

FACT SHEET | WINTER 2022

Project Need

Through all our projects, King County Wastewater Treatment Division works to protect our region's environment, public health, and waterways by collecting and treating wastewater. The Thornton Creek Basin Sewer Study and Upgrade Project will ensure that the King County regional Thornton Creek sewer pipe is able to carry wastewater flows so we can meet our clean water goals into the future.

The Thornton Creek sewer is an approximately 1.2-mile-long sewer pipe that collects wastewater from other pipes in our sewer system, serving 9.6 square miles of North Seattle and Shoreline. The pipe carries this wastewater to the Matthews Park Pump Station, where it is then conveyed and treated at the West Point Treatment Plant.

During heavy storms, the sewer pipe sometimes reaches its capacity. To avoid possible overflows, King County will need to either reduce the amount of stormwater and groundwater entering the system – known as infiltration and inflow (I/I) – or increase the size of the sewer pipe. Increasing the size of the sewer pipe may also require more costly upgrades to other parts of the regional wastewater system, including Matthews Park Pump Station.

This project can help provide benefits for:



- Overall water quality in our region, by reducing wastewater overflows.
- Local wastewater service reliability.
- Resilience to climate change-related events.
- Maintaining the regional wastewater system.

Infiltration and Inflow Study: What are we doing now?

King County is studying the ways that stormwater and groundwater enter the sewer system in the area. Our team will look at local and regional sewer pipes, maintenance hole covers, and drainage connections, and we'll identify the location and type of improvements that have the potential for the biggest impact to reduce I/I. The goal for this phase of the project is to identify and evaluate I/I reduction alternatives that can alleviate capacity constraints in the Thornton Creek sewer pipe.

During this phase, we'll continue to monitor flows in the sewer system and conduct surveys of residents who live in the project area. A future phase will compare the I/I reduction alternatives identified as part of this study to alternatives that would increase the size of the Thornton Creek sewer pipe. Together, these two study phases will help us identify a sustainable and cost-effective alternative to a major capital investment to the regional sewer system.



Why is this Infiltration and Inflow Study Important?

Sometimes during periods of heavy rainfall or major storms, additional water enters the sewer pipe, which can cause it to overflow. One reason for this problem is called infiltration and inflow (I/I), or excess water that enters into sewer pipes from groundwater and stormwater.

- Groundwater (infiltration), shown in white in the diagram above, seeps into sewer pipes through holes, cracks, joint failures, and faulty connections.
- Stormwater (inflow), shown in black in the diagram above, rapidly enters sewers via roof drain downspouts, foundation drains, storm drain cross-connections, and through holes in maintenance hole covers.



Project Timeline

Contact Us

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