



Proposed Cleanup of Hanford Groundwater

The U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA) and the Washington Department of Ecology (Ecology), invite you to provide input on an engineering evaluation/cost analysis (EE/CA) to evaluate approaches for the extraction of perched water under the central part of the Hanford Site, about 20 miles north of Richland.

DOE, with concurrence from EPA and Ecology, has issued an EE/CA that evaluates the proposed cleanup options and identifies the preferred cleanup alternative. The EE/CA is being issued for a 30-day public comment period from **February 3 through March 3, 2014**.

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

BACKGROUND

The perched water zone within the 200-DV-1 Operable Unit (OU) is located above the area encompassed by the 200-BP-5 groundwater OU, which is located in the central portion of the Hanford Site (Figure 1), referred to as the Central Plateau. The 200-BP-5 OU extends from the 200 East Area northwest to the Columbia River and to the eastern flank of the Gable Mountain.

From the 1940s through the early 1990s, liquid wastes from materials used and produced at the Hanford Site were disposed to the ground through cribs, ditches, ponds, and trenches. The 200-BP-5 groundwater OU includes groundwater beneath the B, BX, and BY Tank Farm complex and associated cribs, trenches and unplanned releases. These are identified as the source of contamination associated with the perched water layer within the 200-DV-1 OU.

A small-scale treatability test to remove uranium, technetium-99, and nitrate was successful and a long-term cleanup action is needed to continue addressing high contaminant concentrations before migrating downward to Hanford's groundwater. This EE/CA identifies the proposed alternatives and analyzes them for effectiveness, implementability, and cost under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The cleanup decision made based on this EE/CA will be implemented as a non-time-critical removal action (NTCRA). The information in this EE/CA and results from implementing the selected removal action also will be used to support the 200-BP-5 OU and 200-DV-1 OU remedial investigations.

The contaminants of concern (COCs) are uranium, nitrate, technetium-99 (Tc-99), and tritium.

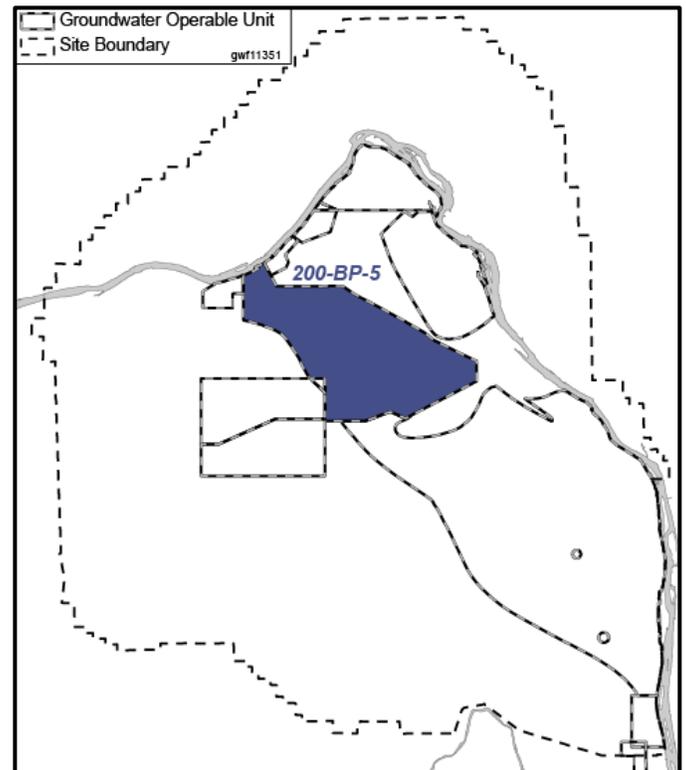


Figure 1. Location of the 200-BP-5 Groundwater OU

WHAT IS BEING PROPOSED?

DOE, EPA and Ecology have evaluated the two cleanup alternatives (numbered Alternatives 2 and 3), along with a legally required “No Action” alternative.

ALTERNATIVE 2 – TREATMENT AT EFFLUENT TREATMENT FACILITY

This alternative is the same as the existing treatability test. Contaminated water is extracted from the perched water zone/layer in the 200-DV-1 OU and transported by tanker to the 200 Area Effluent Treatment Facility (ETF) in the 200 East Area for treatment and disposal. Under Alternative 2, routine groundwater monitoring would also continue.

The final cleanup remedy for the 200-DV-1 OU will be determined through the CERCLA decision process, and may or may not include the cleanup actions selected in this EE/CA.

ALTERNATIVE 3 – TREATMENT AT THE 200 WEST PUMP AND TREAT FACILITY

The main components of the treatability test for Alternative 3 are the same as described in Alternative 2. However, perched water extracted from the 200-DV-1 OU would be treated at the 200 West Pump and Treat (P&T) Facility (Figure 2). The extracted water would be transferred by truck to the 200 West P&T Facility where it would be treated and injected into the 200 West Area aquifer. The 200-DV-1 OU and the 200 West P&T Facility are reasonably close to one another, and the extracted contaminated groundwater is compatible for the selected treatment approach.

DOE, with concurrence from EPA and Ecology, has identified Alternative 3 as their preferred alternative for cleanup of the 200-DV-1 perched water.

The principal difference between the two alternatives is the cost of treatment. Treating the perched water at 200 West P&T Facility is less than treatment at ETF. The cost difference for treatment of the estimated 2 million gallons is approximately \$4.8 million.

The 200 West P&T facility does not currently have the ability to treat uranium. If this alternative is selected, perched water will continue to be extracted and treated at ETF under the existing treatability test until uranium treatment capability is installed at the 200 West P&T Facility.



Figure 2- Aerial View of 200 West Groundwater Treatment Facility

How can the public participate?

You can provide your input during a 30-day public comment period which will run from **February 3 – March 3, 2014**. After the public comment period, a written response to comments will be provided in the Administrative Record for Hanford. The EE/CA is titled *Engineering Evaluation/Cost Analysis for Perched Water Pumping/Pore Water Extraction* and is available at: <http://pdw.hanford.gov/arpir/>. Additionally, the EE/CA is available for review at the public information repositories (PIRs) listed below.

Richland PIR	Seattle PIR	Spokane PIR	Portland PIR
Washington State University Consolidated Information Center Room 101L Richland, WA 99352 (509) 375-3308	University of Washington Suzzallo Library, Govt Pubs Dept Box 352900 Seattle, WA 98195 (206) 543-5597	Gonzaga University Foley Center Library East 502 Boone Ave. Spokane, WA 99258 (509) 313-6110	Portland State University Government Information Branford Price Millar Library 1875 SW Park Avenue Portland, OR 97207-1151 (503) 725-4542

Please send your comments to Kim Ballinger, U.S. Department of Energy, Richland Operations Office, at the following addresses:

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Hanford

Public Involvement Opportunity

We want to hear from you on a proposed cleanup for contaminated groundwater at Hanford!

U.S. Department of Energy
Richland Operations Office

