Grain Handling Facility at Freeman

Pump-and-treat system update

This update shares information the Washington Department of Ecology presented at the Freeman School Board meeting on July 29. Due to a delay at the printing office, the postcard invitation to the meeting didn't arrive as soon as we'd planned.

Please let us know if you have any questions about this update or at any time in the cleanup process.

Treatment system removing contamination from groundwater

Cenex Harvest States and Union Pacific Railroad (UP), the parties responsible for cleanup, have been operating a pump-and-treat system (Figure 2, page 2) that removes carbon tetrachloride from groundwater since July 2021.

Since that time, it has removed 13 kilograms (2.2 gallons) of carbon tetrachloride. While this may not seem like a lot, it is enough to contaminate almost 5.5 billion gallons of water (over 8,000 Olympic-size pools)!

The system pumps out contaminated groundwater from the plume. The contaminated water is treated on the grain handling facility property using activated carbon. Finally, the clean, treated water is returned back underground using two wells upgradient of the contaminated groundwater.

Figure 1 shows the decrease in contamination in the Freeman School District's untreated water from 2016 to 2024. This decrease is also observed at many surrounding wells (Figure 4, page 3).

Contaminated wells have treatment systems

Cenex and UP have provided treatment systems to people who are using contaminated wells, and they are testing the drinking water monthly to ensure it is safe.

The drinking water well that serves the Freeman School District is also contaminated. The school's water system was fitted with a treatment system in 2013, and the water is regularly monitored and safe for drinking.

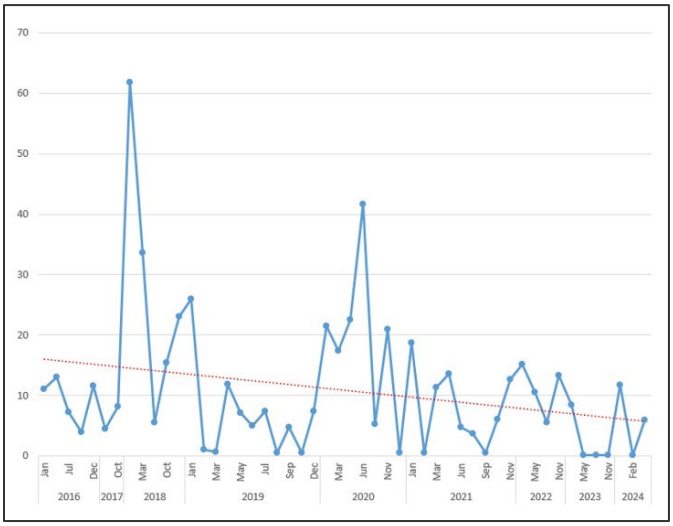

Figure 1. Carbon tetrachloride levels in the Freeman School District's untreated water from 2016 to 2024. The school installed a treatment system in 2013 that is regularly tested.

Final cleanup plan coming in 2–3 years

Ecology plans to monitor the system for two to three more years to evaluate and optimize its performance. We chose to do this interim action (Figure 3, page 2) to evaulate the system's performance before writing our final decision document, the Cleanup Action Plan. Factors we are considering during this process include:

- Optimal pumping rates
- Performance and location of extraction and infiltration wells
- Impacts to contminant concentrations and plume size
- Impacts to area water supply

Ecology had planned to complete the cleanup plan this year, but delaying it will give us more time to monitor, and improve if necessary, the pump-and-treat system. In the meanwhile, the system will continue to remove contamination over the next one to three years.

We are committed to continuing to update the community throughout the system monitoring process. We welcome comments or questions anytime. Our contact information is on page 4.

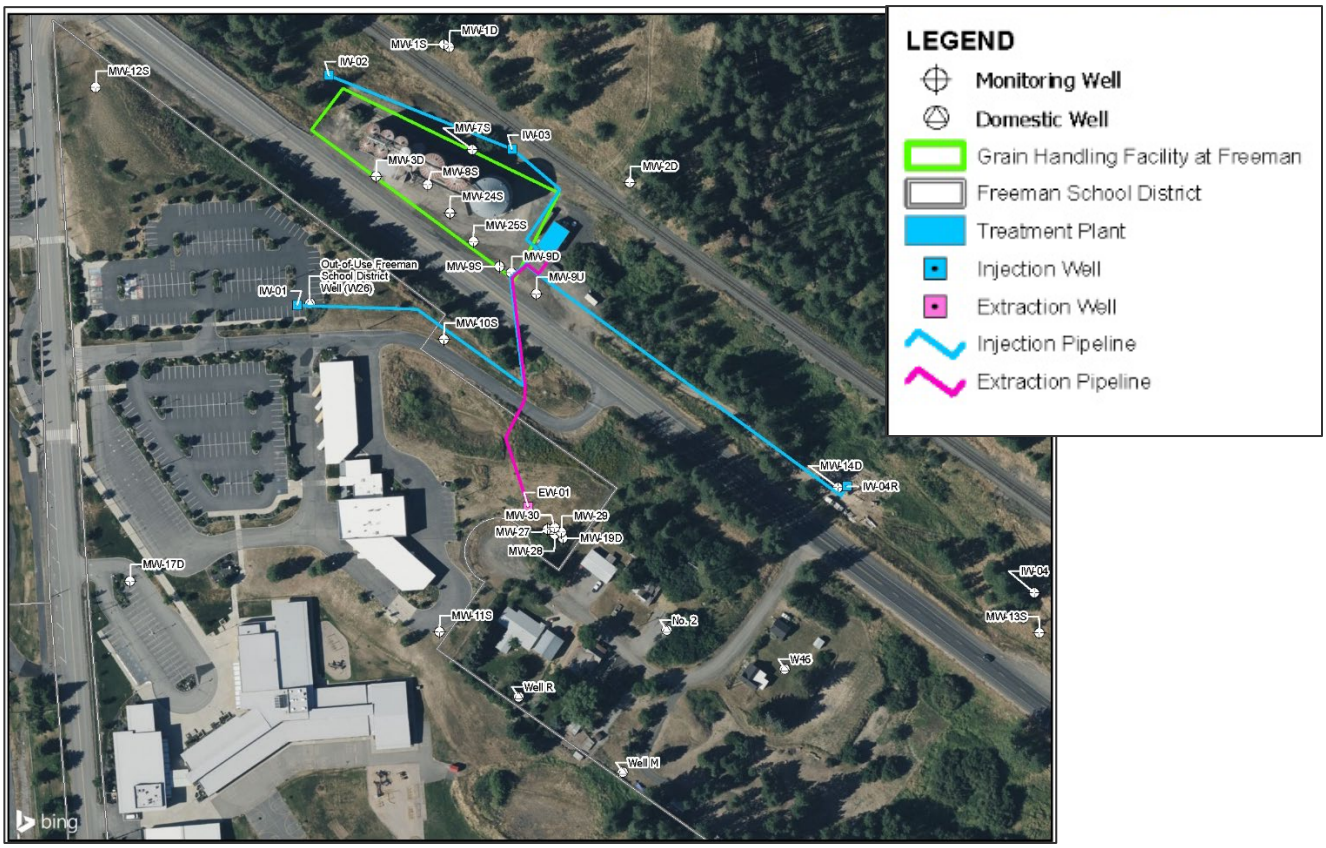

Figure 2. Pump-and-treat system layout. *Figure by Jacobs.*

Ecology's cleanup process

The Model Toxics Control Act (MTCA) is Washington's environmental cleanup law. It provides requirements for contaminated site cleanup and sets standards that protect people and the environment. Ecology implements the MTCA cleanup process.

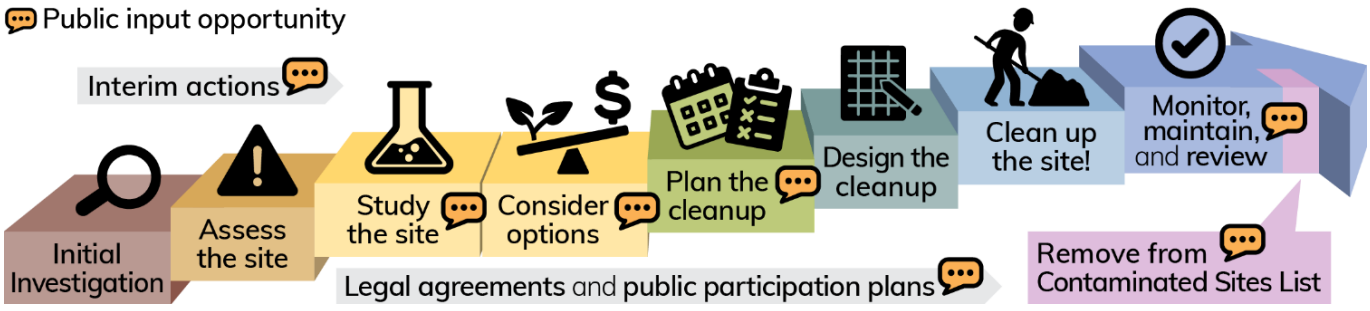

Figure 3. The Grain Handling Facility at Freeman site is in the "Consider options" step, using an "Interim action" to optimize the treatment system. After the system is optimized, we can "Plan the cleanup" by proposing our final decision in a draft Cleanup Action Plan that will be available for public input.

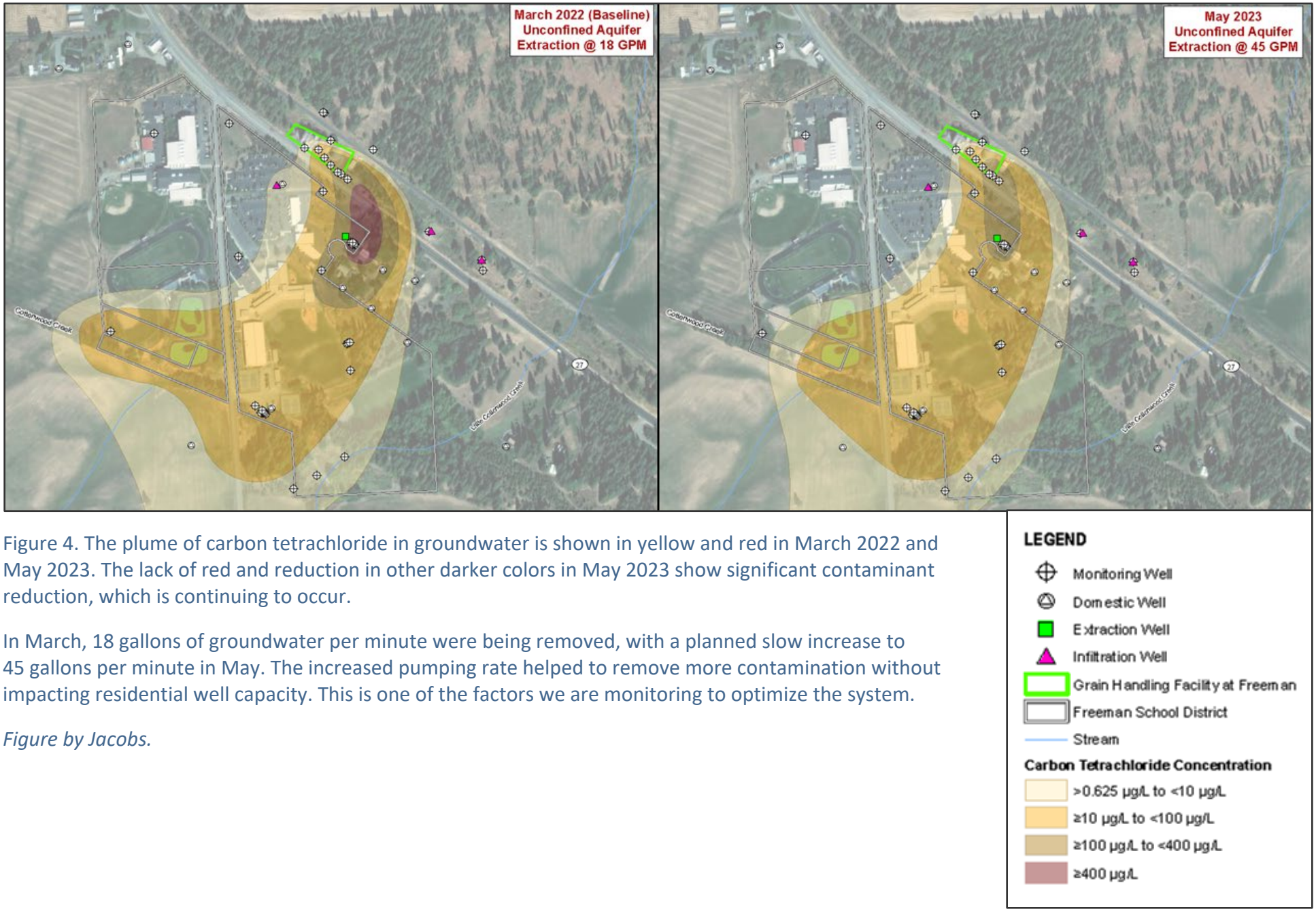

Figure 4. The plume of carbon tetrachloride in groundwater is shown in yellow and red in March 2022 and May 2023. The lack of red and reduction in other darker colors in May 2023 show significant contaminant reduction, which is continuing to occur.

In March, 18 gallons of groundwater per minute were being removed, with a planned slow increase to 45 gallons per minute in May. The increased pumping rate helped to remove more contamination without impacting residential well capacity. This is one of the factors we are monitoring to optimize the system.

Figure by Jacobs.

DEPARTMENT OF ECOLOGY
State of Washington

Toxics Cleanup Program
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Grain Handling Facility at Freeman Cleanup

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Since that time, it has removed 13 kilograms (2.2 gallons) of carbon tetrachloride. Ecology plans to monitor the system for another one to three years, and then draft our final decision document, the Cleanup Action Plan. We are committed to continuing to update the community throughout this process. Please contact us anytime with questions or concerns. Learn more online at **https://bit.ly/EcologyFreemanCleanup**.

Contacts

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ADA accessibility

To request an ADA accommodation, contact Ecology by phone at 360-407-6831 or email at ecyadacoordinator@ecy.wa.gov, or visit ecology.wa.gov/Accessibility. For Relay Service or TTY, call 711 or 877-833-6341.