



University of Washington Tacoma Regional Treatment Facility

Why this Project?

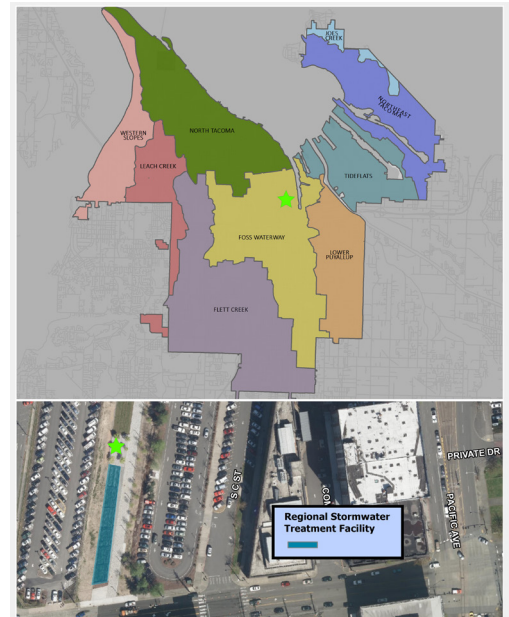
When it rains, oil and other pollutants are picked up in stormwater and can flow untreated into local waterways and ultimately Puget Sound. These pollutants have negative immediate and long-term impacts on surface water quality and fish habitat. Green stormwater infrastructure projects filter rain and stormwater runoff, benefiting the health of our waterways and the animals that live within them.

History

This facility incorporates the existing rail lines from the original route of the transcontinental Northern Pacific Railroad, which established its terminus in Tacoma in 1873. The treatment facility was designed to recognize and incorporate the historical significance of the railway, be an asset to the University's new park area and provide stormwater quality improvement.



Location



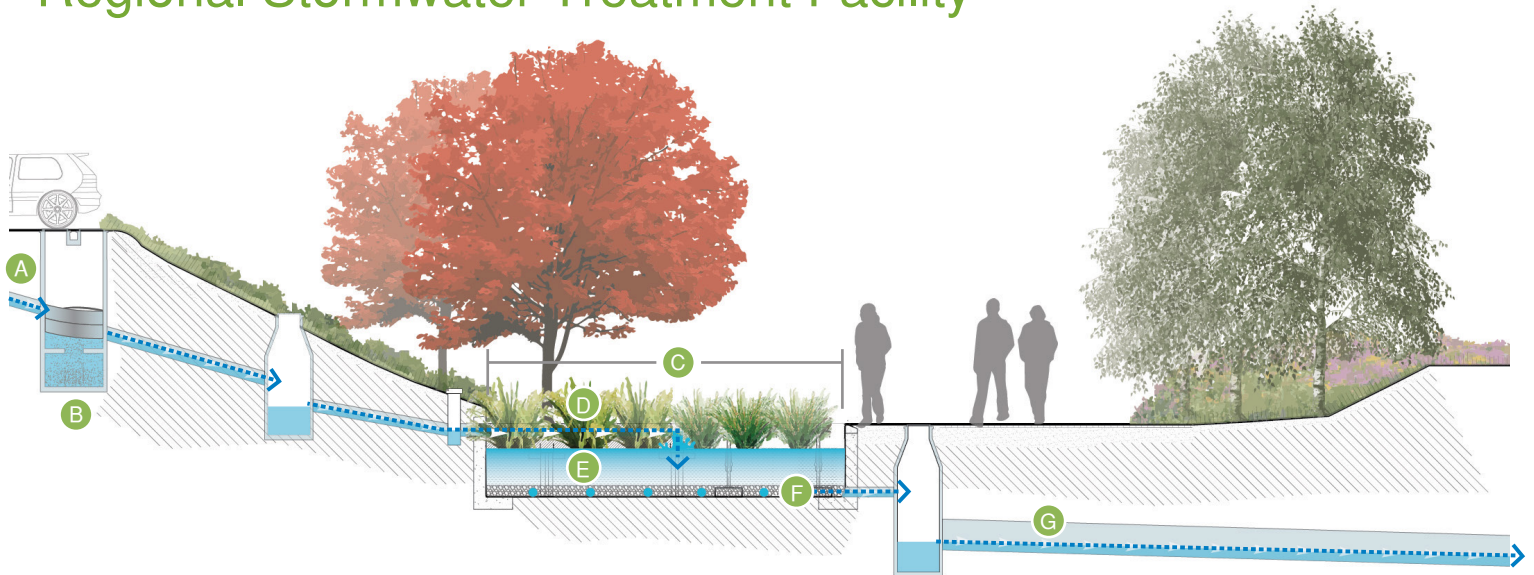
Prairie Line Trail at the University of Washington Tacoma campus, adjacent to 21st Street (between Jefferson Ave and C Street)

Partners

City of Tacoma
University of Washington-Tacoma
WA State Department of Ecology



Regional Stormwater Treatment Facility



(A) untreated stormwater (B) swirl separator (C) bioretention facility (D) water tolerant plants (E) special soil media (F) underdrain to collect treated stormwater (G) clean stormwater out to city system

How It Works

The regional stormwater treatment system contains two elements: a pretreatment swirl separator and a bioretention facility. The swirl separator is located in the parking lot just up the hill from the Prairie Line Trail and removes trash and larger debris. The bioretention facility is located along the Prairie Line Trail and consists of six treatment cells. Stormwater is distributed across the surface through dispersion trenches.



Dispersion trenches within the cells ensure runoff is spread evenly over the bioretention cell surfaces. Stormwater infiltrates through the bioretention media which removes pollutants including sediment and heavy metals. Plants within the bioretention facility help to ensure free flow of stormwater through the media and provide evapotranspiration and incidental pollutant uptake. Processes in and around the root zone of the vegetation aid in the breakdown and removal of pollutants. The treated stormwater enters the City stormwater collection system where it is ultimately discharged into the Thea Foss Waterway.



For More Information

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Funding

The project was designed and constructed collaboratively by the University of Washington - Tacoma and City of Tacoma. The Washington State Department of Ecology provided partial project funding through the Stormwater Retrofit and LID Competitive Grant Program.