



## 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 are the project goals?

- To improve water quality and help manage stormwater by constructing natural drainage systems alongside the road in your neighborhood.
- To install new pedestrian walkways in partnership with the Seattle Department of Transportation.
- To provide other benefits in 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. Natural drainage systems 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 pedestrian 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.

##### 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 natural drainage system.





### POTENTIAL IMPACTS

#### What can I expect during construction?

Installing the natural drainage system requires intensive work that will be impactful to the neighborhood. We will work to minimize construction impacts to the extent possible and appreciate your patience and understanding during active work. During construction, you can expect:

- Typical weekday working hours of 7 AM – 5 PM
- Construction traffic, noise, dust, and vibrations during working hours
- Equipment and materials staged in the right-of-way (shoulder)
- Temporary parking and travel lane restrictions
- Temporary driveway access restrictions (impacted properties will be contacted by project team)

We also anticipate the following impacts and will coordinate directly with each impacted resident:

- Natural drainage system improvements may require some driveway aprons to be restored to the City’s 10-foot width standard in the public right-of-way. This work will only impact the driveway apron in the public right-of-way and will not change the width of residents’ existing driveways on their property.
- Some gas lines, side sewers, and water utilities will need to be adjusted during construction
- Some mailboxes and other items in the public right-of-way – such as fences and plantings – may need to be relocated due to sidewalk, road, and natural drainage system improvements

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

When installing natural drainage systems and pedestrian 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, decorative rocks, yard decorations, etc., on residents' properties. However, any plants that are within the right-of-way will be removed and disposed of. We strongly encourage residents to remove encroaching items from the right-of-way prior to construction. Please contact Luis Ramirez, Project Manager, at [Luis.Ramirez@seattle.gov](mailto:Luis.Ramirez@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 will affect some trees in the project area, but we will replace any one tree removed with two new trees. It is important to note that the new trees may not be planted in the same location as the trees that are removed.

Smaller trees, plants, and other landscaping may be removed if we are not able to work around them and they are encroaching into the right-of-way. Residents interested in preserving plantings and other landscaping features in the public right-of-way should relocate them onto their property prior to the start of construction.





### **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 natural drainage systems 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?**

This project will install curb cuts and driveway aprons where driveways currently exist to help direct stormwater to drainage systems and to enhance pedestrian safety. Per code requirements, where properties have less than 80 ft of street frontage, these curb cuts will be the City's standard 10-ft driveway width and will be installed between the road edge and the property line. Where properties have more than 80 ft of street frontage, these curb cuts will match the existing driveway width up to 20 ft. This work will only impact the driveway apron in the public right-of-way and will not change the width of residents' existing driveways on their property.

During driveway cuts/aprons work, driveway access may be temporarily restricted. The project team will contact affected properties with more information on timing and duration of driveway impacts.

### **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 natural drainage system and other improvements are being made, shoulder parking in the public right-of-way will be removed. This parking will be replaced by formalized 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?**

Mailboxes may be relocated by the contractor during construction to maintain safe site access and avoid delivery disruptions. After construction, some mailboxes may be replaced at or near their current locations. Any revisions to final mailbox locations will be directed by the United States Postal Service, not SPU. Residents are not responsible for the relocation of their mailboxes.

### **How will my garbage be collected during construction?**

The contractor will be responsible for coordinating regular garbage, recycling, and yard waste pick-up during construction. If garbage, recycling, and yard waste trucks are unable to access their typical pick-up locations, the contractor is required to move the bins to accessible locations.





### **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 natural drainage system 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 in the natural drainage system 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 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 as the seasons change.

#### **Who is responsible for maintenance of the project?**

SPU is responsible for all maintenance of the natural drainage systems 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 natural drainage systems. In fact, it is important that residents stay out of the natural drainage systems so that they can function effectively.

You are still responsible for maintaining the portion of the planting strip that is not part of the natural drainage system, 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](http://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 natural drainage systems 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 natural drainage system 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?**

Natural drainage systems help to better manage stormwater ponding and drainage issues in the public right-of-way and are 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 natural drainage systems 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 natural drainage system 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 pedestrian walkways and planting strips 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/wnv/mosquito](http://www.kingcounty.gov/wnv/mosquito) or [www.seattle.gov/utilities/protecting-our-environment/seattle-clean-city/west-nile-virus](http://www.seattle.gov/utilities/protecting-our-environment/seattle-clean-city/west-nile-virus).

### 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.

## COMMUNITY INPUT

### How much input do you want from residents?

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

## STAY IN TOUCH

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

**Contact:** Luis Ramirez, Project Manager

**Email:** [Luis.Ramirez@seattle.gov](mailto:Luis.Ramirez@seattle.gov)

**Phone:** 206.643.4604

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

