



Columbia River Basin Restoration Program Success Stories from the 2020 Grant Projects



COLUMBIA RIVER BASIN
RESTORATION PROGRAM

ABOUT THE COLUMBIA RIVER BASIN RESTORATION FUNDING ASSISTANCE PROGRAM

Congress amended the Clean Water Act in 2016, which required EPA to establish a Columbia River Basin Restoration Program. EPA was directed to develop a voluntary, competitive grant program for eligible entities to fund environmental protection and restoration programs throughout the Basin. Eligible entities include state, Tribal, and local governments; regional water pollution control organizations, nongovernmental organizations, and soil and water conservation districts. Funded work must be for the purpose of environmental protection and restoration activities within the Columbia River Basin; and may include programs, projects, and studies. EPA funded 14 projects in the 2020, inaugural round of grants that address the following four priorities:

1. Increase monitoring and access data from monitoring.
2. Reduce stormwater and agricultural runoff.
3. Reduce toxics through small scale cleanup of non-CERCLA (also known as Superfund) contaminated sites.
4. Promote citizen engagement, education, and involvement to increase pollution prevention actions.

In September of 2020, EPA was able to provide the full amount requested by successful grantees for a total of \$2,053,903 in FY19 and FY20 grant funding. These are their stories of progress made to date.

GRATTIX BOXES TO REDUCE TOXICS OR THE GREAT (GET REAL ENVIRONMENTAL ATTENUATION OF TOXICS) GRATTIX BOX PROJECT (OR, WA)

EPA awarded \$67,597 to The Lower Columbia Estuary Partnership’s GREAT (Get Real Environmental Attenuation of Toxics) Grattix Box project, which will improve water quality of the Columbia River by reducing zinc and copper discharges, using inexpensive, low-tech green technologies to filter stormwater runoff. The project will develop a list of potential Grattix Box placement sites; conduct on-site meetings with site owners or managers to provide stormwater education and assess Grattix Box location opportunities; install 15–20 Grattix Boxes (built by the **Port of Vancouver** and **Oregon State University**); and conduct post-placement follow up. The project is focusing on two specific, high-need geographies in Longview and St. Helens/Rainier. Working with 20 local site owners or managers, the Estuary Partnership will expand partnerships and the application of these toxic reduction boxes to new area businesses. The project will address Columbia River Basin Restoration Program priorities 1) Eliminating or reducing pollution, 3) Improving water quality, 5) Reducing runoff, and promoting citizen engagement or knowledge.



Grattix boxes being loaded for transport to the installation sites.

The Lower Columbia Estuary Partnership is a non-profit, a National Estuary Program, and a collection of dedicated scientists, educators, and community members who are passionate about the Columbia River. Key partners for the program are the businesses, the Port of Vancouver, and Oregon State University. The Port of Vancouver will provide insight and expertise on the boxes to other industrial peers.

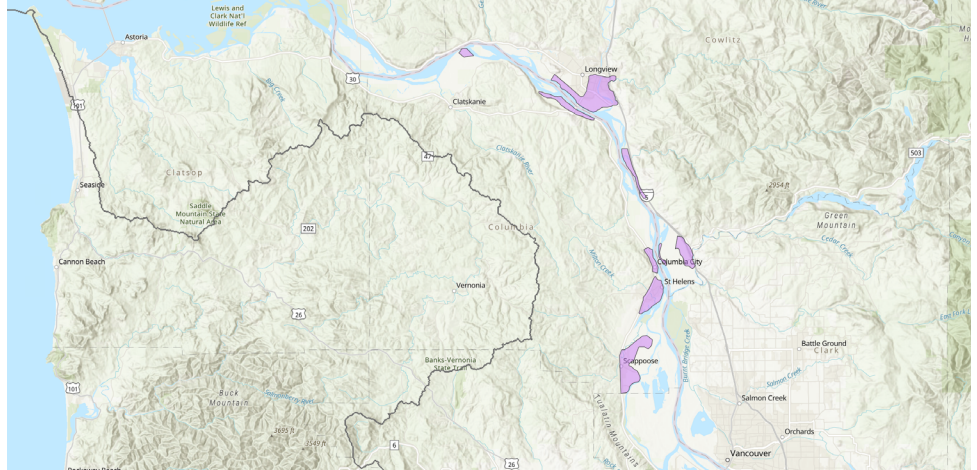
Oregon State University brings students and professors to the network and connects students with real-life application of their stormwater research and the boxes they have built. Additional partners include EPA, Oregon Department of Environmental Quality, Washington State Department of Ecology, Columbia County, Cowlitz County, the Cities of St. Helens, Rainier, and Longview, the Port of Columbia County, and the Port of Longview. These partners will guide the project by recommending locations, providing local expertise, providing educational materials, and participating on a Steering Team to provide project guidance and feedback.



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“The GREAT Grattix Box project builds on the proven Grattix Box technology developed by the Port of Vancouver. Since their invention, the Port has promoted their use, provided detailed building plans, and spread the word about this effective and inexpensive stormwater treatment technology. As a result, numerous companies have built and deployed their own Grattix Boxes.”

– Aaron Guffey,
Lower Columbia Estuary
Partnership



The project area focuses on industrial areas in Longview and St. Helens/Rainier.



A Grattix box after installation at the project site.

The GREAT Grattix Box project will begin a concerted program by the Lower Columbia Estuary Partnership to place proven, cost-effective, stormwater treatment at sites in Oregon and Washington and reduce copper and zinc concentrations in the lower Columbia River. Zinc and copper are a common component of stormwater runoff and harmful to fish. A 3-year pilot study conducted by Kennedy Jenks found that Grattix Boxes reduced zinc concentrations by 90–95% and copper by 85% in stormwater runoff. The boxes are plastic, food-grade 275-gallon totes, layered with different materials. Boxes are placed near downspouts and the downspouts are routed directly into the box. It’s an above ground, easy-to-install solution—at a cost of \$400–800 per box.

ACCOMPLISHMENTS TO DATE

- Developed a list of 40 potential Grattix Box placement sites.
- Oregon State University students built 10 Grattix Boxes, which were transported to the Port of Vancouver for storage prior to deployment in the project.
- Oregon State University created a YouTube video documenting the experiences of the students who built the Grattix boxes:
<https://www.youtube.com/watch?v=UQ3qHqYXtM4>

WHAT’S NEXT? WHERE DO THEY GO FROM HERE?

- Lower Columbia Estuary Partnership will conduct meetings with the Steering Team.
- Lower Columbia Estuary Partnership will conduct on-site assessment and stormwater education meetings with building owners.
- 20 Grattix Boxes will be installed to reduce metals and other pollutants in the Columbia River.
- Lower Columbia Estuary Partnership will conduct post-installation follow up with site owners to evaluate results.

To learn more, check out The Lower Columbia Estuary Partnership website:
<https://www.estuarypartnership.org/>.