



North Thornton Natural Drainage Systems Frequently Asked Questions

Project Overview and Goals

Why is Seattle Public Utilities (SPU) bringing this project to my neighborhood?

More than 12 million pounds of pollution are carried into our bodies of water through stormwater runoff each year. Stormwater that falls on hard surfaces in your neighborhood—like roofs, streets, and parking lots—can pick up harmful pollutants before it runs into Thornton Creek, which flows into Lake Washington and eventually into Puget Sound. The pollutants can harm fish, wildlife, and our ecosystems. SPU is working on a project that helps improve water quality, reduce drainage issues, and bring other community benefits to your neighborhood.

What are natural drainage systems?

Natural drainage systems are shallow depressions built in the roadway shoulder (the public 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.

What are the project's goals?

This project is part of the Natural Drainage Systems (NDS) Partnering Program in the [Plan to Protect Seattle's Waterways](#), an initiative that aims to:

- Build natural drainage systems to reduce the amount of pollution in Thornton Creek and Lake Washington and improve drainage system, where NDS installation is feasible.
- Deliver other community benefits, which include reducing drainage issues, traffic calming, new trees, and added green space.

Project Selection

How was my neighborhood selected?

SPU is currently working on NDS projects in several urban watersheds throughout

Seattle, including the [Thornton](#), [Longfellow](#), and [Pipers Creek](#) watersheds. The [North Thornton Natural Drainage System](#) project is focused on reducing pollution in the north branch of Thornton Creek.

The project area encompasses the north Thornton Creek watershed.

How does SPU decide which blocks to choose?

SPU picks project locations where we can provide the most water quality benefit. We also look for opportunities to work with other city departments and the community to address concerns and provide multiple benefits (for example, planned street or pedestrian improvements or reducing drainage issues).

Other factors that may make a site more or less favorable include:

- Location of nearby adverse conditions (steep slopes, high groundwater, or contaminated sites)
- Potential impacts to existing trees
- Existing soil conditions
- Location and condition of existing utilities
- Community input
- Width of existing public right of way
- Presence of driveways
- Existing parking congestion and availability of off-street parking
- Project construction, operation, and maintenance costs

Timeline

What is the timeline for this project?

In 2020, we examined conditions in the project area and conducted a community survey to inform early project planning. In 2021 and early 2022, we continued technical analysis to understand installation feasibility of natural drainage systems and where they can be most beneficial. During 2022, we'll use the information from early planning to conduct a community survey on identified blocks to inform final block selection and additional opportunities for community benefits. During 2023 and early 2024, we will continue outreach with the community to inform final design. We anticipate construction to begin in 2024 and last through 2025.

When will I know if my block was selected to build a natural drainage system?

During the planning phase, we will study potential locations based on technical feasibility and collect community input before making a final determination on NDS locations. We will provide more details about location selection near the end of 2022 or in early 2023.

Community Input

How much input does SPU want from residents?

Community involvement is important to us. We will consult with you during the planning, design, and construction phases. During the planning phase, we want to know about specific concerns and interests from you and your

neighbors. We will collect information from you using tools such as surveys, online and in-person events, and meetings with stakeholders who live, work, or commute on or through the identified blocks. We will keep you informed using tools such as email, mailers, and the [project website](#).

How will SPU use community feedback?

We will incorporate community input into the final decisions as much as possible. Once potential locations are assessed, SPU will select project locations and work with residents on those blocks during the design and construction phases to coordinate their needs and mitigate construction impacts as much as possible.

Project Impact and Maintenance

What will natural drainage systems look like after they are built?

Natural drainage systems are built in the roadway shoulder (the space between the street edge and property line) in residential neighborhoods. The projects use a combination of different soil types and plants to create a “filter” that captures and breaks down pollutants washed off from roadways and parking areas.

Because each NDS project is built with growing plants, the way that they look will change over time. They usually take three to five years to fully develop. The grasses, shrubs, and trees installed during construction will grow and change as the garden matures. In the first few years, the 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 different seasons of the year.

Will I see water in the natural drainage systems?

During storms, each drainage system will temporarily hold up to 12 inches of water and then drain no more than 24 hours after 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 drainage system is functioning properly.

What if it rains so much that the drainage system overflows?

The natural drainage systems are designed to completely drain within 24 hours of the storm passing. If there is more water than the system can hold at one time, you will see 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?

Seattle Public Utilities’ Operation Response Center maintains a 24/7 hotline for people to call and report drainage issues. If the system near your home isn’t draining properly or requires maintenance, please call: (206) 386-1800.

Who is responsible for maintenance of the system?

SPU is responsible for all maintenance needs of the systems, including watering, weeding, and general upkeep. SPU will also prune trees and shrubs as needed. You will not be asked to perform any maintenance. In fact, it is important for residents to stay out of the NDS to maintain the function of systems. Plants will mature over time and the mix of plants will likely change, but this won't affect the system's function.

How will this work affect existing plants and trees?

Whenever possible, the project team will minimize impact on mature trees. In cases where trees are affected, we will replace each tree removed with two new ones. Some smaller or unhealthy trees may need to be transplanted or replaced. During construction, protecting trees is a priority.

Will the NDS cause my basement to flood or create drainage problems around my house?

Natural drainage systems are designed to either carry stormwater straight into the ground or into an underground "underdrain" pipe, not toward yards or basements. SPU uses soil testing information to locate areas where the conditions are good for infiltrating stormwater straight down into the ground. If good soil conditions are not present, an underdrain pipe is used to collect water. If needed, the site may also be designed with an underground liner for extra protection.

How will this project affect street parking?

This project is likely to affect street parking. SPU knows that parking and access from the street to homes and properties are very important to community members. We will carefully consider the impacts to parking in every potential project location. We will also assess the condition and availability of off-street parking nearby.

Will this project attract mosquitoes?

No, it will not attract mosquitoes. Mosquitoes need stagnant water (found in bird baths, old tires, dog water bowls, etc.). Natural drainage systems are designed to constantly drain and keep water moving.

Will my children and pets be safe when the water is collected and stored here?

Natural drainage systems are designed with safety in mind. They will typically drain within 24 hours of the end of a storm, and, in most cases, it will be even faster. For the health and functionality of the system, we ask that people and pets avoid entering the natural drainage systems.

Who do I reach out to if maintenance is needed?

If the completed project near your home isn't draining properly or requires maintenance, please call: (206) 386-1800.

If you need this information about the North Thornton Drainage Systems project translated, please call (206) 615-1159.

Amharic

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Arabic

. إذا كنت بحاجة إلى هذه المعلومات حول مشروع شمال Thornton لأنظمة الصرف الطبيعية مترجمة، فيرجى الاتصال ب (206) 615-1159 .

Chinese Traditional

如果您需要 Thornton 溪北端支流自然排水系統項目信息的翻譯版本，請致電 (206) 615-1159。

Korean

North Thornton 자연 배수 시스템 프로젝트에 관한 번역된 정보가 필요한 경우, (206) 615-1159 로 전화하십시오.

Russian

Если вам нужен перевод информации о проекте Естественных дренажных систем северной части реки Thornton (North Thornton Natural Drainage Systems), пожалуйста, позвоните по телефону (206) 615-1159.

Somali

Haddii aad u baahan tahay macluumaadka ku saabsan Mashruuca Nidaamyada Biyo-mareenka Dabiiciga ah (Natural Drainage Systems) ee North Thornton oo la turjumay, fadlan wac (206) 615-1159.

Spanish

Si necesita la traducción de la información del proyecto del Sistema de drenaje natural de North Thornton, llame al (206) 615-1159.

Tigrinya

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Vietnamese

Nếu quý vị cần hỗ trợ dịch thông tin về dự án Hệ Thống Thoát Nước Tự Nhiên North Thornton, xin vui lòng gọi (206) 615-1159

Questions? Contact

Katie Wilson Project Manager katie.wilson@seattle.gov (206) 615-1159

Seattle Public Utilities

Learn more and sign up for project updates at: www.seattle.gov/utilities/NorthThorntonNDS