



# Plant 2 Habitat Restoration and Sediment Cleanup

Lower Duwamish Waterway, Seattle, Washington



Over the past decade, Boeing has demonstrated its commitment to the health of the lower Duwamish Waterway and surrounding communities by investing in cleanup activities, green-stormwater infrastructure and habitat restoration. Boeing partners with businesses, tribes, government agencies and the local community to implement protective, timely and cost-effective cleanup solutions.

## Restoring habitat for fish and wildlife

In 2013, Boeing completed the largest habitat restoration in the Lower Duwamish Waterway, transforming nearly one mile of former industrial waterfront into a wetland resource that provides critical habitat for juvenile salmon migrating into Puget Sound.

From tufted hair grass and bulrush to willows and big leaf maple, more than 170,000 native plants now occupy five acres along the water's edge. These wetland plants and grasses, along with piles of woody debris that are anchored in place along the shoreline, provide refuge and food sources for fish and wildlife. This restoration project and the best practices it establishes for other habitat opportunities on the waterway earned Boeing the Excellence in Restoration award from the National Oceanic and Atmospheric Administration (NOAA) in 2015. This annual honor recognizes leaders in coastal restoration who focus on ecological value and the importance of effective collaboration with project partners.



The project's design was overseen by NOAA and the Natural Resource Trustees, which are made up of government agencies and local tribes. Boeing also worked with the U.S. EPA and the Washington State Department of Ecology to coordinate its waterway cleanup in conjunction with habitat restoration.



# Making progress with early cleanup

In 2015, Boeing completed a comprehensive sediment cleanup of the approximately one-mile span of the Lower Duwamish Waterway next to its Plant 2 site. This effort represents significant progress in the transformation of this industrial waterway south of downtown Seattle.

With help from divers and dredging equipment, the cleanup removed 265,000 cubic yards of sediment and bank soil containing legacy contamination from the waterway and shoreline — enough material to fill 4,000 railcars — and replenished the waterway bed with clean sand.

Barges transported excavated sediment to a waterway facility, where it was packaged, loaded

onto railcars and taken to a U.S. EPA-approved landfill. This around-the-clock in-water work happened during construction windows when juvenile salmon were not migrating. Dredging was done under the direction and oversight of the U.S. EPA and the Washington State Department of Ecology.

The Boeing cleanup was the largest of the early cleanup actions of the Lower Duwamish Waterway Group, a partnership among the City of Seattle, King County, the Port of Seattle and Boeing. The group performed five of the eight identified actions, collectively reducing polychlorinated biphenyl (PCB) risks in the waterway sediment by about 50 percent, halfway to the PCB sediment cleanup goal set by the U.S. EPA for this Superfund site.

Efforts are also underway to control pollution from entering the waterway through stormwater runoff. Boeing has constructed multiple state-of-the-art stormwater treatment systems at sites near the waterway to improve the quality of water entering the Duwamish.

## CLEANUP BY THE NUMBERS



**4,000** railcars full of sediment and bank soil removed



**265,000** tons of clean sand added



**3** biofilters built; millions of gallons of stormwater treated

# History of Boeing Plant 2

Boeing can trace its nearly 100-year history back to the banks of the Lower Duwamish Waterway.

In 1936, the federal government ordered 13 of the new Boeing B-17 Flying Fortress, the nation's first four-engine bomber. By the end of World War II, Plant 2 had expanded to almost 1.7 million square feet to accommodate the government's urgent need for military aircraft.

To protect Plant 2 from any foreign surveillance, the U.S. Army Corps of Engineers camouflaged the building's roof to resemble a hillside neighborhood dotted with homes and trees. From the air, Plant 2 seemed to disappear into the residential communities surrounding it.

In addition to supplying the military with nearly 7,000 B-17s, Plant 2 provided thousands of Washington men and women with manufacturing and industrial jobs. As more men left the assembly lines for the front lines, Boeing began recruiting women, who became known as Rosie the Riveters and built an average of 12 B-17s a day.

In December 2011, the aging Plant 2 facility was demolished as part of Boeing cleanup and habitat restoration efforts along the Lower Duwamish Waterway. Approximately 85 percent of the building materials were recycled or reused, including steel and wood beams, copper wiring and concrete.



## PLANT 2 BY THE NUMBERS



**7,000** B-17's built at Plant 2 to support the war effort



**1.7 million** square feet large by the end of WWII



**30,000** employed during WWII

For more information, please visit:

[www.boeing.com/duwamish](http://www.boeing.com/duwamish)

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