

## Green Remediation

### Lower Duwamish Waterway Superfund Site - Upper Reach Construction

#### What is green remediation?

Green remediation uses strategies to minimize environmental impacts during cleanup construction. The Environmental Protection Agency (EPA) defines green remediation strategies in four categories:



#### Air and atmosphere

Reduce air pollutants and greenhouse gas emissions.



#### Water

Reduce water use and preserve water quality.



#### Materials and waste

Conserve material resources and reduce waste.



#### Energy

Reduce total energy use and increase the use of energy from renewable resources.

#### Green remediation strategies

During cleanup construction of the upper reach of the Lower Duwamish Waterway, the construction contractor, Pacific Pile & Marine, will take the following steps to reduce their environmental impact:

- ▶ Use diesel-powered engines that have modern EPA-standard controls for construction equipment based on available engines. Using equipment with these newer engines will produce about 15% less particulate matter than older engines, thus reducing air pollution.
- ▶ Limit the idling time to 5 minutes for all on-road construction vehicles, reducing air and noise pollution.
- ▶ Use electric power for construction activities where practicable.
- ▶ Separate and recycle construction materials, like concrete debris, when possible.
- ▶ Use approved local sources for natural materials like sand, gravel, and rock, to minimize fuel consumption and, therefore, air pollution from materials transport.
- ▶ Transport materials to the landfill by rail instead of using trucks. This can reduce air pollution and traffic impacts on the community in comparison to trucks.

The EPA continues to explore opportunities to increase green remediation during future construction of the waterway cleanup, including ways to encourage contractors to upgrade or modernize their construction equipment.



## What's happening now?

Sediment cleanup construction of the upper reach began in fall 2024. Construction activities in the upper reach are planned to take place from October through February each year, for the next three years (ending in February 2027).

2024				2025								2026								2027												
Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
				Construction Season 1										Construction Season 2																		
Ongoing Community Outreach and Communications																																

## Background

For the purpose of implementing the Environmental Protection Agency's (EPA) selected cleanup, the Lower Duwamish Waterway Superfund Site is divided into three geographical reaches, or segments: upper, middle, and lower. Sediment cleanup construction activities will start in the upper reach first (the upper 2 miles of the Lower Duwamish Superfund Site). Middle and lower reach cleanup will follow, continuing downstream towards the south end of Harbor Island. Seasonal cleanup construction in these three Lower Duwamish Waterway reaches will likely take a decade to complete.

Under the direction of the EPA, the Lower Duwamish Waterway Group (LDWG) is committed to advancing the cleanup of the

Lower Duwamish Waterway Superfund Site. LDWG is a partnership between the City of Seattle, King County, and Boeing.

The EPA and LDWG are also working with the Washington State Department of Ecology, which is leading efforts to control sources of contamination from areas upland of the waterway.

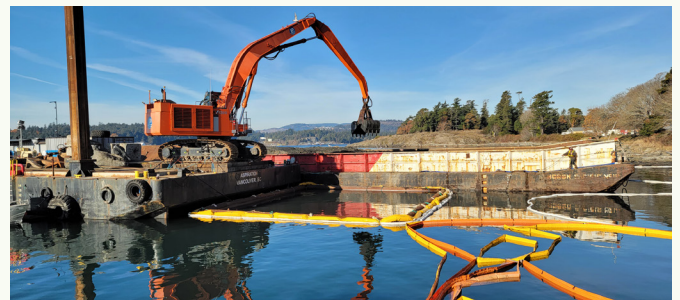


PHOTO CREDIT: PACIFIC PILE & MARINE

*The Contractor will use a closed bucket as the primary method to dredge and remove contaminated sediment.*



The upper reach is the southernmost two miles of the Lower Duwamish Waterway Superfund site, between Duwamish Waterway Park and the South 102nd Street Bridge.

## About the contamination

Contaminants found in the river bed sediment (mud at the bottom of the river) include polychlorinated biphenyls (PCBs), heavy metals like arsenic, lead, zinc, and other types of contaminants including dioxins, furans, and polyaromatic hydrocarbons (PAHs).

The contaminants in the sediment are also found in fish and shellfish that spend their lives in the waterway. This contamination can be harmful to people who eat resident seafood or who come into frequent contact with the river bed sediment. Salmon caught in the Lower Duwamish Waterway are a safe choice to eat because they only spend a short time in the river as they migrate through.

Cleanup of the contaminated sediment will enhance the health of the river for Tribes and community members, support a more thriving economy, and provide a healthier habitat for fish and wildlife.



PHOTO CREDIT: KING COUNTY

*Community members fishing in the Lower Duwamish Waterway.*

## Stay informed during cleanup construction

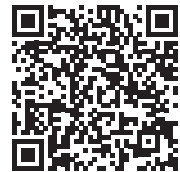
LDWG, with the EPA's oversight, will work to learn about and mitigate community concerns through digital and in-person outreach, such as responding to project emails and phone calls, and by speaking with people at community events.

You can stay informed of the upper reach cleanup activities by visiting LDWG's website [www.ldwg.org](http://www.ldwg.org) and signing up for email updates. When appropriate, the cleanup outreach team will inform the community of major updates by distributing mailers, posters, and flyers. Also, look for the outreach team at community events and meetings.



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Learn more about the Lower Duwamish Waterway's Superfund Site cleanup on the EPA website at: [www.epa.gov/superfund/lower-duwamish](http://www.epa.gov/superfund/lower-duwamish).



## Call or email the Cleanup Outreach Team with your questions or concerns.



[1-888-561-5394](tel:1-888-561-5394)  
(1-888-561-LDWG)



[info@ldwg.org](mailto:info@ldwg.org)

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## About LDWG

The Lower Duwamish Waterway Group is a collaboration between Boeing, the City of Seattle, and King County. We are committed to advancing the cleanup of the Lower Duwamish under EPA oversight.