

# Wondering How to Navigate the Boeing Auburn Fabrication Site Draft Remedial Investigation Report?

The Department of Ecology invites you to comment on the draft Remedial Investigation (RI) Report for the Boeing Auburn Fabrication Site. **Comment Period: March 8 - May 8, 2017**

Frequently Asked Questions	Answered in Chapter (Page Number)
What is the problem?	<a href="#">Executive Summary</a> (I – ix), <a href="#">1.0</a> (1-1 to 1-2), <a href="#">2.0</a> (2-1 to 2-3)
Where are the affected areas?	<a href="#">5.1</a> (5-1 to 5-5), <a href="#">6.0</a> (6-1 to 6-42), <a href="#">7.0</a> (7-1 to 7-7), <a href="#">8.0</a> (8-1 to 8-18), <a href="#">9.0</a> (9-1 to 9-9), <a href="#">10.0</a> (10-1 to 10-10)
When did the contamination occur?	<a href="#">8.1.1</a> (8-2 to 8-3)
What cleanup efforts have already occurred?	<a href="#">2.2</a> (2-1 to 2-3), <a href="#">7.0</a> (7-1 to 7-7)
What is the purpose of the RI Report?	<a href="#">1.0</a> (1-1 to 1-2), <a href="#">1.1</a> (1-3)
How was the RI investigation conducted?	<a href="#">3.0</a> (3-1 to 3-4)
What does the RI Report recommend for future action?	<a href="#">11.0</a> (11-1 to 11-5)

Topics	Report Section (Page Number)	Figures	Tables
<b>General</b>			
<a href="#">Executive Summary</a>	(i – ix)		
<a href="#">Discussion and Recommendations</a>	11.0 (11-1 to 11-5)		11-1
<a href="#">References</a>	13.0 (13-1 to 13-24)		
<b>Site Geology and Groundwater Flow</b>			
Geology	4.1 (4-1 to 4-4)	4-1 to 4-5	
Osceola Mudflow	4.1.2 (4-3 to 4-4)	4-5	
Hydrogeology/ Groundwater Flow	4.2 (4-4 to 4-14)	4-6, 4-12 to 4-21	4-3 to 4-5
Groundwater Use Near the Boeing Auburn Site	4.3 (4-14 to 4-18)	4-22, 4-23	4-6
<b>Conceptual Site Model</b>			
Conceptual Site Model (On Boeing Property)	5.1.1 (5-2 to 5-3)	5-1, 5-3	
Conceptual Site Model (Off Boeing Property)	5.1.2 (5-4 to 5-5)	5-2, 5-3	
<b>Screening Level</b>			
Groundwater	5.3.2 (5-8 to 5-9)		5-2
Surface Water	5.3.3 (5-9 to 5-12)	5-4	5-3
Soil	5.3.1 (5-6 to 5-8)		5-1
Air (Vapor Intrusion)	5.3.4 (5-12)		5-4
<b>Area 1 Interim Remedial Action</b>			
Interim Remedial Action (S-12b and A-08)	7.1 (7-1 to 7-2)	7-2 to 7-4	
Effectiveness of Interim Remedial Action/ Summary	7.3 and 7.4 (7-3 to 7-7)	7-5 to 7-11	7-1

Topics	Report Section (Page Number)	Figures	Tables
<b>Groundwater</b>			
Sources – Area 1	8.1.2 (8-3), <a href="#">7.0</a>	<a href="#">7-4</a>	
Sources – Western Plume	8.1.3 (8-3 to 8-6)	8-2 to 8-4	
Site – Water Table	8.2.1.1 (8-10 to 8-11)	8-8, 8-9	8-1, 8-2
Site – Shallow Zone	8.2.1 (8-10 to 8-12)	8-10, 8-11, 8-16, 8-19, 8-20	8-1, 8-2
Site – Intermediate Zone	8.2.2 (8-12)	8-12, 8-13, 8-17, 8-21, 8-22	8-1, 8-2
Site – Deep Zone	8.2.3 (8-12 to 8-13)	8-14, 8-15, 8-18, 8-23, 8-24	8-1, 8-2
<b>Surface Water</b>			
Site - Auburn	9.3 (9-5 to 9-8)	9-1, 9-2	9-3, 9-4, 9-5
Site - Algona	9.2 (9-2 to 9-5)	9-1 to 9-5	9-1, 9-2
<b>Soil/Boeing Facility Investigation</b>			
Solid Waste Management Unit Evaluation	6.1 (6-1 to 6-23)	6-1 to 6-12	6-1 to 6-32
Areas of Concern Evaluation	6.2 (6-23 to 6-42)	6-13 to 6-26	6-33 to 6-62
<b>Air (Vapor Intrusion)</b>			
Facility - Industrial and Commercial	10.1 (10-1 to 10-3) and 10.2.1 (10-4 to 10-5)	10-3, 10-4	10-1, 10-2, 10-10
Site - Commercial	10.1, 10.2.2 (10-5 to 10-8)	10-2, 10-4	10-3 to 10-11
Site - Residential	10.2.3 (10-8 to 10-9)	10-5, 10-6	10-12, 10-13

This guide is intended to highlight the draft RI Report. Each reader is encouraged to make their own decisions about what is most important by reviewing the report’s table of contents and selecting sections to read based on their own interests.

## Accessing the Draft RI Report

To view a hardcopy of the draft RI Report, 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

## Providing Comments on the Draft RI Report

**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 98047  
\*Spanish interpreters and childcare will be provided

**Online Open House:** an online opportunity to review materials, provide comments, ask questions March 8 - May 8, 2017

[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 98047  
\*Spanish interpreters and childcare will be provided

**Phone:** call and speak directly with a site manager to ask questions and provide comments on the RI

Robin Harrover (425) 649-7232  
Neal Hines (425) 649-7181

Ecology wants your feedback about the completeness of the site investigation. To be most helpful, please focus your comments on the RI. There will be another opportunity to comment on cleanup options during the FS.

### For more information

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

**Email the project:** [BoeingAuburnSite@ecy.wa.gov](mailto: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 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.

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 ਚੰਗਾਰਿਦਾ ਵਰਗਿਆਨ (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.

## Key Terms

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

**Vinyl Chloride (VC):** A liquid breakdown product of TCE.

**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.

**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.

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

**Facility:** The Boeing Auburn Fabrication Facility.

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

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

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

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

**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.

**Osceola Mudflow:** Originating from Mount Rainier, a less permeable horizon of silt and clay that acts as a barrier to downward flow of groundwater. It separates the upper aquifer from the deeper aquifer below the Boeing Auburn Facility.

**Solid Waste Management Units (SWMUs):**

Any piece of equipment at the Facility where contaminants might have migrated.

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

**Action Level:** Concentration levels of contaminants that require action; no action could cause harm to human health.

**Cleanup Level:** The concentration of a hazardous substance in soil, water, air or sediment that is determined to be protective of human health and the environment under specified exposure conditions.

**Screening Level:** Concentration levels of contaminants used early on in an investigation when knowledge about the contaminants and impacts is low (e.g. routes of exposure are unknown, number of contaminants are unknown). If screening levels are exceeded, then a more detailed and focused investigation is made.