



Water for Weapons Destruction: Source, Quantity, Groundwater Protection

The [Pueblo Chemical Agent-Destruction Pilot Plant](#), or PCAPP, is safely and efficiently destroying a stockpile of chemical weapons currently in storage at the [U.S. Army Pueblo Chemical Depot](#) (PCD).

Technology known as [neutralization followed by biotreatment](#) is currently destroying the [mustard agent](#) contained within projectiles.

Where does PCD get water? How much is available for use at PCAPP?

A series of wells located on PCD property gives the depot an annual capacity of 177 million gallons of water. The depot pumps approximately 97 million gallons of that capacity each year, leaving a balance of 80 million gallons.

Of this amount, about 50 million gallons per year is available for use by PCAPP and is nearly twice the amount needed to meet the plant's needs. The rest is available for other depot activities.

How much water will the PCAPP facility use during operations?

PCAPP will use water for several purposes, such as neutralizing the mustard agent, aiding the biological treatment and cooling the processing equipment. Water that is part of the process will be treated and reused, making the plant a near zero discharge facility. The plant may use up to 50,000 gallons of water per day from the well sources to make up for evaporative losses within the treatment equipment.

How will groundwater at PCAPP be protected?

The plant is designed to protect groundwater. The [Colorado Department of Public Health and Environment](#) (CDPHE) reviews and approves the design and operating procedures that protect groundwater. Measures to prevent groundwater contamination have been built into the facility and CDPHE will monitor plant operations to ensure permit requirements are met.

What is currently known about groundwater and soil conditions at the PCAPP site?

Soil and groundwater samples have been taken from more than 80 locations at the PCAPP site. Data from this sampling will be compared to samples taken after the plant closes to verify that there is no contamination from plant operations.

Soil and water samples were taken from 43 locations within the plant footprint in 2004, and five groundwater monitoring wells were installed up gradient and down gradient from the plant site. Analysis of those samples did not find any metals or organic compounds above naturally occurring levels.

Samples were taken from an additional 41 locations in 2006 after the footprint of the plant changed during redesign. Analysis of these samples confirms the previous finding of no metals or organic compounds above naturally occurring levels.

No records or other data exist to indicate that the area PCAPP is constructed on was used for hazardous materials management, or subject to spills or chemical releases.

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