

NORTHWEST LANGLEY WASTEWATER TREATMENT PROJECTS

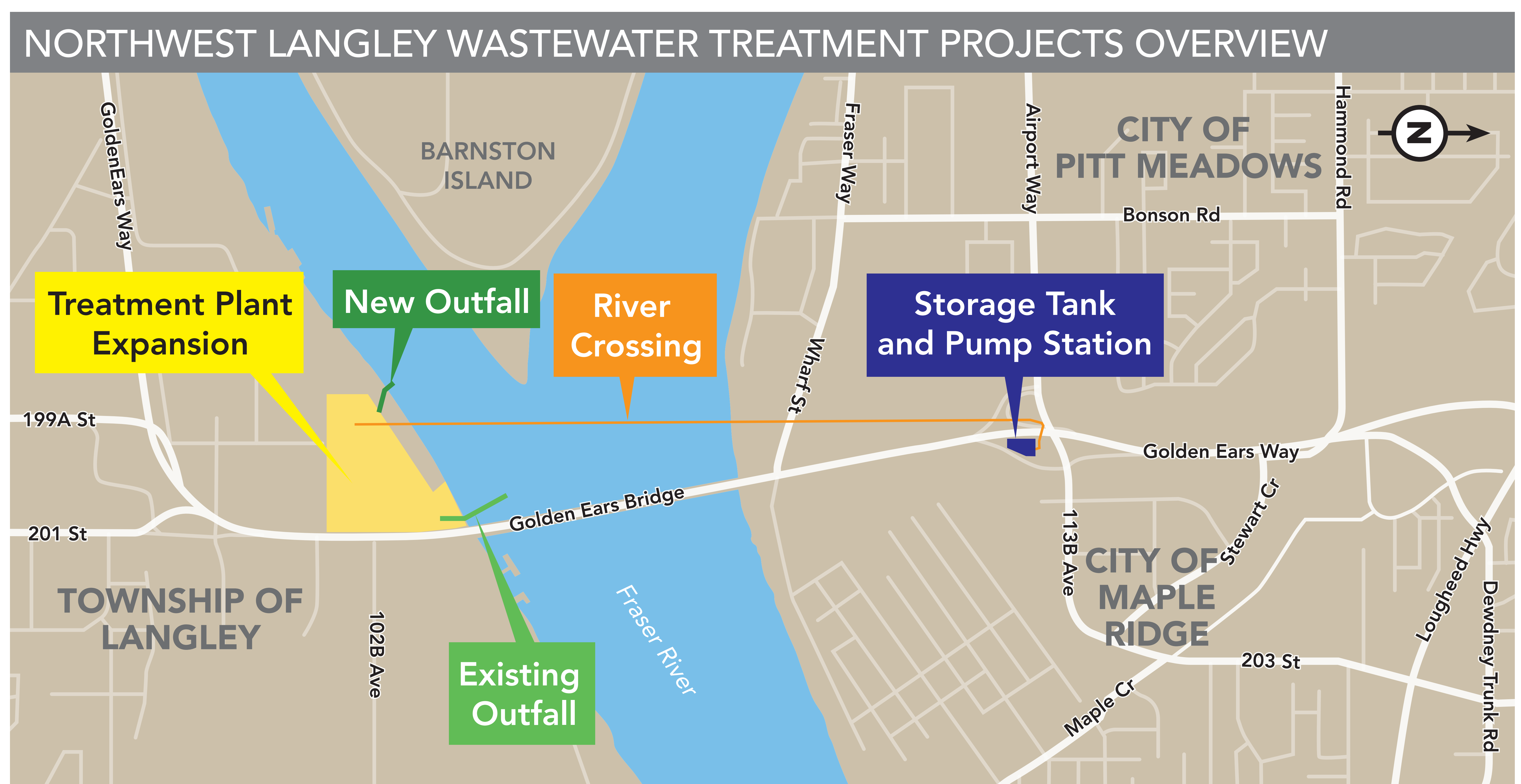
Overview of the Projects

The Northwest Langley Wastewater Treatment Plant, which currently serves 30,000 people in Langley, will be expanded on the same site to serve 230,000 people, including residents and businesses in Maple Ridge and Pitt Meadows across the Fraser River. Several other projects will support the treatment plant expansion.

Untreated wastewater from Maple Ridge and Pitt Meadows currently flows to the Annacis Island Wastewater Treatment Plant. To divert the flows to Northwest Langley Wastewater Treatment Plant, a new pump station is required north of the Fraser River, along with two pipes under the Fraser connecting the pump station in Maple Ridge to the treatment plant. A new storage tank next to the pump station will temporarily store wastewater to prevent overflows during storms.

The projects are:

- **Storage Tank and Pump Station:** a new pump station and storage tank in Maple Ridge near Golden Ears Way and 113B Avenue.
- **Fraser River Crossing:** two new pipes tunneled under the Fraser River to carry wastewater from the new pump station in Maple Ridge to the treatment plant in the Township of Langley.
- **Northwest Langley Wastewater Treatment Plant Expansion:** expansion of the existing wastewater treatment plant in the Township of Langley.
- **Outfall Pipe:** a new outfall pipe to carry treated wastewater from the plant to the Fraser River.



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Project Benefits

Metro Vancouver is undertaking the Northwest Langley Wastewater Treatment Projects to continue to protect public health and the environment in a growing region.

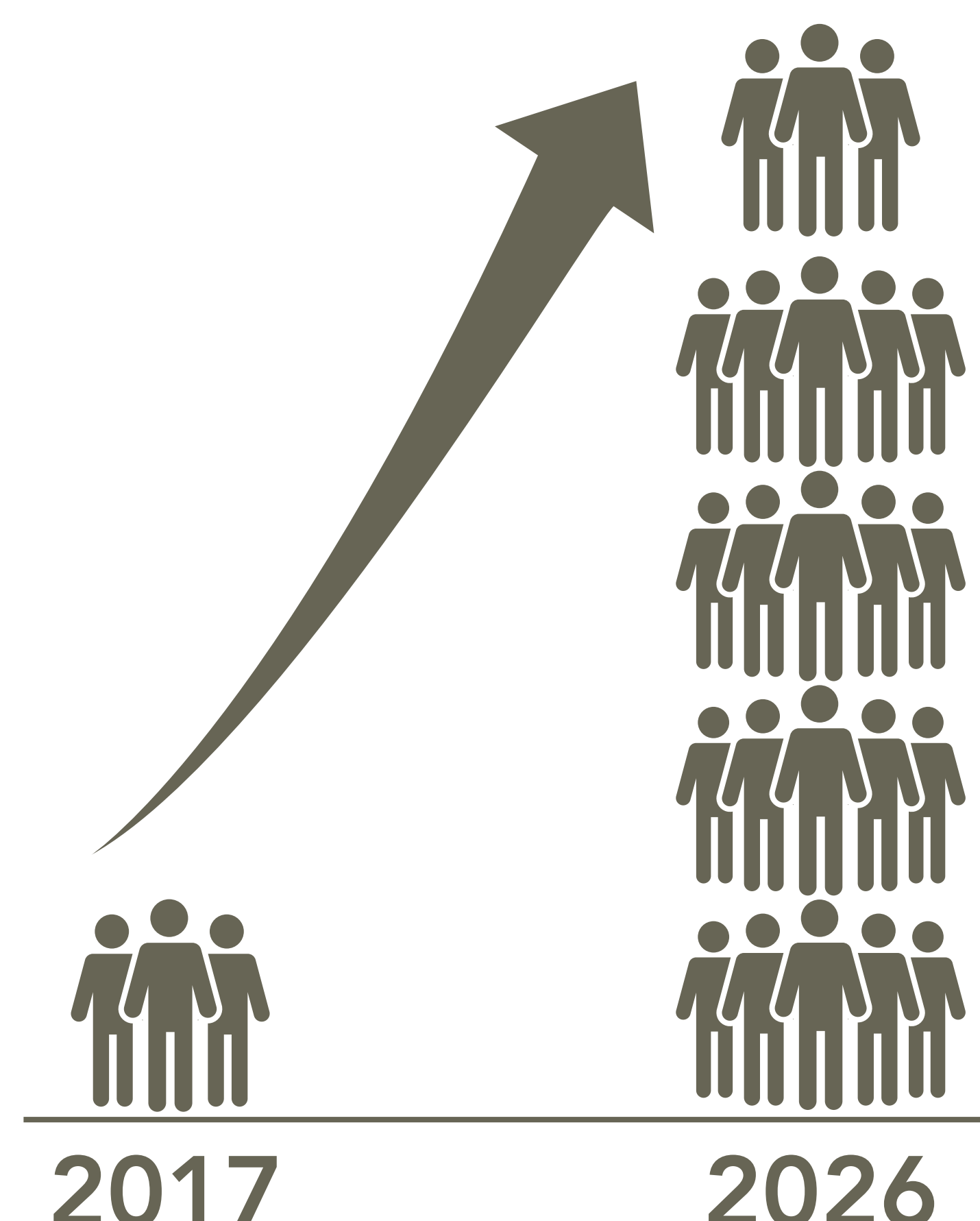
The Northwest Langley Wastewater Treatment Projects will:

- Help prevent untreated wastewater back-ups and overflows
- Strengthen the plant to ensure it will continue to operate in the event of an earthquake
- Adapt to sea level rise from climate change
- Reduce treatment plant water and energy use
- Continue to treat wastewater to the level designed to protect the environment set by provincial and federal regulations
- Meet the needs of our growing population

DID YOU KNOW



The Northwest Langley plant currently serves 30,000 people. In 2026, the plant will be able to serve 230,000 people.



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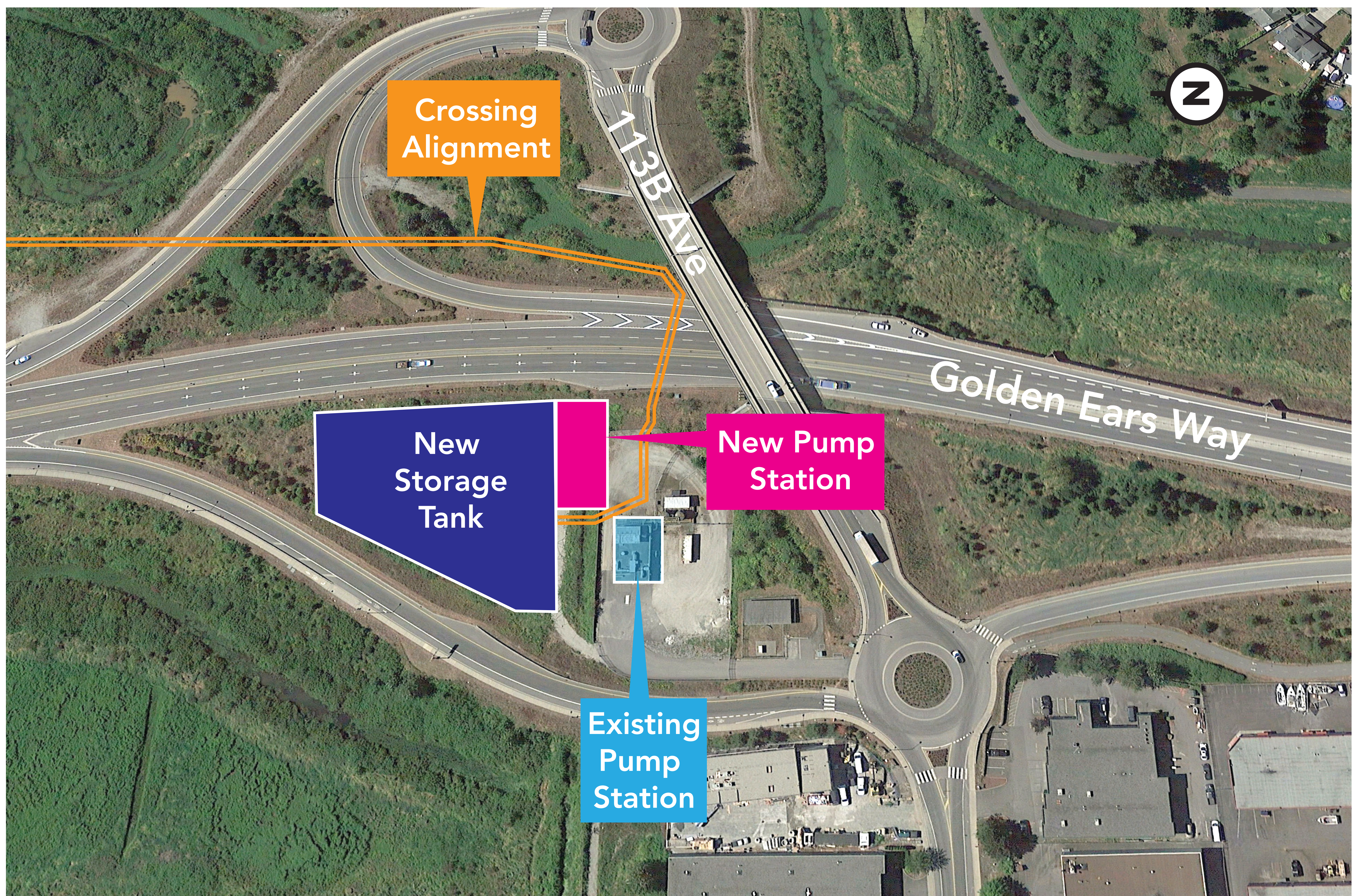
Pump Station and Storage Tank

A new pump station and storage tank will be built in Maple Ridge near Golden Ears Way and 113B Avenue. The new pump station will replace the existing pump station and will help move wastewater from Maple Ridge and Pitt Meadows to the treatment plant in the Township of Langley.

The new storage tank will temporarily store wastewater to prevent overflows during storms.

Project benefits include:

- Reduced sewer overflows into the Fraser River
- Increased pumping capacity to new wastewater treatment plant
- Environmental benefits due to reduced overflows
- Seismic resiliency and can operate in flood conditions



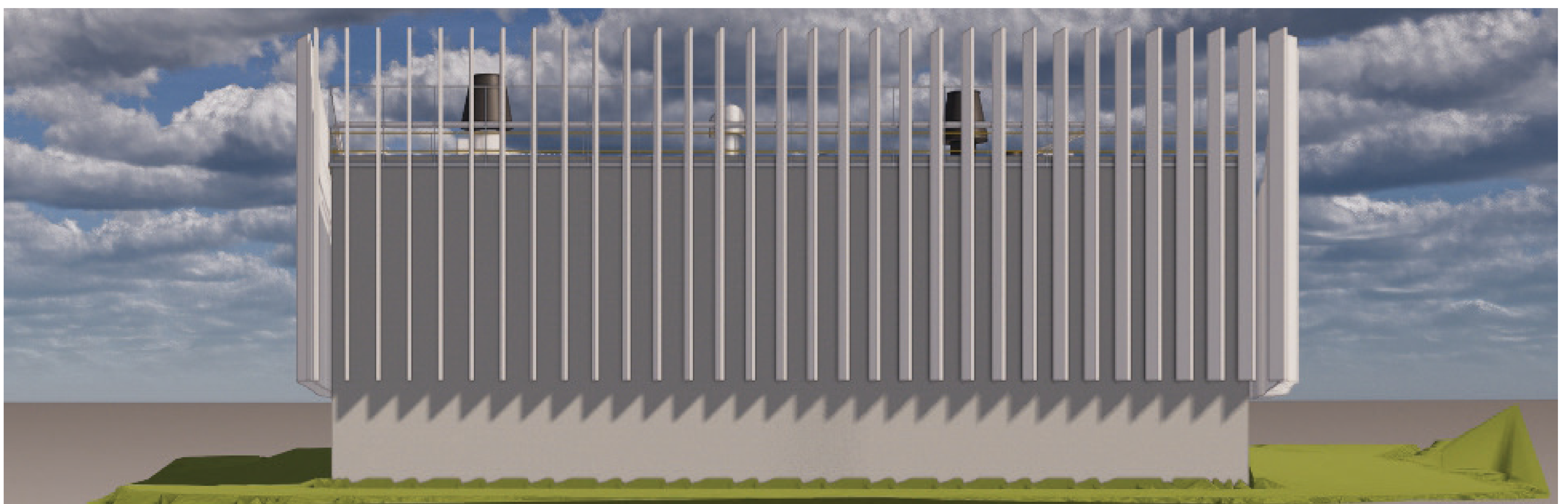
Pump Station and Storage Tank site plan

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Pump Station and Storage Tank – Design Concept



North elevation



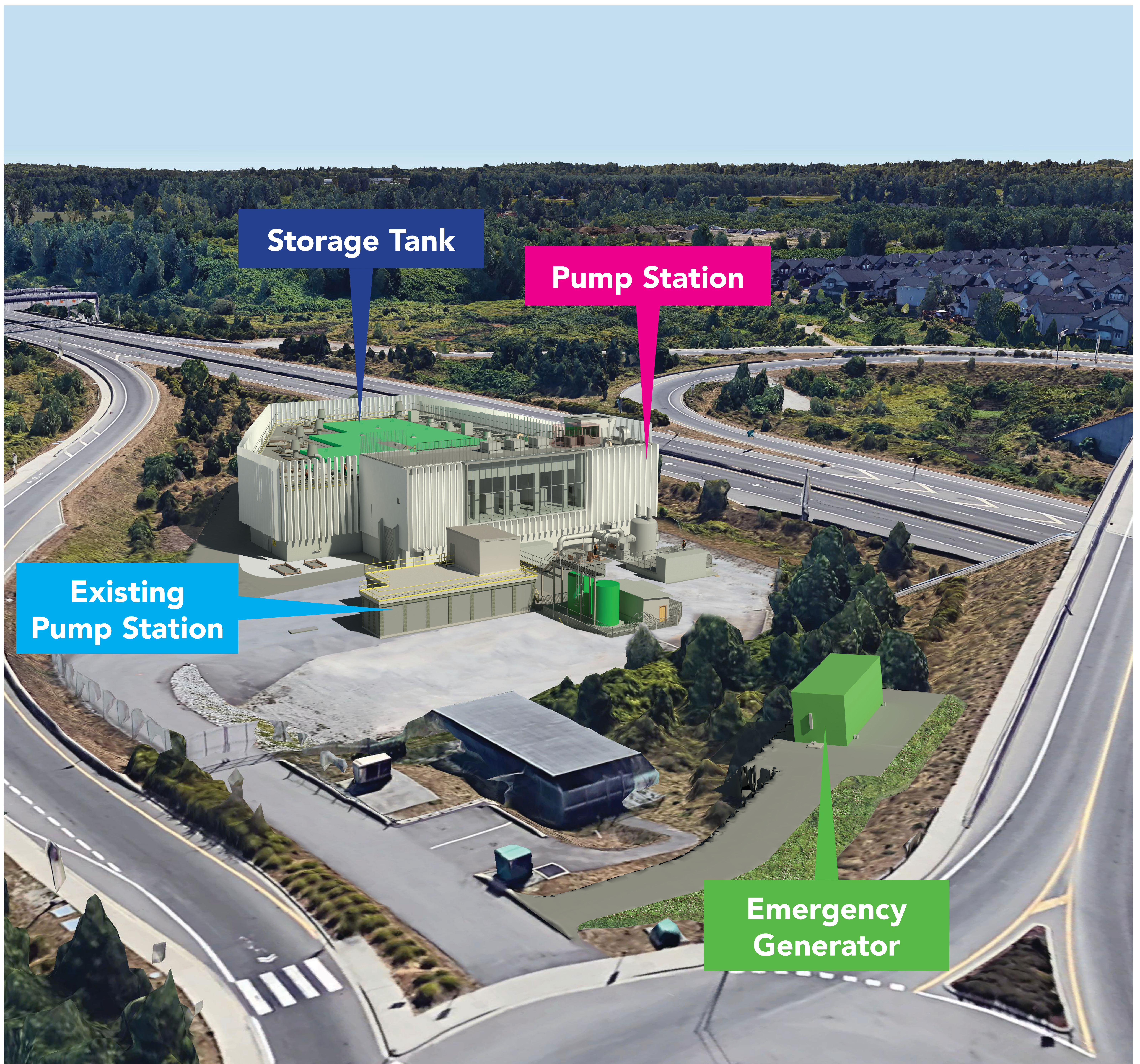
South elevation



Southwest elevation (draft artwork)

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Pump Station and Storage Tank – Design Concept

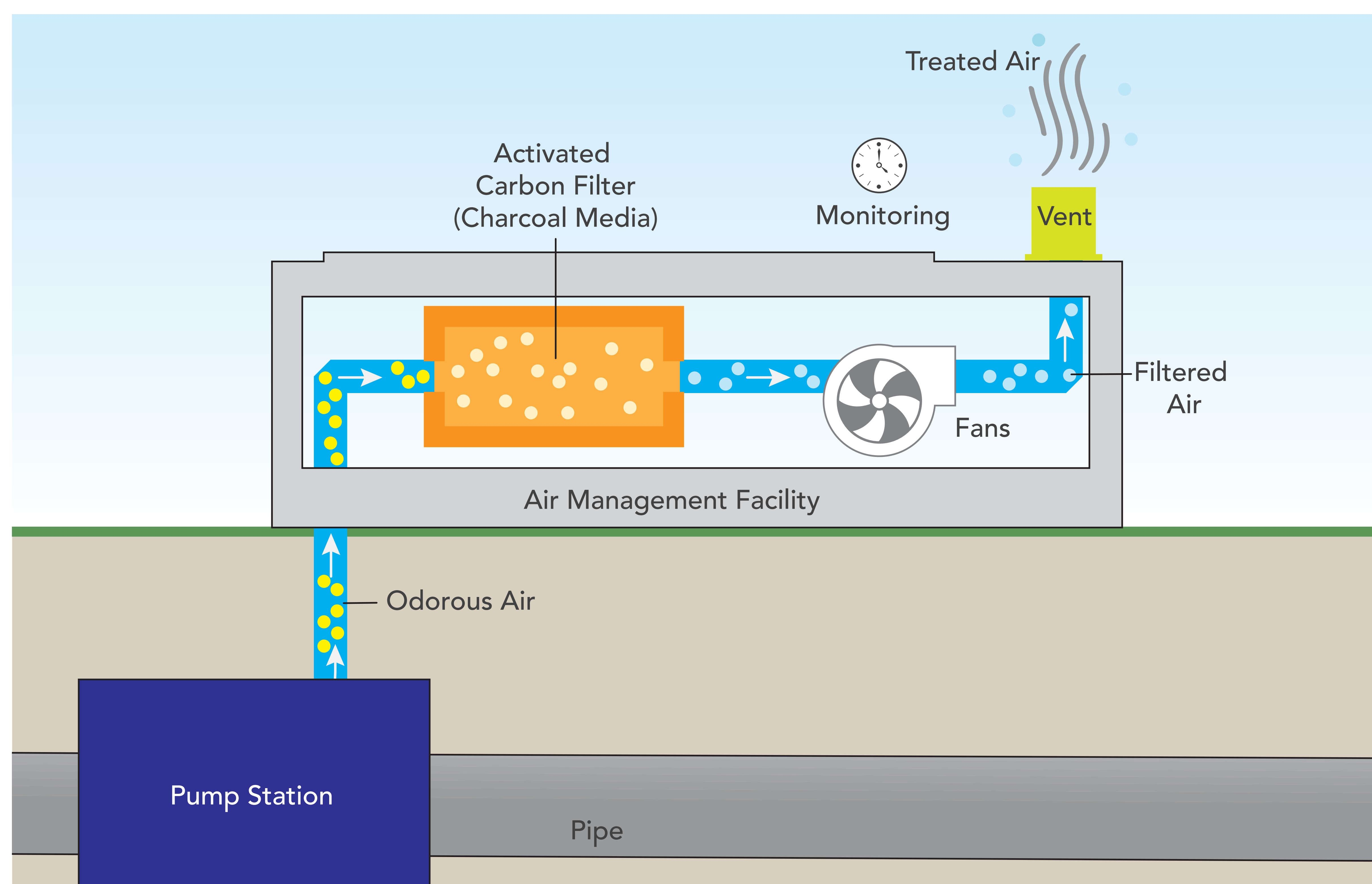


Design concept looking southwest

Pump Station and Storage Tank – Managing Odour

Metro Vancouver is committed to minimizing odour at the pump station and storage tank.

Odour at the pump station and storage tank will be controlled by two separate odour control units. Residents and businesses should not be able to smell odour under normal operating conditions.



How will the odour control units work?

The odour control system will be designed to use both active treatment and dispersion to minimize odours, as illustrated above. Odours will be minimized or eliminated using activated carbon (charcoal) to scrub the air. Activated carbon is a natural product, is completely biodegradable and is used in many home air filters. Once air is treated inside the facility and stripped of odour, it is dispersed through the vent stack.

It is unlikely that residents will be able to detect any odour from this facility. Metro Vancouver will monitor and maintain these facilities to ensure the odour control units are effective.

Pump Station and Storage Tank – Managing Noise and Dust

Metro Vancouver is committed to minimizing noise and dust impacts from this project.

To meet the commitment to minimize noise, Metro Vancouver will:

- Work within the Maple Ridge Noise Bylaw
- Pile driving after 8 am on weekdays
- Reduce operational noise

To meet the commitment to minimize dust, Metro Vancouver will:

- Tarp all haul trucks
- Use water to control on-site dust
- Permanent landscaping and a green roof will reduce long-term dust

Traffic Impacts

Metro Vancouver is committed to minimizing traffic impacts from this project. To meet that commitment, Metro Vancouver will put the following in place:

- A comprehensive Traffic Management Plan
- Signage
- Flag persons
- Controlled access to and from site
- Schedule major concrete pours and other big deliveries during off-peak traffic periods
- Off-site construction parking

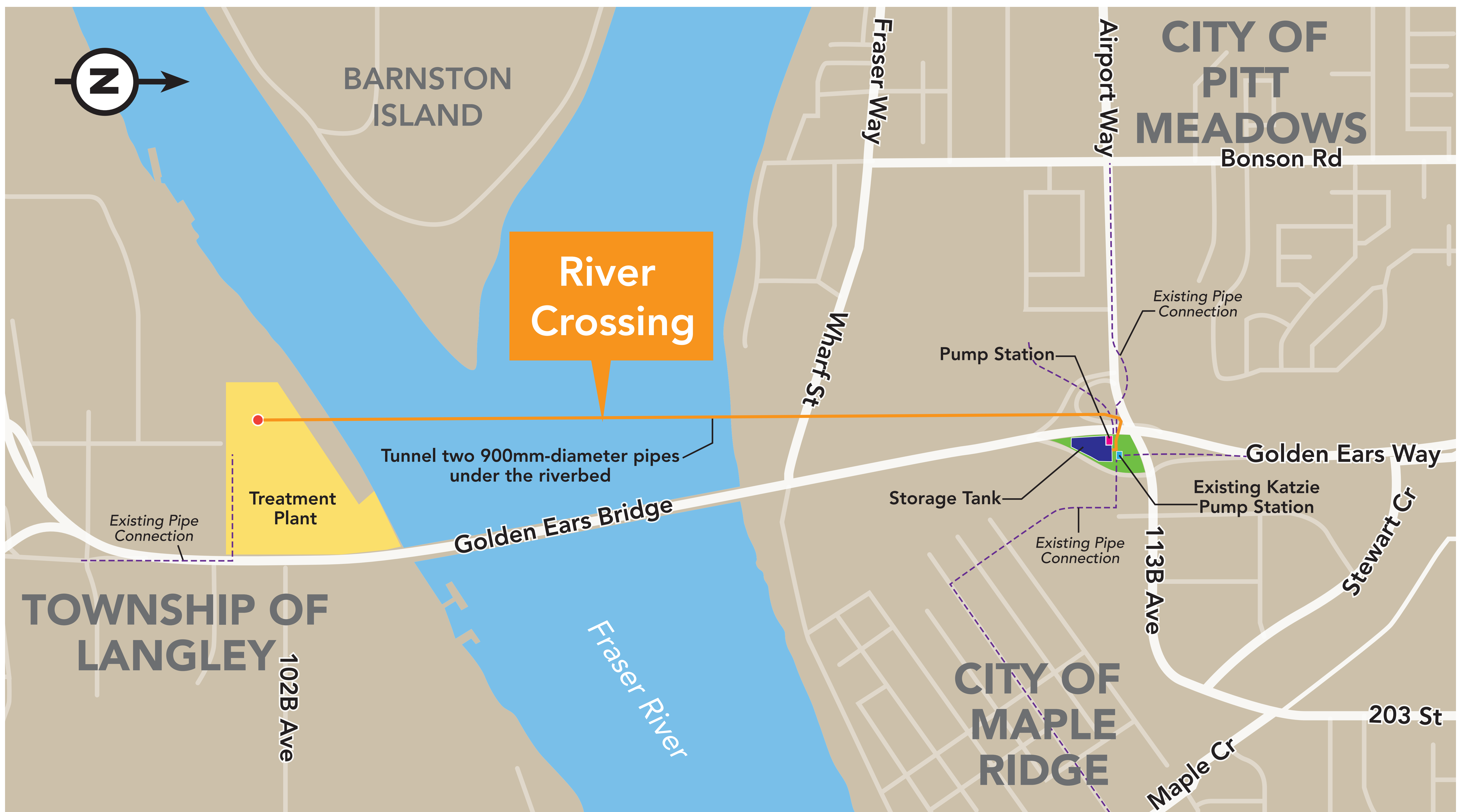


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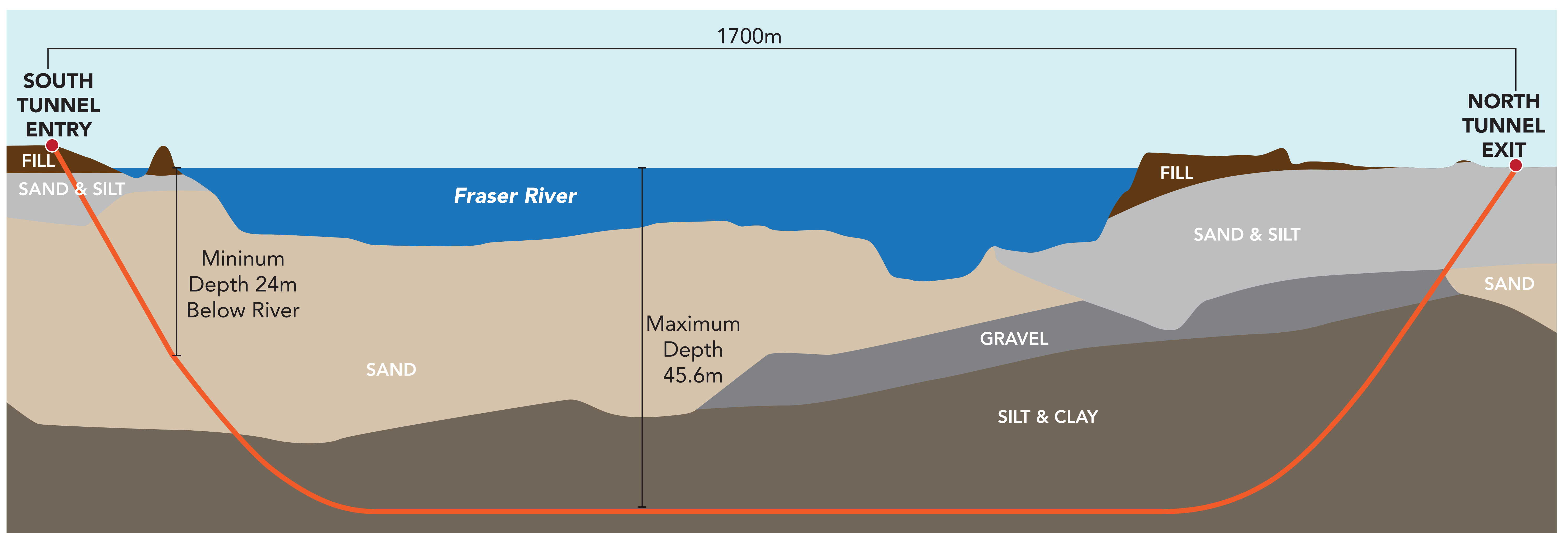
Fraser River Crossing

Two new pipes will be constructed under the Fraser River to carry wastewater from the new pump station in Maple Ridge to the treatment plant in the Township of Langley.

The pipes will be located in two tunnels beneath the riverbed to avoid impacts to the river.



Tunnel crossing



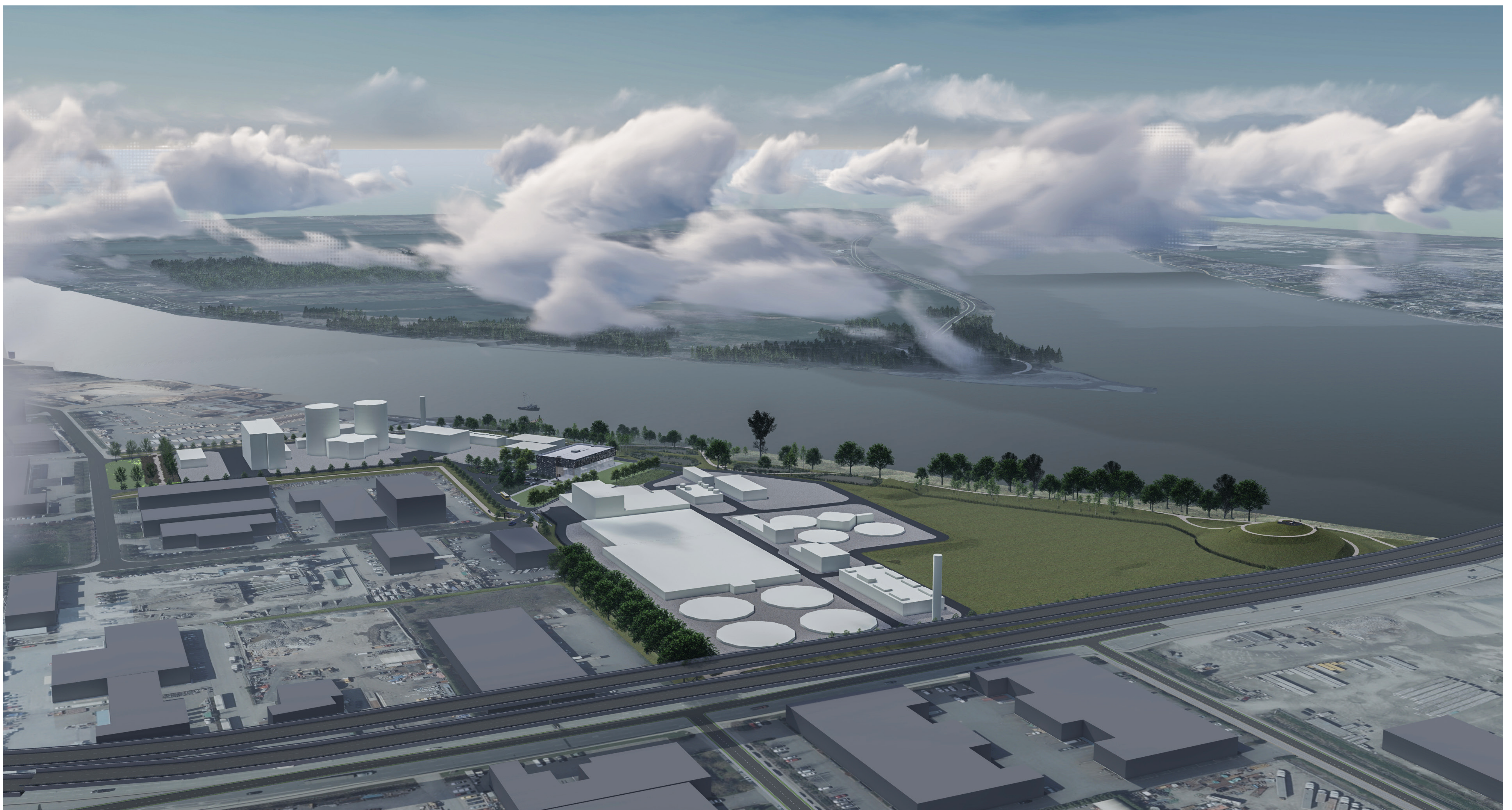
Cross-section of tunnel crossing

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Wastewater Treatment Plant Expansion

Metro Vancouver is expanding the treatment plant to accommodate population growth in the Fraser Sewerage Area. The plant expansion will achieve four main objectives:

- **Provide Robust Wastewater Treatment:** To protect human health and the environment, a Biological Nutrient Removal process has been selected for the liquid treatment, which will reduce the concentration of contaminants and protect the Fraser River from adverse impacts caused by ammonia. Tertiary filtration has also been selected to remove fine particles and further improve the effluent quality.
- **Provide Advanced Odour Control:** The odour control system will reduce plant-generated odours to barely detectible levels using double containment of odorous process units and two-stage treatment of air from odorous sources.
- **Develop Integrated Resource Recovery Opportunities:** Biogas reuse, treated effluent heat recovery, and reclaimed water are all being incorporated into the plant design.
- **Include Community Enhancement Opportunities:** A possible park and connections to the Trans Canada Trail, as well as an Operations and Maintenance building that will accommodate visitors and tours, are being considered in the plant design.



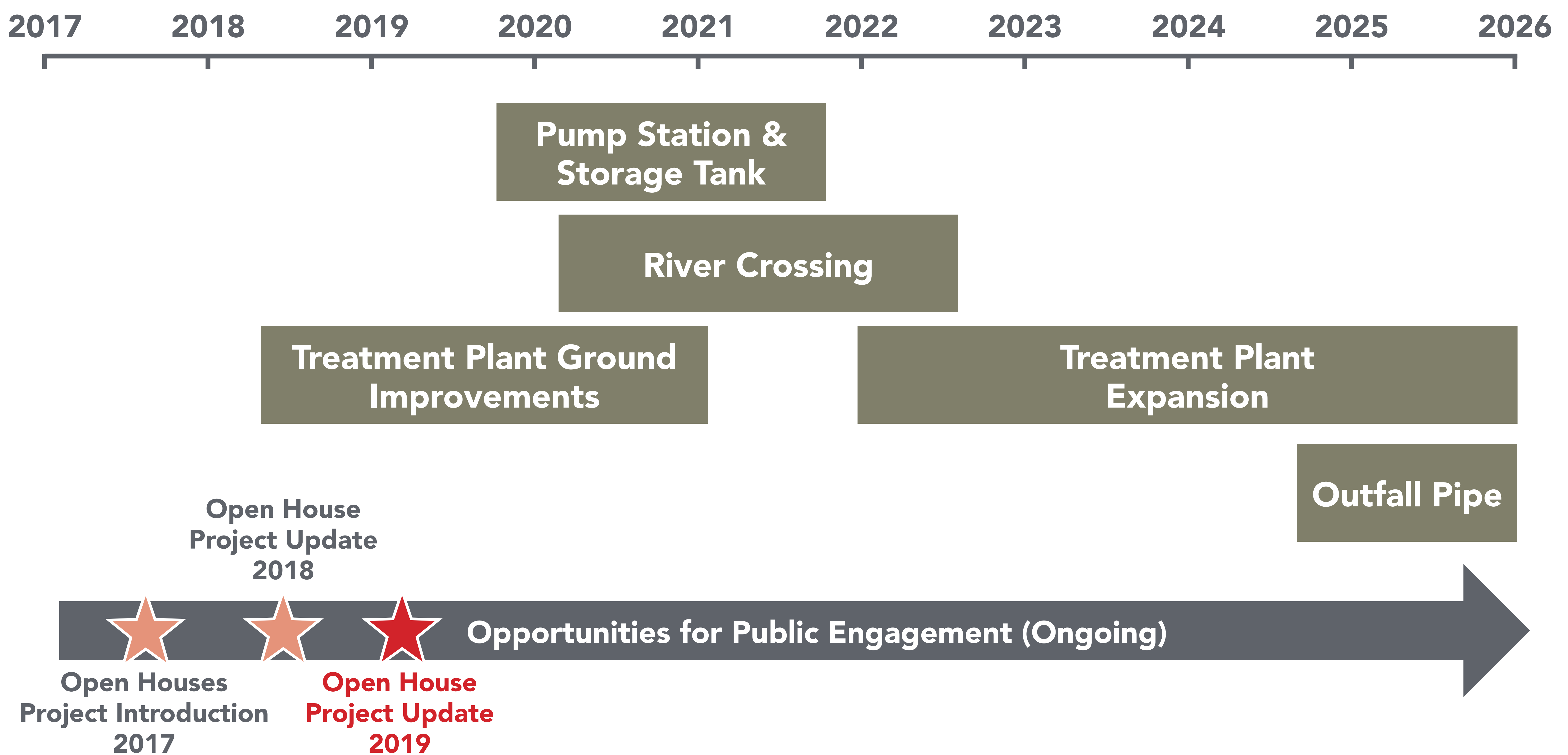
Design concept looking northwest toward the Township of Langley

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Working with Our Partners and the Community

Metro Vancouver is committed to working closely with its government partners, First Nations and local communities throughout the project. We will:

- Hold meetings and public events to identify interests, set priorities and listen to feedback
- Send regular project updates to local residents and businesses; people can also sign up to receive email updates
- Maintain a project website with up-to-date information
- Provide a Community Liaison Officer to respond to queries and concerns during construction



Thank you for joining us at this open house. Please complete a feedback form and share your comments with us.

Metro Vancouver Information Centre: 604-432-6200 (Monday to Friday from 8 a.m. to 4:30 p.m.)
 icentre@metrovancover.org (please include "Northwest Langley" in the subject line)
 www.metrovancover.org (search for "Northwest Langley")