Cleaning up sites to reduce pollution of the Lower Duwamish Waterway

Ecology is leading the effort to clean up sources of contamination from the upland area surrounding the Lower Duwamish Waterway (LDW) Superfund Site. This is called ‘source control’.

We define source control as finding the sources of contamination and taking actions to stop or reduce them before they reach the LDW. It’s a crucial part of our commitment to control contamination sufficiently so that the Environmental Protection Agency (EPA) can start cleanup of the river sediments. Our long-term goal is to minimize recontamination of the river sediment and restore water quality in the river. A variety of actions, such as business inspections, controlling stormwater runoff, education, and cleanup up of contaminated sites, are all part of source control. Contaminants in soil and groundwater in upland areas around the LDW pose a risk to human health and the environment. They can find their way into the river through groundwater discharges, storm runoff, erosion, and other pathways.

Upstream to downstream

Ecology and EPA developed an “upstream to downstream” approach to source control and site cleanup. We divide the LDW into three sections called the Upper, Middle, and Lower Reaches. Since the river flows northward to Elliott Bay, the Upper Reach (upstream) starts in Tukwila and the Lower Reach (downstream) ends at the southern tip of Harbor Island. Cleaning up upstream sections first ensures that sediment moving downstream will be cleaner.

Cleanup Oversight

We actively oversee the cleanup of 24 sites through a legal agreement cleanup process under the State Model Toxics Control Act (MTCA). Our Toxics Cleanup Program currently oversees 20 cleanup sites and our Hazardous Waste and Toxics Reduction Program oversees 4 sites. Other sites are cleaned up independently through the Ecology Voluntary Cleanup Program (VCP), or through federal programs overseen by EPA.
Progress!

The 24 formal cleanup sites moving through the MTCA cleanup process are indicated on this figure and briefly summarized below with each site's status. The numbers on the map below correspond to specific sites. More site information is on pages 3 - 11.
1. **Snopac Property**

CSID: 12463  
Status: Remedial Investigation complete. Feasibility Study and Interim Action in progress.  
Previous uses: Commercial warehousing, sandblast grit disposal, fish processing.  
Current uses: Construction site.  
Contaminants of concern: PCBs, PAHs, petroleum hydrocarbon constituents, tributyltin, metals.

2. **Duwamish Shipyard**

Agreed Order: 2010.  
CSID: 54  
Status: Remedial Investigation complete. Feasibility Study in progress.  
Previous uses: Repair and maintenance of floating vessels.  
Current uses: Shipping container storage and truck access.  
Contaminants of concern: PCBs, PAHs, SVOCs, tributyltin, dioxins, furans, oil, metals.

3. **General Electric Aviation Div**

CSID: 2446  
Status: Implementing Cleanup Action Plan.  
Previous uses: Servicing aircraft parts; warehouse.  
Current uses: Office space.  
Contaminants of concern: Chlorinated VOCs, metals, fuels, and oils.

4. **Burlington Environmental LLC Georgetown**

CSID: 2622  
Previous uses: Hazardous waste treatment and storage facility.  
Current uses: Facility closed (2003); receipt and short-time storage of small quantities of wastes.  
Contaminants of concern: PCBs, VOCs, SVOCs, petroleum hydrocarbons.
**West of 4th**

**Agreed Order:** 2014; amended 2017. **CSID:** 12260

**Status:** Supplemental Supplemental Feasibility Study in progress. Pilot studies completed. Sediment porewater sampling completed. Several Interim Actions occurred beginning in 2007.

**Previous uses:** Hazardous waste treatment and storage facility and zinc die-casting.

**Current uses:** Facility closed in 2003; metal plating and fabrication of metal containers.

**Contaminants of concern:** Chlorinated VOCs, metals.

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**Glacier Northwest Inc**

**Agreed Order:** 2009. **CSID:** 599

**Status:** Remedial Investigation and Feasibility Study in progress.

**Previous uses:** Manufacturing activated charcoal, resins, glues.

**Current uses:** Cement storage and distribution.

**Contaminants of concern:** PCBs, PAHs, VOCs and SVOCs, petroleum hydrocarbons, dioxins, furans, metals.

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**Port of Seattle N Terminal 115**

**Agreed Order:** 2011. **CSID:** 1229

**Status:** Remedial Investigation in progress.

**Previous uses:** Tin reclamation.

**Current uses:** Lumber distribution; vehicle storage.

**Contaminants of concern:** PAHs, SVOCs, petroleum, metals.

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**Terminal 115 Plant 1**

**Agreed Order:** 2020. **CSID:** 11307

**Status:** Pre-Remedial Investigation work in progress.

**Previous uses:** Aircraft Manufacturing including plating, assembly, engine and fuel testing and metal working, concrete production, land filling former river channel.

**Current uses:** Retail fuel sales, cargo transfer, seafood processing, limited vehicle and cargo container maintenance.

**Contaminants of concern:** VOCs, SVOCs, petroleum, metals.
Duwamish Marine Center

Agreed Order: 2011.  
CSID: 4146  
Status: Remedial Investigation complete. Feasibility Study in progress.  
Previous uses: Repair and maintenance of floating vessels; junk dealer; construction services; barge shipping terminal.  
Current uses: Tug and barge operations; metal fabrication.  
Contaminants of concern: PCBs, PAHs, oil, metals.

Fox Ave Building

CSID: 5082  
Previous uses: Chain manufacturing; chemical and petroleum repackaging and distribution.  
Current uses: Chemical distribution.  
Contaminants of concern: CVOCs, Pentachlorophenol, oil, benzene.

North Boeing Field Georgetown Steam Plant

CSID: 4765  
Previous uses: Electrical power generation; aircraft manufacturing, maintenance, and research.  
Current uses: Aircraft manufacturing, research, and delivery; jet fuel bulk storage.  
Contaminants of concern: PCBs, PAHs, petroleum hydrocarbons, VOCs, SVOCs, jet fuel, phthalates, metals.
Whitehead Tyee

Agreed Order: 2016.  
CSID: 12115


Previous uses: Lumber finishing, refuse burning, and wood treating.

Current uses: Metal recycling.

Contaminants of concern: PCBs, PAHs, VOCs, pentachlorophenol, petroleum, dioxins, furans, metals.

Douglas Management Dock

Agreed Order: 2011.  
CSID: 6967

Status: Remedial Investigation complete. Feasibility Study in progress.

Previous uses: Sand and gravel batch plant; school bus parking and maintenance.

Current uses: Storage of equipment and shipping containers.

Contaminants of concern: PCBs, oil, metals.

Industrial Container Services WA LLC

Agreed Order: 2010.  
CSID: 62

Status: Remedial Investigation complete. Feasibility Study in progress.

Previous uses: Cleaning and recycling of used storage drums, some used for hazardous wastes.

Current uses: Cleaning and recycling of used storage drums.

Contaminants of concern: PCBs, PAHs, VOCs, pesticides, oil, metals.
Crowley Marine Services 8th Ave S

Agreed Order: 2009.  
CSID: 2520

Status: Remedial Investigation complete. Feasibility Study in progress.

Previous uses: Manufacturing of pipe, chain, hydraulic equipment, and concrete; machinery and scrap iron storage; sawmill, lumber distribution, creosote wood treatment.

Current uses: Transloading and loading of contaminated soils and dredge sediments from trucks and barges onto rail cars.

Contaminants of concern: PAHs, metals.

South Park Landfill


Status: Remedial Investigation and Feasibility Study complete. Implementing Cleanup Action Plan. Interim Actions occurred in 2016 and planning in progress for more cleanup actions.

Previous uses: Landfill; truck and equipment storage, auto wrecking yard.

Current uses: Solid waste transfer station, commercial businesses and school bus parking.

Contaminants of concern: Chlorinated VOCs, VOCs, landfill gas, petroleum hydrocarbons, oil, metals.

South Park Marina

Agreed Order: 2019.  CSID: 2858

Status: Remedial Investigation Work Plan completed. Field investigations in progress.

Previous uses: Marina (including boat repair, maintenance, storage); drum cleaning / reconditioning operations, radiator repair, gas station.

Current uses: Marina with boat storage and repair, marine supplies retail sales; automobile tire sales and installation.

Contaminants of concern: PCBs, PAHs, VOCs, dioxins, furans, phthalates, pesticides, oil, metals.
**19 Jorgensen Forge Corp**


Previous uses: Fabrication of structural steel, tractor and road equipment; manufacturing of Navy vessels; steel distribution.

Current uses: Facility being demolished for future reuse.

Contaminants of concern: PCBs, VOCs, petroleum, metals.

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**Boeing Isaacson Thompson**

Agreed Order: 2010.

Status: Remedial Investigation complete. Feasibility Study in progress.

Previous uses: Aircraft manufacturing.

Current uses: Aircraft manufacturing.

Contaminants of concern: PCBs, PAHs, VOCs, SVOCs, petroleum hydrocarbons, metals.

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**8801 E Marginal Way S**


Status: Remedial Investigation complete. Feasibility Study and Interim Action Work Plan finalized. Interim action is proposed to begin in 2021.

Previous uses: Truck manufacturing.

Current uses: None (under development).

Contaminants of concern: PCBs, PAHs, VOCs, SVOCs, petroleum hydrocarbons, metals.

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**21 Precision Engineering Inc.**


Status: Remedial Investigation Work Plan in progress.

Previous uses: Manufacturing of large marine items, including propellers and blade assemblies. Services performed included grinding, polishing, chrome plating, milling, welding and coating.

Current uses: Warehouse for heavy duty hardware, machine tools, construction supplies and surplus equipment.

Contaminants of concern: Trichloroethene (TCE), chromium, petroleum.
**Boeing Developmental Center**

**Agreed Order:** 2019. **CSID:** 5059

**Status:** Remedial Investigation in progress. Interim Action occurred in 2019.

**Previous uses:** Various commercial, industrial and agricultural uses.

**Current uses:** Primarily research and development for aircraft, such as structural testing of hydraulic systems, coating development, 3D printing.

**Contaminants of concern:** VOCs, TPHs, metals, PCBs, and PAHs.

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**Emerald Gateway**

**Agreed Order:** 2020. **CSID:** 6584

**Status:** Interim Action in progress.

**Previous uses:** Commercial warehousing, truck maintenance and repair operations, truck refueling activities, automobile wrecking and parts salvaging, gasoline service station.

**Current uses:** Commercial warehousing.

**Contaminants of concern:** PCBs, PAHs, petroleum hydrocarbon constituents, metals.

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**Boeing Field Chevron**

**Agreed Order:** 2015. **CSID:** 7030

**Status:** Remedial Investigation complete. Feasibility Study in development.

**Previous uses:** Service station with underground storage of gasoline.

**Current uses:** Service station with underground storage of gasoline.

**Contaminants of concern:** Benzene, gasoline, diesel.

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**Acronyms:**

- **CVOCs:** chlorinated volatile organic compounds
- **PAHs:** polycyclic aromatic hydrocarbons
- **PCBs:** polychlorinated biphenyls
- **SVOC:** semi volatile organic compound
- **TPH:** total petroleum hydrocarbon
- **VOC:** volatile organic compound
# Lower Duwamish Waterway Formal Sites Status

## Current Status

<table>
<thead>
<tr>
<th>Current Status</th>
<th>Site Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feasibility Study and Interim Action ongoing</td>
<td>Snopac Property</td>
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## Site Status Details

- **Legal Agreement**: Partially address contamination and may occur anytime.
- **Remedial Investigation**: Addresses contamination and occurs after feasibility study.
- **Feasibility Study**: Determines the need for remedial action.
- **Cleanup Action Plan**: Developed after feasibility study.
- **Clean up the site!**: Indicates the site has been cleaned up.

## Timeline

- **2019**: Feasibility Study and Interim Action ongoing (Snopac Property)
- **2010**: Feasibility Study in progress (Duwamish Shipyard)
- **2014**: Implementing Cleanup Action Plan (General Electric Aviation Div)
- **2010**: Implementing Cleanup Action Plan (Burlington Environmental LLC Georgetown)
- **2014**: Feasibility Study in progress (West of 4th)
- **2009**: Remedial Investigation and Feasibility Study in progress (Glacier Northwest Inc)
- **2011**: Remedial Investigation in progress (Port of Seattle N Terminal 115)
- **2020**: Pre-Remedial Investigation work in progress (Terminal 115 Plant 1)
- **2011**: Feasibility Study in progress (Duwamish Marine Center)
- **1991, 2009 & 2012**: Implementing Cleanup Action Plan (Fox Ave Building)
- **2008**: Remedial Investigation in progress (North Boeing Field Georgetown Steam Plant)
- **2016**: Remedial Investigation Work Plan in progress (Whitehead Tyee)
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<td>2009</td>
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<td>South Park Landfill</td>
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<td>2009, 2019</td>
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<td>Emerald Gateway</td>
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<td>2020</td>
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<td>24 Feasibility Study in development</td>
<td>Boeing Field</td>
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<tr>
<td>2015</td>
<td>Chevron</td>
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Lower Duwamish Cleanup Sites Update

Información sobre la limpieza ambiental del Lower Duwamish Waterway:
Si le gustaría obtener este documento en español, favor de comunicarse al 360-407-6097 o preguntas@ecy.wa.gov.

Thông tin về công tác làm sạch môi trường Duwamish:
Nếu quý vị muốn nhận tài liệu này bằng tiếng Việt hoặc cần thêm thông tin, xin liên hệ ông Liêm Nguyên: 360-407-6955, điện thư: Lngu461@ecy.wa.gov.

有關 Duwamish 河清理信息:
如需此文件的中文版，请聯繫 Sunny Becker，聯繫方式 425-649-7187：sunny.becker@ecy.wa.gov.

Want to get more involved with efforts to clean up the Duwamish River?
Contact the Duwamish River Cleanup Coalition/Technical Advisory Group at contact@duwamishcleanup.org, (206) 954-0218, or visit http://duwamishcleanup.org/