



Tri-Party Agreement

U.S. Department of Energy
Washington State Department of Ecology
U.S. Environmental Protection Agency

2013 Hanford Lifecycle Scope, Schedule and Cost Report

February 2013

The Hanford Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) is a milestone requirement (M-036-01) under the *Hanford Federal Facility Agreement and Consent Order*, commonly referred to as the Tri-Party Agreement (TPA). The Lifecycle Report describes the scope, schedule and cost for completion of the Hanford Site cleanup mission. The report reflects all cleanup work that must be completed by both of the U.S. Department of Energy (DOE) Environmental Management (EM) project offices [Richland Operations Office (RL) and Office of River Protection (ORP)] to fully meet all applicable obligations under the TPA, the Consent Decree in *Washington vs. DOE*, the *Resource Conservation and Recovery Act of 1976 (RCRA)* and *Hazardous Waste Management Act*.

The 2013 Lifecycle Report Does:

- Provide project scope, schedule and cost from Fiscal Year (FY) 2013 – FY 2090 for both DOE Hanford project offices, and will be modified annually;
- Include scope, schedule and cost information across the entire Hanford Site regardless of whether the cleanup decision has been made;
 - **Appendix A** describes future actions required to complete cleanup and presents information on plausible alternatives for future cleanup actions
 - **Appendix C** describes the multiple kinds of cleanup decisions to be made and identifies decisions that are considered to be final
- Include current regulatory decisions and scope, schedule, cost estimate revisions;
- Overlap with the funding approval process for the current budget execution year and with the DOE Headquarters and Office of Management and Budget review of funding requirements for the next FY;
- Present cost estimate alternative analyses for waste sites in four Central Plateau Operable Units (OU) for which final decisions have not yet been made.
 - Remediate remaining Outer Area contaminated soil sites (200-CW-1, 200-CW-3 and 200-OA-1 OU)
 - Remediate remaining 200 West Inner Area contaminated soil sites (200-WA-1 OU)
- Include post closure Long-Term Stewardship (LTS)/institutional controls, safeguards and security, pension costs, community and regulatory agency support.

The 2013 Lifecycle Report Does Not:

- Include DOE Office of Science funded work, Natural Resource Damage Assessment and Restoration liabilities, or leased lands such as U.S. Ecology;
- Make or replace any cleanup decisions, nor is it a *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* or RCRA decision document;
- Substitute for, nor preempt, the cleanup decision processes as set forth in the TPA.

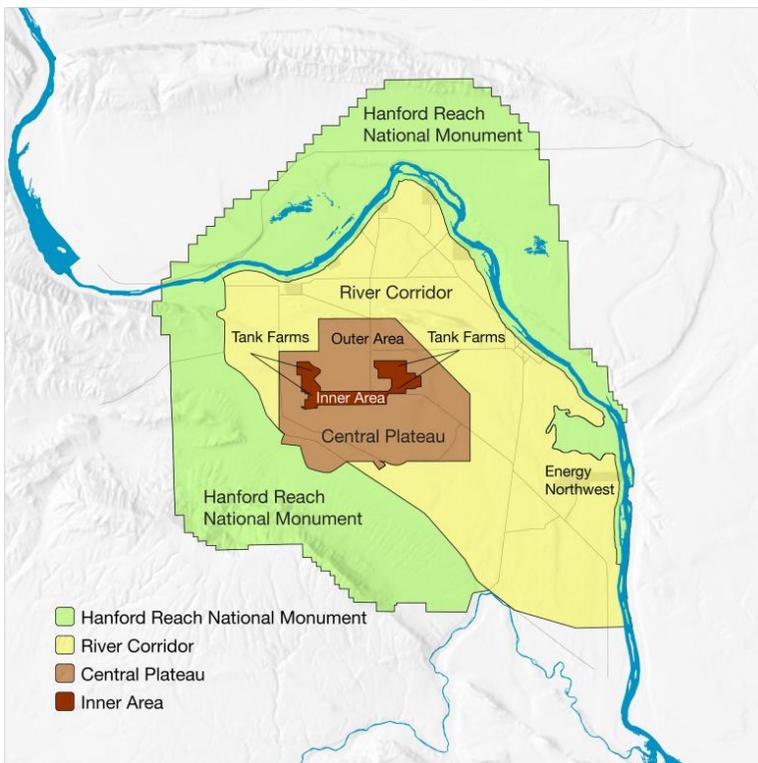
DOE, U.S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology) (Tri-Party agencies) shall attempt to reach agreement on the Lifecycle Report so it can serve as an agreed upon foundation for preparing budget requests and for informational briefings to affected Tribal Governments, and Hanford stakeholders. The report shall also serve as the basis for annual discussions with EPA and Ecology on how and when DOE-RL and DOE-ORP will complete cleanup, and how milestone changes and adjustments will affect lifecycle scope, schedule and cost.

The 2013 Lifecycle Report information reflects scope, schedule and cost status that is current as of August 31, 2012, and the costs shown have been escalated for inflation.

Milestone Requirements

Hanford Scope

The Hanford Site cleanup consists of three major scope components: 1) River Corridor, 2) Central Plateau and 3) Tank Waste. The Tank Waste component is contained geographically within the Central Plateau area. Cleanup also includes Mission Support activities related to safeguards and security, community and regulatory support, Hanford Site infrastructure and services, and LTS.



Hanford Site map showing Hanford's principal areas designated for cleanup purposes

The scope of Hanford Site cleanup work is broken down into a series of Project Baseline Summaries (PBSs), ten for DOE-RL and two for DOE-ORP. Details of these PBSs are identified in the Lifecycle Report.

Background and Report Structure

On October 25, 2010, the Tri-Party agencies added a new milestone (M-036-01) to the TPA, requiring that DOE submit a *Hanford Lifecycle Scope, Schedule and Cost Report* to EPA and Ecology each year. The 2013 Lifecycle Report reflects scope, schedule and cost estimate information from FY 2013 to FY 2090.

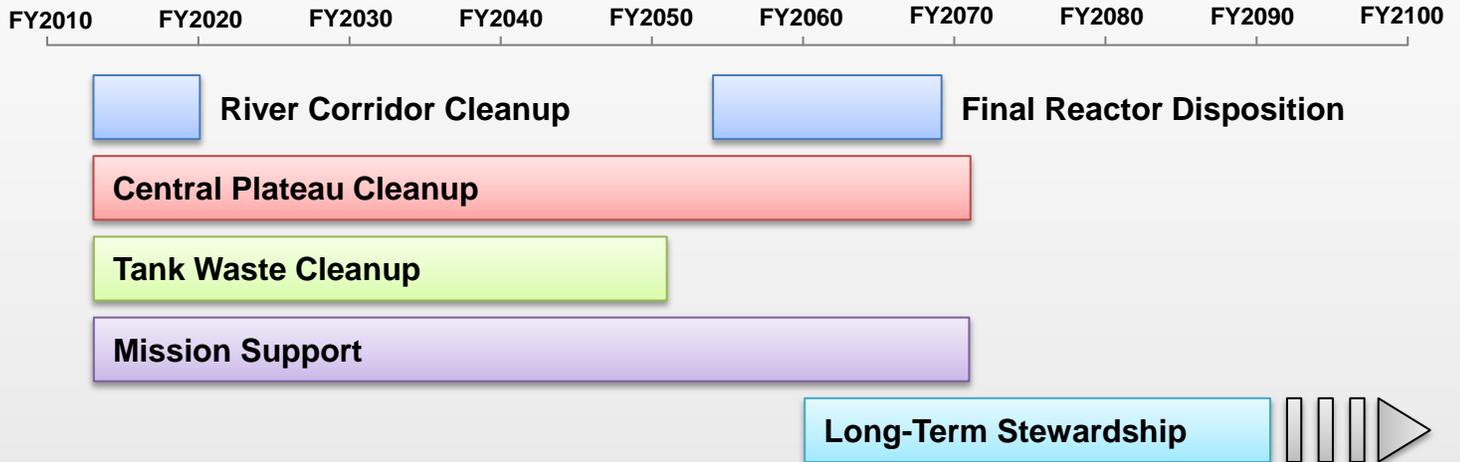
Significant Changes in the 2013 Report

- Updated cost and schedule planning basis for each PBS to incorporate updated scope, regulatory changes, and contract changes;
- Updated cleanup costs which clarify Hanford Site and DOE-EM costs;
- Incorporated the Hanford Site cleanup completion approach presented in *Hanford Site Cleanup Completion Framework*;
- Added explanation of cost and/or schedule uncertainty and evaluation of project risk;
- Added information regarding final reactor disposition;
- Added assumptions that Natural Resource Damage Assessment and Restoration studies and litigation will not significantly affect cost or schedule at this time;
- Clarified that pump-and-treat remedy durations are estimates based on previous experience and modeling;
- Added new section to present the cost estimate alternative analysis and the basis of estimate approach used for the planning case cleanup remedies;
- Clarified that "secondary waste treatment" is part of the waste feed delivery/treatment planning/DST retrieval/closure work;
- Provided enhanced discussion of assumptions regarding temporary onsite storage of high-level vitrified waste;
- Clarified the scope, schedule and cost of site-wide services;
- Clarified that LTS has started and how it will continue;
- Removed "thermal generation of electricity/steam" from the range of plausible alternatives for the cesium/strontium capsules;
- Clarified the Deep Vadose Zone OU costs and schedule (at this time) are limited to investigation and preparation of regulatory decision documents.

Hanford Schedule

Hanford Site Remaining Cleanup Schedule

The cleanup effort at the Hanford Site focuses on three major components with Mission Support activities that provide key infrastructure and services to the cleanup mission. The remaining schedule progresses from obtaining regulatory decisions, through designing cleanup remedies, to implementing those remedies, and finally, to the transition to long-term stewardship.

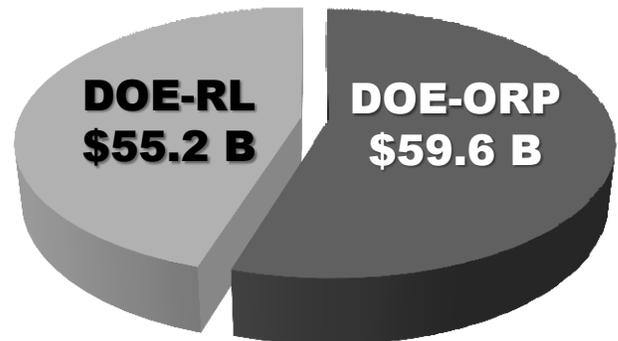


Scale dates represent start of fiscal year

Hanford Cost

Hanford’s remaining cleanup costs through FY 2090 are estimated to be about \$114.8 billion. DOE-RL scope accounts for about \$55.2 billion or 48 percent of the total costs. DOE-ORP scope accounts for about \$59.6 billion, or 52 percent.

These estimates account for cost uncertainty because many of the final cleanup decisions have not been made. Once these decisions are made, estimates will be reflected in future Lifecycle Reports.



Hanford Site cost estimate
FY 2013 - FY 2090 \$114.8 billion

Cost Estimate Alternative Analysis

The Tri-Party agencies have agreed that the Lifecycle Report should include additional information about cleanup alternatives and cost estimates for selected cleanup actions that do not have final cleanup decisions. The 2013 Lifecycle Report presents the DOE planning case range of cleanup alternatives and costs for contaminated soil sites in four Central Plateau OUs (200-CW-1, 200-CW-3, 200-OA-1 and 200-WA-1). The range of cleanup alternatives includes remove, treat and dispose (RTD), maintain existing soil cover/monitored natural attenuation/institutional controls, confirmatory sampling to support no further cleanup action is needed, and individual barriers (caps) over waste sites or aggregate barriers over processing facilities and nearby waste sites or groups of waste sites. The basis of estimate for each of these cleanup alternatives is presented and the total remaining cleanup cost for the 190 waste sites is about \$145.5 million. The RTD cleanup alternative is 68 percent of the total cost.

Outreach

- The 2013 Lifecycle Report was submitted to EPA and Ecology by January 31, 2013, in time to support DOE's annual budget development process and help inform decision makers about schedule and prioritization. Development of the 2014 Lifecycle Report is underway.
- Request for feedback will be an ongoing part of the annual report preparation process.

Input from Tribal Governments, State of Oregon, Hanford stakeholders, and the public, will support future Lifecycle Report development. Feedback received on the 2013 report will be considered for inclusion in the 2014 and future Lifecycle Reports.

The 2013 Hanford Lifecycle Report is available at www.hanford.gov on the rotating banner.

Feedback received on the 2011 and 2012 Lifecycle Reports is located on the Hanford website at: www.hanford.gov under the "Quick Links" on the right side of the main page.

The Lifecycle Report is also available for review at the Public Information Repositories:

University of Washington, Suzallo Library
Government Publication Division
Box 352900, Seattle, WA 98195
(206) 543-5597
www.lib.washington.edu/govpubs/

Portland State University, Branford Price Millar Library
Science and Engineering Floor
P.O. Box 1151, Portland, OR 97207-1151
(503) 725-4542
<http://library.pdx.edu/>

U.S. Department of Energy Public Reading Room
Washington State University, Tri-Cities
Consolidated Information Center, Room 101-L
2770 University Drive, Richland, WA 99352
(509) 375-3308
<http://reading-room.pnnl.gov/>

Gonzaga University, Foley Center
502 East Boone Ave., Spokane, WA 99258
(509) 313-6110
www.gonzaga.edu/Academics/Libraries/Foley-Library/

TPA Administrative Record and Public Information Repository
2440 Stevens Center Place, Room 1101
P.O. Box 950, Mail Stop H6-08
Richland, WA 99352
(509) 376-2530
<http://www5.hanford.gov/arpir/>

Public input needs to be in writing and submitted by April 12, 2013.



Please E-mail feedback to: LCSSC@rl.gov or mail to:

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