Boeing Auburn Cleanup: Documents Available for Review and Comment

Photo courtesy of Boeing

Comments accepted
September 12 – November 11, 2022

Submit comments
Online:
ecology.wa.gov/BoeingAuburnComment2022

By mail:
Li Ma, Site Manager
Department of Ecology
Northwest Region Office
P.O. Box 330316
Shoreline, WA 98133
425-466-9872
li.ma@ecy.wa.gov

Site information
Webpage:
ecology.wa.gov/BoeingAuburn
Facility Site ID: 2018
Site Cleanup ID: 5049

Need help?
Contact Janelle Anderson, Community Outreach Specialist at 425-301-6454 or janelle.anderson@ecy.wa.gov

Translations available

Para ver este anuncio público en Español, visite bit.ly/BoeingAuburnNoticeES.

We want to hear from you!

We're overseeing contamination cleanup at the Boeing Auburn facility, located at 700 15th St. SW in Auburn, Washington. We invite you to review and comment on the following documents:

- **Draft Cleanup Action Plan (dCAP):** The dCAP describes the cleanup actions for the site and sets the standards that the cleanup must meet.
- **Draft Permit:** This permit is a **Dangerous Waste Corrective Action Permit** that allows site cleanup to continue.
- **Enforcement Order:** Boeing asked Ecology to use an Enforcement Order to implement the Cleanup Action Plan.
- **Draft State Environmental Policy Act (SEPA) Checklist and Determination of Non-Significance (DNS):** We review a SEPA checklist during site cleanups to find and evaluate large, negative environmental impacts. Our review found that the action would not have significant negative impacts and a "Determination of Non-Significance" (DNS) was made by Ecology.
- **Draft Public Participation Plan (PPP):** The draft PPP encourages community involvement in cleanup decisions.

Visit ecology.wa.gov/BoeingAuburn to view these documents.

The public comment period is open from September 12 to November 11, 2022. When the comment period ends, we'll consider all comments and may change the documents based on them. After considering all comments, the documents will become final.

Public meeting

At this time, there are no public meetings scheduled for this comment period. To request a public meeting, please call 425-301-6454 or email janelle.anderson@ecy.wa.gov.

Site background

Since 1966, Boeing has owned and operated the Auburn facility. In the past, Boeing treated and stored dangerous waste at the facility. The federal Resource Conservation and Recovery Act (RCRA) requires Boeing to have a permit for these activities.

In 1980, Boeing applied for their original RCRA part A permit for the storage of dangerous wastes as required by the U.S. Environmental Protection Agency (EPA).

In 1987, Ecology and EPA jointly issued a dangerous waste permit (RCRA permit) to Boeing that allowed them to continue to treat and store waste at the Auburn facility. Boeing no longer has permitted dangerous waste management units, but they must keep their permit until site cleanup is complete.

How the site became contaminated

Boeing treated and stored hazardous waste and used a liquid chemical—trichloroethlyene (TCE)—to clean and degrease metal airplane parts. The site became contaminated when some of the TCE leaked into soil and groundwater. The groundwater contamination extends off the Boeing property. Boeing no longer uses TCE, so there is no more risk of TCE contamination from the facility.

In the late 1980s, Boeing reported a release of TCE from the facility. In the 1990s, Boeing began sampling the soil and groundwater at the Auburn facility. Boeing also did soil cleanup work in some areas at the Auburn facility. In 2002, Boeing signed an agreed order to fully investigate the groundwater contamination in compliance with Washington state's cleanup law, the Model Toxics Control Act (MTCA). The agreed order required Boeing to conduct a facility-wide remedial investigation and feasibility study.

Boeing found high levels of TCE contamination on their property. Ecology required an interim cleanup action to bring TCE amounts in one area below state cleanup levels. That interim action is not the final cleanup. Boeing successfully cleaned up the original TCE-contaminated soil at the Auburn facility.

Boeing also closed their permitted treatment and storage units, and they no longer do "permitted" activities at Boeing Auburn. Boeing must keep their permit for cleanup activities that protect human health and the environment from the contamination.

In 2009, we had Boeing investigate whether groundwater was contaminated beyond the Auburn facility's boundary. Over the next few years, Boeing installed groundwater monitoring wells to the north, northwest, and northeast of the Auburn facility to measure the extent of the contamination. Monitoring wells showed that groundwater contamination was beyond Boeing property. Ecology notified water districts and the cities of Algona, Auburn, and Pacific in 2011. The following year the Department of Health published a report confirming that the public drinking water systems were safe.

In 2013, we held public meetings in Algona to discuss the investigation and air quality testing. This began a robust process to inform you, the public, of the contamination.

By 2017, Boeing completed the remedial investigation report that identified the boundaries of the groundwater contamination and potential impacts. This report was shared with the public for comment. For more information, find the document titled "FINAL RI Report, Executive Summary" in the Boeing Auburn Document Repository at ecology.wa.gov/boeing-auburn-docs.

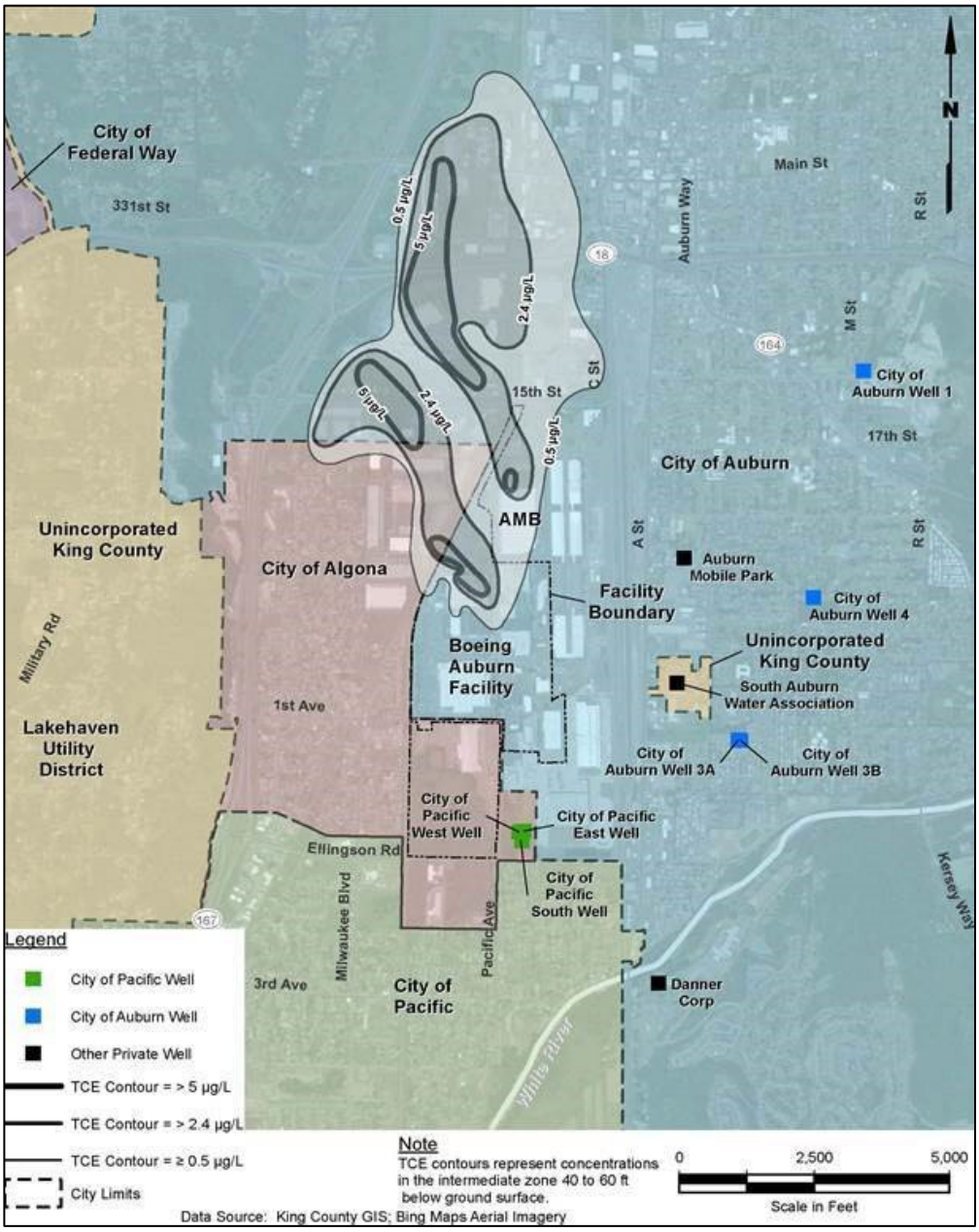


Figure 1: Location of City of Auburn drinking water wells relative to the contaminated groundwater.

In 2018, we issued a new RCRA permit. RCRA permits are set to expire after ten years. Even though Boeing Auburn no longer does permitted activities, they must maintain their permit until site cleanup is complete. As part of this process, we held a 45-day comment period.

In 2021, we released the feasibility study and supplemental feasibility study for public comment. The feasibility study identifies and compares cleanup methods. To review the feasibility studies, visit our website at ecology.wa.gov/BoeingAuburn. The most effective cleanup methods are featured in the Cleanup Action Plan.

Now, Ecology has the draft Cleanup Action Plan and associated updates to the RCRA permit and draft enforcement order out for public comment. After public comments are considered and incorporated, Boeing will do the cleanup. We will continue to monitor Boeing's cleanup to make sure human health and the environment are protected.

Contamination

During the remedial investigation, we had Boeing test where people could contact the contaminated groundwater as it enters surface waters (e.g., ditches, ponds, and creeks) or the air (e.g., air in soil pockets or indoor air). We found that chemical levels are low enough that they do not present human health risks.

The study found traces of the following chemicals:

- trichloroethylene (TCE): a liquid chemical once commonly used to remove grease from metal parts.
- cis-1,2-dichloroethene: a chemical that results from TCE breakdown.
- trans-1,2-dichloroethene: a chemical that results from TCE breakdown.
- vinyl chloride: the last toxic chemical created when TCE breaks down.

Of these, the most toxic chemicals are TCE and vinyl chloride. Vinyl chloride naturally degrades to non-toxic end products.

The groundwater flowing away from the Boeing Auburn facility is contaminated with TCE and its breakdown products. The contaminated groundwater flows north and northwest from the Boeing property, under portions of Algona and Auburn.

Boeing has a network of monitoring wells to measure the concentrations of contaminants in groundwater over time. The wells are sampled regularly and the results monitored by the assigned Ecology site manager, Dr. Li Ma. The areas of highest remaining contamination in groundwater are under the Outlet Collection Mall. TCE levels there are at about 9.6 parts per billion; this is about 2.5 times the concentration of TCE allowed in drinking water. Contamination at this site is declining at a steady rate due to natural breakdown and will be enhanced in certain areas by treatments applied under the Cleanup Action Plan.

To read the full Remedial Investigation and Feasibility Studies please visit our Boeing Auburn website Document Repository at ecology.wa.gov/boeing-auburn-docs.

The cleanup process

Boeing must follow Washington's cleanup process (see Figure 2). We are in the cleanup action plan phase.

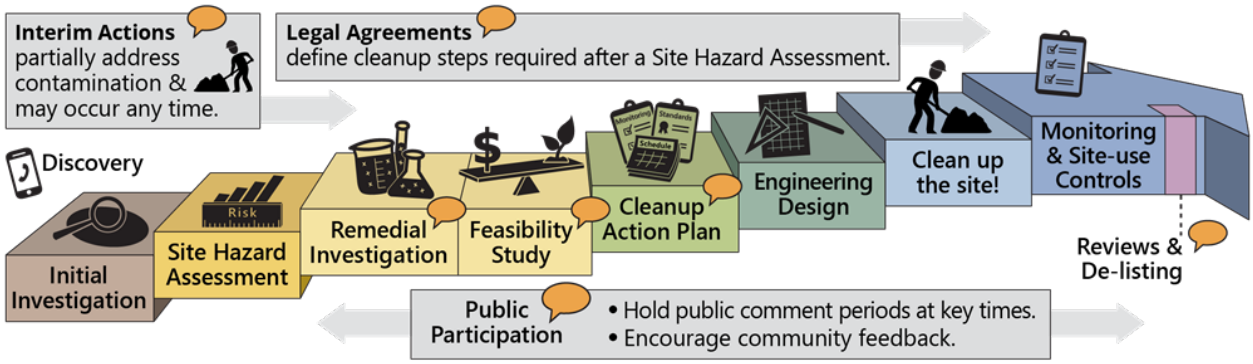


Figure 2: Washington's cleanup process. Read a plain text version.[1]

[1] https://apps.ecology.wa.gov/publications/parts/1909166part2.pdf

Cleanup plans for soil and groundwater

Boeing must clean up the contamination. We apply both the federal Resource Conservation and Recovery Act (RCRA) and the state Model Toxics Control Act (MTCA) regulations to clean up hazardous waste sites. The cleanup protects human health and the environment from dangerous wastes and chemicals.

Washington has two clean water standards for cleanup sites: one for groundwater and one for surface water. For TCE, the surface water cleanup standard is about ten times stricter than the groundwater standard. At the Boeing Auburn site, Ecology is using the surface water standard as the groundwater cleanup level because the contaminated groundwater flows towards and sometimes into stormwater structures or surface water bodies.

For details about water cleanup standards for TCE, see the cleanup standards infographic on our Boeing Auburn webpage: ecology.wa.gov/BoeingAuburn.

A predictive model of the contaminated groundwater showed that using enhanced bioremediation and monitored natural attenuation (MNA) could reduce cleanup time. For example, the model showed that using enhanced bioremediation in the Algona area could cut the time needed to reach surface water quality standards there by about half.

Enhanced Bioremediation

Bioremediation is a natural process where bacteria in the soil and groundwater "eat" the chemical contaminants. The enhanced method of bioremediation involves adding non-toxic food for the bacteria (sugars and carbon) to the groundwater so they grow faster and eat more chemicals.

We asked Boeing to install additional wells so they can inject bacteria food into the groundwater and promote faster breakdown of groundwater pollutants. To learn more, read Focus on: Boeing Auburn Site Enhanced Bioremediation by visiting bit.ly/BoeingAuburnBio.

Monitored Natural Attenuation (MNA)

Bacteria that live in soil and groundwater can break down chemicals into non-toxic end products. Monitoring this natural process tracks the contamination until the chemicals in contaminated soil and groundwater are below risk levels set by state law.

Throughout the MNA process, we require that Boeing collect and analyze samples to make sure that the concentration of chemicals in the soil and groundwater is declining. To learn more, read Focus on: Boeing Auburn Site Monitored Natural Attenuation by visiting bit.ly/BoeingAuburnMNA.

Document Review Locations

In-person document review is available. Our office is open to the public. However, we encourage you to make an appointment prior to your arrival.

Washington State Department of Ecology
Northwest Region Office
15700 Dayton Ave N.
Shoreline, WA 98133-9716
Reception (24-hour) 206-594-0000

To schedule an appointment, please contact:

Michael Hart
michael.hart@ecy.wa.gov
Public Disclosure Coordinator

You can also review documents on our website: ecology.wa.gov/BoeingAuburn.

Questions about accessing information?

Contact Janelle Anderson:
425-301-6454
janelle.anderson@ecy.wa.gov

To submit your comments, questions, or concerns about any of these documents, visit Ecology's eComments page: ecology.wa.gov/BoeingAuburnComment2022.

What Happens Next?

The public comment period is open from September 12 to November 11, 2022. After the comment period ends, we'll review and consider all received comments. The documents may change based on your comments. After considering all comments, the documents will become final.

When new documents about the site are developed, we'll notify you about additional public comment periods.

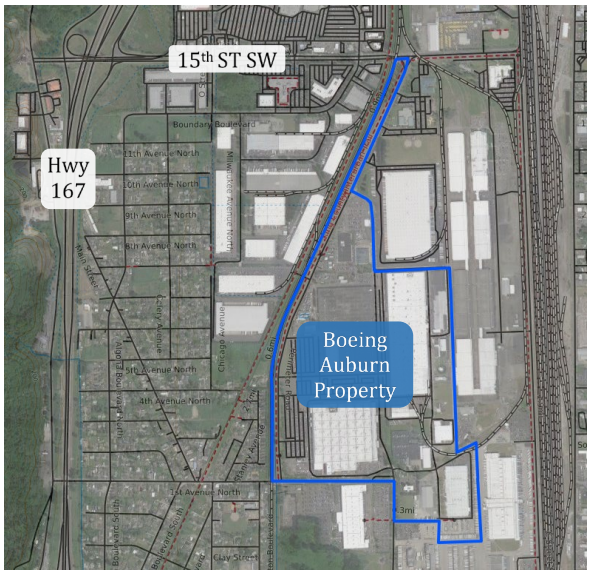
¿Qué pasa a continuación?

El periodo de comentario público está abierto desde el 12 de septiembre hasta el 11 de noviembre. Después de que el periodo de comentario publico termine, revisaremos y consideraremos todos los comentarios recibidos. Los documentos pueden cambiar basado en sus comentarios. Después de considerar todos los comentarios, el documento será finalizado.

Cuando se desarrollen nuevos documentos sobre el sitio, le notificaremos acerca de periodos adicionales de comentario público.

Department of Ecology
Northwest Region Office
P.O. Box 330316
Shoreline, WA 98133-9716
Tel: 206-594-0000

Join the Discussion!



Location of Boeing Auburn Fabrication Site.

Boeing Auburn Draft Documents

Ecology seeks public comment on a draft cleanup action plan, draft permit, enforcement order, draft SEPA/DNS and draft public participation plan for the Boeing Auburn site in Auburn, Washington.

Public Comment Period

September 12 – November 11, 2022

Submit a Comment

Visit ecology.wa.gov/BoeingAuburnComment2022 or email janelle.anderson@ecy.wa.gov.

Información en español incluida

Ecología busca comentario público sobre el borrador del plan de acción de limpieza, el borrador del permiso, orden de cumplimiento, borrador de SEPA/DNS y el borrador del plan de participación pública del sitio Boeing Auburn en Auburn, Washington. Para ver la notificación pública en Español, visite bit.ly/BoeingAuburnNoticeES. Si le gustaría recibir documentos en español, por favor envíe un correo electrónico a preguntas@ecy.wa.gov.

ADA Accessibility: To request an ADA accommodation, contact Ecology by phone at 360-407-6700, email hwtrpubs@ecy.wa.gov, or visit https://ecology.wa.gov/accessibility. For Relay Service or TTY call 711 or 877-833-6341.