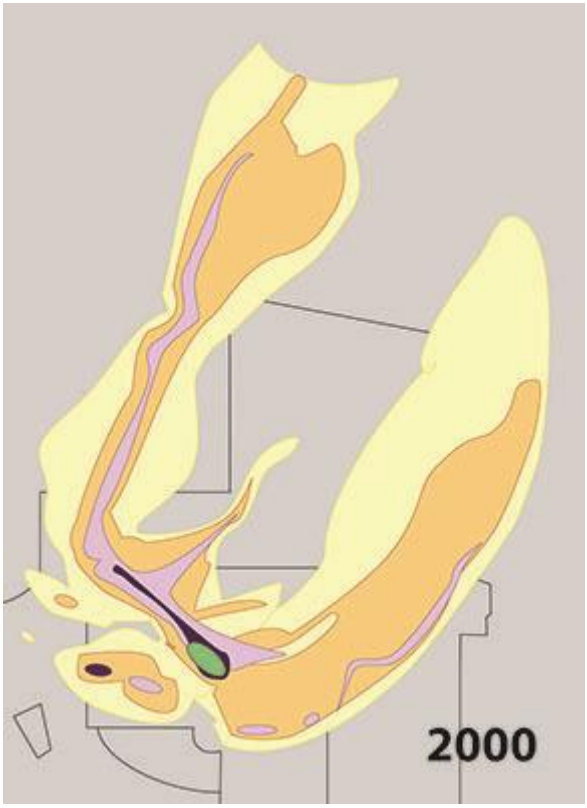
Paducah Site Modernizes Equipment to Treat Off-Site Groundwater Contamination

New groundwater contamination treatment equipment sits outside the C-612 Northwest Pump-and-Treat facility.

PADUCAH, Ky. – EM recently completed upgrades to modernize a key facility that reduces off-site groundwater contamination at the former Paducah Gaseous Diffusion Plant site.

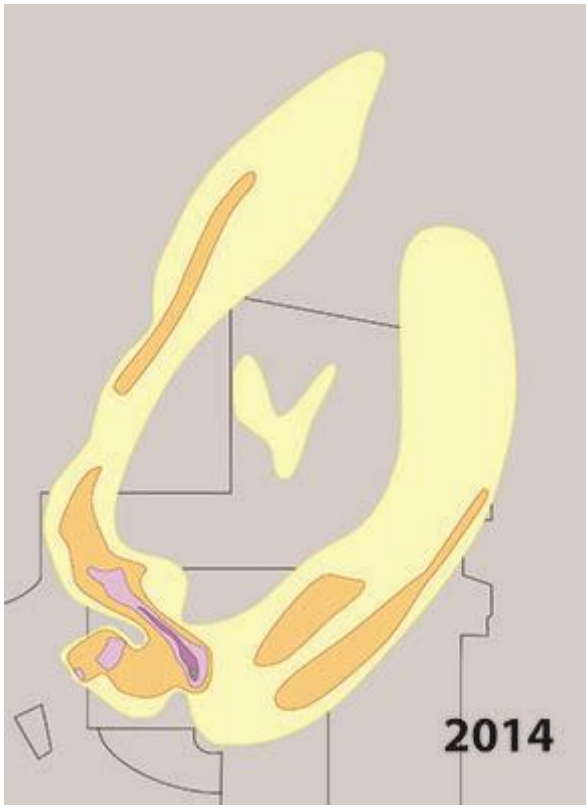
Equipment at the C-612 Northwest Pump-and-Treat Facility that had reached the end of its service life or no longer had available replacement parts was replaced with newer equipment to allow the facility's continued operations.

"By modernizing the C-612 pump-and-treat operations, our goal is to reduce our maintenance cost and increase worker efficiency for this cleanup effort," said EM Paducah Site Lead Jennifer Woodard with the Portsmouth Paducah Project Office.



A computer-modeled illustration shows the off-site movement and reduction of the northwest groundwater contamination plume in 2000 compared to 2014 (below).

This computer-modeled illustration shows a decrease in the size of the northwest groundwater contamination plume compared with 2000 (above).



In August 1995, operations began at the facility to reduce off-site groundwater contamination by pumping groundwater to treatment equipment in a process called air stripping. Air stripping traps the resulting contaminants, mostly trichloroethene (TCE), and separates them from water pumped into the facility. TCE was used to clean equipment used in the uranium enrichment process when the gaseous diffusion plant operated. The use of TCE was discontinued in the early 1990s.

More than 2 billion gallons of water have been treated since operations began at the northwest groundwater contamination plume. An additional 1.5 billion gallons of water have been treated from another part of the plume at a separate pump-and-treat facility at the northeast side of the plume. Overall, these operations have removed almost 4,200 gallons of TCE. Pump-and-treat operations, optimized in 2010 with the installation of additional withdrawal wells, and other efforts to remove contamination sources have reduced the plumes offsite by more than 20 percent.