



Improving Our Communities with Natural Drainage Systems

Seattle Public Utilities (SPU) is working on a project to improve creek water quality, reduce drainage issues, and deliver multiple community benefits to your neighborhood.

PROJECT BACKGROUND

More than 12 million pounds of pollution are carried into our water bodies through stormwater runoff each year. Stormwater that falls on impervious surfaces in your neighborhood—like roofs, streets, and parking lots—can pick up harmful pollutants before it runs into Pipers Creek, which flows into Puget Sound. The pollutants can harm fish, wildlife, and our ecosystems.

The Pipers Creek Natural Drainage System Project will identify, design, and implement up to 7 blocks of natural drainage systems in the Bitter Lake neighborhood to capture and treat stormwater before it drains into Pipers Creek and Puget Sound.

This project is part of SPU's [Plan to Protect Seattle's Waterways](#), which aims to improve water quality, reduce pollution of stormwater flows, and help manage stormwater by constructing natural drainage systems.



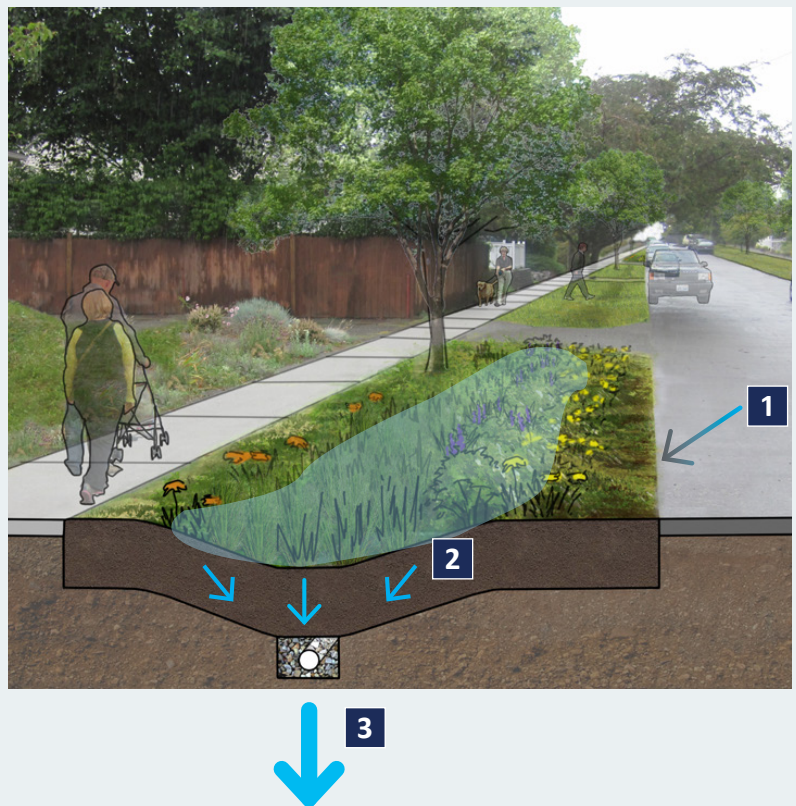
A completed natural drainage system on a residential street.

WHAT ARE NATURAL DRAINAGE SYSTEMS?

Natural drainage systems are shallow depressions built in the roadway shoulder (the space between the street edge and property line). They are filled with a special soil and deep-rooted plants to temporarily hold and filter polluted stormwater from streets.

HOW DO NATURAL DRAINAGE SYSTEMS WORK?

- 1** During rain events, stormwater from hard surfaces in your neighborhood drains to the natural drainage system. A layer of plants and soil filters the pollutants.
- 2** The filtered stormwater seeps into the ground or to a downstream drainage system.
- 3** The system is designed to pond water up to six inches during large rain events. All ponded water will drain down into the soil or to the formal drainage system within 24 hours after a rain event.



PIPERS CREEK WATERSHED



SPU is working on natural drainage system projects in several urban watersheds throughout Seattle. This project is within the boundaries of the Pipers Creek watershed.

COMMUNITY BENEFITS

Natural drainage systems offer multiple benefits to local neighborhoods and ecosystems, including:

- Increased landscape diversity
- Reduced drainage issues
- Healthier creek ecosystems
- Improved pedestrian safety and mobility
- More street trees

COMMUNITY INPUT

Community input will be essential to this project alongside technical evaluations in each project phase. The project team will work with neighbors and community members to understand important issues in the neighborhood and identify the feasible and appropriate locations for natural drainage systems. Community members will be able to share their input through a variety of online and in-person activities.

PROJECT SCHEDULE

MID 2021	LATE 2021	EARLY 2022
Feasibility analysis through community feedback and technical evaluation	Concept development as we identify potential locations	30% concept design and location refinement

Questions? Contact Seattle Public Utilities

Rex Davis, SPU Drainage and Wastewater Representative | rex.davis@seattle.gov | (206) 561-5801

Learn more and sign up for project updates at:

www.seattle.gov/utilities/pipersnds



**Seattle
Public
Utilities**