

How will the contamination be cleaned up?

Potential cleanup technologies will be evaluated as part of the Feasibility Study, and the Cleanup Action Plan will implement one or a combination of several cleanup technologies. There are a number of different technologies used for cleaning up contaminated groundwater. Some potential treatment technology options are listed in the table below. These are general options that may or may not be feasible or beneficial at the Boeing Auburn site.

Technology	What it does
Pump and treat	Pump out the contaminated ground water, clean it, and return the clean water to the ground
Vapor extraction	Extract contaminated soil vapors from the ground, remove the contaminants, and release the clean air
Air sparging	Push clean air into the ground to replace contaminated soil vapors <ul style="list-style-type: none"> • Can be used with vapor extraction
Soil flushing	Inject a combination of water, solvents, or surfactants to the soil to dissolve and wash away the contamination
Soil heating	Heat the ground to either vaporize the chemicals off the soil or degrade them in place <ul style="list-style-type: none"> • Can be used with vapor extraction
Bioremediation	Use bacteria (microorganisms) to degrade the chemicals <ul style="list-style-type: none"> • Aerobic: use bacteria that need oxygen to work • Anaerobic: use bacteria that don't need oxygen • Enhanced: add food for the bacteria to help them work harder • Constructed wetland: Create an ecosystem where the bacteria can live and degrade chemicals in the water that passes through
Monitored natural attenuation	Monitor soil or groundwater concentrations to ensure they are degrading at an appropriate rate under natural conditions
Chemical treatment in place (in situ)	Inject reactive chemicals into the soil or groundwater to degrade the contamination by processes similar to burning or forming rust <ul style="list-style-type: none"> • Oxidative: add a chemical that releases electrons • Reductive: add a chemical that uses electrons
Treatment wall or permeable reactive barrier	Construct a porous wall in the ground that allows the ground water to pass through but catches the contaminants

For more information

Call our hotline: (253) 219-7645

Email the project: BoeingAuburnSite@ecy.wa.gov

Visit the website: Bit.ly/EcyBoeingAuburn

*To learn more about the Washington Department of Health consultations and results of the Remedial Investigation to date, visit the Document Library on our website!

<https://fortress.wa.gov/ecy/gsp/CleanupSiteDocuments.aspx?csid=5049>

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 425-649-7000. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.