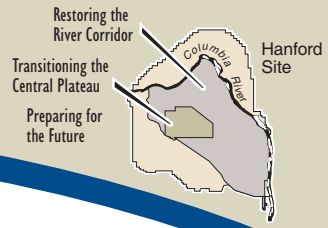
U.S. Department of Energy
Richland Operations Office
Office of River Protection

Hanford Site



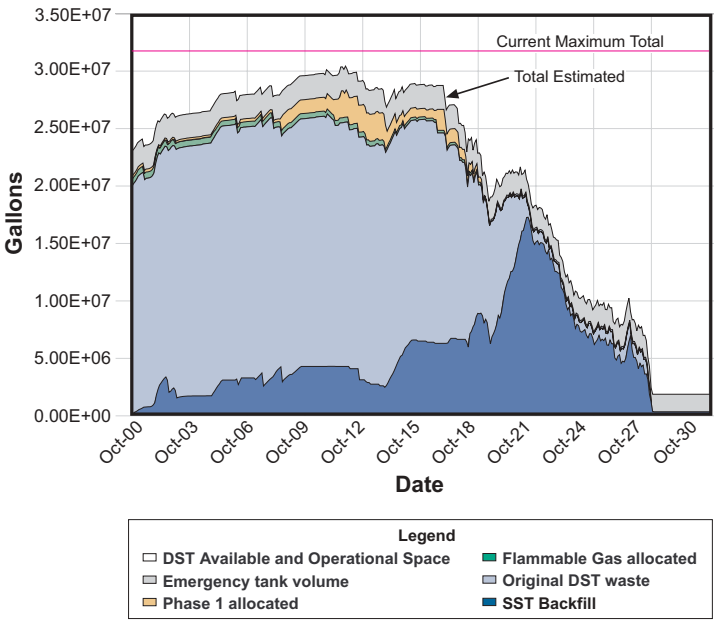
Strategic Initiative 2:

Accelerate Tank Waste Treatment Completion by 20 Years, Accelerate Risk Reduction and Save up to $20 Billion

This initiative accelerates tank waste cleanup activities to more rapidly reduce the risk posed by the Hanford tank waste, complete tank waste treatment by 2028, and complete DST tank farm closure by 2033. The Hanford tanks contain over 50 million gallons (190 million liters) of radioactive and hazardous wastes in 177 underground tanks located on the Central Plateau. This initiative offers a path to complete the cleanup of Hanford tank waste up to 20 years earlier, initiate tank closure activities 10 years earlier, and complete the tank cleanup mission for as much as $20 billion less than the costs estimated to occur under the current baseline planning. Figure 1 illustrates the acceleration in risk reduction that would result from this initiative. The critical steps in accelerating risk reduction for the Hanford tank farms are waste retrieval, waste treatment, and tank farm closure. A strong dependency exists among those three actions such that the acceleration of any one of them requires matching accelerations by one or both of the others. Failure to maintain that balance ultimately results in an inability to sustain the accelerated pace. For example, waste cannot be treated more rapidly on a sustained basis than feed is made available via retrieval and feed delivery. The reverse is also true. Single shell tank (SSTs) waste cannot be retrieved on a sustained basis unless double shell tank (DST) space is made available to receive the retrieved wastes via waste treatment. Similarly, sustained tank farm closures require continued waste retrievals at an equivalent or greater pace which are, in turn, dependent upon waste treatment. Thus, the acceleration in risk reduction would be the outcome of Strategic Initiative 2's three key elements, conducted in parallel:

Aerial view of the Waste Treatment Plant construction site.

Figure 1.



- Key Element 1 - Accelerate retrieval of tank wastes to achieve the higher rates needed to feed the enhanced WTP and supplemental treatment operations to meet 2028.
- Key Element 2 - Complete the treatment of tank waste by 2028 using the planned WTP supplemented by

Solid crust inside a single shell tank.

parallel treatment and immobilization approaches both within and external to the WTP.

- Key Element 3 - Accelerate the tank farm closure process, and begin closing tanks 10 years earlier than previously planned.

The key element discussions that follow this overview describe the steps we plan to take to achieve the accelerated risk reduction profile in Figure 1. Implicit in our commitment to accelerating risk reduction is that the quality of cleanup will not be compromised. All three agencies share the key goals of maintaining the environmental quality of Hanford tank waste cleanup, achieving real near-term progress, accelerating risk reduction, substantially reducing the time required to complete cleanup, and commencing a long-term protective management phase to ensure the effectiveness of the steps taken.

The steps in this initiative have benefited greatly from discussions that have occurred with our regulators, affected Tribal Nations, and our stakeholders since our May 1st draft plan was issued. This does not mean that we have reached agreement on all of the details; notwithstanding our general agreement regarding the overall cleanup objectives and regulatory framework, we will not be able to reach agreement on a number of details until we learn more from field experience about our technical capabilities, our physical limitations, and case-by-case situations that exist within the tank farms. Nonetheless, we are all better aligned relative to the principles and processes that need to be followed and these are key enablers of progress.

Waste transfer lines are being upgraded in preparation in delivering waste to the treatment facilities.

The Hanford Site is located in southeastern Washington State. Established during World War II as part of the Manhattan Project, the site continued producing plutonium for nuclear weapons through the late 1980s. Now the 586 square mile site is undergoing one of the largest cleanup efforts in the world.