

**Broadview Sewer
and Drainage
IMPROVEMENT PROGRAM**

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April 2016

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See inside for details!

- SPU has identified a next phase of projects to address sewer and drainage issues in Broadview
- Design work to begin on two projects starting this year

FOR MORE INFORMATION

For more information, to learn more about the project or to sign up for project updates by email, please contact us or visit the project website.

Call: 206-233-1534 Email: spu_broadviewprojects@seattle.gov

Website: www.seattle.gov/util/BroadviewProjects Email updates: www.seattle.gov/lists/broadview.htm

Overview

The Broadview neighborhood has longstanding sewer and drainage problems. During heavy rains, water can overwhelm Broadview's sewer system and cause sewage backups into homes, which is a serious public health issue. Stormwater runoff can also flow from streets onto private property and cause damage. Broadview's high water table, steep bluff, lack of consistent drainage and aging sewer pipes contribute to the complexity of these issues.

Since 2012, Seattle Public Utilities has been working with the community to identify sewer and drainage projects in the areas of Broadview that are most impacted. The project team completed a detailed analysis and recommended preferred options. We have also completed early pilot projects (details inside) to reduce sewer backups, overflows and stormwater flooding.

Preferred options for Broadview

SPU considered over a dozen options addressing sewer and drainage issues in Broadview last spring. None of these options, however, provided the neighborhood with enough value to balance high costs. While we continue to study a possible long-term regional sewer option with King County, we are proposing two smaller, cost-effective projects.

The Dayton Ave N Sewer Improvement Project and the 12th Ave NW Drainage Improvement Project will focus first on addressing parts of the neighborhood with the biggest sewer and drainage issues.



Broadview program goals

The goals of the program are to:

1. Reduce sanitary sewer overflows into homes, streets and creeks
2. Reduce the frequency and quantity of stormwater flooding to areas most impacted, especially building structures

Moving from options to projects

When developing and evaluating the preferred sewer and drainage options, SPU considered:

- **Social, financial, and environmental impacts of each option.** Examples include construction-related traffic, community preferences, and financial constraints.
- **Overall budget.** Proposed projects are constrained by the five-year capital budget and approved rate schedule.
- **Effects downstream.** We carefully considered all of Broadview in our planning to ensure proposed projects do no harm to downstream communities or resources.

SPU's commitment to customers and equity

SPU is committed to providing equitable service across the city. Our commitment in Broadview is to provide the greatest benefit possible consistent with all utility projects city-wide while staying within our approved, five-year budget.

Preferred options – a closer look

Proposed 12th Ave NW Drainage Improvement Project

This project will improve drainage in the 12th Ave NW drainage system, along 11th Ave NW between NW 120th and NW 122nd streets. It will reduce storm-related flooding by slowing runoff and improving flows. The design will allow for future drainage work upstream of the project area. The project will:

- Convert ditch-and-culvert flow to a piped system along 11th Ave NW between NW 120th and NW 122nd streets
- Install large, underground pipes to hold water and prevent flooding during storms
- Install rain gardens and bioretention in several locations

Estimated budget: \$4.9 million

Proposed Dayton Ave N Sewer Improvement project

Stormwater entering sewer pipes is the main cause of sewer backups in the Dayton Ave N area. To reduce sewer backups, this project will:

- Fix leaks (infiltration) in mainline sewer and in up to 150 side sewers along Phinney Ave N and Dayton Ave N between NW 115th and NW 125th streets
- Improve sewer line flow by increasing the size of mainline pipes along Phinney Ave N and Dayton Ave N
- Remove stormwater inflows from the sanitary sewer by disconnecting private sump pumps, foundation drains and downspouts and re-connecting them to new drainage features
- Add new drainage features like rain gardens to manage stormwater kept out of the pipes

Estimated budget: \$13.7 million

Planned Broadview Sewer and Drainage Projects

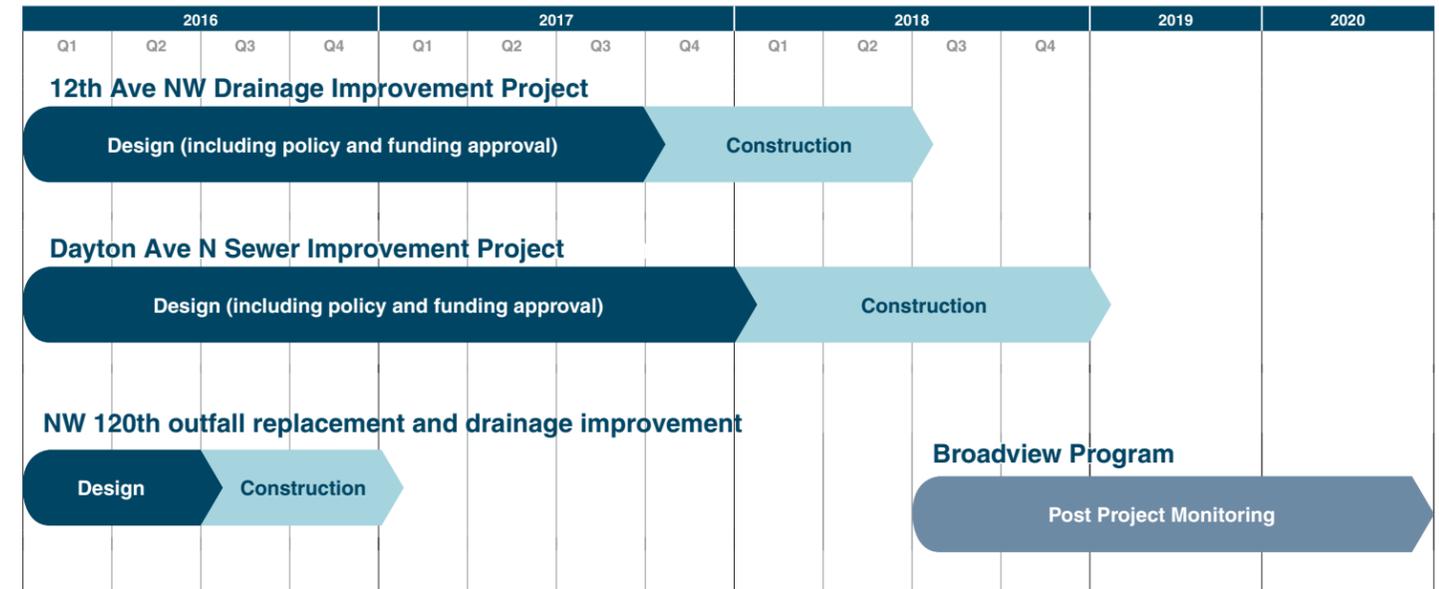


The map shows locations for the preferred options and two early action projects that will be designed and built between 2016 and 2018. See next page for additional detail on early action projects.

Reflecting community feedback

Throughout ongoing outreach, SPU has considered community responses to drainage and sewer options. For example, SPU decided not to look at a stormwater storage pond in the 12th Ave NW basin after community feedback showed this was not a preferred option.

Proposed improvement project schedule



Next steps

SPU is currently designing plans for the Dayton Ave N Sewer Improvement Project and the 12th Ave NW Drainage Improvement Project, expected to begin in summer 2016. Following construction in 2017 and 2018, SPU will evaluate results to decide future comprehensive sewer project needs in the Broadview area. These initial projects will provide data to support thoughtful and cost-effective design of a possible regional sewer alternative. SPU will provide information on project approach and progress through regular updates to our website, email listserv, and briefings for community groups and councils.

The Seattle Department of Transportation (SDOT) Move Seattle levy, passed by voters in 2015, designated \$8 million for the Broadview neighborhood over six years to be used in partnership with SPU. Coordinating on drainage and safe walking projects like sidewalks, pathways and crossings in the neighborhood allows the dollars spent by each department to go further. We're excited to work together on this project.

Early action projects

SPU completed two early action pilot projects in the Broadview neighborhood and has initiated two other small projects to help improve drainage conditions and prevent sewer backups:

- **Flood Grouting Pilot Project** – In 2011, crews sealed mainlines and side sewers using flood grouting to reduce flows of stormwater into the sewer system. Project budget: \$1.5 million.
- **Backflow Preventer Pilot Project** – In 2011, SPU initiated a project to provide expedited protection to homes that have experienced multiple backups. Since installation, there has been a reduction in sanitary sewer overflows and claims. Project budget: \$800,000.
- **11th Ave NW flooding reduction** – SPU is designing a flooding reduction/sidewalk improvement project along the 12700 block of 11th Ave NW to reduce stormwater flooding from the street onto private properties during storm events. Design and construction are expected in 2016. Project budget: \$350,000.
- **NW 120th outfall replacement and drainage improvement** – SPU is designing a new outfall and improved stormwater drainage around 9th Ave NW and NW 120th St. Design is expected in 2016, with construction occurring in 2016-2017. Project budget: \$1.3 million.