



Tri-Party Agreement

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

FACT SHEET

HANFORD'S N AREA

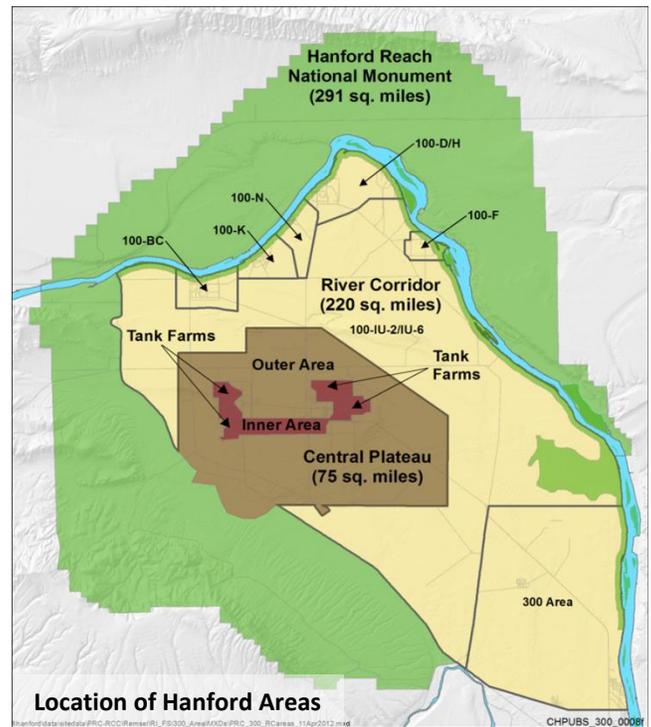
WHAT IS HANFORD'S N AREA?

The last of Hanford's nine plutonium production reactors was the N Reactor. This reactor was called a dual purpose reactor, which means it produced plutonium and also generated electricity. It was the only reactor of its kind in the country. The N Reactor operated from 1963 until 1987 when it was shut down for routine maintenance, refueling, and safety upgrades. However, it was never re-started. With more than 24 years of service, the N Reactor was the longest running reactor at Hanford. Millions of gallons of cooling water from the reactor and storage basins were discharged to the ground into two unlined trenches near the shoreline. Discharges to the ground near N Reactor ended in 1992. Many of the auxiliary buildings and support facilities located next to the reactor have been decontaminated and demolished.

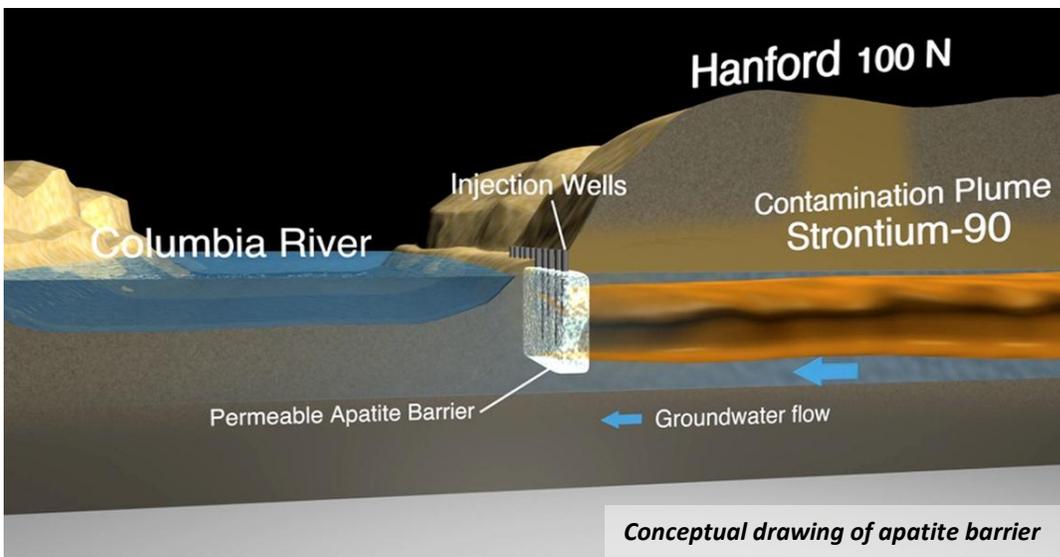
HOW IS CLEANUP DONE?

The land around N reactor has been contaminated. For a majority of these waste sites, cleanup is done by digging up the contaminated soil and safely disposing of it. This cleanup approach is known as **RTD: Remove, treat, and dispose**. Soil and debris from cleanup activities are disposed of at Hanford's landfill, the Environmental Restoration and Disposal Facility (ERDF), which is located near the center of the site, an area known as the Central Plateau.

Some of the groundwater near the N Reactor is contaminated with large amounts of strontium-90, a radioactive form of strontium. The use of a **chemical reaction barrier**, which is used to bind contaminants in the soil and keep contamination from reaching the river, is being used to address strontium-90 contamination. This barrier is made of apatite, which is a mineral that can capture and hold radioactive contaminants.



Location of Hanford Areas



Conceptual drawing of apatite barrier

Injection wells have been installed near the shoreline and apatite will be injected to create a barrier. The barrier is permeable, meaning water can pass through it. As groundwater passes through the apatite, it will capture strontium-90 contamination before it enters the Columbia River. The radioactivity of the captured strontium-90 will decay over time.



HOW MUCH CLEANUP HAS BEEN COMPLETED?

The images on the left show the major changes to the N Area landscape. Numerous buildings have been demolished and contaminated soil removed. As of 2012, cleanup in the N Area includes:

- Demolishing 92 buildings
- Cleaning up 22 waste sites
- Installation of test injections for apatite barrier formation



HOW MUCH MORE NEEDS TO BE DONE?

Continued cleanup of contaminated soil and groundwater is still needed in the N Area. The next major step will be developing and issuing a final cleanup decision for this reactor area. This cleanup action will be determined in a final cleanup decision on which you can provide input!

HOW TO GET INVOLVED AND STAY INFORMED

The public can provide input on what cleanup decisions the Tri-Party Agreement agencies select. Before a cleanup plan is selected, a document called a Proposed Plan, is issued for public review and comment. Your input on the Proposed Plan is factored in to the decision-making process. If you want to be aware of upcoming Proposed Plans and other Hanford decisions, join the electronic mailing list. You will receive information on upcoming public involvement opportunities and updates on Hanford activities. Join the Hanford email list at <http://listserv.wa.gov>.

Information on upcoming events is also available on the following online calendars:

Hanford Events Calendar: www.hanford.gov/pageaction.cfm/calendar

TPA Public Involvement Calendar: www.ecy.wa.gov/programs/nwp/public.htm