

# Boeing Plant 2

## Comment on Proposed Cleanup

Seattle, WA

April – May 2011

### What is Boeing Plant 2?

**B**oeing Plant 2 is a hazardous waste site located on the east bank of the Duwamish Waterway at 7755 East Marginal Way South in Seattle and Tukwila, Washington.

Plant 2 was built in the late 1930s and was a major aircraft manufacturing facility during World War II. Polychlorinated biphenyls (PCBs) and other toxic chemicals from large electricity generators and transformers were released at Plant 2 and into the Lower Duwamish Waterway (LDW). PCBs were also used in paints and caulking at Plant 2.

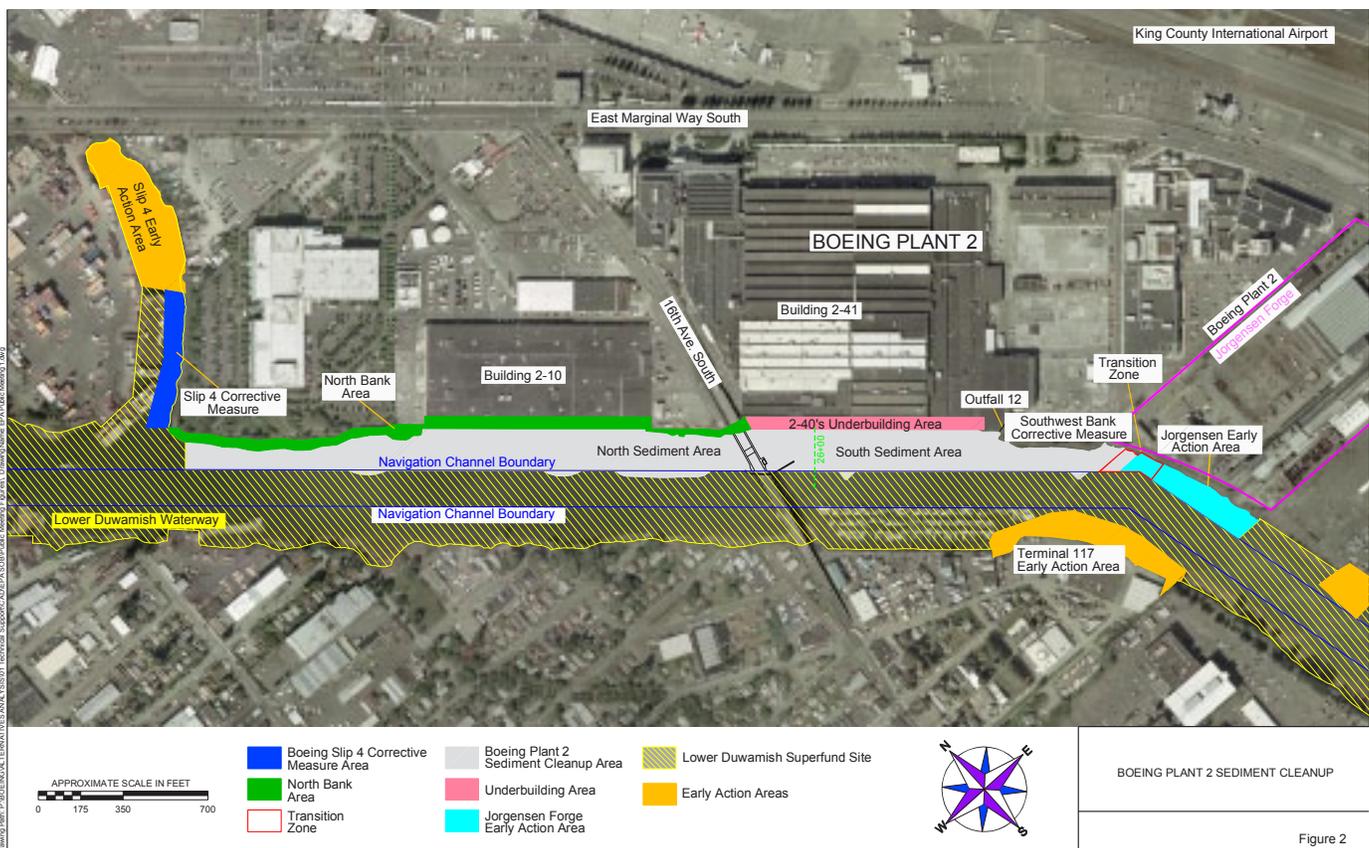
Boeing is under an EPA Resource Conservation and Recovery Act (RCRA) Order to investigate and study cleanup options for Plant 2. When the LDW became a Superfund site, several “hot spot” areas of sediment contamination were found that could be cleaned up before the larger Superfund cleanup. Boeing Plant 2 is one of these hot spot cleanups.

Three other hot spot cleanups are nearby: Slip 4 to the north, Jorgensen Forge to the south and Terminal 117 across the waterway.

### What are the cleanup options?

EPA’s *Statement of Basis* describes the cleanup options for the sediments and shoreline at Boeing Plant 2. The cleanup will remove toxic PCBs, metals, carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and phthalates. PCBs are the most widespread and significant pollutant in the sediments at Plant 2.

The cleanup options would either dredge (excavate) the sediments and then backfill with clean material, or place a thick cap to isolate the contamination. EPA will respond to public comments and decide on the cleanup plan in a *Final Decision and Response to Comments*. Cleanup options for the Plant 2 uplands areas (the rest of the Plant 2 site) will be issued in a second *Statement of Basis* in 2012. Boeing will conduct the cleanups under EPA oversight.



BOEING PLANT 2 SEDIMENT CLEANUP

Figure 2

## Cleanup goals

The biggest health risk from Lower Duwamish Waterway sediments is for people who eat fish, shellfish, and crabs that live in the Duwamish all year. The fish, shellfish, and crabs are not safe to eat because they collect contaminants from the sediment in their bodies. Salmon do not spend much time in the Duwamish, and are safer to eat. (learn more at [www.doh.wa.gov](http://www.doh.wa.gov))

EPA's target cleanup levels for Boeing Plant 2 sediments are designed to protect tribal fishers and other people who might eat a significant amount

of fish and shellfish from the Duwamish. For toxic chemicals like PCBs that move up through the food chain, the target cleanup level at Plant 2 is based on calculations of health risks from eating fish and shellfish.

The target cleanup level for toxic metals is based on the state's sediment standards to protect the tiny organisms that live in the sediments, fish, birds, and other animals in the Duwamish.

EPA will choose the most protective values for the target cleanup levels, in the *Final Decision and Response to Comments*.

Cleanup options N2 and S4: dredge and backfill	Cleanup options N1 and S1-S3: dredge and cap
<p>EPA prefers both of these options which will remove all sediments that do not meet the state standard</p> <p>Options N2 and S4 would:</p> <ul style="list-style-type: none"> <li>• Dredge sediments up to 20 feet deep</li> <li>• Backfill with at least 2 feet of clean material</li> </ul>	<p>These options remove some contaminated sediments but leave some behind that do not meet the state standard</p> <p>Options N1 and S1-S3 would:</p> <ul style="list-style-type: none"> <li>• Dredge sediments 4 to 11 feet deep</li> <li>• Cap with 4 feet of sand, rock, and gravel</li> <li>• Leave contamination beneath the caps: 107-801 ppm PCBs (9-67× state standard)</li> </ul>
<p>“Other area” cleanups (Boeing Slip 4 sediments, North Bank, 2-40's Underbuilding, Southwest Bank/ Outfall 12, and Jorgensen Forge Transition Zone) will be included with all cleanup options:</p> <ul style="list-style-type: none"> <li>• Dredge sediments deep enough to meet the state sediment standard</li> <li>• Backfill with clean material that meets EPA's cleanup levels</li> </ul>	

Two main sediment and shoreline areas will be cleaned up at Plant 2:

- North Area (north of 16<sup>th</sup> Ave.) and
- South Area (south of 16<sup>th</sup> Ave.)

EPA looked at two cleanup options for the **North Area sediments (N1 and N2)** and four options for the **South Area sediments (S1-S4)**. EPA proposes to choose the N2 and S4 cleanup options which will remove all sediments contaminated above the state sediment quality standard, followed by backfill with clean material. Several smaller “other areas” will be cleaned up, including part of Slip 4 owned by Boeing and Transition Zone sediments next to the Jorgensen Forge facility.

The results of dredging are most certain because you know the contamination is gone. Dredging is cheaper than some of the capping options, but it can take longer than capping. Capping is less disruptive and faster than dredging, but the cap must be checked forever to make sure it continues to work.

All of the cleanup options will reduce contamination and make the Duwamish Waterway safer for people and animals.

After the cleanup, the groundwater and stormwater will be checked twice a year to make sure that no more contamination is coming from Plant 2. The sediments will be checked for at least 10 years.

**Note:** The **Jorgensen Forge** facility, located on the south side of Plant 2, is under an EPA Superfund Order to investigate and study cleanup options for the sediments and shoreline. Because the sediment contamination at Plant 2 and Jorgensen Forge are mixed in some areas, the Boeing and Jorgensen Orders require coordination to clean up the sediments in the Transition Zone between them. EPA will issue the proposed Jorgensen cleanup plan for public comment later this spring.

## Comparing the cleanup options

	Options N2 and S4: dredge and backfill	Options N1 and S1-S3: dredge and cap
<b>Protects the health of people and the environment</b>	☑	☑
<b>Achieves the cleanup levels</b>	☑	☑
<b>Complies with federal and state standards</b>	☑	☑
<b>Reduces the toxicity, movement, or amount of contamination</b>	N2 and S4 are better at reducing toxicity, movement, and contamination	N1 and S1-S3 are not as good at reducing toxicity, movement, and contamination
<b>Effective in the long-term and permanent</b>	N2 and S4 are more permanent, reliable, and certain because contamination will be removed	N1 and S1-S3 are less permanent, reliable, or certain because caps will require long-term monitoring and maintenance
<b>Sediment removed (cubic yards)</b>	N2: 114,000 S4: 86,000	N1: 142,000 S1-S3: 43,000 - 81,000
	Other areas: 15,000	
<b>Cost</b>	N2: \$18,191,000 S4: \$15,583,000	N1: \$23,046,000 S1-S3: \$7,110,000 - \$13,393,000
	Other areas: \$2,719,000	

### Comment on the Boeing Plant 2 sediment cleanup by May 28

#### Read the cleanup plan at:

<http://go.usa.gov/449> or  
South Park Library (8604 8th Avenue South)  
EPA Region 10 Library (1200 6th Avenue)

#### Come to the public meeting:

April 27, 2011  
South Park Community Center  
8319 8<sup>th</sup> Avenue South

- 🕒 Open House: 6:00 p.m.
- 🕒 Presentation: 7:00 p.m.
- 🕒 Public Comments: 8:00 p.m.

*Interpretación español estará disponible.*

#### Send your comments to EPA by May 28:

**E-mail:** [blocker.shawn@epa.gov](mailto:blocker.shawn@epa.gov)  
**Mail:** Shawn Blocker  
U.S. EPA, Region 10  
1200 6<sup>th</sup> Avenue  
Suite 900, AWT-121  
Seattle, Washington 98101

## Questions?

Contact Kendra Tyler, EPA community involvement coordinator at

☎ (206) 553-0041 or by e-mail at  
✉ [tyler.kendra@epa.gov](mailto:tyler.kendra@epa.gov)

TTY users please call 800-877-8339

*Si desea hablar con alguien que habla español, llame a Michael Ortiz, EPA, (206) 553-6234*

### For More Information

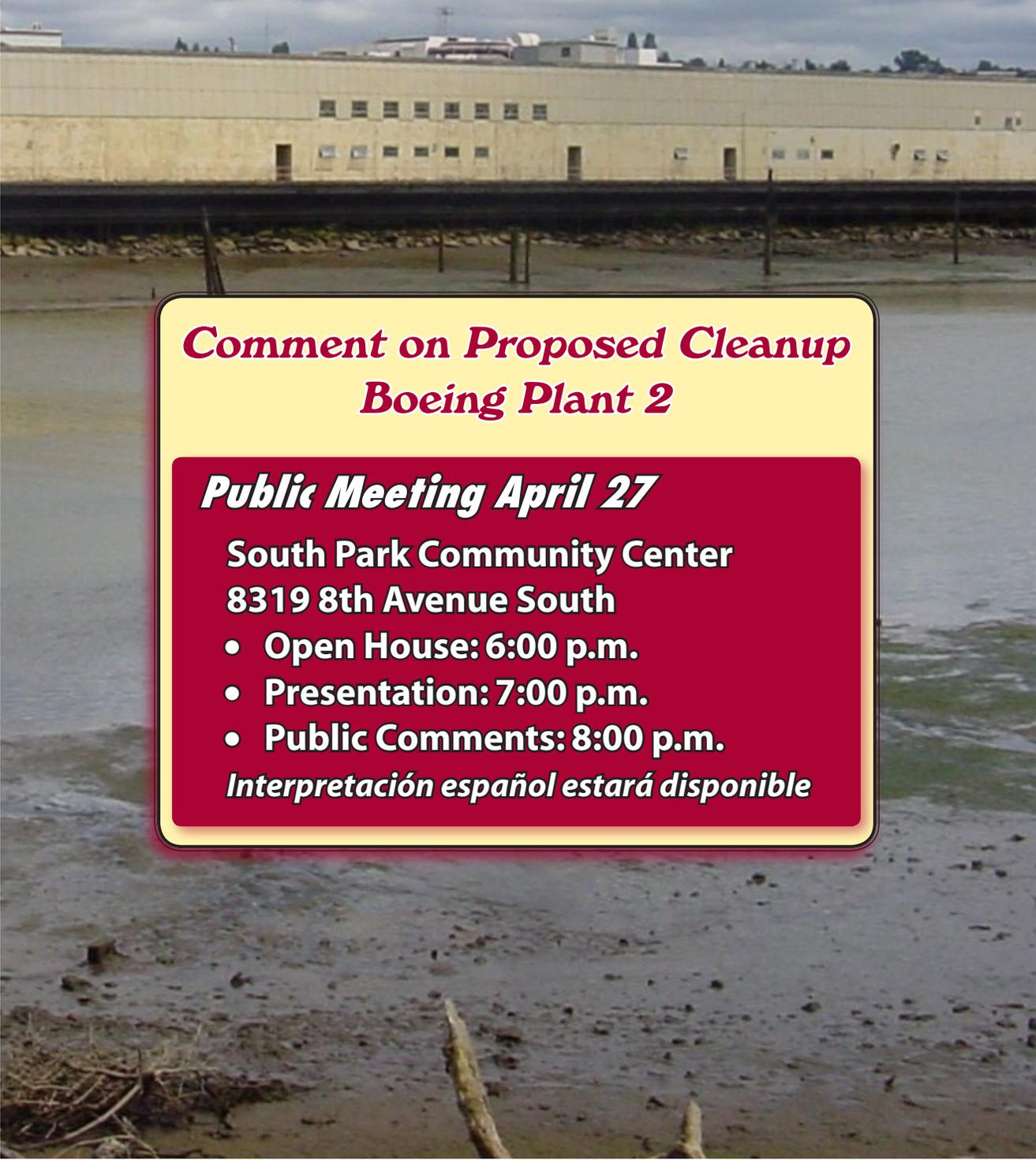
Visit the Lower Duwamish Waterway Superfund site at

<http://yosemite.epa.gov/r10/cleanup.nsf/ldw>

Contact the Duwamish River Cleanup Coalition, the Superfund community advisory group, to find out how you can help

☎ (206) 954-0218 or  
✉ visit [www.duwamishcleanup.org](http://www.duwamishcleanup.org)

1200 Sixth Avenue, Suite 900, ETPA-081  
Seattle, Washington 98101-3140  
April 2011



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Boeing Plant 2***

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