



## Remedial Investigation Public Comment Period: March 8 - May 8, 2017

### Remedial Investigation identifies the location and concentration of contamination

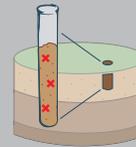
The Remedial Investigation (RI) identified the boundaries of the plume and the potential impacts of the contamination by evaluating data from soil, groundwater, surface water and air samples. The investigation also sampled Areas of Concern (AOCs) and Solid Waste Management Units (SWMUs) at the Facility for other contaminants, such as metals and petroleum. Under Ecology's oversight, Boeing completed sampling and compiled a draft RI Report that summarizes the investigation's findings and recommendations. Ecology reviewed and revised the draft RI Report, which is available for public review and comment March 8 - May 8, 2017.

### Model Toxics Control Act

Washington State's Model Toxics Control Act (MTCA) sets cleanup standards and a process to ensure that the quality of cleanup, protection of human health and environment are not compromised. Boeing must follow MTCA's cleanup regulations and process under Ecology's oversight as shown below.

We Are Here

#### Remedial Investigation (RI) + Draft Report



A Remedial Investigation defines the nature, extent and magnitude of pollution at a site in order to identify the best method for cleanup.

#### Interim Action

If the contaminants are found to pose a risk to human health or the environment, Ecology will direct Boeing to take immediate action to reduce this risk. **This happened on the Boeing property in 2004, when an Interim Action was taken to contain a known source for the plume.** Since that time, chemicals found have been at low levels and not expected to pose a risk to human health or the environment.

#### Feasibility Study (FS)



The Feasibility Study uses the information from the Remedial Investigation to identify and evaluate cleanup alternatives. Then an optimal alternative will be selected and incorporated into the Cleanup Action Plan.

#### Cleanup Action Plan (CAP)



The Cleanup Action Plan specifies cleanup standards, methods, schedule, describes the steps to be taken, and includes any additional environmental monitoring required during and after the cleanup.

#### Cleanup & Monitoring



Implementation of the Cleanup Action Plan includes design, construction, operations and monitoring.

Opportunities for public comment

### We Want Your Comments

#### In-Person Open House

An in-person opportunity to review materials, provide comments and ask questions

**March 23, 2017** | 5:00 - 7:00 PM

Alpac Elementary School

310 Milwaukee Blvd N, Pacific, WA

*\*Spanish interpreters and childcare will be provided*

#### Online Open House

An online opportunity to review materials, provide comments and ask questions March 8 - May 8, 2016.

**BoeingAuburn.participate.online**

#### Public Hearing

A formal in-person opportunity to share your comments with Ecology and Boeing

**April 25, 2017** | 5:00 - 7:00 PM

Alpac Elementary School

310 Milwaukee Blvd N, Pacific, WA

*\*Spanish interpreters and childcare will be provided*

#### What public feedback is useful for the draft Remedial Investigation?

Ecology wants your feedback about the completeness of the site investigation.

## Key Terms

**Areas of Concern (AOCs):** Places with actual or potential contamination that require investigation or remediation.

**Cleanup Action Plan (CAP):** The third major step in the MTCA cleanup process; a description of the standards, methods, schedule, steps and monitoring to be undertaken during or after cleanup.

**Cleanup and Monitoring:** The fourth major step in the MTCA cleanup process; the implementation and oversight of the CAP.

**Facility:** The Boeing Auburn Fabrication Facility, also known as Boeing property.

**Feasibility Study (FS):** The second major step in the MTCA cleanup process; an evaluation of methods of cleanup.

**Model Toxics Control Act (MTCA):** Washington's pollution cleanup law for contaminated sites.

**Plume:** The area covered by the spread of contaminated groundwater.

**Remedial Investigation (RI):** The first of four major steps in the MTCA cleanup process; a detailed study of a site's contamination.

**Site:** The Boeing property, plume and all affected areas.

**Solid Waste Management Units (SWMUs):** Any piece of equipment at the Facility from which contaminants might have migrated.

**Trichloroethene (TCE):** A liquid degreaser used to clean grease and oil from metal objects; a volatile organic compound.

**Vapor Intrusion:** Occurs when vapor forming chemicals (VOCs) migrate from a subsurface source (groundwater) into an overlying building through cracks or other openings in building foundations.

**Vinyl Chloride (VC):** A breakdown product of TCE; a volatile organic compound.

**Volatile Organic Compound (VOCs):** Compounds that easily evaporate from water into air at normal air temperatures. Examples of household products that contain these compounds include gasoline, dry cleaning fluid, solvents and paint thinners.

## Remedial Investigation Results

Ecology proposes to approve the RI as complete. Data collected during the RI sufficiently defines the area, concentrations and sources of contamination. Results from data collected during the RI do not indicate adverse health effects from occasionally touching or accidentally swallowing the contaminated water or breathing the air in areas above the contaminated groundwater. Investigation at the site focused on the four main topics listed below.

For additional information on each topic, please review the corresponding fact sheets (also available in Spanish) or the draft RI Report. These materials can be found on the project's website.



### Soil

Of the 31 SWMUs and AOCs at the Facility, Ecology will require Boeing to further evaluate four in the FS.

Chemicals released may include low levels of petroleum hydrocarbons, cyanide and metals, such as cadmium and copper.



### Surface water

Ecology is requiring surface water be protected to the same rigorous standards that are used for drinking water.

Boeing investigated ponds, streams, wetlands and stormwater ditches in Algona and Auburn. Hundreds of samples were collected and analyzed and do not indicate adverse health effects if people touch the surface water. Bodies of water include Government Canal, the stormwater collection ditch on Chicago Avenue, the O Street wetland, the Outlet Collection stormwater ponds and stormwater collection ditch, the Auburn 400 ponds, Mill Creek, and various wetlands associated with Mill Creek, including the Auburn Environmental Park.

**No contaminants are presently detected in the public drinking water. Drinking water is provided by the City of Auburn public drinking water systems, which are monitored for contaminants. Private wells are not monitored like public drinking water. If you have a private well, please contact Ecology.**



### Groundwater

Ecology is recommending Boeing continue to evaluate site-wide groundwater and that it be further addressed in the FS.

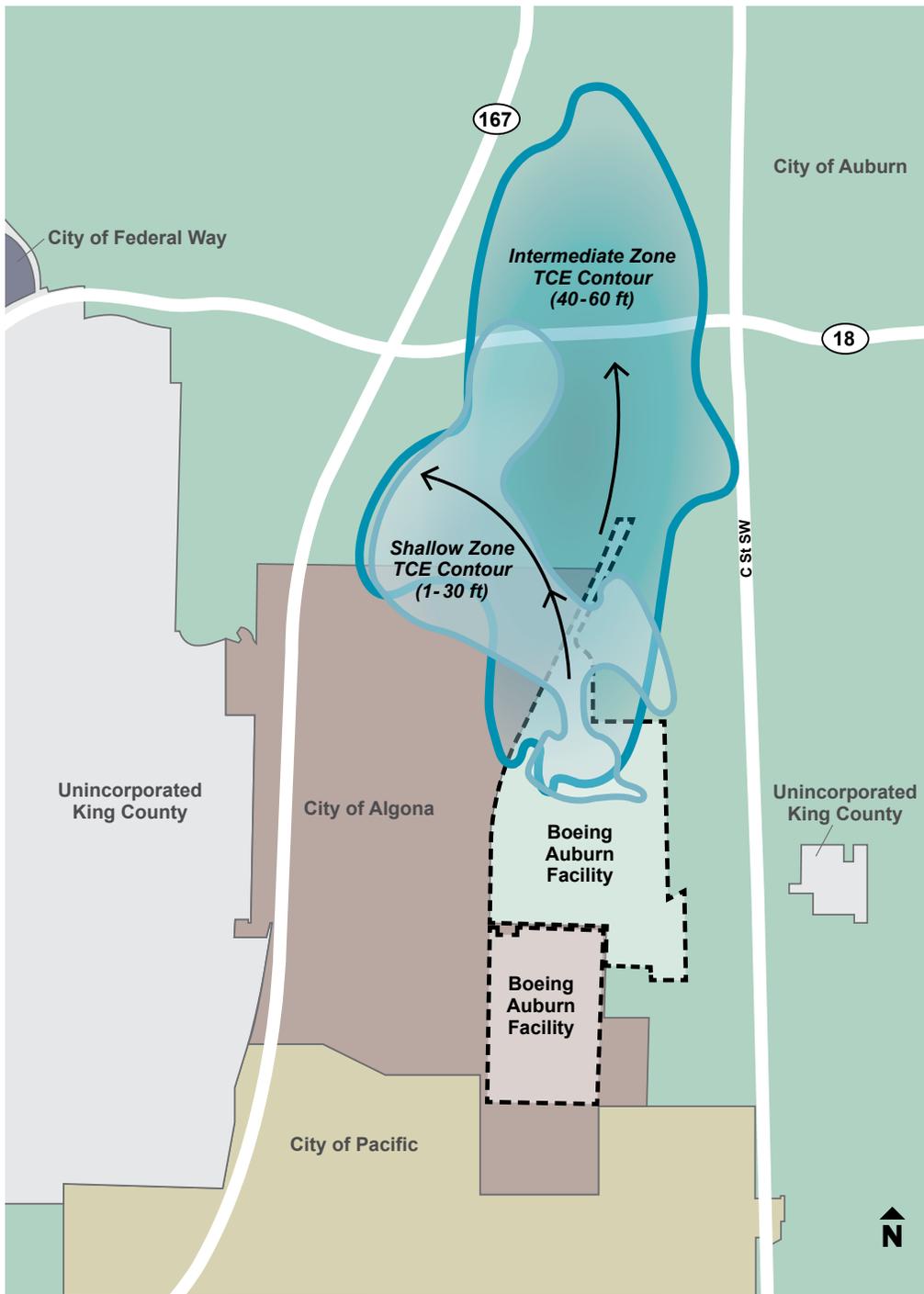
Groundwater is water found underground that moves slowly through soil, sand and rocks. Ecology is considering a strategy to clean up groundwater to state standards at locations across the site (referred to as a "site-wide strategy" in the draft RI Report), not just at specific locations where contamination was originally released. The original source areas for the contaminated groundwater plumes at the Facility do not indicate the need for additional source cleanup at this time. If contamination levels are above cleanup levels, Ecology will propose remediation or cleanup at those locations.



### Air quality (vapor intrusion)

Ecology is not recommending further indoor air evaluation, and indoor air will not be part of the FS because there are no indications of health risks.

Ecology has reviewed air quality data from samples taken in residential and commercial areas over contaminated groundwater, and the Department of Health has reviewed results from air sampling data. None of the data indicate human health risks from breathing air in these locations.



The *site* includes areas where the groundwater investigation has occurred.

## Next Steps After the RI

The next step in the MTCA cleanup process is the FS, which will develop and evaluate cleanup action alternatives. Ecology is requiring Boeing to further evaluate:

- Four Facility SWMUs and AOCs for remediation of petroleum hydrocarbons and metals.
- Site-wide groundwater and surface water for remediation of TCE and VC.

## View the Draft RI Report

To view a hardcopy, please visit one of these locations:

- **Department of Ecology**  
3190 160th Ave SE  
Bellevue, WA 98008
- **Auburn Library**  
1102 Auburn Way S  
Auburn, WA 98002
- **Algona-Pacific Library**  
255 Ellingson Rd  
Pacific, WA 98047

The draft report can also be viewed online by visiting the project's website.

## For more information

**Call our hotline (English/Spanish):** (253) 219-7645

**Email the project:** BoeingAuburnSite@ecy.wa.gov

**Visit the website:** [Bit.ly/EcyBoeingAuburn](http://Bit.ly/EcyBoeingAuburn)

**Visit the Spanish website:** [Bit.ly/FabricaciónBoeingAuburn](http://Bit.ly/FabricaciónBoeingAuburn)

**Join the listserv:** [Bit.ly/2f6dyqz](http://Bit.ly/2f6dyqz)

*To request ADA accommodation for disabilities, or printed materials in a format for the visually impaired, call Ecology at (425) 649-7000 or visit [www.ecy.wa.gov/accessibility.html](http://www.ecy.wa.gov/accessibility.html). Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at (877) 833-6341.*

FSID #:2018 CSID #:5049



*Historic photo of Boeing Auburn Facility*

## Boeing Auburn Facility is Source of Contamination

The Department of Ecology (Ecology) is asking for public comments on the draft report of the Remedial Investigation (RI), which evaluated the extent and concentration of the contamination from the Boeing Auburn Facility. This folio provides an overview of the purpose and findings of the Remedial Investigation, the agencies involved and opportunities for the public to provide feedback.

In parts of Auburn and Algona, groundwater, water that flows under the ground through soil, is contaminated with a degreasing chemical called trichloroethene (TCE) and its breakdown products. The chemicals originated from the Boeing Auburn Fabrication Facility (Facility) and are believed to be a result of

historic operations, likely from the mid-1960s until the mid-1980s. The area with contaminated groundwater, called a plume, reaches approximately one mile northwest from the Facility (see map, page 3).

Ecology is overseeing Boeing's investigation of the contamination and will review and select a plan for cleanup. Ecology's approval is required in each step of the investigation to ensure that state cleanup standards are met. The public will have opportunities to comment throughout the cleanup process.

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Para más información acerca de la contaminación del agua subterránea en Algona y Auburn en español, favor de contactar a Luis Buen Abad al (425) 649-4485.

Якщо ви хочете отримати інформацію про забруднення ґрунтових вод у Алгоні та Оберні українською мовою, будь ласка, зателефонуйте (425) 649-7181, щоб поговорити зі співробітником Департаменту Екології та перекладачем.

ਅਲਗੋਨਾ (Algona) ਅਤੇ ਔਬਰਨ (Auburn) ਵੱਲੋਂ ਭੂਮੀਗਤ ਪਾਣੀ ਦੇ ਦੂਸ਼ਣ ਬਾਰੇ ਪੰਜਾਬੀ ਵੱਲੋਂ ਹੋਰ ਜਾਣਕਾਰੀ ਲਈ, ਕਰਿਪਾ ਕਰਕੇ ਚੈਗਰਿਦਾ ਵਰਿਗਿਆਨ (Ecology) ਦੇ ਸਟਾਫ ਮੈਂਬਰ ਅਤੇ ਇੱਕ ਦੁਭਾਸ਼ੀਏ ਨਾਲ ਗੱਲ ਕਰਨ ਲਈ (425) 649-7181 ਤੇ ਫੋਨ ਕਰੋ।

Para sa higit pang impormasyon tungkol sa pagkakontamina ng groundwater sa Algona at Auburn na nasa wikang Tagalog, mangyaring tumawag sa (425) 649-7181 upang makipag-usap sa isang miyembro ng kawani ng Ecology at sa isang interpreter.