



Fact Sheet

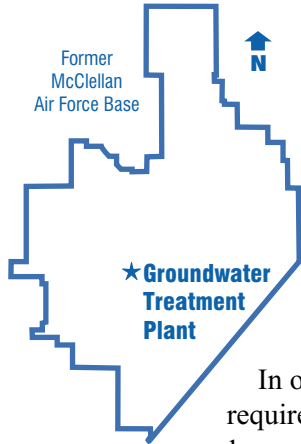
Hexavalent Chromium Time Critical Removal Action

Air Force Real Property Agency, McClellan

No. 3-02

March 2003

Public Comment Requested on Modification to Groundwater Treatment Plant



The Air Force is seeking public comment on a time critical removal action at the former McClellan Air Force Base. Hexavalent chromium has been detected in the outflow from the McClellan groundwater treatment plant at levels slightly higher than the level that protects freshwater aquatic life.

In order to meet surface water discharge requirements, Air Force officials are adding a cleanup system to the groundwater treatment plant to remove hexavalent chromium from extracted groundwater. The new system is expected to be in place by summer 2003.

The cleanup of hexavalent chromium is being addressed as a time critical removal action to prevent potential human or environmental exposure to the chemical.

Background

Hexavalent chromium is a type of metal found naturally in rocks and soil. It may also be found in soil or water as a result of releases from industrial operations such as plating shops and other manufacturing processes. The source of the hexavalent chromium in the groundwater at McClellan is not known at this time.

McClellan's groundwater treatment plant was designed to clean the contaminants that come from solvents and degreasers, but not metals. Groundwater is pulled from the ground and pumped to the treatment plant from 56 extraction wells around McClellan. The water is treated by the groundwater treatment plant and then released into Magpie Creek. Before being sent to the

creek, the treated water is tested for contaminants, including hexavalent chromium.

Because the treated water is sent to the creek, the Air Force must ensure that the water meets strict standards for the protection of surface waters. Since 2001, hexavalent chromium concentrations in the outflow from the groundwater treatment plant have occasionally reached about 12 parts per billion. This exceeds the allowed amount—a monthly average of 10 parts per billion—for discharge to surface water.

When the levels exceed this monthly average, the Air Force is required to send the water to the sewer system or turn off the plant.

The Air Force is holding a 30-day public comment period from March 12–April 14 to take comments on its approach to remove hexavalent chromium from the groundwater treatment plant outflow. A public meeting will be held:

**Thursday, March 27, 2003 - 6:30 p.m.
Bell Avenue School
1900 Bell Avenue, Sacramento, CA**

The Air Force will present information on the removal action and receive oral and written comments by the public. You may also submit your written comments between March 12–April 14 to:

**Dawn Young, AFRPA/DD
3411 Olson Street
McClellan, CA 95652-1003
Or email to:
dawn.young@afropa.pentagon.af.mil**

Because of the sewer system's limited capacity, discharge to it is not a long-term option. Operation of the treatment plant is necessary for cleanup of the solvent contamination in the groundwater under McClellan; therefore turning it off is also not a long-term option. Soon the Air Force will install more extraction wells as part of its ongoing groundwater program to increase the amount of water being cleaned. The Air Force must plan to handle this larger amount of water. Also, Magpie Creek needs to continue receiving the water supply to sustain its habitat.

Removal Action Plan

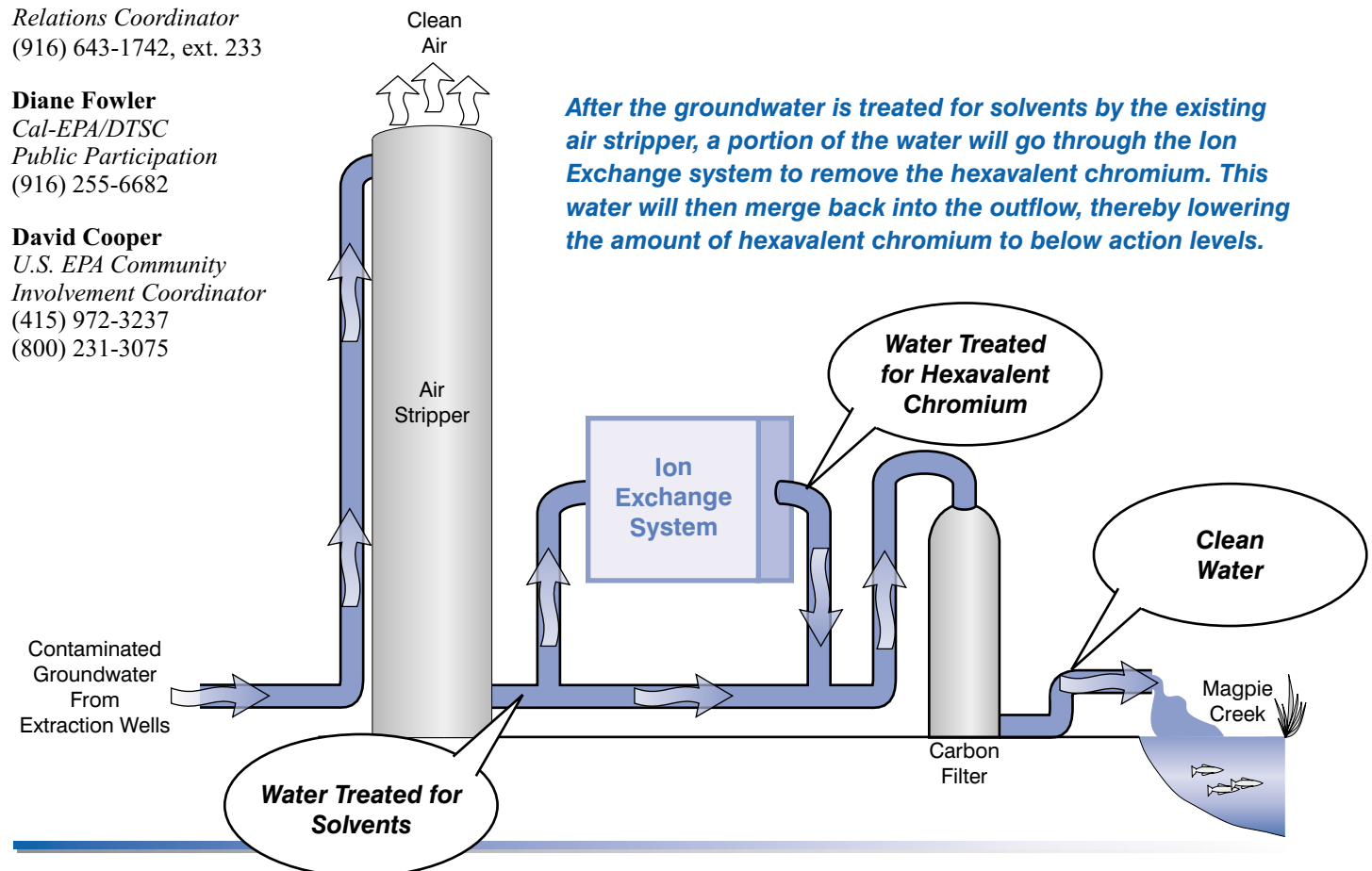
The Air Force evaluated several processes to remove hexavalent chromium from the water. One option, Ion Exchange, is a traditional technology for removal of low concentrations of metals. Another option is Sulfur Modified Iron, a relatively new technology. The Air Force has selected the Ion Exchange process and will add this system to the groundwater treatment plant. The diagram below shows how the system will work. The addition is expected to be complete by mid-summer. ■

**For more information,
please contact:**

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After the groundwater is treated for solvents by the existing air stripper, a portion of the water will go through the Ion Exchange system to remove the hexavalent chromium. This water will then merge back into the outflow, thereby lowering the amount of hexavalent chromium to below action levels.

Administrative Record

Supporting documentation for the hexavalent chromium time critical removal action includes:

- Draft Time Critical Removal Action Work Plan
- Action Memorandum for Groundwater Treatment Plant Hexavalent Chromium Discharges (*July 2002*)
- Technical Memorandum Bench-Scale Study and Pilot-Scale Study (*October 2002*)
- Technical Memorandum Treatment Technology Evaluation (*March 2002*)
- Quarterly Groundwater Monitoring Reports

These documents are available to the public by visiting the Administrative Record at:

Building 10
3411 Olson Street
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McClellan, CA
(916) 643-1250, ext. 239

www.afropa.hq.af.mil/mcclellan