Background

Seattle Public Utilities (SPU) hosted a community meeting on June 18, 2014 at Bitter Lake Community Center, 13035 Linden Ave N, from 6:30 to 8:45 pm. The primary purpose of the meeting was to introduce the leading sewer alternatives and components for the Dayton Avenue N basin and the leading drainage alternatives and components for the 12th Avenue NW basin.

Staff

Seattle Public Utilities

- Celia Kennedy (Project Manager)
- Debbie Harris (Senior Civil Engineer)
- Rachel Garrett (Communications Lead)
- Annie Tran (Communications intern)
- Nancy Ahern (Deputy Director)

Consultant team

- Bruce Ball (Brown & Caldwell)
- Bob Jacobsen (Brown & Caldwell)
- David Scott (TetraTech)
- Jeff Lykken (HDR)
- Alice Lancaster (Herrera Consulting)
- Angie Thomson (EnviroIssues)
- Adonis Ducksworth (EnviroIssues)

Welcome and introductions

Attendees were given handouts that compared components of the Dayton Avenue N sewer alternatives and 12th Avenue NW basin drainage alternatives. Attendees had the opportunity to review boards that highlighted:

- The project overview, goals and timeline.
- Maps of priority drainage areas.
- Dayton Avenue N sewer alternatives.
- 12th Avenue NW drainage alternatives.

Angie Thomson (facilitator) welcomed attendees to the meeting and reviewed the agenda. She noted that the primary purpose of the meeting was to discuss the leading Dayton Avenue N sewer alternatives as well as the 12th Avenue NW drainage alternatives. The meeting was also an opportunity for SPU to outline upcoming project and public involvement opportunities through the end of 2014.

Presentation on Dayton Avenue N leading sewer alternatives

Angie introduced Celia Kennedy (SPU), Project Manager. Celia began with an overview of the timeline and major milestones of the project leading to a decision on a preferred alternative.

Celia introduced Jeff Lykken (HDR) who discussed the details of the Dayton Avenue N sewer alternatives. Jeff discussed the evaluation criteria and the three leading sewer alternatives for the Dayton Avenue N basin. In discussing the leading alternatives, Jeff explained the cost, components, benefits and challenges of each. The three leading sewer alternatives include:

- Reducing flows into sewer pipes and providing storage.
- Upsizing sewer pipes and building storage.
- Upsizing sewer pipes and building storage in a centralized location such as Carkeek Park.

Question and answer session for Dayton Avenue N leading sewer alternatives

Following the Dayton Avenue N presentation, Angie facilitated a question and answer session about the alternatives presented. Questions and comments are outlined below. Answers to questions by the project team are noted in italics.

When the storage tanks become full, will you pump sewage back into system?

Yes. We will pump sewage back into the system once the system can handle it.

Will these alternatives eliminate the need to have basements proofed from flooding?

No, you may still need to waterproof your basement if it is a groundwater issue.

What do you mean by property acquisition?

Depending on the preferred alternative, SPU may need to acquire private property to build a sewer storage tank, if there is no public right of way or city-owned land available in the right location. We always look for ways to acquire property from a willing seller first. When it comes to drainage, some pipes may be able to be built in the public right-of-way. This could reduce or eliminate our need to acquire private property to complete the project.

Will you need to dig up the street for the reducing flows option?

Not necessarily. There are sealing methods that require less excavation such as pipe bursting and others such as flood grouting or lining that require minimal excavation. Sealing methods will be determined during the future design phase.

How much is the increased housing density in Broadview affecting sewer flows and how does the building permitting process take this into account?

Increasing density has a small impact on sewer backups, and our modeling does take density into account. Clean rain water leaking into sewer pipes contributes to sewer backups and flooding. With regard to permitting, there are SPU reviewers who look at additional flows and sewer capacity when a new project is built.

How will the 6th Avenue N and 7th Avenue N basin be involved in the Broadview Sewer and Drainage Improvement Project?

The area included in this basin has better service for both sewer and drainage, and we are focusing our efforts on the priority areas such as the Dayton Avenue N and 12th Avenue NW basins.

Do your cost estimates take into account the natural drainage components that would accompany the sewer alternatives?

Yes, they do.

What are you going to do about groundwater if the sewer system is not draining groundwater away?

We are currently studying groundwater in the basins to better understand how groundwater flows through this area. This information will help us determine what potential options might be used to provide drainage solutions for each sewer alternative in order to reduce the potential for groundwater levels rising.

Is dealing with groundwater a component of the "reduce flows into sewer pipes and provide storage" alternative?

SPU does not manage groundwater. However, if this alternative is selected, it will be paired with a drainage alternative, which may address some groundwater related issues.

What happens if we disconnect our downspouts?

One of our alternatives would include disconnecting downspouts from places where they are connected to the sewer and connecting them to an improved drainage system that includes a stormwater pond or large pipe under the right of way located toward the bottom of the basin.

When homes were built in the 1950s, was it legal to connect downspouts to the sewer system?

In the past, it may have been. Today it is not.

Under the "reduce flows into sewer pipes and provide storage" alternative, who would pay for the rehabilitation of side sewers and drainage?

This cost is currently included in the project cost, and is currently expected to be factored into the overall sewer and drainage fees paid by rate payers.

After the flood grouting pilot project that SPU conducted, groundwater issues worsened in some areas. What is SPU's plan to address groundwater issues associated with this pilot project?

During the flood grouting pilot project, SPU sealed side sewers and mainline pipes, which had the same effect as if SPU had installed new pipes in the area. However, we are looking at ways to address concerns we've heard about wet basements in the pilot project area. We will have more information soon to share regarding our monitoring in this area. We also may consider French drains as a potential option to reduce the risk of groundwater levels rising.

Will your geotechnical findings on groundwater flow be made public?

Yes, we will make this information available to the public once the geotechnical studies are complete.

Presentation on 12th Avenue NW leading drainage alternatives

After the question and answer session about the Dayton Avenue N leading sewer alternatives, Alice Lancaster (Herrera Consulting) presented the details of the two leading 12th Avenue NW drainage alternatives. After clarifying the difference between drainage and sewer solutions, Alice explained the components of the leading drainage alternatives and described each alternative. In discussing the two leading alternatives, Alice explained the evaluation criteria, respective cost, components, benefits and challenges of each alternative. The two leading drainage alternatives are:

- Centralized storage (pond)
- Decentralized storage (underground pipes)

Question and answer session for 12th Avenue NW leading drainage alternatives

Following the 12th Avenue NW presentation, Angie facilitated a question and answer session about the alternatives presented. Questions and comments are outlined below. Answers to questions by the project team are noted in italics.

Where would French drains be located?

They are currently expected to be in locations near to where sewer lines are sealed.

Where will the drainage pipes be located, on private property or the right-of-way?

They will be located in the right-of-way.

With detention cisterns, would homeowners be able to reuse that water?

This issue would likely be addressed in the design phase of the project.

Can stormwater cascades be located on steep slopes?

There are certain slopes that are too steep for stormwater cascades.

Where would these stormwater cascades be located?

In the right-of-way, but we would request input from the community about where to site the cascades.

Are you talking with Seattle Parks about the potential for building a park or playground as part of the stormwater pond?

We will be working with the Parks department, but we are not yet at that stage of the planning process.

Would a stormwater pond option dry out or stay wet?

It depends. There are different ways to design a pond. For example, SPU recently built a pond in Midvale that has low level flows throughout the year. The stormwater pond in Madison Valley only has water in it after a major rainstorm and is dry the rest of the time.

What would you do about mosquitoes?

We would keep the water flowing through the pond. Mosquitoes prefer stagnant water.

How are the cost estimates developed, and who pays?

SPU rate payers pay for drainage and wastewater capital improvement projects. Design and construction costs are considered in developing the capital costs. Long-term operations and maintenance costs are considered as we move through the alternative selection process.

If costs are passed on to rate payers, will costs be the same for all Seattle residents, or will they vary?

The costs of this project will be spread out evenly among all rate payers throughout the SPU service area.

Will you bring in the Department of Health?

Not likely, they are not the relevant regulating agency for this project.

How do you choose where to locate the stormwater pond?

If this option is selected, we will likely need to locate the pond near the bottom of the basin to take advantage of the natural drainage flow.

What's the process for property acquisition?

We start by finding willing sellers and look at available property. We would only consider condemnation as a last resort.

Do properties have to be adjacent to each other if you are building a stormwater pond?

Yes, if we are building a pond.

What is the timeline for a construction completion date?

Once a preferred alternative is selected by SPU, design and permitting take approximately a year and a half and construction lasts approximately two to three years. At this time we do not have funds allocated to build all the improvements in 12th and Dayton basins that are being proposed, and the projects will likely need to be built in phases over a number of years. We are working to get additional funding for this project.

If a cascade is built on 125th Street, would it be possible to include a sidewalk?

We generally locate sidewalks on the opposite side of the street from stormwater cascades.

SPU has recently installed berms in several locations to protect properties from surface water flowing down the street. However, the placement of these berms currently forces water onto other properties.

We are aware of these concerns, and have been working on these issues with our Spot Drainage Program. For emergency flooding onto properties, we also ask that property owners contact our 24/7 Emergency Services line at 206-386-1800 as soon as possible.

Is there a future meeting on stormwater for Dayton?

Yes, likely in the late fall or early winter. We are currently conducting a geotechnical analysis for the Dayton Avenue N basin. We will eventually pair leading sewer and drainage and alternatives for that basin.

Additional comments during the question and answer session

- Please provide paper copies of maps at the next meeting, as they are hard to see on the PowerPoint.
- Please don't impact Carkeek Park by placing a storage or pond system there.
- I'm concerned about losing my property and also about being next to a pond.

Next Steps

The meeting concluded with information on how to stay connected with the project through the project website, information line, and listserv.