COMMUNITY INFORMATION OPEN HOUSE

Welcome

Wastewater Treatment Project

Treated for a cleaner future

Welcome to the Wastewater Treatment Project Community Information Open House

Members of the Project Team will provide information and answer questions about construction of the Residual Solids Conveyance Line and Pump Stations.

COMMUNITY INFORMATION OPEN HOUSE

Wastewater Treatment Project

Wastewater Treatment Project
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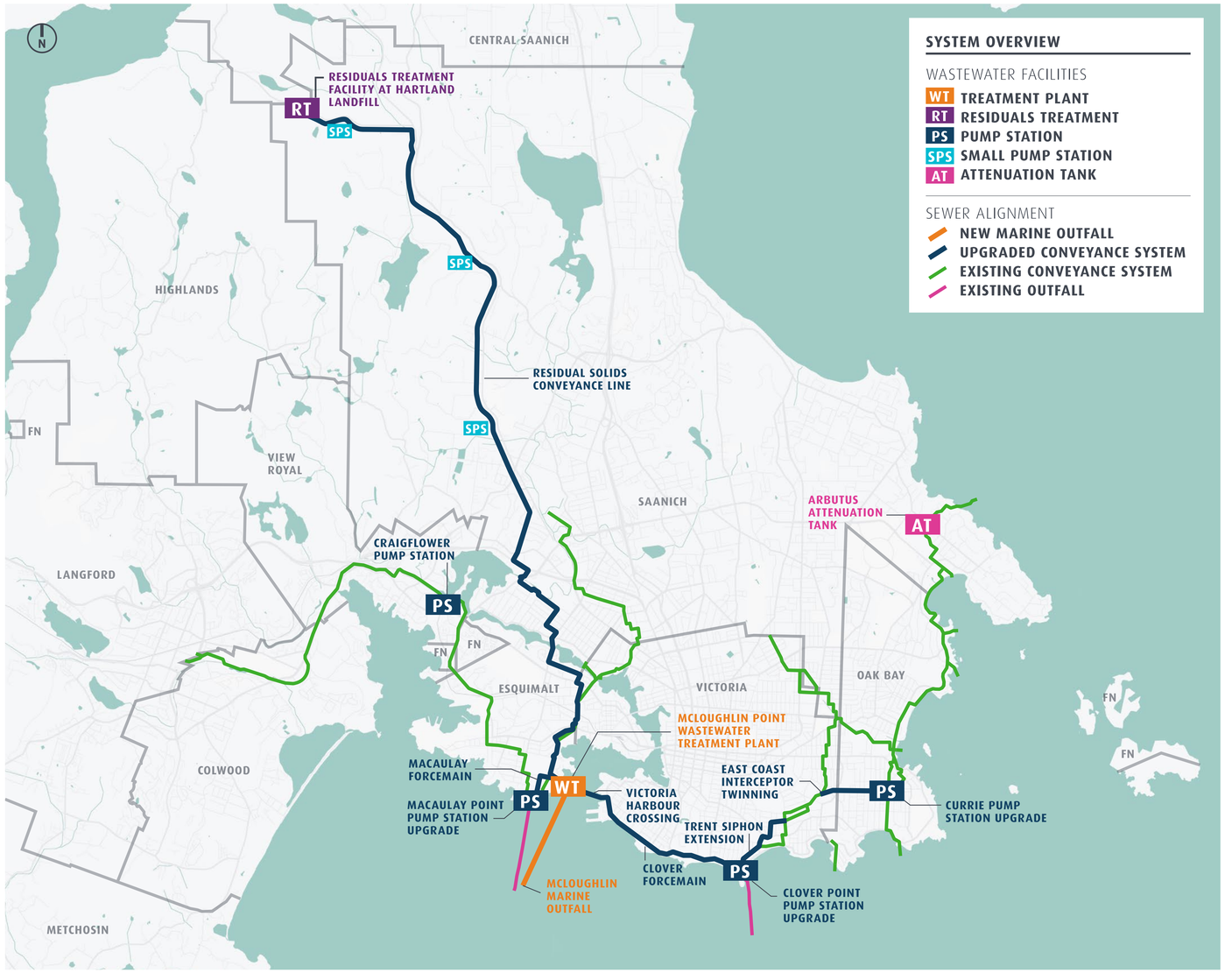
The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees Nations. The Project is being built so we comply with federal regulations by the end of 2020.



THE PROJECT CONSISTS OF THREE MAIN COMPONENTS:

MCLOUGHLIN POINT WASTEWATER TREATMENT PLANT

Located at McLoughlin Point, the wastewater treatment plant will provide tertiary treatment to the core area's wastewater.

RESIDUALS TREATMENT FACILITY

Residual solids from the wastewater treatment plant will be piped to Hartland Landfill, where they will be turned into what are known as Class A biosolids. These biosolids are a high quality by-product treated such that it is safe for further use.

CONVEYANCE SYSTEM

The conveyance system refers to the "pumps and pipes" of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and carry residual solids from the wastewater treatment plant to the Residuals Treatment Facility.

Project Funding

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The Wastewater Treatment Project costs $765 million.
The Project is funded by:

GOVERNMENT OF CANADA

- Up to $120 million through the Building Canada Fund for the McLoughlin Point Wastewater Treatment Plant
- Up to $50 million through the Green Infrastructure Fund for the conveyance system
- Up to $41 million through the P3 Canada Fund for the Residuals Treatment Facility

GOVERNMENT OF BRITISH COLUMBIA

- Up to $248 million for the three components of the Project

THE CAPITAL REGIONAL DISTRICT

- Remaining $306 million for the three Project components; responsible for any additional costs

Artist rendering

Construction Schedule

Wastewater Treatment Project
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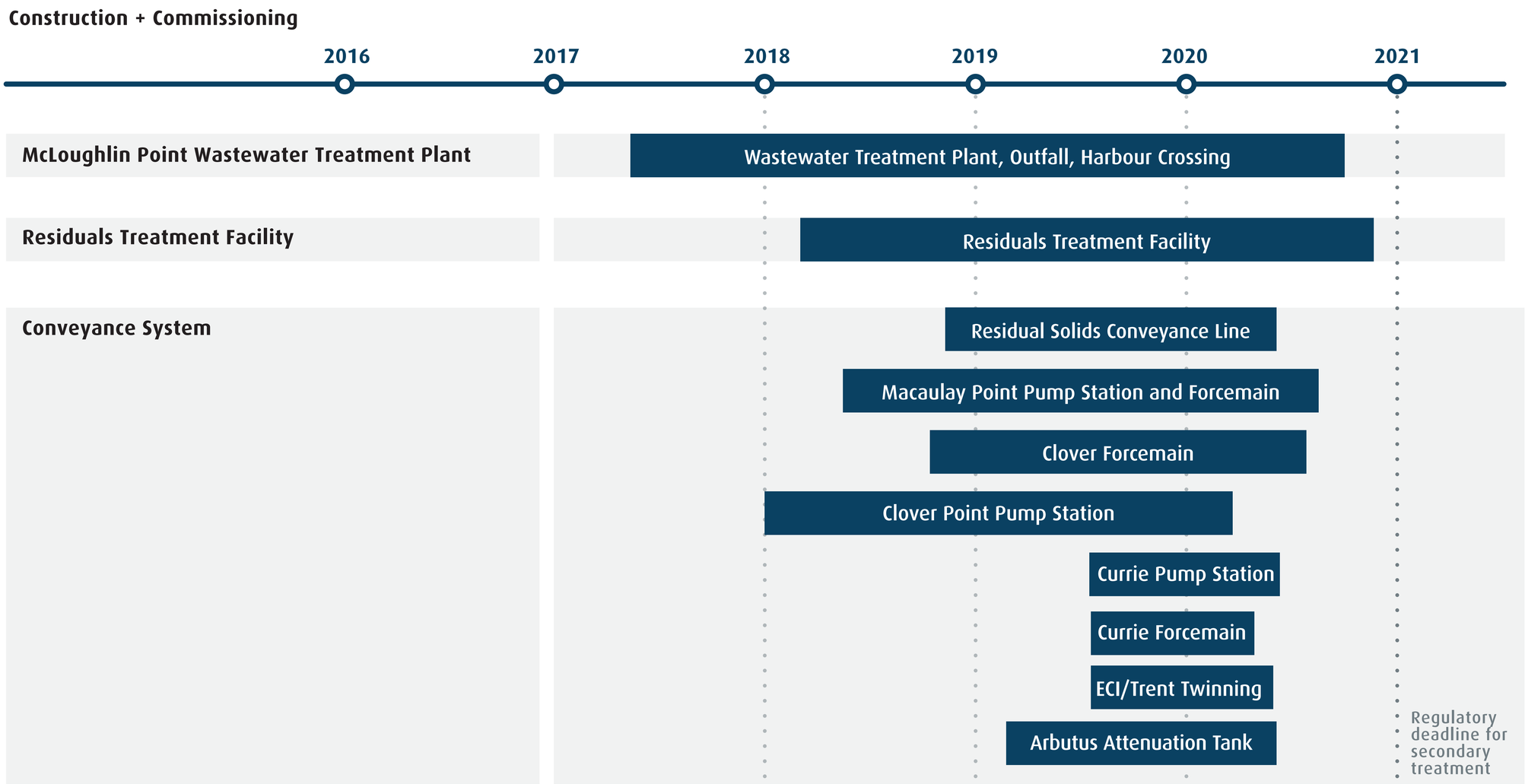

*Schedule subject to updates as Project planning progresses.

The Wastewater Treatment Project will be constructed through separate elements between 2017 and the end of 2020. Communications and engagement activities will take place in advance of Project construction beginning in each area.

Residual Solids Conveyance Line

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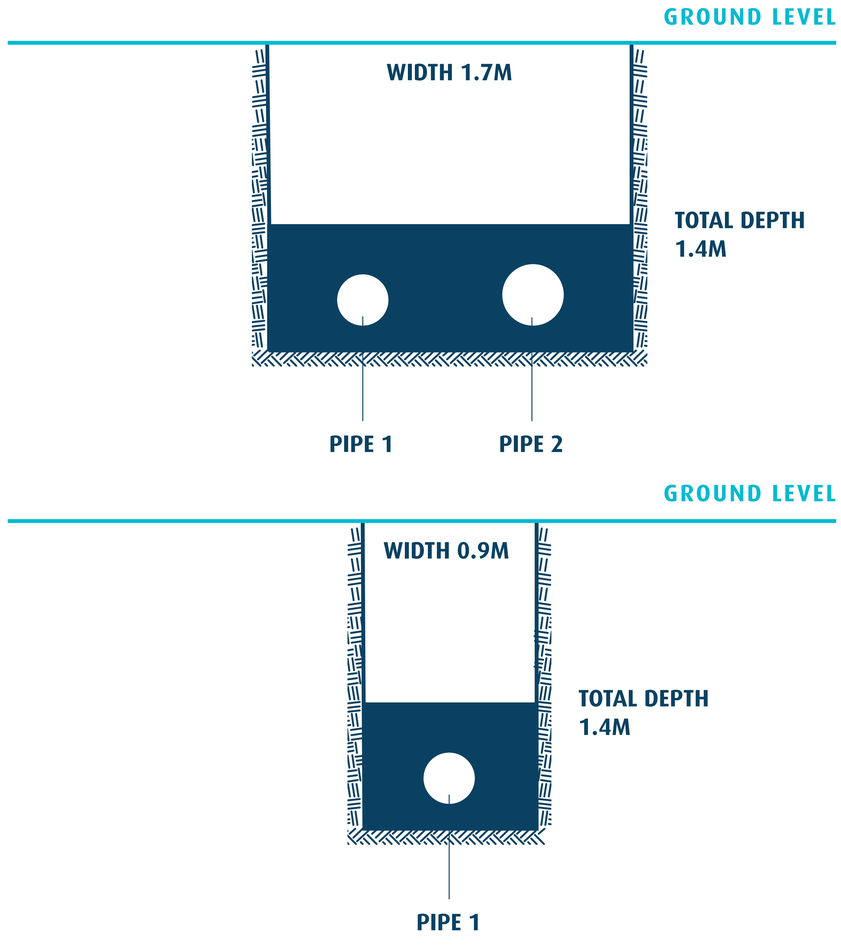
The Residual Solids Conveyance Line consists of **two pipes** and **three small pump stations**.

- The first pipe will be 250mm (10 inches) in diameter, 19.3km long, and will transport residual solids from the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility at Hartland Landfill where they will be treated and processed into Class A biosolids, a high quality by-product treated such that it is safe for further use.
- The second pipe will be up to 300mm (12 inches) in diameter, 12.4km long, and will return the liquid removed from the residual solids during the treatment process to the Marigold Pump Station where it will return to the treatment plant through the existing conveyance system.
- The two pipes will be installed in a common trench with at least 1m of cover.

CROSS-SECTION OF TYPICAL TRENCH



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Residual Solids Pump Stations

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Artist rendering of the pump station to be located at Interurban Road and Courtland Avenue

Artist rendering of the pump station to be located on Interurban Trail near West Saanich Road and Observatory Road

Three pump stations will be built along the route of the Residual Solids Conveyance Line to convey the residual solids.

The locations of the pump stations were determined based on the grade of the route and flow rates and are located within road rights of way.

The pump stations are designed with state-of-the-art odour control systems that contain and suppress odour so **there will be no discernible odour in the community**.

Noise will be minimal and will comply with District of Saanich standard practice. Landscaping features include a variety of trees, shrubs and ground coverings that will be planted and maintained.

Sequence of Construction

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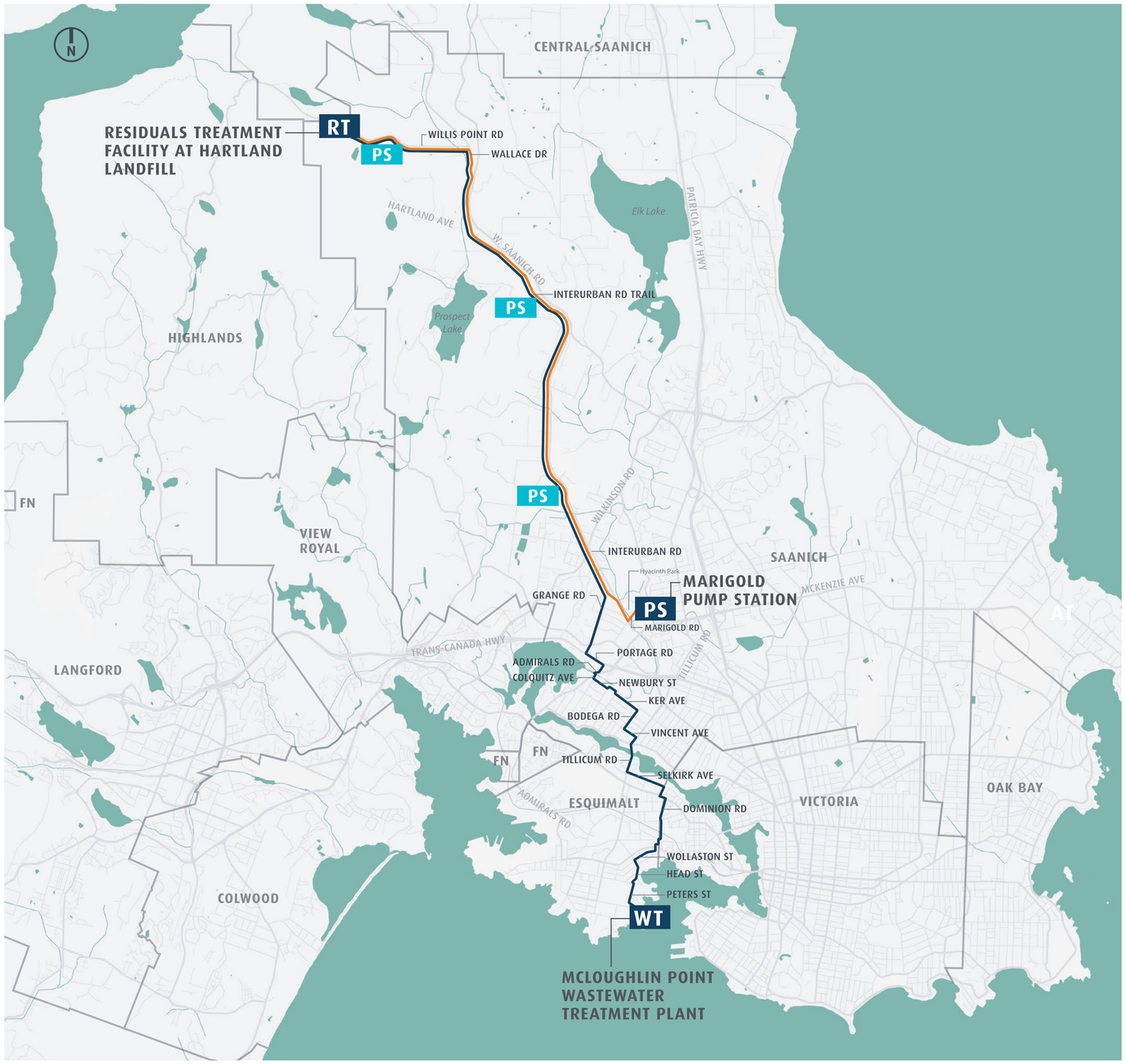

Construction is anticipated to begin in January 2019 with multiple crews working at different locations along the route.

The alignment was developed based on technical, environmental, social, and economic considerations and included input from Saanich, Esquimalt and Victoria.

At the end of each working day, roads will be temporarily resurfaced or covered in steel road plates.

The surface of the conveyance line will be left in as good or better condition than its current state.

The Interurban Road Trail will remain as a gravel trail.

Construction is anticipated to take 18 months and be complete spring 2020.

SYSTEM OVERVIEW

WASTEWATER FACILITIES

- WT TREATMENT PLANT
- PS PUMP STATION
- PS SMALL PUMP STATION

SEWER ALIGNMENT

- RESIDUAL SOLIDS CONVEYANCE LINE
- RETURN LINE

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Residual Solids Conveyance Line Sequence of Construction

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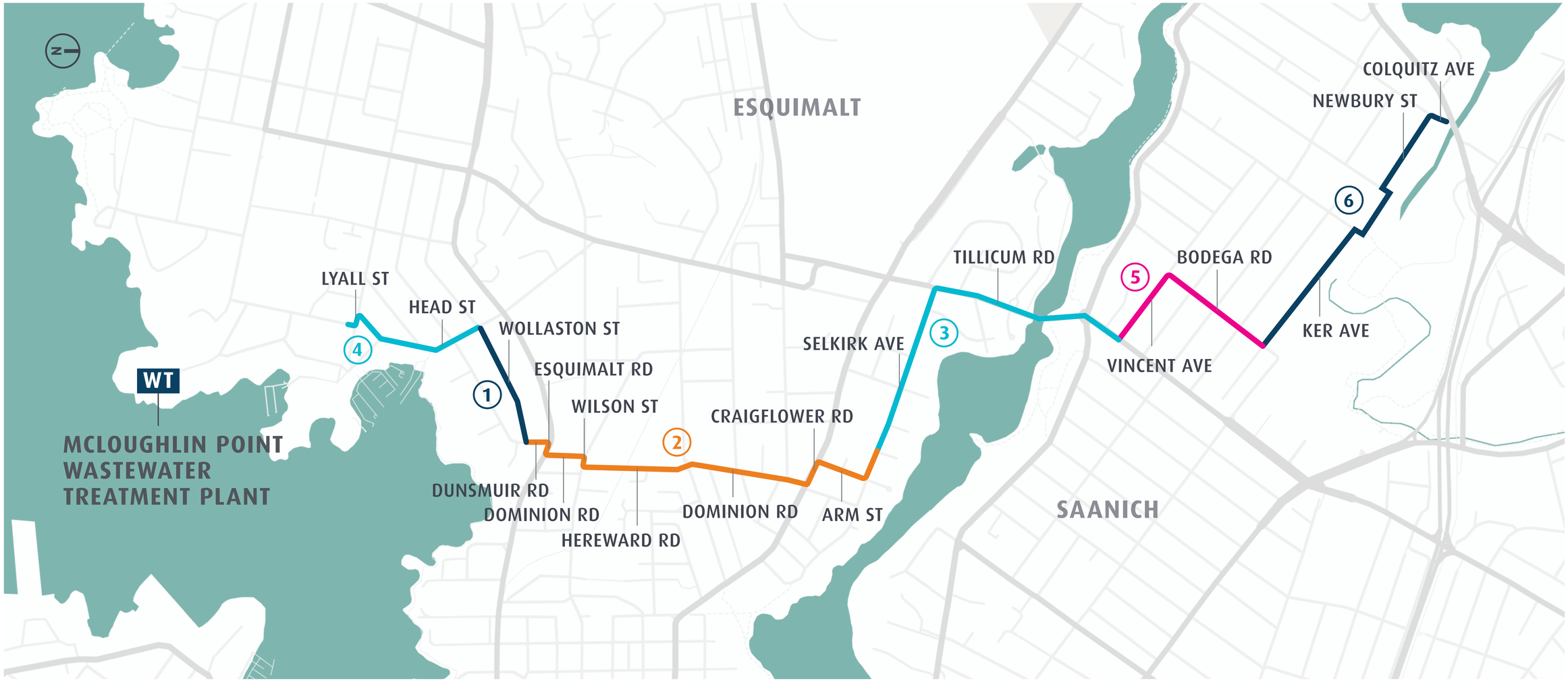
Lyall Street to Colquitz Avenue
January – December 2019

CONSTRUCTION TIMING

1. WINTER 2018/19
2. SPRING 2019
3. SUMMER 2019
4. SUMMER 2019
5. FALL 2019
6. WINTER 2019/20



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Residual Solids Conveyance Line Sequence of Construction

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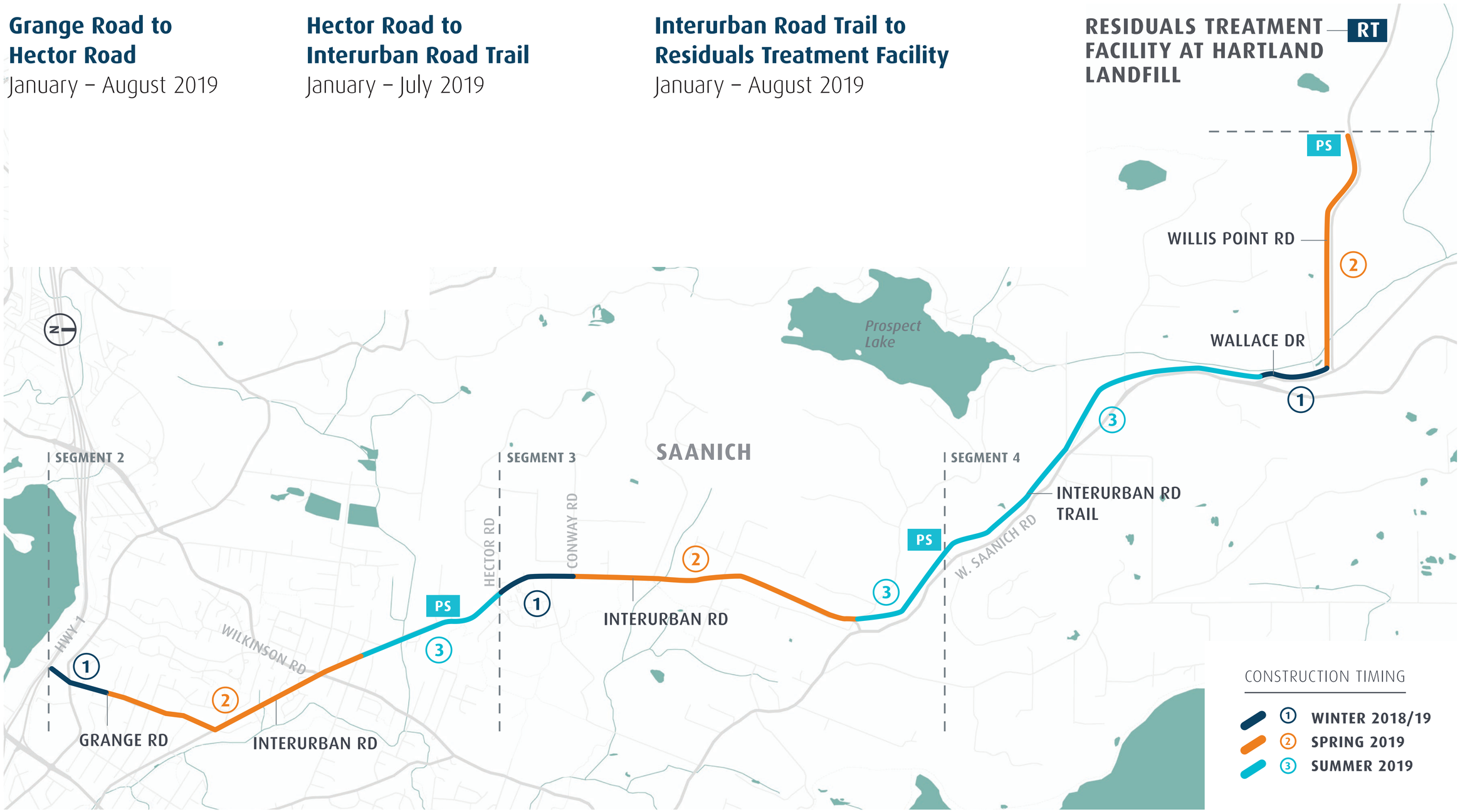
Grange Road to Hector Road
January – August 2019

Hector Road to Interurban Road Trail
January – July 2019

Interurban Road Trail to Residuals Treatment Facility
January – August 2019



Construction Impacts

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What to expect during construction

TRAFFIC

- A detailed traffic management plan ensures safe and efficient travel through construction areas.
- Single lane alternating traffic will be maintained with traffic control personnel directing traffic as required.
- Two-way traffic will be maintained at busy intersections during rush hour.
- Signs will be used to inform road users of construction.
- Night work may be done with approval from the municipality to limit impacts to traffic.

DRIVEWAY ACCESS

- Access to driveways will be maintained except during short periods when the work is advancing directly in front of a driveway.
- Access will only be interrupted during working hours and will be restored at the end of each work day.
- Residents will be informed in advance of construction so alternate access arrangements can be made and to ensure safe access.

PARKING

- On-street parking will not be available when work is underway on that street.
- Temporary no parking signs will be erected to facilitate work.

NOISE

- Construction noises associated with this work include excavation equipment, back-up beeping of trucks, saw cutting equipment, jackhammering, and large trucks delivering or removing equipment.
- Noise will remain within each municipality's noise bylaws.

DUST LEVELS

- Blasting will take place when required following standard blasting procedures.
- Dust will be minimized by watering down dry surfaces, street sweeping the road, and paving trench surfaces at the end of each shift.

DRINKING WATER WELLS

- No impacts to water wells are expected as a result of construction.
- As a precaution, inspections of drinking water wells within a 50m buffer zone of construction will be completed before and after construction.

Construction Activities

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Conveyance pipe installation

Conveyance pipe on bridge

The pipe will be installed in segments in a linear manner to minimize impacts to residents and traffic.

All work will be completed within existing road rights of way.

The sequence of construction will be as follows:

1. Survey the pipe location and confirm existing underground utilities
2. Install traffic controls and construction signage
3. Cut the pavement
4. Join the pipe and store it on the surface of the ground
5. Dig the trench and place the pipe
6. Backfill the trench and compact the surface
7. Pave and restore the surface

WORK HOURS: BYLAWS FOR EACH MUNICIPALITY

Esquimalt

7:00 a.m – 10:00 p.m.
Monday to Friday

9:00 a.m – 10:00 p.m.
Saturday and Sunday

Victoria

7:00 a.m – 7:00 p.m.
Monday to Friday

10:00 a.m – 7:00 p.m.
Saturday

Saanich

7:00 a.m – 9:00 p.m.
Monday to Saturday

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Residual Solids Conveyance Line Operations

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Operation and monitoring of the Residual Solids Conveyance System

All of the Wastewater Treatment Project is designed to meet stringent post-disaster design requirements. This means they must be designed to remain operational following a major earthquake.

The Residual Solids Conveyance Line (RSCL) will be made of a highly durable material proven to perform well in earthquake prone areas. The RSCL will be controlled 24 hours a day, 365 days a year, with both flow and pressure maintained.

The CRD has a thorough ongoing operations and maintenance program, as well as a robust spill response plan. The CRD has a 24-7 operations line that residents can call to report a concern: **250.474.9630**.

GOOD NEIGHBOUR POLICY

The CRD has implemented the Hartland Landfill Good Neighbour Practices Policy.

If a hazardous condition with the potential to cause harm to neighbouring properties or groundwater is confirmed, the CRD will take all necessary steps to ensure the protection of public health and safety and inform all appropriate authorities and potentially impacted individuals.

If a hazardous condition is confirmed and has an ongoing or long-term impact on groundwater, the CRD will take steps necessary to remedy and remediate the situation.

The pump stations will be owned and operated by the CRD. The pump stations will be automated and CRD maintenance personnel will routinely visit the stations.

Environmental Protection

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ARCHAEOLOGICAL CONSIDERATIONS

- Prior to construction, the Project Archaeologist will complete additional investigations and recover archaeological materials.
- The Project Archaeologist will monitor activity in archaeological sites along the route of the forcemain and will examine/screen the excavated soil.
- Archaeological items found will be recorded and deposited with the Royal BC Museum.

TREES

- The alignment considered tree location and sought to minimize impacts to trees.
- A professional arborist will be on site when construction may potentially impact trees.
- Tree protection fencing will be erected around trees.
- Any trees that need to be removed will be replaced at a 2:1 ratio in a size and location determined by the District of Saanich.
- Due to the alignment and installation of the pipe on Grange Road, trees will be removed. This will allow for construction of a new sidewalk.

ENVIRONMENTAL PROTECTION PLAN

An Environmental Protection Plan has been prepared to mitigate any potential impacts during construction. The plan addresses:

- Protection of fish and fish habitat
- Sediment and erosion control
- Stormwater and groundwater drainage control
- Soil and gravel handling
- Safe storage and handling of fuels, etc.
- Spill prevention and emergency response
- Tree protection

COMMUNITY INFORMATION OPEN HOUSE

Residuals Treatment Facility Construction Update

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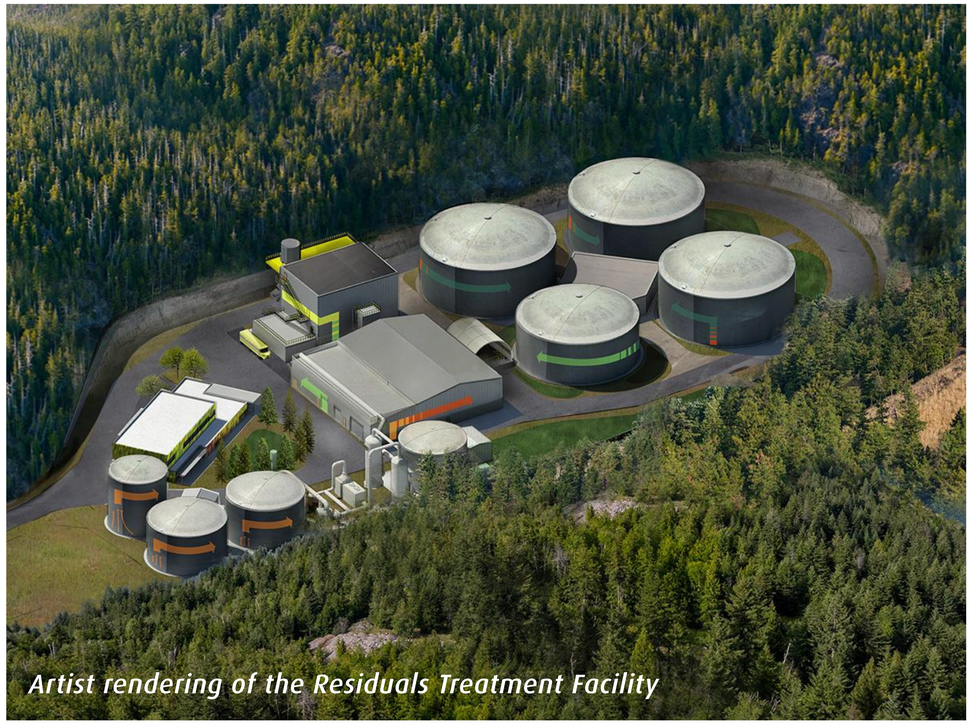
The Residuals Treatment Facility will process residual solids produced by the McLoughlin Point Wastewater Treatment Plant into Class A biosolids, a high quality by-product treated such that it is safe for further use.

The Residuals Treatment Facility is located within the footprint of the Hartland Landfill and all treatment processes will be completed within closed containers.

Hartland Resource Management Group (HRMG) has been selected to design, build, finance, operate and maintain the Residuals Treatment Facility over a 20-year term.

Odour control systems will ensure there is no discernible odour in the community from the facility. Noise from the facility will be minimal and will comply with District of Saanich bylaws.

Construction began in spring 2018 and will take approximately 2.5 years to complete.



Artist rendering of the Residuals Treatment Facility

CURRENT CONSTRUCTION ACTIVITIES

- Excavation, backfilling and compaction
- Road widening and underground utilities

UPCOMING CONSTRUCTION ACTIVITIES

- Concrete works to construct the foundations of the facility
- Construction of enclosed digester tanks, system-wide odour control, and operations building

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Arbutus Attenuation Tank

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The Arbutus Attenuation Tank is a 5,000m^3 **underground** concrete tank that will temporarily store wastewater flows during high volume storm events to reduce the number of sewer overflows.

Once the high storm flow has passed, the tank will empty back into the existing sewer system for tertiary treatment at the McLoughlin Point Wastewater Treatment Plant.

The temporary storage of wastewater will reduce the number of overflows and impacts along the coastline. The tank will be kept under negative air pressure to draw air within the tank directly into an activated carbon absorber system that will contain and treat potential odours. The CRD has successfully implemented this system at the Marigold Attenuation Tank.

The Arbutus Attenuation Tank will be located on Arbutus Road. Construction of the tank is expected to begin in spring 2019 and will take approximately 14 months to complete. Once construction is complete the site will be planted with vegetation that complements the local woodland setting.

HARO WOODS AND ARBUTUS ATTENUATION TANK LOCATION

- CRD Owned Lot and site of Arbutus Attenuation Tank rezoned as P-2WL (Utility Wood Land)
- Saanich Owned Lots rezoned as P-4N
- University of Victoria Owned Lot

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Communications and Engagement

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The Wastewater Treatment Project Team is engaging with residents throughout construction to ensure the community is fully informed on the progress of the Project.

THE COMMUNICATIONS AND ENGAGEMENT PROGRAM INCLUDES

- Regular Project updates
- Outreach: community associations, businesses, schools, day cares, recreational groups, transportation providers, tourism groups and other organizations
- Community/neighbourhood/ stakeholder meetings
- Communications tools include: website, Project information phone line, email, social media, community updates, construction notifications, door-to-door advisories (where appropriate)

HOW TO CONTACT THE PROJECT

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

24-7 Phone Line: 1.844.815.6132

HOW TO SIGN UP FOR PROJECT UPDATES

Send an email to **wastewater@crd.bc.ca** to let us know you are interested in receiving construction notices.

HOW TO FIND OUT ABOUT BUSINESS OPPORTUNITIES

Register on BC Bid (**bcbid.gov.bc.ca**) and the CRD's Business Opportunities (**www.crd.bc.ca/about/contracts-rfps/current**).

NOTIFICATION

Meeting notice

Posted on the Wastewater Treatment Project website on November 8, 2018
wastewaterproject.ca

Home delivery via Canada Post to 8,368 residences in Saanich, Esquimalt and Victoria

Emails to stakeholder groups and residents who signed up for Project updates

Newspaper ad

Saanich News and *Victoria News*
November 21, 2018

Times Colonist
November 24, 2018

Capital Regional District Twitter

@crd_bc