

2020 was a unique year for the Green Duwamish Urban Waters Federal Partnership (GD-UWFP). Efforts across the watershed were hampered by the ongoing Covid-19 pandemic. Beyond direct health impacts to people working in the watershed and communities in the region, Covid was shown to have disproportionately burdened communities in the Duwamish Valley and Lower Green River. The shutdown of volunteer environmental restoration programs for the entirety of the summer volunteer season caused additional setbacks. While volunteer efforts and programs have begun to rebound in the fall, hundreds of volunteer hours on restoration efforts along the river are lost. The urgency to address air quality problems in the watershed is further highlighted by the identification of air quality as an exacerbating Covid severity factor and common comorbidity. To make matters worse, the unexpected closure of the West Seattle Bridge, causing massive traffic reroutes through the Duwamish Valley have only worsened air quality woes. These many challenges bring a renewed urgency to the GD-UWFP organized work on utilizing trees and their moss as an indicator for hyper localized air quality in the Valley.

Efforts of the GD-UWFP and our partners have also shifted dramatically in response to the critically important Black Lives Matter (BLM) Protests. Organizations and programs throughout the watershed have shifted to address society's institutionalized racism, as well as our own. These responses have included a reevaluation of how were work with communities, run our programs, and spend money. The pandemic and BLM protests have highlighted systemic inequalities which continue to show the necessity in engaging homeless populations in our work, to understand the mechanisms of green gentrification and displacement, and to find real solutions for unsheltered populations living in natural areas and restoration sites along the river.

The GD-UWFP works with dozens of different organizations throughout watershed. New collaborative partners in 2020 included:

Longfellow Creek Network, Green River Coalition, Sustainability Ambassadors, The Duwamish Tribe, Front and Centered, Cleveland STEM Highschool, El Centro de La Raza, South Park Redevelopment Committee, The Coalition of Immigrants, Refugees & Communities of Color (CIRCC), Highline School District, Washington State University Extension Program, Green River College, South Seattle College Georgetown Campus

Highlights along the river this year are led by development of the old Terminal 117 as Duwamish River People's Park & Shoreline Habitat. After nearly two decades of cleanup, the site will have community river access, more than 10 acres of habitat, and serve as a potential mitigation bank, catalyzing other restoration efforts. The highlighted projects below demonstrate focused investment, prioritizing immediate impact, multiple benefits for stakeholders, and include community leadership or contributions.













2020 PROJECT HIGHLIGHTS

Below represent a selection of GD-UWFP projects from 2020:

USGS Understanding the role of groundwater in transporting contaminants to the Duwamish estuary, & Urban Waters Cooperative Matching Funds Project

In 2020 U.S. Geological Survey received Urban Waters funding for research in the tidal Duwamish Waterway. Understanding the potential sources of sediment re-contamination is key to a successful and long-lasting cleanup plan for this contaminated site. This project will determine how, when, and where contaminated groundwater drains to the Duwamish by building a site-wide understanding of groundwater flow, using novel tracking tools to determine paths of contaminated groundwater, and exploring how contaminants might change along those paths.

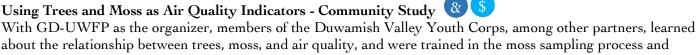
\$ Riparian Restoration Return on Investment Study with American Rivers

GD-UWFP is continuing work on a study that will analyze the impact floodplain restoration projects have on property values to determine communities' tax base and revenue impacts. Results will be categorized by type of land use in order to better understand the impacts based on level of development. Information developed during this study may also shed light on the impact that restoration plays in gentrification, displacement, and access to open space. EPA Region 10 put forth substantial additional funding towards this effort in 2020.

USFS Urban Community Forestry and WA Department of Natural Resources, Landscape-Scale Restoration & This project addresses environmental inequities in low-income, racially diverse cities by working with youth to restore and the urban watershed. Non-profit partners and the local school district will work with the GD-UWFP to develop and implement urban forestry projects on school grounds and adjacent city property. This will include a new studentbased community engagement model that will empower students to involve peers and residents in watershed restoration projects to improve human health, student learning, civic engagement, and watershed resilience.

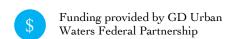
The Green Duwamish Learning Landscape (GDLL) – Tributary Temperature Monitoring Working with the Green River Coalition and Green River College, the GD-UWFP is developing curriculum and trainings to empower communities to collect river health data. GD-UWFP is providing funding for user-friendly

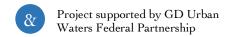
temperature gauge equipment. Data results will be used for water management by WA Department of Ecology and King County, and will provide a critical understanding of high temperature locations, a lethal consideration for endangered salmon and indicator of broader ecosystem health.



about the relationship between trees, moss, and air quality, and were trained in the moss sampling process and protocols. They then collected more than 60 moss samples from street trees and prepped them for laboratory analysis, and engaged in follow-up curriculum. Results have been analyzed, and the GD-UWFP and partners have been working to develop and disseminate findings. The process is a learning tool for local schools, youth groups, and community members, and an action-oriented tool for local air pollution management.

Green-Duwamish Urban Waters Federal Partnership provided funding in 2020 to partners at: Duwamish River Cleanup Coalition, Duwamish Valley Youth Corps, DIRT Corps, American Rivers, Duwamish Alive Coalition, and Just Health Action





Questions? Ideas? Contact: Weston Brinkley, Ambassador, Green-Duwamish Urban Waters Federal Partnership 206-412-3244, weston@streetsoundsecology.com

Funding provided by the U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station, and State and Private Forestry Pacific Northwest Region.

In accordance with Federal law and U.S. Department of Agriculture policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, or disability.