

ENVIRONMENTAL Fact Sheet



Wyckoff / Eagle Harbor Superfund Site, Bainbridge Island, Washington

U.S. Environmental Protection Agency, Region 10

July 2007

Former Process Area (The "Point") Update

This fact sheet is an update on the status of cleanup activities in the Former Process Area portion of the Wyckoff Site. The Former Process Area encompasses the former Wyckoff wood-treating facility, which occupied the "point" on the south side of Eagle Harbor. Soil and groundwater beneath the Former Process Area are heavily contaminated with creosote and other wood-treatment compounds. The EPA has constructed a sheet pile wall and operates a series of extraction wells to prevent migration of these contaminants from the Former Process Area to Eagle Harbor and Puget Sound.

Monitoring Results

The EPA uses monitoring wells installed in the upper and lower aquifers (water-bearing zones) to monitor conditions in the Former Process Area or the "point". The upper aquifer is heavily contaminated with creosote and other wood-treatment chemicals that were released during operations at the Wyckoff wood-treating facility. The upper aquifer is separated from the lower aquifer by an aquitard composed of layers of silt and clay. These fine-grained layers limit movement of water and contaminants between the two aquifers (Figure 1).

The groundwater monitoring program has two parts - groundwater level monitoring and contaminant concentration monitoring:

- Groundwater level monitoring consists of continuous groundwater level measurements from 17 upper aquifer wells and 8 lower aquifer wells and weekly water level measurements from the active extraction wells. Water level data from the wells are analyzed on a regular basis to ensure that flow in the upper aquifer is away from the sheet pile wall and toward the extraction wells and that an upward flow direction is being maintained between the lower and upper aquifers.
- Contaminant concentration monitoring consists of collecting groundwater samples from the wells for laboratory analysis. The samples are analyzed for chemicals associated with the contaminants found at the Wyckoff site. The laboratory results are evaluated twice a year, with special attention paid to lower aquifer sample results, which provide early warning of possible contaminant migration through the aquitard.
- The groundwater extraction system and sheet pile wall are performing effectively. Groundwater monitoring results indicate that contamination within the "point" is not adversely impacting the water quality of Eagle Harbor or Puget Sound.

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Replacement of the Groundwater Treatment Plant

The existing Groundwater Treatment Plant processes the contaminated groundwater that is pumped from the extraction wells. The existing groundwater treatment system at the site has been in operation for approximately 15 years and is nearing the end of its service life.

Earlier this year, the U.S. Army Corps of Engineers (on EPA's behalf) awarded a contract to build a replacement Groundwater Treatment Plant to the ECC construction firm of Lakewood, Colorado. The treatment plant was designed by CH2M HILL.

The replacement Groundwater Treatment Plant will remove oily liquid and dissolved contaminants from the groundwater. Primary treatment processes include oil separation and dissolved phase adsorption on granular activated carbon. The new plant will use an existing building on the southern portion of the "point," with a new storage tank farm located south of the building (Figure 2). Construction activities began in June, and the new facility is scheduled to start up in the spring of 2008. During this period, the public can expect to see increased traffic and activity in the eastern portion of the site.

Summary of the 2000 Record of Decision

The 2000 Record of Decision (ROD) selected a pilot for thermal treatment of the contamination within the "point" and identified a backup contingent remedy of containment if thermal remediation failed to meet the remedial action objectives.

In 2002, the U.S. Army Corps of Engineers began a large-scale pilot study to determine how effective the innovative thermal remediation techniques would be in recovering oily liquid from the groundwater underneath the "point".

The pilot study took place between October 2002 and April 2003. Based on these results, thermal treatment would not achieve the cleanup

standards established in the ROD at the Wyckoff site.

The components of the containment system are described below.

- **Site Cap.** The Former Process Area would be capped to limit public contact with contaminated soil and to decrease the amount of water that infiltrates into the upper aquifer.
- **Shoreline Stabilization System.** The shoreline stabilization system would be further enhanced to protect the sheet pile wall that is preventing contaminants from moving into Eagle Harbor and Puget Sound.
- **Optimized Groundwater Extraction System.** Operation of the groundwater extraction wells will continue to hydraulically contain the contamination within the "point".
- **Enhanced Containment Monitoring.** Additional monitoring wells will be installed in the upper and lower aquifers to monitor the effectiveness of the remedy and to provide an "early warning" if contamination does begin to move in the future.
- **Upgradient Groundwater Cutoff Wall (optional).** A hydraulic cutoff wall may be necessary to reduce the amount of clean upgradient groundwater that may be entering the upper aquifer in the southeast corner of the "point".

What's Next?

Any remedy implemented must be protective of human health and the environment and comply with state and federal environmental regulations. EPA will continue discussions with the Suquamish Tribe, the Washington State Department of Ecology, the City of Bainbridge Island, other federal and state regulatory agencies, and the public to determine the best path forward for addressing the contamination at the "point".

For More Information

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EPA Web Site:

<http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/wyckoff>

Documents: The Administrative Record is a file that contains all information used by EPA to make decisions on the cleanup actions. The Administrative Record can be reviewed at:

EPA Region 10 Superfund Records Center
1200 Sixth Avenue, ECL-076
Seattle, WA 98101
206-553-4494 or toll-free at 1-800-424-4372
Please call for an appointment.

Select documents can be viewed at the Information Repository located at:

Bainbridge Island Public Library
1270 Madison Avenue North

If the library does not have the document you need, feel free to call Jeanne O'Dell, EPA Community Involvement Coordinator, at (206) 553-6919.

To request reasonable accommodations:

For people with disabilities: call Jeanne O'Dell at the number above.

For TTY users: call 1-800-877-8339 and give the operator Jeanne O'Dell's phone number.

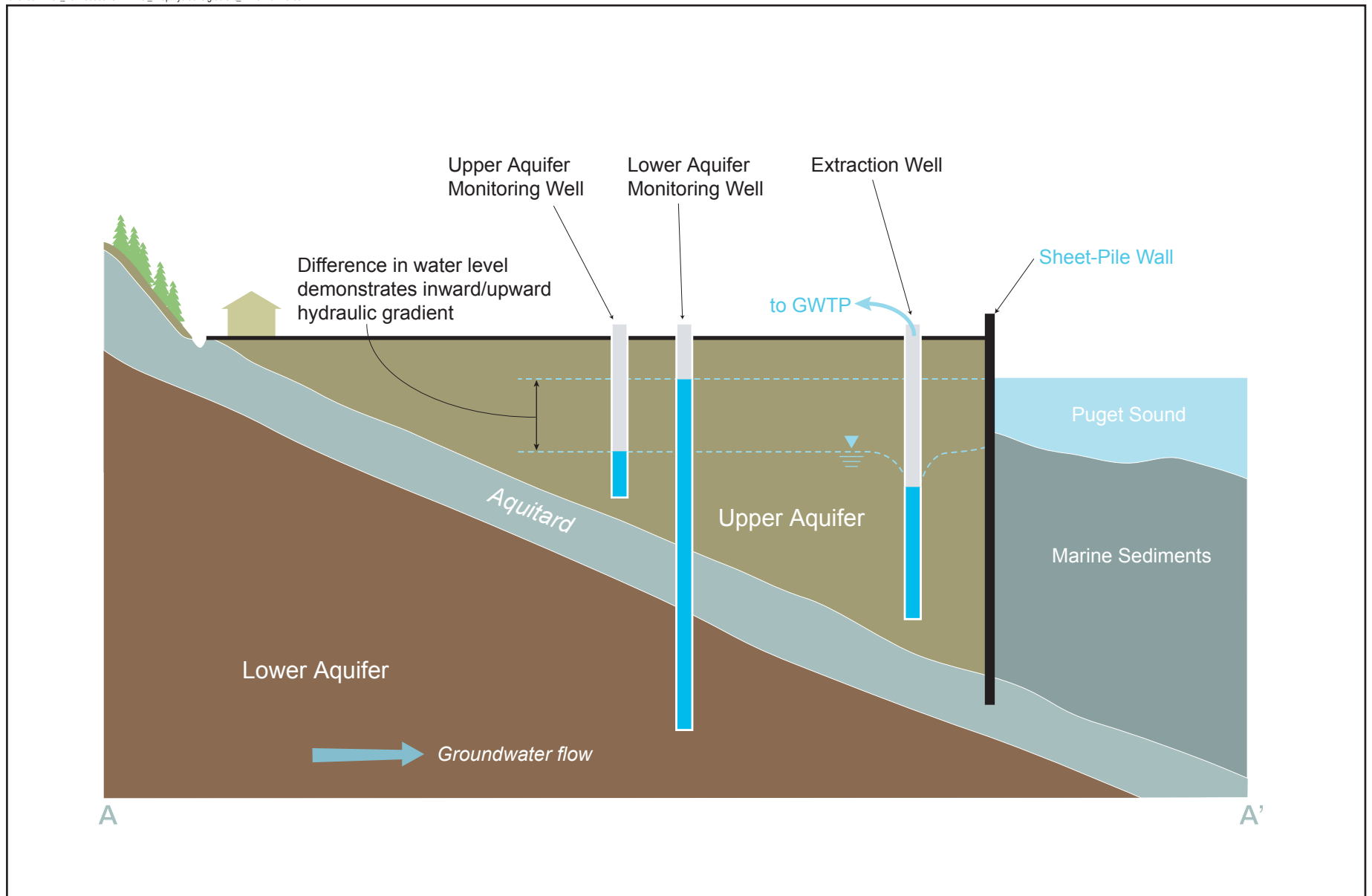


Figure 1
Cross-Section of the
Former Processing Area

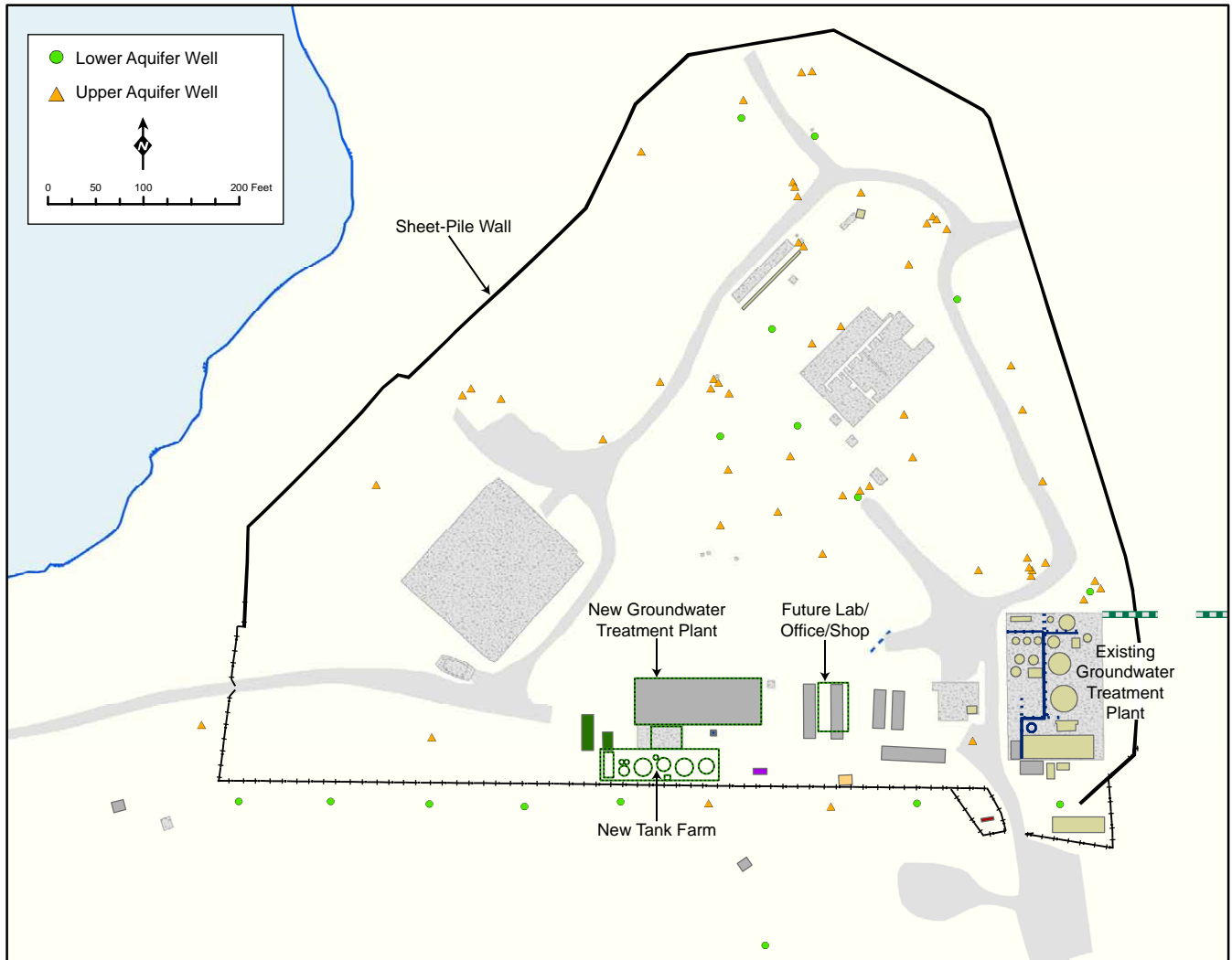


Figure 2
 Overall Site Plan and Major Components of the
 Replacement Groundwater Treatment Plant