



South Thornton Creek Natural Drainage Systems

Frequently Asked Questions

OVERVIEW

What are natural drainage systems?

Natural drainage systems (NDS) consist of shallow depressions built in the roadway shoulder (the space between the street edge and the property line) and are filled with deep-rooted plants and spongy soils that temporarily hold and clean polluted stormwater from streets before it reaches Thornton Creek.

What is the purpose of this project?

SPU is planning to build natural drainage systems in the roadway shoulder (the space between the street edge and property line) of several blocks in your neighborhood.

What are the project goals?

- To improve water quality and help manage stormwater flows by constructing natural drainage systems alongside the road in your neighborhood.
- To install new asphalt walkways in partnership with the Seattle Department of Transportation.
- To improve your neighborhood by planting new street trees and native plants, calming traffic, and reducing localized flooding where possible.

PROJECT BENEFITS

What benefits will the project bring to my neighborhood?

Natural drainage systems hold and clean polluted stormwater and remove pollutants before they reach Thornton Creek. NDS offer multiple benefits to local neighborhoods and ecosystems including:

- Increased landscaping, including street trees and native plants
- Lower risk of flooding
- Creation of habitat along our streets
- Healthier creek ecosystems
- Traffic calming
- Pedestrian safety improvements

Are pedestrian walkways included in the design?

We're partnering with the Seattle Department of Transportation (SDOT) to incorporate asphalt walkways into some streets that do not currently have formalized sidewalks, which aligns with community requests to install pedestrian improvements as a part of this project.

To provide a comfortable and accessible walking connection to Northgate Elementary School, SDOT is also planning to construct new asphalt walkways on the north side of N 117th St between Meridian Ave N and 1st Ave NE.





Will there be an art installation as part of this project?

Yes, SPU is partnering with the City's Office of Arts and Culture to incorporate an art installation in the natural drainage system near Wedgwood Elementary School. Seattle-based artist Leo Berk designed an art installation to bring awareness to the ecological benefits of natural drainage systems. His design plays with the visual metaphor of an oversized kitchen strainer, perforated with a pattern that illustrates the treatment mechanism of the NDS.

POTENTIAL IMPACTS

What can I expect during construction?

We will know more about construction hours and potential impacts once we have a contractor on board. Typical construction working hours in Seattle are 7 am to 5 pm, Monday – Friday. In the unlikely event of night or weekend work, we will reach out to let neighbors know before the work begins. The contractor is required to always maintain access for emergency vehicles. Typical construction impacts may include noise, dust, equipment staged in the right-of-way, and restricted street parking.

Will I have to relocate my fence, plantings, or sheds if they are within the public right-of-way?

When installing NDS and asphalt walkways, we often need to use the entire area between the existing road edge and the edge of the right-of-way (or the space between the road edge and the adjacent property) for project activities. The project team will reach out to properties with items in the right-of-way to advise which items need to be removed or relocated. If items in the right-of-way are not removed before construction begins, the contractor will remove the items and dispose of them as appropriate. When removing items in the right-of-way, the contractor may place some items, such as fences, on residents' properties. However, we strongly encourage residents to remove encroaching items from the right-of-way prior to construction. Please contact Katie Wilson, Project Manager, at katie.wilson@seattle.gov with any questions about items in the right-of-way.

How will this work affect existing plants and trees?

We work to protect trees and maintain or improve the tree canopy where possible. This project is likely to affect some trees on your street, but we will replace any one tree removed with two new trees. Smaller trees, plants and other landscaping may be removed if we are not able to work around them. Residents interested in preserving plantings and other landscaping features in the public right-of-way should relocate them onto their property.

Can I select the types of trees and plants being planted in front of my home?

The types of plants and trees chosen for the project have been carefully selected to ensure that the NDS will operate effectively. We are unable to take requests for specific trees or plantings. However, the project team is working closely with SDOT Urban Forestry and our internal experts to ensure that the plantings and trees provide maximum benefits for filtering water, controlling drainage, and enhancing the neighborhood's greenspace.

Will my driveway be impacted by this project?

As part of this project, driveway cuts and aprons will be installed in some areas where driveways currently exist. These driveway cuts will be the standard 10 ft width, per code requirement, and will be installed between the road edge and the property line to accommodate driveway access. This work will not change the width of residents' existing driveways on their property. The project team is reaching out to residents whose driveways will be impacted.





Will street parking be impacted by this project?

Yes, the project will modify existing on-street parking. Currently, there are unimproved shoulders (the space between the road edge and property line) that are used by neighbors for parking and storage. Where NDS and other improvements are being made, shoulder parking in the public right-of-way will be removed. This parking will be replaced by on-street parallel parking, typically on one side of the street.

Will my utilities be impacted by this project?

Some gas lines, side sewers, and water utilities will need to be adjusted during construction. We will work with each resident who may be impacted by utility relocation.

Are mailbox locations going to be impacted long-term after construction? If so, who is responsible for coordinating these changes?

Some mailboxes may be replaced at or near their current locations. Mailboxes may also be relocated during construction to maintain safe site access and avoid delivery disruptions. We will reach out with more information once we have a contractor on board.

How will my garbage be collected during construction?

The contractor will be responsible for coordinating garbage, recycling, and compost pickup during construction. We will reach out with more information once we have a contractor on board.

I have an upcoming construction project. How do I find out where my property line is?

The [Seattle Department of Construction & Inspections](#) (SDCI) can help you identify how to locate your property boundary. For more information, please contact the SDCI Help Desk at (206) 684-8850. More significant projects may require a survey.

WHAT TO EXPECT

What can I expect the NDS to look like after it is installed?

Natural drainage systems are living systems and their appearance will change over time. The grasses, shrubs, and trees installed will grow and change as the garden matures. It may take up to three years for plants and shrubs in the natural drainage system to reach full maturity, and possibly longer for trees. Over the first few years, stormwater collected in the natural drainage system will be more visible. After the plants mature, the water will be less visible. The plants will also look different during the seasons.

Who is responsible for maintenance of the project?

SPU is responsible for all maintenance of the NDS including watering, weeding, and general upkeep. The City will also prune trees and shrubs, as needed. You are not required to perform any maintenance on the NDS and are not financially responsible for its maintenance. In fact, it is important that residents stay out of the NDS so that it can function effectively.





You are still responsible for maintenance of the planting strip that is not part of the NDS, as is typical for streets in Seattle. See the following link for more information: www.seattle.gov/transportation/projects-and-programs/programs/maintenance-and-paving/property-owners-responsibilities

Will I see water in the natural drainage systems?

During storms, the NDS will temporarily hold up to 12 inches of water and then drain within 24 hours once the rain ends. When there are back-to-back storms or a larger storm, the water level will rise and fall, which is a sign that the NDS is functioning properly.

What if it rains so much that the project site overflows?

The natural drainage systems are designed to drain completely within 24 hours of the storm passing. If there is more water than the project can hold at one time, you will see any excess stormwater flow out of the system and into the nearest pipe, ditch, or storm drain.

What happens if the site does not drain within 24 hours?

SPU's Operation Response Center (ORC) maintains a 24/7 hotline for reporting drainage issues. If the completed project near your home isn't draining properly or requires maintenance, please call the ORC at (206) 386-1800.

Will this project cause my basement to flood or drainage problems around my house?

NDS helps to better manage stormwater ponding and drainage issues in the public right-of-way and is designed to carry stormwater straight into the ground, not toward yards or basements. SPU uses soil testing information to ideally locate project sites where the conditions are good for infiltrating stormwater straight down into the ground. However, where necessary, the NDS may also be designed with an underground liner and/or subsurface drainage to provide protection of adjacent areas where infiltration is not suitable.

How will the water flow over my driveway once this project is complete?

Rainwater from the street will be conveyed to the NDS and/or new drainage collection structures through a new road edge gutter. This gutter will direct water across driveways and down the street. The new asphalt walkway and planting strip will be designed to slope towards the street so that water flows into the road's new gutter.

Will this project attract mosquitoes?

This project will not attract mosquitoes. Mosquitoes need stagnant water (found in bird baths, old tires, dog water bowls, etc.) and natural drainage systems are designed to constantly drain and keep water moving. For more information on mosquitoes and prevention, please visit: www.kingcounty.gov/healthservices/health/ehs/westnile.aspx or www.seattle.gov/environment/WestNile.htm.

Are natural drainage systems safe for community members?

Natural drainage systems are designed with safety in mind. They will typically drain within 24 hours following a storm and, in most cases, even faster.





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COMMUNITY INPUT

How much input do you want from residents?

Community input is important to us. We consulted residents throughout the site selection and early design process. We will continue to coordinate with residents throughout late design and construction so that we can understand your specific concerns and interests. Please sign up to receive project email updates if you are interested in learning more about the project.

STAY IN TOUCH

SPU is happy to answer questions and provide any information you need to be informed about this project.

Contact: Katie Wilson, Project Manager

Email: katie.wilson@seattle.gov

Phone: 206.615.1159

Learn more & subscribe to updates: <https://www.seattle.gov/utilities/SouthThorntonNDS>



City of Seattle

