

200 West Groundwater Treatment Project

The U.S. Department of Energy and contractor CH2M HILL Plateau Remediation Company are operating the 200 West Pump and Treat to treat contaminated groundwater in the center of the Hanford Site in southeast Washington state.

The 200 West Pump and Treat is one of the largest groundwater treatment facilities in the U.S. Department of Energy's Environmental Management sites.

The treatment system pumps contaminated water from the ground and removes several chemical and radioactive contaminants, including the primary contaminant of concern – carbon tetrachloride.

During the Cold War, liquids contaminated with chemicals and radioactive elements were discharged from plutonium production facilities to several soil disposal sites on the center of the site, resulting in a five-square-mile area of groundwater contaminated above drinking water levels. Leaks from large underground storage tanks also contributed, but in a much smaller area.

The 200 West Pump and Treat System is not only removing the contamination but also helping to contain it on the center of the Hanford Site.



Process equipment in the 200 West Pump and Treat's Biological Treatment System.

Project Facts

- 25 billion gallons (94 billion liters) to be treated over the lifetime of the facility
- Up to 110,000 pounds (34,927 to 49,895 kilograms) of carbon tetrachloride to be removed
- 108-million-gallon (409-million-liter) per-month treatment capacity
- Treats nine contaminants of concern
- Treatment methods include bio-reactors, ion exchange and air stripping
- 35 miles (56 kilometers) of piping
- 17,500-square-foot (1,626-square-meter) radiological process building and 35,000-square-foot (3,251-square-meter) main process building with Leadership for Energy and "Environmental Design (LEED®) gold" certification for sustainable design

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www.hanford.gov

www.plateauremediation.hanford.gov



A pipefitter in the 200 West Pump and Treat's Radiological Building is installing a uranium treatment system, which consists of a series of ion exchange columns.

