



# Treating Groundwater Along the Columbia River

A Department of Energy Recovery Act Project

August 2011



The Department of Energy (DOE) and contractor CH2M HILL Plateau Remediation Company have used American Recovery and Reinvestment Act funding to expand groundwater treatment systems at the Hanford Site in southeast Washington State.

The 100 Area of the Hanford Site runs along the Columbia River and contains Hanford's nine production reactors. Sodium dichromate, a chemical used as a corrosion inhibitor, was added to the river water to cool Hanford's reactors while they were operating. Over time, the soil and groundwater became contaminated with chromium because of leaks in the dichromate transfer systems and piping and because cooling water treated with dichromate was periodically discharged to the soil near the reactors.

CH2M HILL has installed the next generation of groundwater treatment systems at Hanford to pump contaminants from the ground and protect the Columbia River. The 100-DX pump and treat system was built near the D and DR reactors. The system began operating in January 2011. It is removing hexavalent chromium from contaminated groundwater. A system similar to DX is under construction along the Columbia River. The 100 HX Pump and Treat System will be operational by December 2011.

Both systems will remove the primary contaminant of concern – hexavalent chromium, and will also help DOE meet its commitment to contain all chromium contamination and prevent it from reaching the Columbia River by 2012.



## 100-DX Pump and Treat System:

- \$20 million Recovery Act project
- \$20 million lifecycle savings in treatment material (next generation resin)
- 600 gal/min (20M gal/month) treatment capacity
- 3.6 billion gallons treated during life of system
- 52 miles of piping
- 11,500 sq. ft. main process building
- 55 wells along the Columbia River

### For more information:

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