

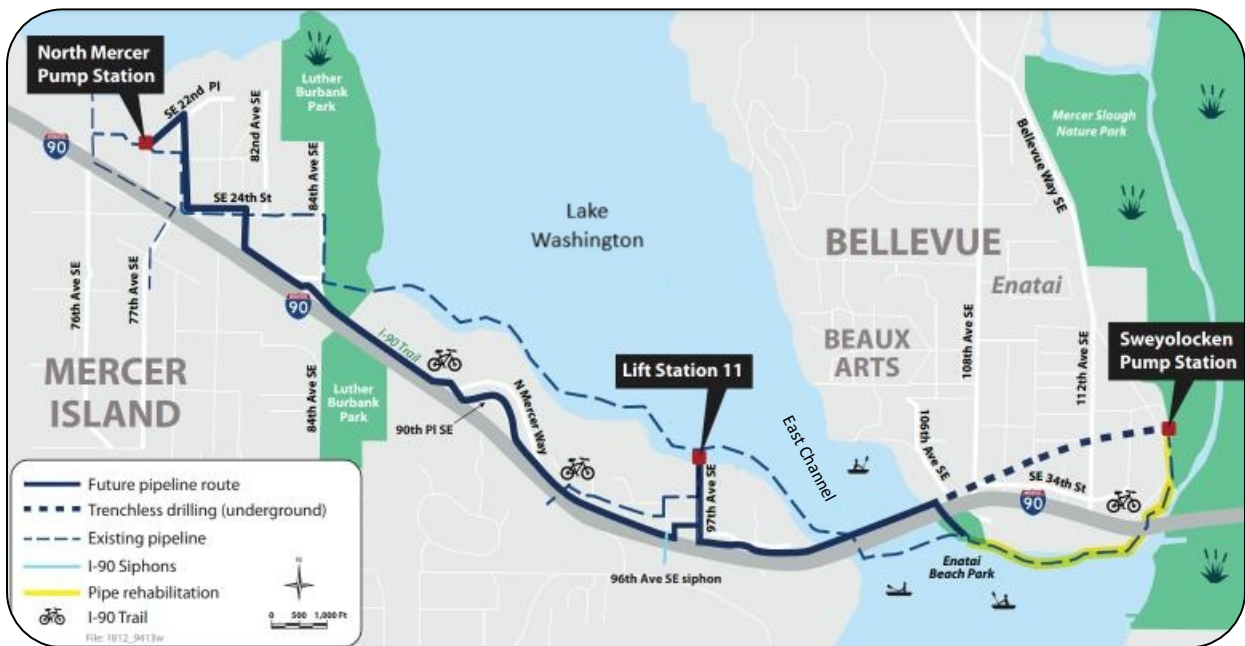
## Project Overview

### What does King County Wastewater Treatment Division do?

King County Wastewater Treatment Division (WTD) is committed to protecting public health and the environment. We manage a regional wastewater treatment system that serves seventeen cities, eighteen sewer districts, and 1.7 million people. We operate five treatment plants, forty-two pump stations, and more than three hundred and fifty miles of pipes.

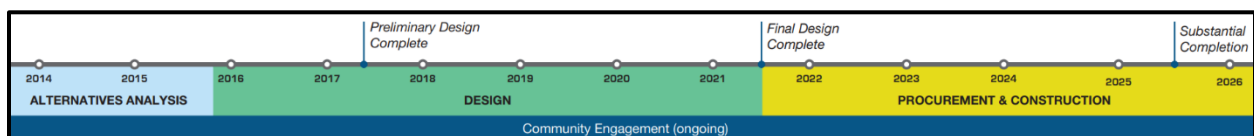
### What is King County building?

We are building four miles of new sewer pipe that will run across Mercer Island, underneath Lake Washington, and under the Enatai hillside to the Sweyolocken Pump Station near Mercer Slough in south Bellevue. King County is also upgrading the North Mercer Pump Station and the City of Mercer Island’s Lift Station 11.



### What is the project timeline?

In 2021, King County’s North Mercer/Enatai (NME) Sewer Upgrade Project wrapped up the final design and began bringing contractors on board. Construction started in Spring 2022. Construction will take four years, with crews often working in multiple locations. Most work locations will be affected for shorter durations.



### **Why will this project take so long?**

Designing, permitting, and implementing a complex new sewer line in dense urban neighborhoods and environmentally sensitive areas takes time. After seven years in the design phase, we are now in construction. Once built, this infrastructure will provide reliable long-term sewer service for your community for approximately 50 years or more.

### **Will this project affect my sewer rates?**

No. The costs for each project do not fall on the communities where they are built. WTD ratepayers across the region help fund projects throughout the system as they are needed.

### **Where do I go for information on this project?**

Our [project website](#) and email lists are the best information sources for this project. In addition, our outreach team staffs a 24-hour construction hotline to answer questions about the project. Please let us know if you have any questions by calling the hotline at 206-263-1915 or by emailing [NMEsewer@kingcounty.gov](mailto:NMEsewer@kingcounty.gov) and signing up for our email lists on our website.

## **Environmental**

### **Will the project impact trees?**

Yes. While King County works to protect sensitive environments and trees, we will need to remove trees in the work areas during construction. Construction can cause irreparable damage to tree roots. Hence, we remove trees to help protect workers and other infrastructure and to clear areas where we need to dig into the ground. Before work begins, King County arborists evaluate trees in the project area for species, size, and health. Then, the arborists recommend how to protect trees during construction and advise where to plant new trees once the work is complete. [Read the arborist report for Mercer Island here.](#)

### **How many trees will be replanted?**

Our goal is to add to a future tree canopy that is equal to or better than what exists today. **We will plant more than one tree for each tree we remove.**

- **Mercer Island:** nearly four hundred trees removed, and more than six hundred trees planted
- **Bellevue:** nearly thirty trees removed, and approximately fifty trees planted

There will be some places where we cannot replant trees where they were removed. In these cases, we will plant in areas around the island that lack tree canopy. Read more about our [Plan for Trees](#) via our 2019 factsheet.

### **Why will King County replace removed trees with smaller trees?**

Transplanting large adult trees is rarely possible. Large trees do not transplant well and are more likely to die. Planting small trees gives them the best chance to survive.

### **Why couldn't the construction team bury the new sewer line underneath the I-90 trail and leave the trees?**

Locating a new underground sewer line in a dense urban environment is complex due to existing buried utilities, adjacent infrastructure, and the need for new pipes to function effectively. Sometimes, the pipe cannot simply be placed down the middle of the trail without encountering any impacts. Furthermore, tree roots extend underneath the trail in most locations.

Moving the pipe several feet away does not reduce impact. We will need to remove trees from active construction areas, so they do not pose a public safety risk during or after construction.

### **What does landscape restoration involve?**

Once pipeline segments are installed, King County contractors will begin restoration. They will plant trees during the next planting window (October 1 through March 15). We require this project's contractor to start the landscape on a healthy path to recovery during restoration, including the plantings, soil amendments, and irrigation. For a set time after the project is complete, the contractor will maintain the plantings by watering, weeding, and replacing plants and trees that do not survive.

After the contractor's maintenance period ends, King County will maintain landscaping for a period designated by our permits. The property owner (City of Bellevue, City of Mercer Island, or Washington State Department of Transportation) will take over maintenance at that point.

### **Is WTD taking precautions to protect fish species that migrate through the East Channel?**

Yes. Regulatory agencies require work that could affect fish in Lake Washington to be completed during a "fish window" – a period when spawning or migrating fish are less likely to be in the area. Lake Washington's East Channel's fish window differs on the eastern and western shorelines.

The window is between summer and early fall on the east side of Lake Washington, along Enatai Beach Park. Near the Mercer Island Boat Launch, a much longer fish window on the west side allows work in summer, fall, or winter.

We are working with natural resource agencies to plan this work to protect fish that migrate through the area while minimizing any work that will impact park and water users during the popular summer season as much as possible. The contractor will start work along the shore as soon as the fish window opens.

## **Construction**

### **What are the project's daily work hours? Will there be night and weekend work?**

In most locations, project work will take place within permitted hours. In Mercer Island, that is 7 am to 7 pm Monday to Friday and Saturdays from 9 am to 6 pm. Bellevue work hours are 7 am to 6 pm Monday to Friday.

Night, weekend, and 24-hour construction will be necessary for some work areas. We will provide notification in advance for all work happening outside of permitted work hours.

### **Will construction be noisy?**

Construction is noisy. All construction generates noise that is different from daily background noise. Throughout the project, King County's teams are required to meet noise ordinances, and we look for ways to reduce noise where possible.

### **How will construction happen safely in the water?**

At in-water construction locations, crews will surround the access points with temporary dams to create an enclosed area for the work. Barges with onboard crews will be in place until the Enatai

Siphon is installed. The entire in-water pipeline installation is expected to take approximately six months.

### **How will King County work near pre-existing utilities during construction?**

Protecting utilities is a priority as King County builds critical wastewater infrastructure. WTD's project teams pay close attention to above and below-ground utilities during design and construction. Our teams identify and carefully plan to work around power, telephone, fiber optic, water, and gas utilities throughout the design. Once construction begins, our contractors are committed to protecting workers and the public by following contract specifications and safety regulations working around utilities.

When crews work around utilities, an additional inspector from the utility provider may be present at the site while the work is underway. If we anticipate any utility disruptions, the contractor and the County's Community Services team will provide advance notice to agencies and the public.

### **Will there be construction on private property?**

Most of the work we are doing will take place in the public right-of-way or other public places such as trails and parks. King County has agreements with all property owners this project directly impacts. If you do not have an agreement with King County, your property will not be directly affected. We will not access private property during this work unless we have a signed agreement. We will work directly with the property owner if a property right is unexpectedly needed.

Additionally, the public right-of-way often includes vegetation by the side of the road. We know that many residents have improved these areas with landscaping. Before we begin our work, a surveyor will identify the property boundaries to ensure all work is being done in the right-of-way.

In areas where we need to dig up the vegetated part of the right-of-way, we will give neighbors advance notice so they can remove any landscaping improvements they have made for use in other places. To meet City of Mercer Island and Bellevue code requirements, if your plantings extend into the public right-of-way, we will not replace them after the project.

If you are concerned about construction impacts on vegetation or other items in the right-of-way, please contact the Community Relations Team at 206-263-1915. We can help you plan for potential impacts.

### **What kind of traffic impacts should we expect?**

There will be traffic impacts across all of north Mercer Island plus some impacts to traffic around Enatai Beach Park and the Swayolocken boat launch. These impacts will vary depending on where construction is occurring. Results will vary for drivers, bikers, and pedestrians. Please read our [StoryMaps](#) and sign up for email and text alerts for project areas that interest you to learn about upcoming traffic impacts.

During construction, our team will provide advance notice of detours and delays and broadcast alerts about any unexpected traffic issues due to the County's project. During construction, people can call the project hotline for concerns and complaints related to traffic or other activities.

### **How will cars, emergency vehicles, delivery trucks, and garbage trucks get around the detours and driveway impacts?**

Emergency vehicles will have 24-hour access to project areas under construction. Delivery services may be modified during active construction, and we will communicate any changes in advance. We will attempt to provide one week's notice for any driveway access issues and work with you to ensure you can get in and out of your home.

### **How wide will the I-90 trail be after the project is complete?**

According to Washington State Department of Transportation guidelines for trail width, the trail will be widened to twelve feet with two feet of gravel on either side, where possible.

### **Will King County provide alternate parking for impacted areas?**

King County will not provide additional parking in impacted areas. While we are committed to keeping most roadways accessible during construction, there will be times when intermittent road closures will be necessary. If you have concerns about accessibility or other construction issues, please send us your address, contact information, and concerns so we can better understand and work together throughout construction.

### **How will King County restore work areas after construction?**

King County is committed to restoring areas impacted by our construction. We develop restoration plans according to permit conditions and remove all construction equipment as soon as possible to allow for restoration work. Crews will work to restore affected areas, such as wetlands, park areas, bike trails and paths, paved areas, and public amenities, to be as good or better than they were before construction began.

### **Can the pipeline fail during an earthquake?**

King County operates a conveyance system of more than four hundred miles of underground pipelines which have not experienced failure during large earthquakes, including the 2001 Nisqually Earthquake. This is because pipelines are designed to move with soil during an earthquake. The pipe might be impacted if an unprecedented earthquake caused the ground to open. Our region would experience many impacts we might not expect in that event.

### **How can I stay safe during construction?**

To build new sewer infrastructure, crews work near many places where people live, work, and play. We need to work together to prevent accidents, injuries, and illnesses. Here are some general tips to stay safe:

1. **Avoid going near active construction sites.** If you see temporary fencing, heavy machinery, or crews in vests, hardhats, and safety glasses, assume the area is an active construction zone. Only trained personnel with approved safety gear can enter construction zones.
2. **Stay alert.** Construction will occur in many locations along our project corridor. Try to eliminate distractions when traveling around North Mercer Island and West Bellevue. There may be new crews in the areas you frequent and traffic detours or delays.
3. **Look for construction and detour signage.** We have construction staging areas, active construction zones, temporary closures, and detours for everyone traveling through the project area. We will have signs and flaggers where necessary and required by permitting agencies.
4. **Be considerate of our crews and observe current COVID-19 guidance.** For more information on King County's COVID-19 guidance and other resources, visit [kingcounty.gov/covid](https://kingcounty.gov/covid).

## **Construction Terms/Techniques:**

**Open cut trenching** involves digging down from the surface, laying pipe, and covering it back up. The trenches will be approximately eight feet wide and six feet deep on the NME project. [Watch this video for more information.](#)

**Horizontal Directional Drilling/trenchless construction** allows our crews to install pipes deep underground. It reduces impacts on the surface compared to open cut trenching. On NME, a new pipe will be installed up to 160 feet underground, and surfaces above the new pipeline will not be disturbed. To do this, crews lay a wire on the surface, use computers to guide a drill underground, and install a new pipeline. [Watch this video for more information.](#)

**Pipe relining/rehabilitation** allows crews to repair damaged pipes without digging them up. Essentially it creates a new pipe inside the old one, extending the old pipe's life by fifty years or more. [See the pipe relining graphic in our project StoryMap to learn more.](#)

**A sewage bypass** is a temporary pipe used to divert sewage around one or more pipes being worked on during construction projects. These pipes are usually above ground and help keep sewage flowing while work is happening.

**Concrete pours** can be used to form buildings and supporting structures for pipes. They are also used to restore damaged roadways after construction. When constructing buildings with concrete, steel rebar is used to create forms for building walls and supporting structures.

**Excavation** involves digging into the ground below grade (surface level) and removing soil to make space for new pipes or other below-grade equipment.

**Potholing or utility location** is an investigation activity where crews use equipment to excavate an exploratory hole into the ground to expose existing utilities. The depth and width of the hole vary based on the required extent of the investigation.

**Conveyance pipes** connect the existing combined sewer system pipes to vertical shafts. In broader terms, these pipes connect the existing sewer network to the storage tunnel.

**The cutter head** is the front of the tunnel boring machine (TBM) used in trenchless or HDD construction. The cutter head has various tools to get through the dirt (technically called soil or glacial deposits) that it will encounter as it moves forward underground. Depending on the TBM, these tools can include double-disc cutters, scrapers, bucket cutters, and chisels.

**Drill pits** are construction pits used to access the underground hole drilled during horizontal directional drilling.

**Fish windows** are one of many measures used to protect fish and fish habitats when conducting a project near or in water. The fish window outlines the period when migrating fish are less likely to be in the water based on the fish life cycle and organisms they feed on. Fish species and migration courses may also influence these windows.

**Saw cutting** is a technique for breaking concrete at the joints or breaks in concrete slabs.

**Temporary patches** cover areas with temporary pavement until the site is ready to be paved. Temporary patches are typically made of liquid asphalt that fills an excavation and then is rolled over to flatten it.

**Steel plates** are used to cover and stabilize an excavation during construction. They provide a temporary solution to keep traffic moving and to maintain access when excavations are near walkways and driveways.