

BOEING FABRICATION AUBURN SITE UPDATE

This fact sheet provides an update on the environmental investigation at the Boeing Fabrication Auburn site (Boeing Auburn), located at 700 15th Street, SW, Auburn, WA 98002.

The Washington State Department of Ecology (Ecology) and The Boeing Company (Boeing) entered into an Agreed Order in June 2002, under Washington's cleanup law, the Model Toxics Control Act (MTCA). The Agreed Order has been amended and incorporated into the state dangerous waste permit issued on April 7, 2006, in accordance with the state's Dangerous Waste Regulations.

As part of the cleanup, Boeing is conducting a study called a remedial investigation (RI) with Ecology oversight.

REMEDIAL INVESTIGATION UPDATE

The remedial investigation is evaluating the extent of volatile organic compounds (VOCs) found in groundwater. Groundwater in the area flows in a northerly to northwesterly direction. Contaminated groundwater extends in this direction approximately one mile beyond the Boeing Auburn property boundary.

During the RI, researchers drill wells to sample and test the groundwater. Typically at sites with contaminated groundwater, trichloroethene (TCE) levels go down as the investigation moves away from the release area. However, at some of the well locations for the Boeing Auburn site, the concentrations have remained above state cleanup standards.

Under Washington's Model Toxics Control Act, the state's cleanup standard for TCE in groundwater is 4.0 ppb. This is the level protective of drinking water.

Submit Comments and Technical Questions to:

Robin Harrover – Site Manager
Washington State Department of
Ecology – Hazardous Waste and
Toxics Reduction Program
3190 160th Ave. SE.
Bellevue, WA 98008
Phone: (425) 649-7232
E-mail: robin.harrover@ecy.wa.gov

Document Review Locations

Algona-Pacific Public Library
255 Ellingson Road
Pacific, WA 98047
Phone: (253) 833-3554

**Department of Ecology
Northwest Regional Office – Central
Records Office**
3190 160th Ave. SE
Bellevue, WA 98008

By appointment only:
Contact Sally Perkins
Email: sally.perkins@ecy.wa.gov
Phone: (425) 649-7190
Hours: Tuesday – Thursday
8:00 a.m. – 12:00 p.m.
1:00 p.m. – 4:30 p.m.

Boeing Fabrication Auburn Site Website:

[https://fortress.wa.gov/ecy/gsp/
Sitepage.aspx?csid=5049](https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=5049)

**Facility Site ID #: 2018
Cleanup ID #: 5049**

Boeing Fabrication Auburn Site

In January 2012, the Washington State Department of Health (DOH) completed a health consultation that researched chemicals in groundwater. DOH concluded that people were not using or drinking the water where chemicals were found. Public water systems do not draw from the contaminated groundwater. The health consultation recommended collecting additional information about the contamination in nearby surface water. DOH also recommended studying the potential for vapors to move up through the soil. The report and a fact sheet are available on DOH's website <http://www.doh.wa.gov/DataandStatisticalReports/EnvironmentalHealth/SiteAssessments.aspx>

WHAT IS TCE?

TCE is a colorless liquid mainly used to remove grease from metal parts. TCE is also used to make other chemicals. It is found in some household products such as paint removers, spot removers, and glues. TCE is a common environmental contaminant found in groundwater. It can evaporate easily into air. TCE breaks down to form other chemicals, such as vinyl chloride (VC).

A common way for TCE to get into groundwater is from a spill on the ground or a leak from equipment that uses TCE.

ABOUT THE TCE PLUME

Remedial investigation work at the Boeing Fabrication Auburn Plant has revealed that trichloroethene (TCE) and the chemicals that result from its degradation are present in groundwater. The TCE is moving in the direction of groundwater flow to the north and northwest from two separate source areas.

- One source area was discovered to be a vapor degreaser (equipment used to clean metal parts) that operated in the former 17-05 Building. The vapor degreaser was removed by Boeing in 1994. Boeing completed an interim cleanup in late 2005 that treated contaminated groundwater below Building 17-05 with a commonly used technology. Boeing injected non-harmful nutrients into the groundwater that stimulated the naturally occurring bacteria. Use of this technology created the conditions for successfully lowering the VOC concentrations to be within state cleanup standards. This location is now occupied by the AMB Distribution Center building.
- An investigation is on-going to identify the second source area.

CURRENT STATUS OF THE RECENT REMEDIAL INVESTIGATION

Information gathered and researched in the past year:

In 2012, Ecology directed Boeing to follow up on recommendations in the Health Consultation for further study. Boeing's follow-up actions and their results include:

- 1) Drilled additional groundwater wells to define the full extent of the plume beyond the plant boundary. The contaminated groundwater extends farther to the northwest. The full extent remains unknown and more monitoring wells will be needed to determine the size of the overall plume.

Boeing Fabrication Auburn Site

- 2) Researched literature and online databases to locate private wells that may be drawing contaminated groundwater. Records show no private wells within the plume area. If you have information about a private well in the area (see Figure 1) please contact the Department of Ecology's Site Manager Robin Harrover at (425) 649-7232 or email robin.harrover@ecy.wa.gov.
- 3) Drilled additional groundwater wells to locate the contamination source area for Plume 2. The source has not yet been identified.
- 4) Completed studies to evaluate whether vapor from contaminated groundwater had the potential to impact indoor air at five buildings. The study results show that at the AMB building, Fana building, and Building 17-07, TCE and related VOCs did not exceed indoor air cleanup standards. At the YMCA and Junior Achievement Center, TCE and related VOCs were not detected in soil gas samples.
- 5) Began an investigation into possible surface water contamination. Levels of TCE and other VOCs were detected in nearby surface water bodies.

WHAT HAPPENS NEXT?

1. Ecology has approved Boeing's plans for the next set of groundwater monitoring wells. These will be located to the northwest, north and northeast of the plant property. Work has begun to obtain access agreements from property owners to drill wells. The final groundwater test results will be available on the Ecology site web page. (<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=5049>).
2. Ecology and Boeing, as follow-up to the state Department of Health's recommendations, will work with local governments to locate any unrecorded private wells in the plume vicinity and inform their owners about the study. Ecology will offer information on safe decommissioning of un-used or un-needed wells.
3. To help identify a source for the contamination at plume 2, Ecology has asked Boeing to submit additional information concerning the company's historical operations at the site. Ecology will evaluate this information for possible future investigation.
4. Ecology and Boeing are evaluating the next steps for assessing vapor intrusion. Vapor intrusion may occur when VOC contamination is present at the water table.
5. Boeing completed initial surface water sampling in August 2012. Ecology is reviewing a work plan to determine the next steps.

HOW DOES TCE AFFECT HUMAN HEALTH?

Some people who drink water for many years containing TCE at levels above the federal drinking water standard could experience problems with their liver, developmental effects, and may have an increased risk of getting cancer. However, no one is drinking the contaminated water.

Boeing Fabrication Auburn Site

OTHER COMMON QUESTIONS

Is it safe to drink tap water?

Yes. The public water systems in Auburn and Algona do not draw groundwater from the contaminated area. The EPA and the Washington State Department of Health require public water systems to regularly monitor for contaminants. The Department of Health makes sure the public water systems meet federal drinking water standards. Public water systems in the valley meet federal drinking water standards for TCE and VC.

Boeing and the Department of Health have not identified any private wells drawing contaminated water. However, there is no requirement to monitor for TCE in private wells. Records show no private wells in or near the plume, but if you have a well in the site area, please contact the Department of Ecology.

Could TCE vapors enter homes or other buildings?

Sampling showed that vapors are not entering or are below levels of concern in the YMCA, Junior Achievement Center, AMB Distribution Center, Fana Building, and Boeing's Building 17-07. Boeing is planning additional sampling to determine if there is potential for vapors to move through the soil into homes in the residential area in part of Algona.

What will these investigations do for public health and the environment?

The remedial investigation will lead to actions that:

- protect groundwater as a drinking water source,
- protect residents and businesses from accidentally tapping contaminated groundwater for a private well, and
- ensure unacceptable vapor intrusion is not occurring in homes or businesses near or above VOC contaminated groundwater.

Who to contact for Public Health Questions regarding this site?

Contact Washington State Department of Health:

Rhonda Kaetzel, Ph.D., DABT

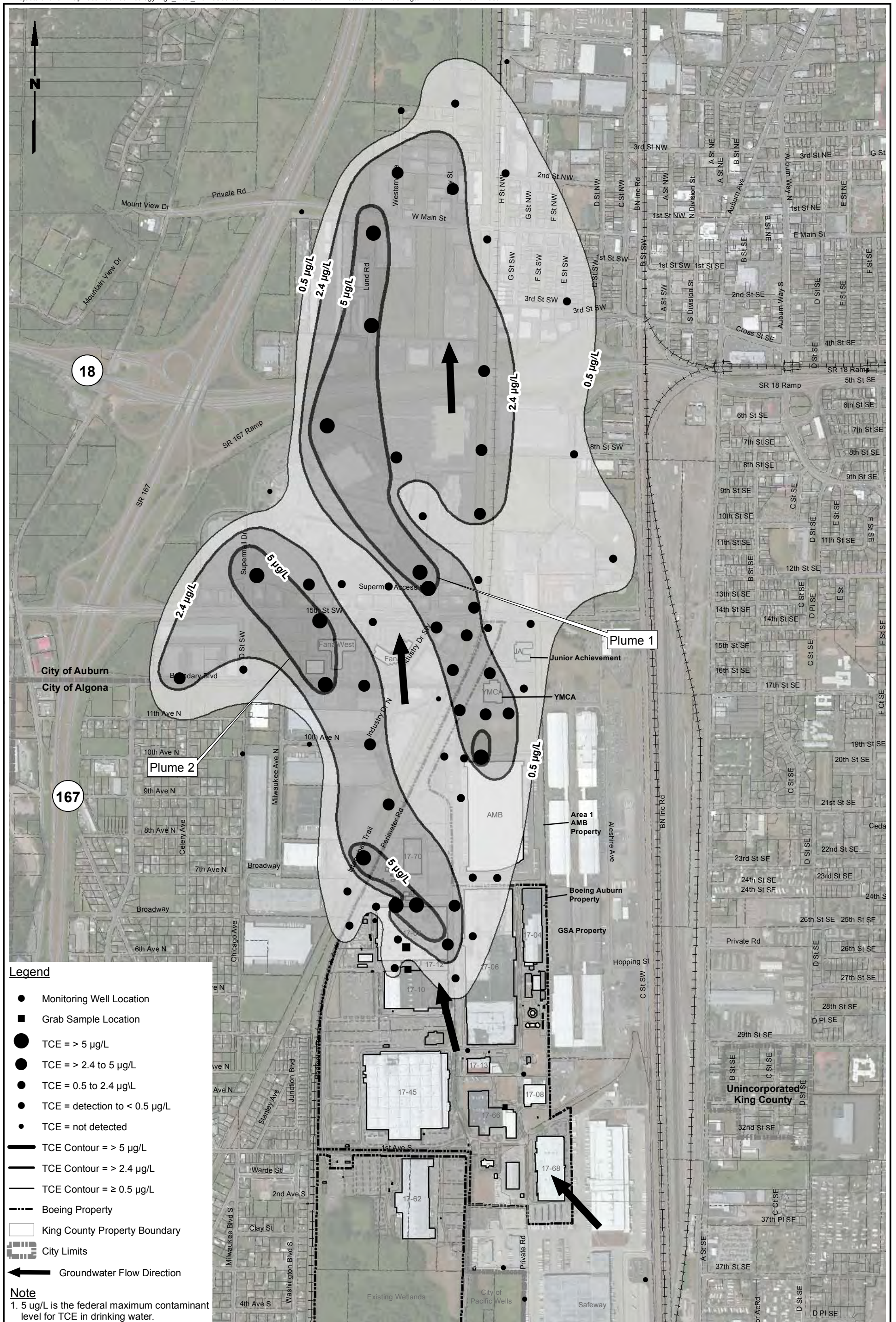
Email: rhonda.kaetzel@doh.wa.gov

Phone: (360) 236-3357

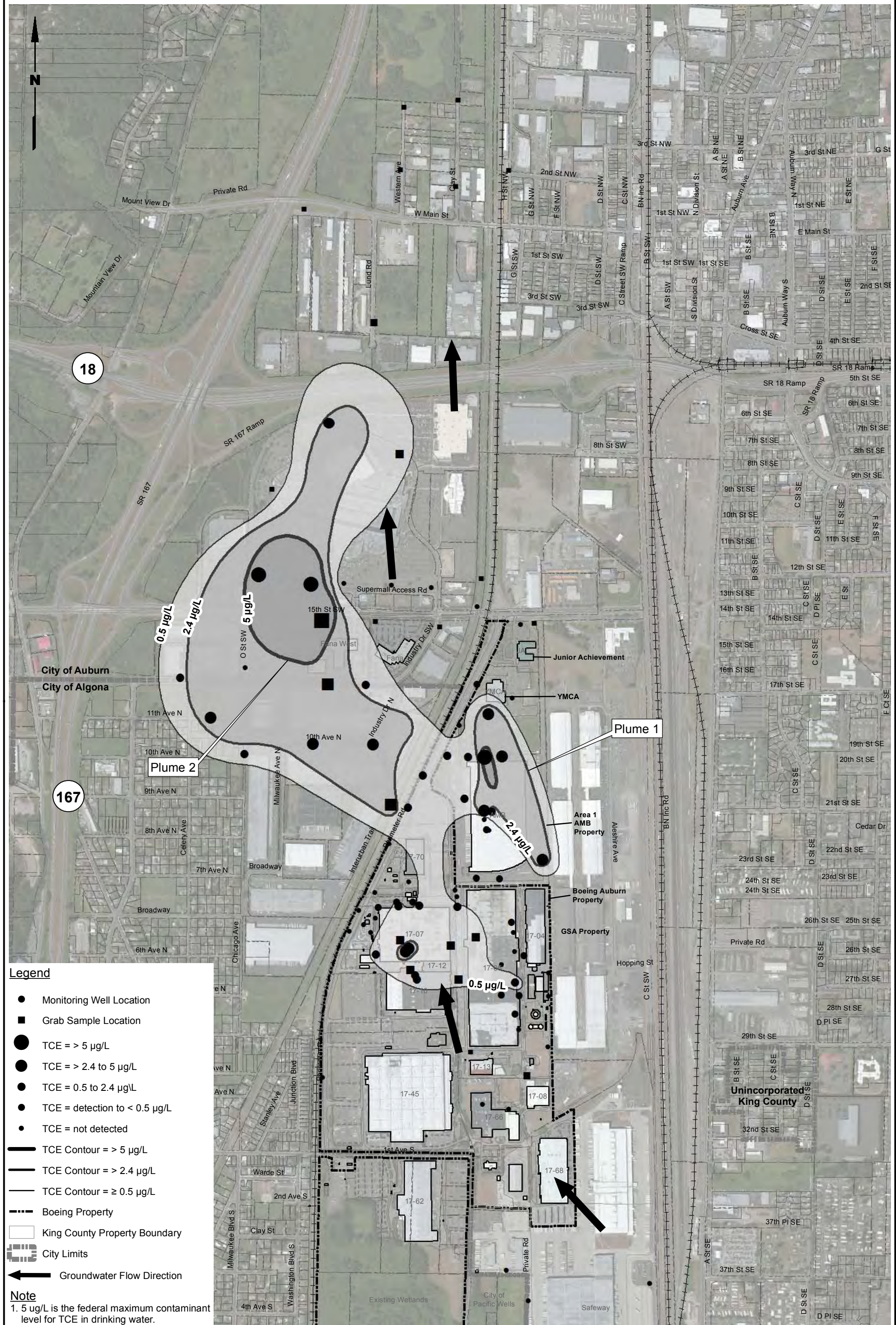
Mailing Address: PO Box 47846
Olympia, WA 98504

HOW TO STAY INFORMED

Ecology maintains a mailing list to provide information regarding the cleanup at the site. If you wish to be added to the mailing list, please contact Robin Harrover at (425) 649-7232 or through email at robin.harrover@ecy.wa.gov. In the subject line, please indicate Boeing Fabrication Auburn Site Mailing List. If you need this publication in an alternative format, call (425) 649-7117. Persons with hearing loss, call 711 for Washington Relay Service. Persons with speech disability call (877) 833-6341.



Base map source: Geometrix 2003; Aerial Photo Source: Bing Maps 2010; Parcel Data Source: King County GIS 2010



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