DEPARTMENT OF ECOLOGY State of Washington

Boeing Auburn Fabrication Site

Hazardous Waste and Toxics Reduction **October 2014**

Department of Ecology in the Community

Over the past several months, Ecology staff have been in Algona and Auburn connecting with residents and businesses and educating the public about the Boeing Auburn Fabrication Site cleanup. You may have seen us at Algona Days, at one of our monthly drop-in sessions, or in your neighborhood distributing flyers.

Residents peer into a groundwater monitoring well during Ecology's walking tour on August 5, 2014.

For More Information

Call our hotline!
(253) 219-7645

Email the Project:
BoeingAuburnSite@ecy.wa.gov

Submit Comments and Technical Questions to:
Neal Hines - Site Manager
E-mail: Neal.Hines@ecy.wa.gov

Submit Outreach Questions to:
Thea Levkovitz - Outreach Specialist
E-mail: tlev461@ecy.wa.gov

Ecology's Website
Bit.ly/EcyBoeingAuburn

Go to the project website to join our email list!

Facility Site ID #: 2018
Cleanup ID #: 5049

Project Background

Chemicals related to industrial manufacturing have contaminated groundwater – the water that flows under the ground through the soil - with a degreaser called trichloroethene (TCE; also called trichloroethylene) and its breakdown products. It is believed that the chemicals originated from the Boeing Auburn facility. The contaminated groundwater (called a plume) flows north and northwest away from the Boeing property, into portions of southwest Auburn and northeast Algona.

Ecology is overseeing the Boeing Company's investigation of the contamination and is responsible for selecting and writing a plan for cleanup. This plan will be subject to public comment and final Ecology approval.

Who is involved in the cleanup?

Ecology oversees the site investigations, cleanup planning, and implementation. As the Potentially Liable Party, the Boeing Company pays for the site investigations and cleanup. The Cities of Algona, Auburn, and Pacific provide input into the cleanup planning. Public comment periods are held at key decision points as well, and citizens are encouraged to submit comments. Ecology staff are available to provide more information and answer questions throughout the cleanup process.

How is the contamination investigated?

The study of the contamination and cleanup is required by Washington state law and is investigated by taking samples to determine if people can be exposed to TCE and its breakdown products. This happens in a phased approach, focusing the most on ways the chemicals can affect people's health and/or the environment. Even if health effects are not found, Ecology is required by Washington State law to proceed with the cleanup to protect groundwater resources.

Generally, these effects (called exposures) can happen three primary ways:

- Drinking contaminated water
- Touching contaminated water
- Breathing contaminated air

Under Ecology's direction, Boeing is collecting samples to better understand which chemicals are present, their locations and concentrations, and their behavior over time. There are three primary areas where samples are being collected:

- Groundwater wells are installed to clearly identify areas of contamination in the groundwater and to monitor concentrations of contaminants over time.
- Surface water is collected in wetlands, creeks, yards, and ditches to find out if surface water is contaminated and, if so, at what concentrations.
- Indoor air quality is tested (in buildings overlying contaminated shallow groundwater) to determine if vapors have migrated into indoor air.

A large network of groundwater, surface water, and air samples have been and will continue to be collected so that the full extent and movement of the contamination is determined.

Do you want regular updates about the cleanup?

Visit the website and join our email list:

Bit.ly/EcyBoeingAuburn

Visit our online open house!

Find out more about the cleanup process, investigation results to date, and submit questions or comments.

WHEN: October 27 – November 26, 2014

WHERE: BoeingAuburnSite.publicmeeting.info

Visit now!

Scan the QR code with your smart phone to visit the open house.

What do we know so far?

To date, contaminants found off the Boeing property have been at low concentrations and are not expected to pose a risk to human health. In addition, none of the data for groundwater, drinking water, surface water or air quality have indicated any immediate risks. If Ecology determines that there is a potential risk, it would direct Boeing to undertake an Interim Action (cleanup) to reduce that risk quickly.

For more detailed information about recent sampling, please visit our online open house, or Ecology's website.

Groundwater impacts – does the contamination affect the drinking water?

The water for most homes in the area is supplied by public water systems and is regularly monitored by the Department of Health to make sure it is safe for people to drink. Ecology has reviewed groundwater data and has determined that the contaminated groundwater is located a safe distance from the cities' water supplies and is not affecting the water quality. Private wells, however, are not monitored like public drinking water. Please call Ecology if you have a private well to review whether the well is near the contamination.

Surface water impacts – is it safe to touch the surface water?

Surface water samples have been collected in ditches, yards, and streams, such as the Chicago Avenue ditch, Government Canal, and Mill Creek. In all cases, concentrations of contaminants have been below the Department of Health's approved health screening level for both adults and children to come in contact with the water (touching). Water that ponded in yards during the winter was tested in areas located over the contaminated groundwater, and in 11 out of 12 samples the chemicals were not detected. The one sample that did detect TCE was 1,400 times lower than the health-based screening level for coming in contact with the water.

Air quality impacts – do the chemicals move from the ground into the air that people breathe?

When found at the water table (in the ground), TCE and its breakdown products can evaporate and mix with the air in and above the ground. Air quality has been sampled inside homes, in outside air, at a business, and in soil gas. Soil gas testing will be expanded in the future to confirm whether chemicals in the groundwater are passing into the air. Based on the work done so far, the chemicals have not been commonly found in the air (see next section). Furthermore, when they are found, the concentrations generally have been below long-term health screening levels.

Indoor air quality sampling in homes in northeastern Algona

Two phases of home air quality testing were conducted in Algona from 2013 to 2014. The studies concluded that the contaminated groundwater could not be identified as the source of the limited detections of TCE at homes in the study area. Fifteen of 189 air samples found detections of TCE, and these detections were below long-term health screening levels for 14 out of 15 samples. There were no detections of vinyl chloride.

Air quality testing above Chicago Avenue ditch

The air space directly over the Chicago Avenue ditch was tested to find out if the dense contaminant vapors could evaporate from the water and accumulate in the air. The testing was done on hot, calm days when it is most likely that contaminants could evaporate. No detection of any contaminants were found in the air space.

Soil gas testing in Auburn

In 2015, there will be soil gas testing done in the ground above the contaminated groundwater in Auburn. If contaminants are found above established health screening levels, Ecology will require indoor air to be sampled in buildings above the contamination. So far, of the 19 soil gas samples taken in Algona only one had a detection of TCE, and it was much lower than the health-based screening level for TCE in soil gas.

What's Next for the Cleanup?

* *Ecology will hold public comment periods at key points during the process*

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State of Washington

3190 160th Avenue SE
Bellevue, WA 98008

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Help with other languages and formats?

Si necesita información en español, favor de contactar a Luis Buen Abad al 425 649-4485.

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.

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