any, or whether it is required for in perpetuity.

- **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for performance monitoring requirements

Description: These requirements may include groundwater monitoring, air monitoring, surface water monitoring, and other types of monitoring to ensure the selected remedies are remaining protective of human health and the environment.

- The performance monitoring requirements must be identified, along with the following information:
 - The source of the requirement (ROD, ROD ESD, etc.)
 - Description of the requirement (e.g., sampling and analysis plan for the station, including the constituents monitored, frequency of monitoring, and detection limits for constituents)
 - Frequency
 - Criteria for terminating the monitoring

- **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for waste disposal programs for the post-cleanup period (if any) to manage waste generated by the selected remedies or other similar activities.

Description: Examples of waste disposal programs include low-level burial system for a monitoring program or a treatment and disposal system for a landfill's leachable collection. The following information must be provided:

- The source of the requirement (RCRA, ROD, ROD ESD, etc.) for each waste disposal program
- Description of the requirement
- Frequency and description of surveillance and monitoring
- Criteria for terminating the waste disposal program

- **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for existing contingency plans that will be required for the post-cleanup period.

Description: These include plans for addressing potential off-normal events, such as, deterioration of a physical control beyond predicted levels, an error that results in a “near-miss” injury, and the discovery of previously unidentified sources of contamination. These plan(s) should include the following information:

- Description of potential off-normal events

- Planned response measures to the off-normal events
- Communication plan, including notification of regulatory agencies, as appropriate

➤ **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for permits that will be required for post-cleanup activities on the geographic area.

Description: Permits currently in use but not required for post-cleanup must be terminated in accordance with applicable requirements.

- Permits may be required by the following regulations: the Clean Air Act of 1977 (CAA), the Clean Water Act of 1977 (CWA), RCRA, Safe Drinking Water Act of 1974 (SDWA), and the WAC. The following information for these permits (as applicable) must be provided.
 - CAA - Future requirements of the applicable CAA permit, if applicable, must be identified. The body of documents required by the air permit must be available.
 - National Pollutant Discharge Elimination System (NPDES) (under the CWA) - Future requirements of the applicable NPDES permit, if applicable, must be identified
 - RCRA - Future requirements of the applicable RCRA permit, if applicable, must be identified.
 - Underground Injection Control (UIC) under the SDWA - Future requirements of the applicable UIC permit, if applicable, must be identified
 - WAC - Future requirements of the applicable WAC permit, if applicable, must be identified

➤ **Requirement:** Provide the identification, description, and source of all post-cleanup requirements for existing emergency procedures required for the post-cleanup period.

Description: Emergency procedures, typically developed in conjunction with the contingency plan may be required for a particular geographic area, depending on its features (e.g., engineered barriers, physical controls).

- Emergency procedures, if required in conjunction with the contingency plan, should be available

8.2 SITE-WIDE MONITORING ACTIVITIES

Both the service contractor and the cleanup contractor are responsible for providing information in Section 8.2.

➤ **Requirement:** Include information on previous site-wide environmental monitoring activities that pertain to this geographic area on the reference list.

Description: Include information on monitoring activities for air, groundwater, surface water and other monitoring activities as required by statutory and/or DOE policy or other requirements.

- **Requirement:** Documents containing information available regarding previous sitewide monitoring activities that pertain to this geographic area are on the reference list. Monitoring activities include air, groundwater, surface water, and other monitoring required by statutory and/or DOE policy or order requirements.

Description:

- Air monitoring data
- Soil monitoring data
- Surface water monitoring data
- Groundwater monitoring data
- Direct radiation monitoring data
- Plant monitoring data
- Wildlife monitoring data
- Validation procedures and information regarding the above data

- **Requirement:** Have the future requirements for environmental monitoring on this geographic area been identified?

Description:

- The following statutes and regulations should be reviewed for the future environmental monitoring requirements:

Federal

- Atomic Energy Act
- Bald and Golden Eagle Protection Act
- CERCLA
- CAA
- CWA
- Endangered Species Act
- Migratory Bird Treaty Act
- NEPA
- Public Law 100-627 Special law Hanford Reach Study Area
- SDWA

State

- Chapter 246-247 WAC, which defines the monitoring and enforcement of air quality and emission standards for radionuclides
- Chapter 201A WAC, which describes the surface water standards for the state including contaminant standards and monitoring requirements

DOE Orders

- DOE O 458.1 Radiation Protection of the Public and the Environment Future requirements for environmental monitoring, if any, must be identified for the following pathways:
 - Air
 - Soil
 - Surface Water
 - Groundwater
 - Plants
 - Wildlife
 - Structures
-

For the future requirements identified above, the following information must be available:

- Description of the monitoring requirements including constituents monitored and detection limits for these constituents
- Identification of the organization responsible to conduct the monitoring
- Description of how the results of the monitoring are to be summarized and reported
- Identification of the organization that is to receive the monitoring results
- The source of the requirements
- The frequency of monitoring required
- The associated protective actions that must be conducted
- The restrictions that are required
- Other information that may be used to support these monitoring activities

9.0 COST

The cleanup and service contractors are responsible for providing information in Chapter 9.0.

- **Requirement:** Provide the initial cost estimate of post-cleanup S&M activities, including the initial interim S&M cost estimate and the basis of cost. Also discuss costs for site-wide S&M land management activities required for the geographic area.

Description: The cost estimate must include all aspects of interim S&M activities for this particular geographic area. Costs to be provided at a high-level; no business proprietary information to be included.

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**APPENDIX B
EXAMPLE COMMUNICATION AND COMMITMENT TRACKING PLAN**

Audience	Last Correspondence	Point of Contact	Issues of Interest	Forum/Media/Timing	Commitment	Other Comments
External Audience						
DOE-EM						
Congress						
Legacy Management						
PNSO						
USFW						
EPA						
WDOE						
Tribal nations						
State of Oregon						
Hanford Advisory Board						
Natural Resources Trustee Council						
Hanford Communities						
Media						
Site Tenants						
LIGO						
US Ecology						
Energy						

**APPENDIX B
EXAMPLE COMMUNICATION AND COMMITMENT TRACKING PLAN**

Northwest						
Naval Reactors						
BPA						
Other Tenants						
Internal Audiences						
DOE-RL						
DOE-ORP						
Unions						
Site Contractors						
Subcontractors						



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