

NORTH MERCER ISLAND/ENATAI

Sewer Upgrade Project

King County is upgrading four miles of sewer pipeline across north Mercer Island and south Bellevue. It's a big project that's been years in the making and will involve years of construction. Some of the work will be in heavily used public spaces, and some will be in residential areas. The end product will provide great public benefit, but the work to get there will involve inconveniences to residents and users of public spaces.

We are committed to keeping you informed about what's happening and why, in order to minimize impacts on the community. This is one of a series of fact sheets that explain the North Mercer/Enatai Sewer Upgrade Project and what the public should expect—during construction and after the work is done.

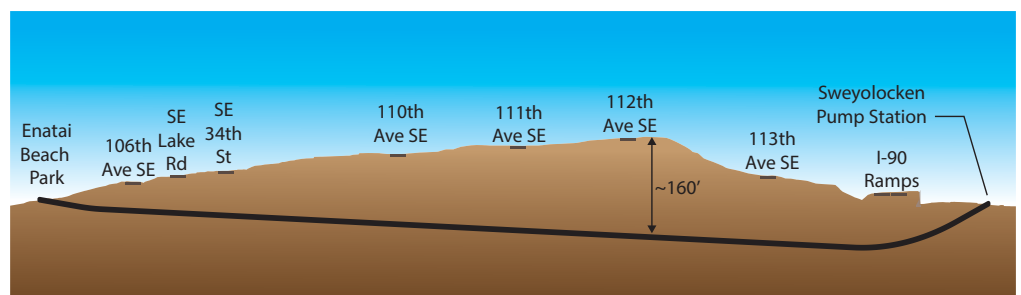
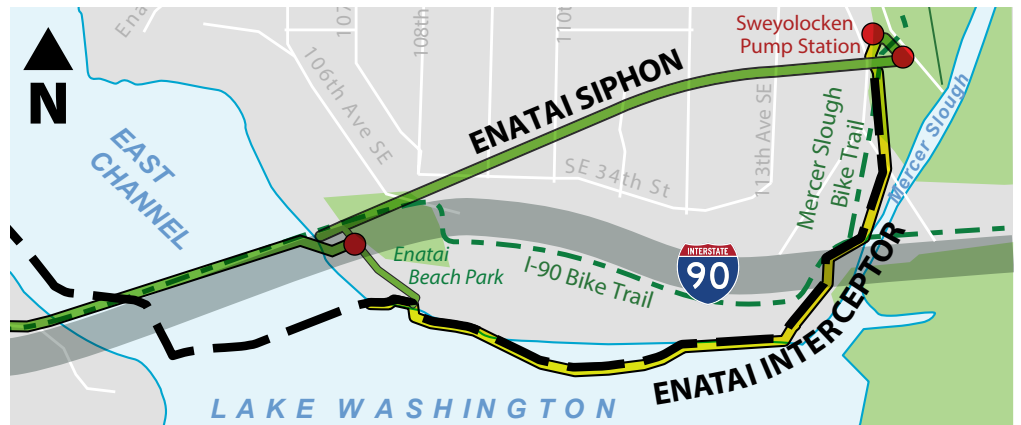
Installing a new pipeline under the Enatai Hillside

What's Happening...and Why

Designers of the North Mercer/Enatai project considered many options for connecting the system from Enatai Beach Park on Lake Washington to King County's Sweyolocken Pump Station in the Mercer Slough Nature Park. The selected approach was to renovate the existing Enatai Interceptor in Lake Washington and Mercer Slough so it can continue to convey the amount of wastewater it does now, and to add a new pipe that can carry any additional wastewater as flows increase in the future. The Enatai Siphon will be that new high-flow line. This combination was selected as the best way to achieve the goals of conveying flows expected through 2060, minimizing community impacts, complying with environmental regulations, and reducing cost.

Installation of the siphon (it's called a siphon because it will have a low point in between high points at its ends) will use a technique that avoids disruption of the neighborhoods it crosses. Rather than digging trenches from the surface to lay the pipe, crews will drill an underground hole from one end to the other—nearly 3,000 feet—and then pull the pipe through that hole. Trench construction would not be practical for this project anyway, as the pipe will be as much as 160 feet deep.

The Enatai Siphon will extend nearly 3,000 feet under the Enatai Hillside, from Enatai Beach Park to the Sweyolocken Pump Station, running as much as 160 feet below the ground surface. The community will still see some impact from the siphon construction, but not on residential streets—only at the endpoints in Enatai Beach Park and the Mercer Slough Nature Park.



What to Expect During Construction

How the Drilling will be Done

The process to install the new pipeline is called “horizontal directional drilling” (HDD for short). A drilling rig set up at ground level beside the Sweyolocken Pump Station will drill a small hole underground along a pre-defined route back to Enatai Beach Park. A wire on the surface will track the location of the drilling equipment underground so that crews can redirect the drill as needed to stay on course.

Once the initial hole is created, crews will pull a piece of equipment called a reamer back through it, repeating this multiple times to enlarge the hole until it’s big enough for the new pipe that needs to come through.

Meanwhile, crews at Enatai Beach Park will begin to fuse together sections of 32-inch-diameter plastic pipe, floating the assembled pipeline out into Lake Washington until the entire 3,000-foot length has been achieved.

When the reaming has reached the necessary drill-hole size, workers will attach the assembled pipe to a cable, and then equipment back at Sweyolocken will pull the pipe through the hole into its final position. During pullback, cranes on barges in the East Channel will lift the pipe to align and steer it prior to entry into the drilled hole.

Construction Schedule

The drilling and installation of the underground pipeline is expected to take approximately 6 months from start to finish. The work could start as early as mid-2021 but most likely will occur later. Once a contractor is hired, we will share more information about the schedule.

Construction Impacts

Work Hours: The siphon pipe pullback will be a continuous 1- to 2-day operation once started, which likely will result in night work. Otherwise, all HDD work will take place during normal daytime hours.

Dust and Noise: Work at both ends of the siphon will generate typical construction equipment dust and noise. The contractor will follow standard construction practices to reduce these nuisances.

Traffic: Surrounding streets will see a limited amount of additional traffic as construction crews and equipment travel to and from the work sites. No streets will be closed for any of the work.



Recreational Uses: The HDD construction will close the north end of Enatai Beach Park and the Sweyolocken boat launch on Mercer Slough. The work at Sweyolocken also will close a portion of the Mercer Slough Bike Trail, and detours will be established for trail users.

Lake Washington Navigation: The siphon pipe may be in the East Channel of Lake Washington for about 2 weeks as it's being assembled before pullback. It will not be anchored to the lake bed. Work boats staffed 24 hours a day will orient it to maintain a navigable channel.

Wetland Impacts: At the Sweyolocken end of the Enatai Siphon, crews will need to install a casing to cross under two existing pipes. Some of this work will occur in the wetland beside the pump station, which will be restored after construction at Sweyolocken. Pipe assembly at Enatai Beach Park will result in some disturbance of the Lake Washington shoreline.



Restoring the Work Sites

When construction is complete at each of the siphon endpoints, we will restore all disturbed areas, returning the affected sites to a condition that is as good as or better than before the work began.



A new access road at Enatai Beach Park to provide maintenance staff with access to new equipment has been designed in coordination with the City of Bellevue to be compatible with a future phase of park development by the City of Bellevue. Crews will also enhance a section of the shoreline north of the swim area. We will install large logs and return the shoreline to a pebbly surface. This will provide habitat for spawning salmon and other wildlife that use the shoreline.

The planned work areas at the Sweyolocken site are currently either improved surfaces—such as gravel, concrete, and asphalt—or degraded wetland buffer habitat. Crews will replant disturbed wetland and buffer areas with native vegetation and plant new trees in areas where existing trees had to be removed. Crews will restore paved and other improved areas to their pre-construction conditions after the work is completed. Repaving of the access road will happen after all pipe installation at Sweyolocken is complete.

What's Next

Final design of the project is now underway. Our team is working with regulatory agencies to coordinate efforts, obtain permits, and ensure a smooth transition to construction.

Between now and the start of construction, our team will be in your community sharing information so neighbors know what to expect during construction and beyond. Here is what you can expect from us:

- Attendance at community events when possible
- Project newsletters, fact sheets, and field work notifications
- Project website updates
- Briefings for interested community groups when possible

We are committed to continuing to be a good neighbor during construction. We will share information about construction and impacts on our website, in project emails, and through posted information at parks.

We are always available to talk to you and your neighbors at small group meetings, in living rooms, and at stops along the future pipeline when possible. Just let us know!

Fish Windows— Timing Is Everything

State and federal regulatory agencies require work that could affect fish in Lake Washington to be completed during a “fish window” – a period of time when spawning or migrating fish are less likely to be in the area.

King County is working with natural resource agencies to plan the work in Lake Washington’s East Channel along Enatai Beach Park to protect fish species that migrate through the area, while minimizing as much as possible any work that will impact park and water users during the popular summer season.

King County has discussed the siphon pipe float with regulatory agencies and it is subject to the fish window. The construction schedule for the siphon pipe float will be determined once a contractor is on-board but it will occur late fall or early winter.



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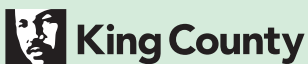
Talk to us! Questions? Concerns? Contact the project team:

Contact Kristine Cramer at 206-477-5415 or kristine.cramer@kingcounty.gov OR

Bibiana Ocheke-Ameh at 206-477-5604 or bibiana.ocheke-ameh@kingcounty.gov

Sign up for text alerts. Text KING MERCERSEWER to 468-311.

Visit the project Web page at www.kingcounty.gov/MercerEnataiSewer



Alternative formats available
206-477-5371 or TTY replay: 711

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