







March 2020

## Investing in the Health of the Sound and the Future of our Region

## **Project Background**

Seattle Public Utilities and King County Wastewater Treatment Division are building an underground storage tunnel to significantly reduce the amount of polluted stormwater and sewage that flows into the Lake Washington Ship Canal, Salmon Bay and Lake Union from our sewer system during storms.

The tunnel is 2.7-miles long, running from Ballard to Wallingford, and 18-ft, 10-in wide. It will temporarily hold more than 29 million gallons of sewage and stormwater during heavy rains, keeping it out of Lake Washington. When the storm passes, the stored sewage and stormwater will be sent to King County's West Point Wastewater Treatment Plant.

#### **Ballard Site Overview**

Ballard will be home to the western end of the tunnel and above-ground facilities, including a pump station. Tunnel boring will start at this location and move toward Fremont and Wallingford.

Seattle Public Utilities and King County began work near 24th Ave NW and Shilshole Ave NW in 2018 to prepare for tunneling. Site elements include:

- New 24th Ave Pier that contains art inlays by artist Christian French (complete but closed to public until 2024)
- Excavation and construction of a new vertical shaft that will send flows to the new storage tunnel
- Pedestrian and street improvements on 24th Ave NW
- · Street end improvements
- New pipes along NW 56th St, 28th Ave NW and 24th Ave NW
- Ballard Pump Station site with small buildings, fencing, 100-ft-deep by 90-ft-wide drop shaft, and 65-foot tall pump station tower
- · Fencing around the pump station area









## **Ballard Pump Station**

The Ballard Pump Station will be a 65-ft tall illuminated tower that will house above- and below-ground mechanical equipment and odor control. It will pump the flows captured in the storage tunnel to the West Point Wastewater Treatment Plant. The site will be a fenced-off yard with SPU vehicle access and landscaping.

Our designers have been inspired both by Ballard's history, the underground infrastructure and how Ballard looks today. The cylindrical shape mirrors the pump station and below-ground equipment space. The frame around the building echoes the industrial feel and scaffolding of Ballard's shipyards. Near the tower will be smaller buildings for equipment as well as parking for maintenance crews.

Artist Jeffrey Veregge is working to create public art at the pump station site.

# Conveyance: New Underground Pipes Coming in 2022

In addition to the Ballard Site and pump station, we will be building new pipes along NW 56th St, 28th Ave NW and 24th Ave NW to connect Ballard's existing sewer and stormwater overflow pipes to the storage tunnel.



Rendering of the future Ballard Pump Station

#### Contact

For questions or comments about this project:

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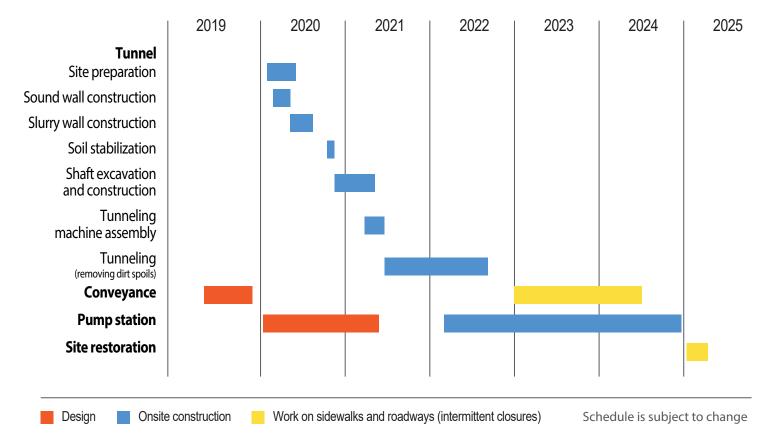
## What to expect during construction

- Parking restrictions along the east side of 24th Ave NW so construction trucks can exit the work site
- 24th Ave NW Pier will remain closed through 2024 (temporarily open through August 2020)
- Trucks and large equipment moving in and out of the work zone
- Noise typical of a large construction site
- Access to all buildings and businesses will be maintained



The reconstruction of the 24th Ave Pier was completed in 2019

### **Ballard Schedule**







The following photos are examples from other construction sites



## **Site Preparation**

In spring 2020, crews mobilized to the work area and set up fences for the safety of crews and people nearby.



#### Soil Stabilization

After the site is set up, we will begin preparing the soil for underground construction using stabilization techniques (jet grouting, ground freezing, etc.).



### **Tunneling**

Once assembled, the tunneling machine will begin boring the tunnel heading toward the East Ballard site.



### **Sound Wall Construction**

Crews will install a 12-ft sound wall and fencing at the project site.



## **Slurry Wall Construction**

Crews will build an 87-ft diameter, 210-ft deep slurry wall to reinforce the circular access shaft.



#### **Excavation & Construction**

Crews will dig beneath the surface to prepare and build underground structures that will be used to access the storage tunnel for operations and maintenance.



# **Tunneling Machine Assembly**

Crews will assemble the tunneling machine at the Ballard site.



#### **Site Restoration**

Once construction is complete, all impacted areas will be restored to previous conditions. This will include the landscape restoration, repaving streets and sidewalks.