Project Overview

Metro Vancouver is constructing a new water supply tunnel deep under Burrard Inlet, east of the Ironworkers Memorial Bridge between the District of North Vancouver and the City of Burnaby. This project is one of five new regional water supply tunnels that are being designed to meet current seismic standards to ensure the reliable delivery of drinking water in the region in the event of a major earthquake. When complete, the tunnel will also increase the capacity of the existing system to meet the long-term needs of the growing population.

The new water supply tunnel will be excavated deep underground using a tunnel boring machine. The tunnel boring machine will launch from a vertical entry shaft on the North Vancouver side and progress south under Burrard Inlet to the vertical exit shaft on the Burnaby side (see map below). Once the tunnel is excavated, three steel water mains will be installed inside the new tunnel and connected to the new valve chambers at each shaft site, and into the region’s drinking water system.

Construction Schedule

Construction of this project is scheduled to begin early this year, with completion expected in 2024. While the duration of this project spans over five years, work at the south shaft site in Second Narrows Park will take place intermittently for a total duration of approximately three years.

Upcoming Activities

Initial activities taking place in Second Narrows Park will involve site preparation and tree removal in early 2019. From there, crews will return in the spring of 2019 to begin shaft construction.

Activities associated with this project include shaft excavation and shoring, valve chamber and pipe installation, welding, backfilling and restoration. Construction equipment will include a large crane, excavators, pumps and ventilation fans.

Site Selection

When selecting the location of the tunnel, Metro Vancouver, in conjunction with the District of North Vancouver and the City of Burnaby, considered geotechnical, bio-environmental, socio-economic and archaeological factors, along with the need to connect the tunnel to existing infrastructure in Second Narrows Park.

The selected site has the least impact to the park of the options considered, utilizes an existing access road and will allow maintenance workers to access the new infrastructure without impacting nearby residents.
Reducing Impacts to the Park
The new valve chamber in Second Narrows Park has been designed to fit into the park as seamlessly as possible; this includes the valve chamber being set into the existing landscape and the installation of a sloping green roof.

Tree removal will be required to accommodate construction. The majority of vegetation removal required for this project consists of shrubs and invasive species such as blackberry bushes and knotweed.

Once construction is complete, this site will undergo a full restoration. This includes the implementation of a re-planting program and landscaping of any disturbed areas with native plants and species.

Trans Canada Trail
The Trans Canada Trail will remain open for the duration of construction.

The existing access road that is used for utility maintenance, sometimes known as the Upper Trail, will be closed for the entire construction period. This road was initially built to conduct maintenance on the existing water and sewer infrastructure that is located in and around the park.

Metro Vancouver recognizes the current recreational use of the access road and will ensure that it is restored to similar or better condition after construction.

Traffic Impacts & Noise
The entry shaft will be located in an industrial area in the District of North Vancouver; this is where the majority of construction, including the removal of excavated ground material, will take place. In an effort to reduce truck traffic, ground material excavated from this entry shaft will be transported to a disposal facility by barge.

In meeting with local residents, Metro Vancouver heard that noise was a concern and will ensure that noise mitigation measures will be in place during construction. In addition, noise studies have been completed to ensure that all work will comply with City of Burnaby’s bylaws or granted bylaw variances.

Hours of Work
Work will take place Monday to Friday between 7 AM and 8 PM and Saturdays between 9 AM and 8 PM. Crews may occasionally be required to work outside of bylaw hours; in these cases, advanced notice will be provided to residents. All work will comply with City of Burnaby’s bylaws or granted bylaw variances.

Working with the Community
Metro Vancouver is committed to minimizing the impacts of construction on the community. Local residents and businesses will receive ongoing notifications through newsletters, web updates, email and on-site signage.

A Community Liaison Officer has been assigned to this project and is available to address any public questions or concerns.

Metro Vancouver will provide advance notification of upcoming construction activities.

To receive regular project updates by email, please sign up by visiting www.metrovancouver.org and search “Second Narrows Water Supply Tunnel.”