

Welcome



**Wastewater
Treatment Project**
Treated for a cleaner future



Artist rendering of the McLoughlin Point Wastewater Treatment Plant

Welcome to the Wastewater Treatment Project Community Information Open House.

Construction is underway on the McLoughlin Point Wastewater Treatment Plant in Esquimalt, and the cross-harbour undersea pipe at Ogden Point in Victoria.

Construction of other Wastewater Treatment Project components, including the Clover Forcemain, Clover Point Pump Station, Macaulay Point Pump Station and Forcemain, Residual Solids Conveyance Line and Residuals Treatment Facility will begin in 2018.

The Wastewater Treatment Project Team is here to provide you with information and respond to your questions regarding construction activities in these locations.

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 First Nations. The Project will be built so we comply with federal regulations by the end of 2020.

The Wastewater Treatment Project consists of three main elements:

MCLOUGHLIN POINT WASTEWATER TREATMENT PLANT

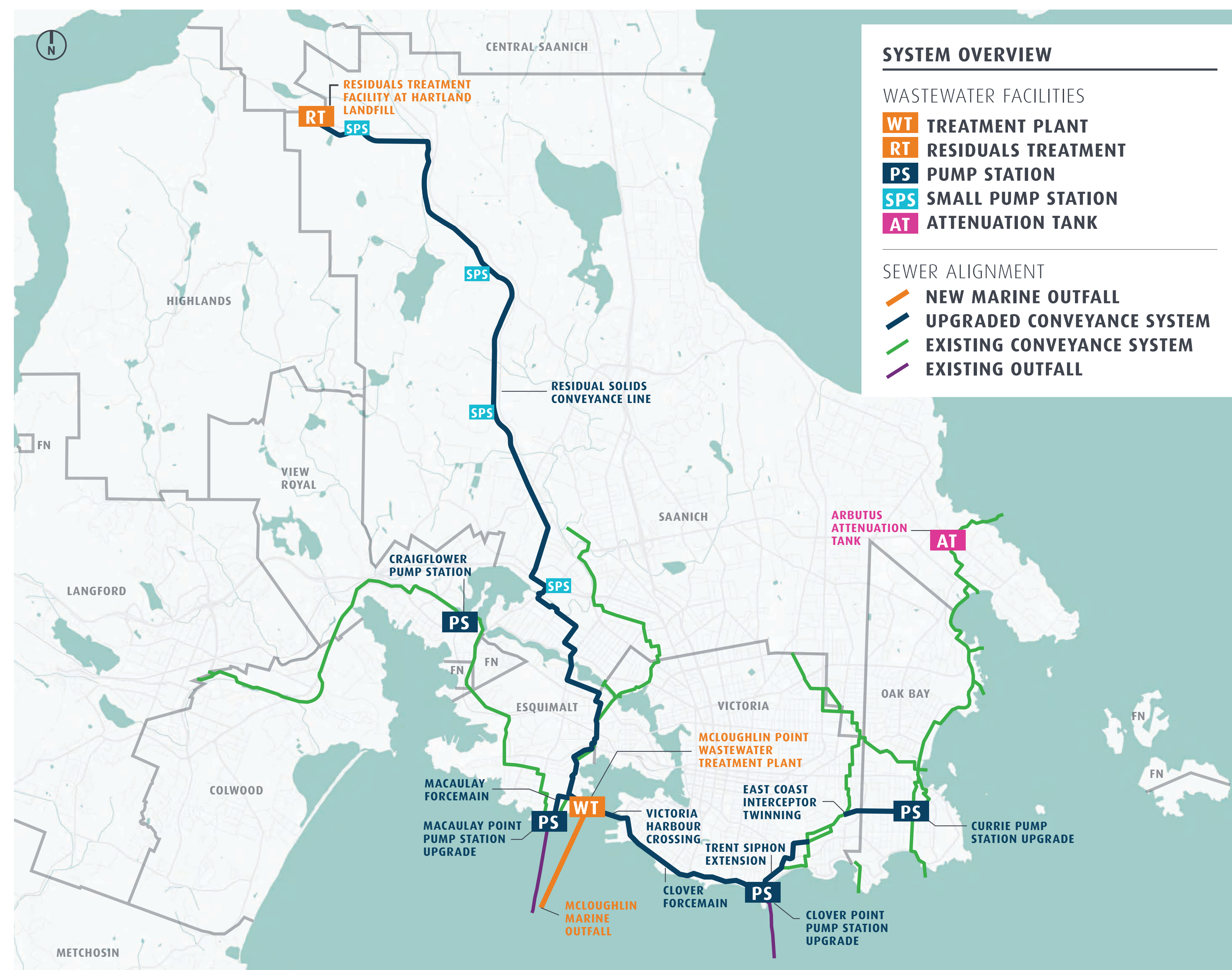
Located at McLoughlin Point, the wastewater treatment plant will provide tertiary treatment to the core area's wastewater.

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.



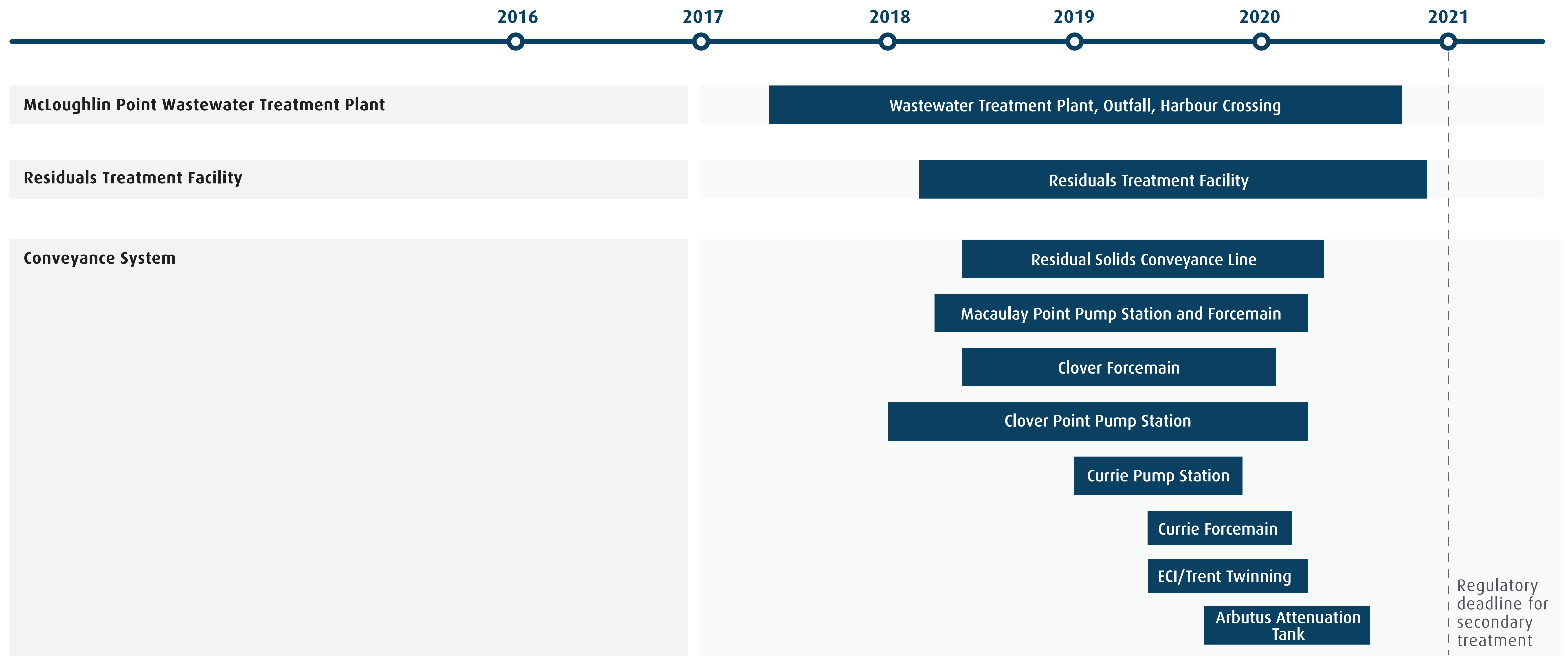
Project Schedule



Wastewater Treatment Project
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The Wastewater Treatment Project will be constructed through nine separate contracts, and construction will be staged to the end of 2020. Communications and engagement activities will take place in advance of project construction beginning in each area.

Construction + Commissioning



*Schedule subject to updates as project planning progresses.

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.



Communications and Engagement



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The Wastewater Treatment Project Team is engaging with residents throughout construction to ensure that 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, traffic media updates, door-to-door advisories (where appropriate)

HOW TO CONTACT THE PROJECT

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

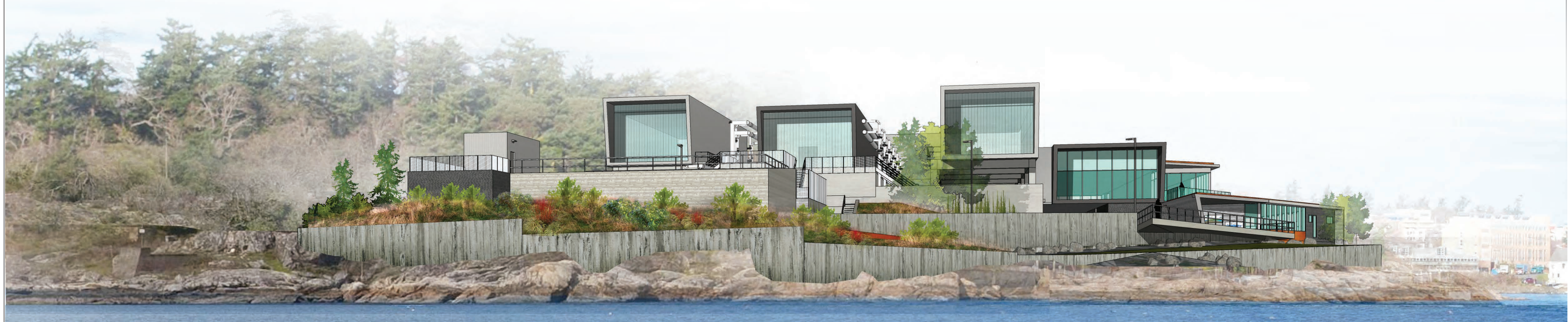
24-7 Phone Line: 1.844.815.6132

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 Website (www.crd.bc.ca/about/contracts-rfps/current) to receive email notifications of any bidding opportunities for the Project and the CRD.



Community Meeting Notification



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MEETING NOTICE

Wastewater Treatment Project
Project Update #4
October 2017

Wastewater Treatment Project
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 First Nations. The Project will be built so we comply with federal regulations by the end of 2020, and is being funded by the Government of Canada, the Government of British Columbia and the CRD.

Upcoming Community Information Open Houses in November
Construction is underway on the McLaughlin Point Wastewater Treatment Plant and cross-harbour undersea pipe. Construction of the following project components will begin in 2018:

- Clover Forcemain
- Clover Point Pump Station
- Macaulay Point Pump Station
- Residuals Treatment Facility
- Residual Solids Conveyance Line

The Wastewater Treatment Project team will hold a series of open houses in November in Saanich, Esquimalt and Victoria to provide an update on these project components. The open houses are a drop-in format to provide flexibility for busy schedules. Come by any time during the meeting times to review updated project information, find out about upcoming construction activities and timing in your area, meet project team members, and ask questions about the project.

SAANICH
Wednesday, November 15, 5 – 8 p.m.
St. Joseph the Worker Parish Hall
753 Burnside Road West

Saturday, November 18, 10 a.m. – 1 p.m.
Prospect Lake Community Hall
5358 Spanton Road

ESQUIMALT
Wednesday, November 22, 5 – 8 p.m.
Royal Canadian Legion, Esquimalt Branch
622 Admirals Road

VICTORIA
Monday, November 27, 5 – 8 p.m.
Victoria Conference Centre
720 Douglas Street

WILLIS POINT
Meeting details are being confirmed; please check wastewaterproject.ca for updates.

Art rendering of the McLaughlin Point Wastewater Treatment Plant



Posted on the Wastewater Treatment Project website on November 2, 2017

wastewaterproject.ca



Home delivery via Canada Post

- 58,800 residences in Victoria, Esquimalt and Saanich



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

NEWSPAPER AD

Wastewater Treatment Project
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3 ways to keep informed about the Wastewater Treatment Project

PROJECT WEBSITE
wastewaterproject.ca
If you're online, updated with new information, including construction schedules, media releases, and reports. A "Community Questions" section on the website provides answers to commonly asked project questions and is frequently updated.

24/7 PROJECT INFORMATION LINE
1.844.815.5152
Residents can call to receive information or report a concern.

EMAIL ADDRESS
wastewater@crd.ca
Submit inquiries or let us know you are interested in being on our distribution list to receive construction notices.



Peninsula News and Saanich News
November 3, 2017

Times Colonist
November 4, 2017

Victoria News
November 10, 2017

CAPITAL REGIONAL DISTRICT TWITTER

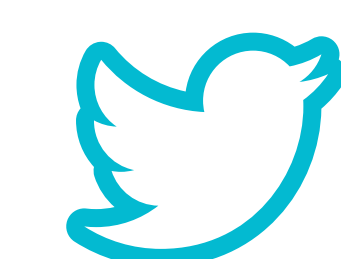
CRD
4,868 Followers
742 Retweets
4,426 Likes
273 Retweets

Tweets & replies

CRD (@CRD) · 1h
The Wastewater Treatment Project is holding 4 Community Information Open Houses this month. Learn more in [CRD's Open House Announcement](#).

Who to follow

Lisa Hildebrandt (@lisa_hildebrandt)
Travis@CRD (@Travis@CRD)
CRD (@CRD)



- November 8, 2017
- November 14, 2017
- November 17, 2017
- November 21, 2017
- November 26, 2017

Esquimalt Liaison Committee



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The Township of Esquimalt and the Wastewater Treatment Project Team established a liaison committee to provide a forum for the discussion of interests and issues relating to the construction and operation of the McLoughlin Point Wastewater Treatment Plant.

The Esquimalt Liaison Committee ensures an opportunity for the Wastewater Treatment Project Team and Harbour Resource Partners, the contractor, and key community members and associations to facilitate a two-way information exchange and provide project updates and construction information while considering the needs of the community of Esquimalt.

The Esquimalt Liaison Committee has met seven times to date, and continues to provide ongoing and helpful input on local matters such as Project truck traffic and traffic calming measures, a proposed summer truck route and speed safety procedures. The Esquimalt Liaison Committee will continue to report out quarterly to the Township of Esquimalt Council on Committee matters.

The Esquimalt Liaison Committee and Wastewater Treatment Project Team are committed to sharing information and working to identify and address challenges while ensuring outreach to community associations.

**THE ESQUIMALT LIAISON COMMITTEE IS
MADE UP OF REPRESENTATIVES FROM
THE COMMUNITY, CONTRACTOR AND
WASTEWATER TREATMENT PROJECT TEAM:**

- Macaulay Elementary School Parent Advisory Committee
- Lyall Street Action Committee
- West Bay Residents Association
- Department of National Defence
- Township of Esquimalt
- Harbour Resource Partners
- Wastewater Treatment Project Team

McLoughlin Point Construction



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The McLoughlin Point Wastewater Treatment Plant construction and commissioning started in spring 2017 and is anticipated to be complete by fall 2020.

The Wastewater Treatment Project includes a 108 megalitre/day tertiary wastewater treatment plant at the McLoughlin Point site. The treatment plant is designed to minimize visual impacts from the water and includes a multi-level green roof, mature landscaping, observation deck, and multi-use education space.

Construction at McLoughlin Point is similar to any large urban construction site. Construction works include: site preparation; horizontal directional drilling to construct the cross-harbour undersea pipe from Ogden Point to McLoughlin Point; pouring concrete foundations; exterior building construction, and mechanical and electrical work inside the building.

Anticipated work hours are Monday to Friday from 7:00 a.m. to 7:00 p.m. and on Saturday from 9:00 a.m. to 7:00 p.m.

MCLOUGHLIN POINT CONSTRUCTION ACTIVITIES ANTICIPATED APRIL 2017 – FALL 2020*

COMPLETE SUMMER 2017

Set up construction laydown area

- Heavy equipment and personnel preparing the site

JULY 2017 – MARCH 2018

Site preparation (excavation/blasting)

- Blasting activities will be periodically scheduled and communicated to immediate neighbours; blasting schedule is posted to the project website weekly

NOV 2017 TO JUNE 2018

Conduct horizontal directional drilling

NOV 2017 TO FALL 2018

Pouring concrete

SPRING 2018 TO FALL 2019

Plant construction

FALL 2019 TO FALL 2020

Plant commissioning

** Construction schedules subject to updates based on construction operations. Project to provide regular updates on anticipated dates.*

Macaulay Point Pump Station and Forcemain



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The Macaulay Point Pump Station will pump wastewater from Colwood, Langford, View Royal, Esquimalt, Saanich and Victoria to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment.

The existing Macaulay Point Pump Station will be upgraded and expanded, and will continue to provide bypass pumping to the Macaulay Point outfall during storm events.

The expanded pump station's design will consider its location on the waterfront and will be aesthetically pleasing with similar standards of design, materials, and quality of construction as the Craigflower Pump Station. The exterior and landscaping for the existing pump station will be enhanced to provide a seamless building and landscape design for the entire facility.

The Macaulay Forcemain will connect the Macaulay Point Pump Station to the McLoughlin Point Wastewater Treatment Plant.

NOISE AND ODOUR

Noise from the upgraded and expanded pump station will not exceed the current level of noise from the existing pump station. The pump station will be designed with state-of-the-art odour control systems so there will be no discernible odour in the community.



Macaulay Forcemain route

Macaulay Point Pump Station and Forcemain Construction



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Construction of the Macaulay Point Pump Station and Forcemain is anticipated to begin in spring 2018 and take approximately two years to complete.

The conveyance 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 right-of-ways. The waterfront trail will remain open to the public during construction and operations of the Macaulay Point Pump Station.

A competitive process is underway to select a contractor to design and build the Macaulay Point Pump Station and Forcemain. The contractor must address community impacts including noise mitigation, dust control and traffic management.

The contractor will work with municipal staff and the Esquimalt Liaison Committee to implement a traffic management plan based on the designated traffic routes for the McLoughlin Point Wastewater Treatment Plant.



The waterfront trail will remain open during construction and operations

A key focus of the project will be to ensure people have as much information as possible in advance so they can plan for construction activities. A Community Information Open House will be held in spring 2018 to provide more information on traffic management and construction plans.

Esquimalt Traffic Management Plan



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Harbour Resource Partners, the contractor that is building the McLoughlin Point Wastewater Treatment Plant, has developed a Traffic Management Plan to ensure that all project traffic follows designated traffic routes.

The Traffic Management Plan has been approved by the Township of Esquimalt and was developed using the following guiding principles:

- Public safety for motorists and pedestrians
- Impacts on local community
- Bylaw compliance
- Incorporate community feedback

Community feedback incorporated into the Traffic Management Plan includes:

- Two supplemental crossing guards for Macaulay Elementary Parent Advisory Committee
- Sweeping of the road surface during bulk earthmoving
- Conducting a pre-construction road assessment

Traffic safety is paramount and Harbour Resource Partners has placed signage and speed readers along the truck route to ensure drivers abide by the set speed limit.

McLoughlin Point Wastewater Treatment Plant traffic route

Potential Change to Truck Route – Proposed Summer Route



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Through the Esquimalt Liaison Committee, the Wastewater Treatment Project Team, in conjunction with the Township of Esquimalt and Harbour Resource Partners (HRP), is reviewing the option of an alternate truck route during the school summer months.

During the implementation of the Esquimalt Traffic Management Plan, the Esquimalt Liaison Committee identified a potential benefit of a summer route.

Next steps:

- The Wastewater Treatment Project Team and HRP are consulting with the community regarding the proposed summer route. This will include a mail-out to residents along the route advising them of the alternate option and inviting comment.
- HRP and the Wastewater Treatment Project Team will compile the feedback. It will be shared with the Township of Esquimalt, who will provide the information to their Community Safety Working Group for input.
- Township of Esquimalt staff will prepare a Staff Report to Council, which will be followed by a presentation at a Council meeting by the Project Team and HRP, and a decision will be made by Council.

CURRENT ROUTE



POTENTIAL SUMMER ROUTE



Residual Solids Conveyance Line Map



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The Residual Solids Conveyance Line will include two pipes along with four or five small pump stations. The two pipes will be installed in a common trench where possible and will be in the existing road right-of-way. Though the design is not complete, it is anticipated that a common trench will be used along the majority of the route.

- The first pipe will be approximately 250mm (10 inches) in diameter and 18.5km long, and will transport residual solids from the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility for treatment.
- The second pipe will be approximately 350mm (14 inches) in diameter and 11.5km long, and will return the liquid removed from the residual solids during the treatment process to the Marigold Pump Station, from where it will be returned to the McLoughlin Point Wastewater Treatment Plant through the existing conveyance system.

The Wastewater Treatment Project will leave the surface of the conveyance line in as good or better condition than its current state.



Residual Solids Conveyance Line Route Selection



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In 2014, alignment options were developed based on technical, environmental, social and economic considerations. The options were evaluated by the CRD, with input from the District of Saanich, Township of Esquimalt and City of Victoria, and a preferred alignment was selected.

The evaluation of the alignment has since been reviewed and validated by the Wastewater Treatment Project Team in consultation with the municipalities. The Project Team is working with the municipalities to ensure technical issues related to the alignment are addressed and, where possible, to coordinate municipal works with construction of the Residual Solids Conveyance Line.

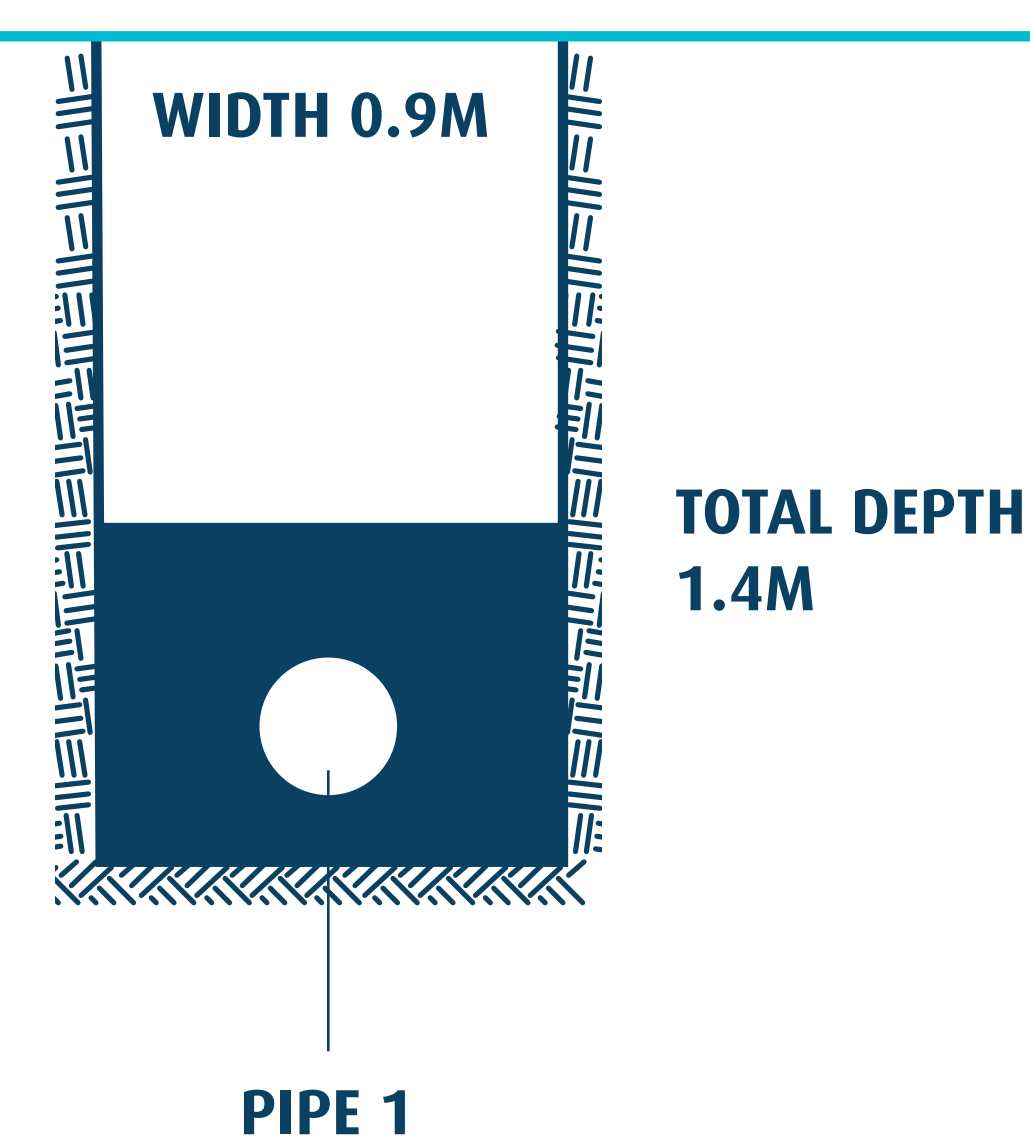
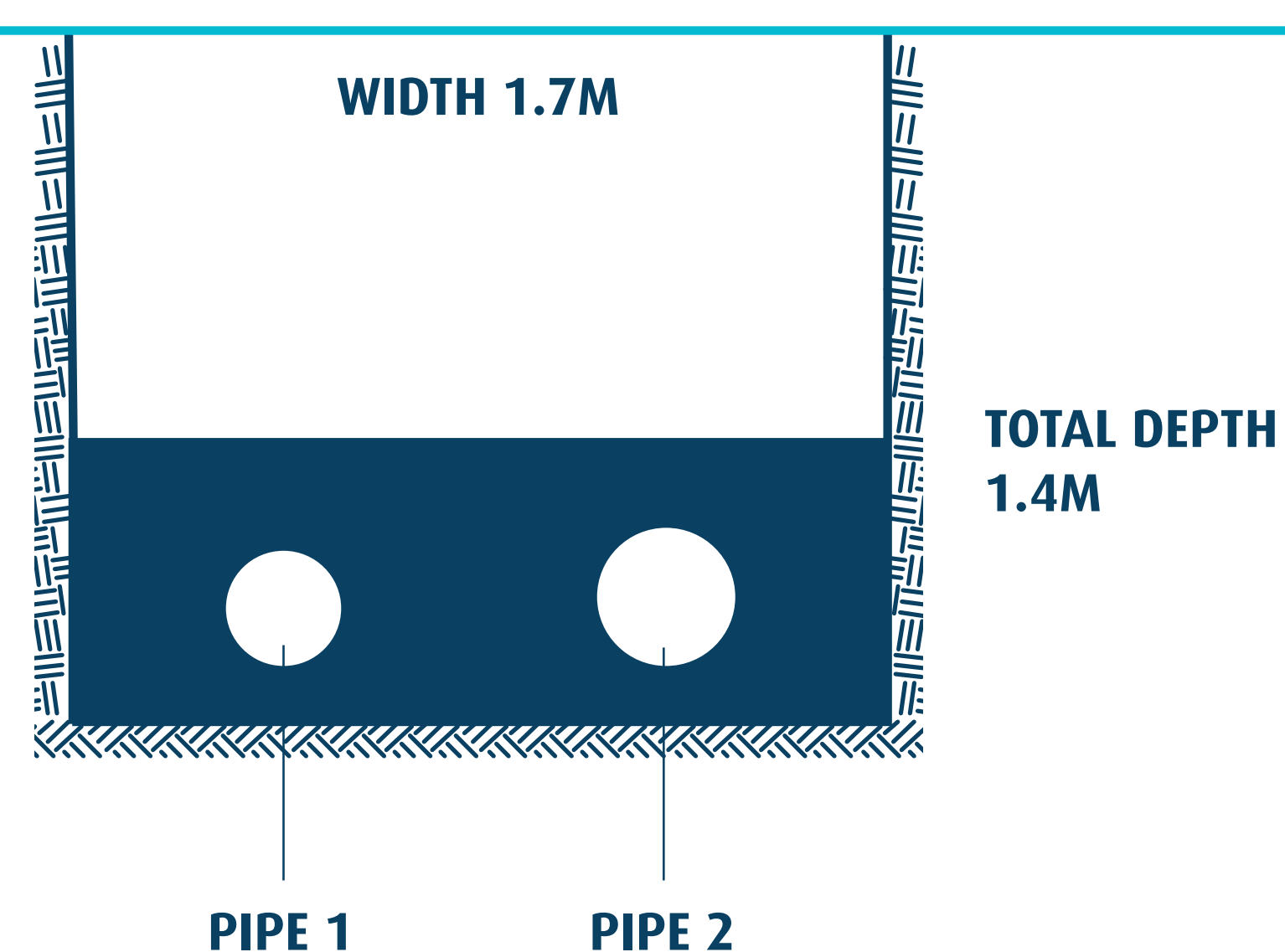
While the route is close to final, it is still subject to input from communities. Feedback we receive during the November meetings will be considered, along with other technical and financial considerations, in finalizing the design. Feedback forms are available at the open houses, or feedback can be provided by e-mailing wastewater@crd.bc.ca.

FAVOURABLE CONSIDERATIONS FOR THE ROUTE INCLUDE:

- Shortest of all alignments
- Power available at pump station locations
- Good maintenance access
- No impact on wildlife habitat
- Lowest capital, operating and maintenance costs

CROSS-SECTION OF TYPICAL TRENCH

GROUND LEVEL



Residual Solids Conveyance Line Construction



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Construction is anticipated to begin in summer 2018 and take approximately two years to complete.

The conveyance 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 right-of-ways. This includes all watercourse crossings where the pipe will cross over top of existing culverts or hang underneath existing bridges.

While detailed construction plans will be developed by the contractor, the sequence of construction is anticipated to be as follows:

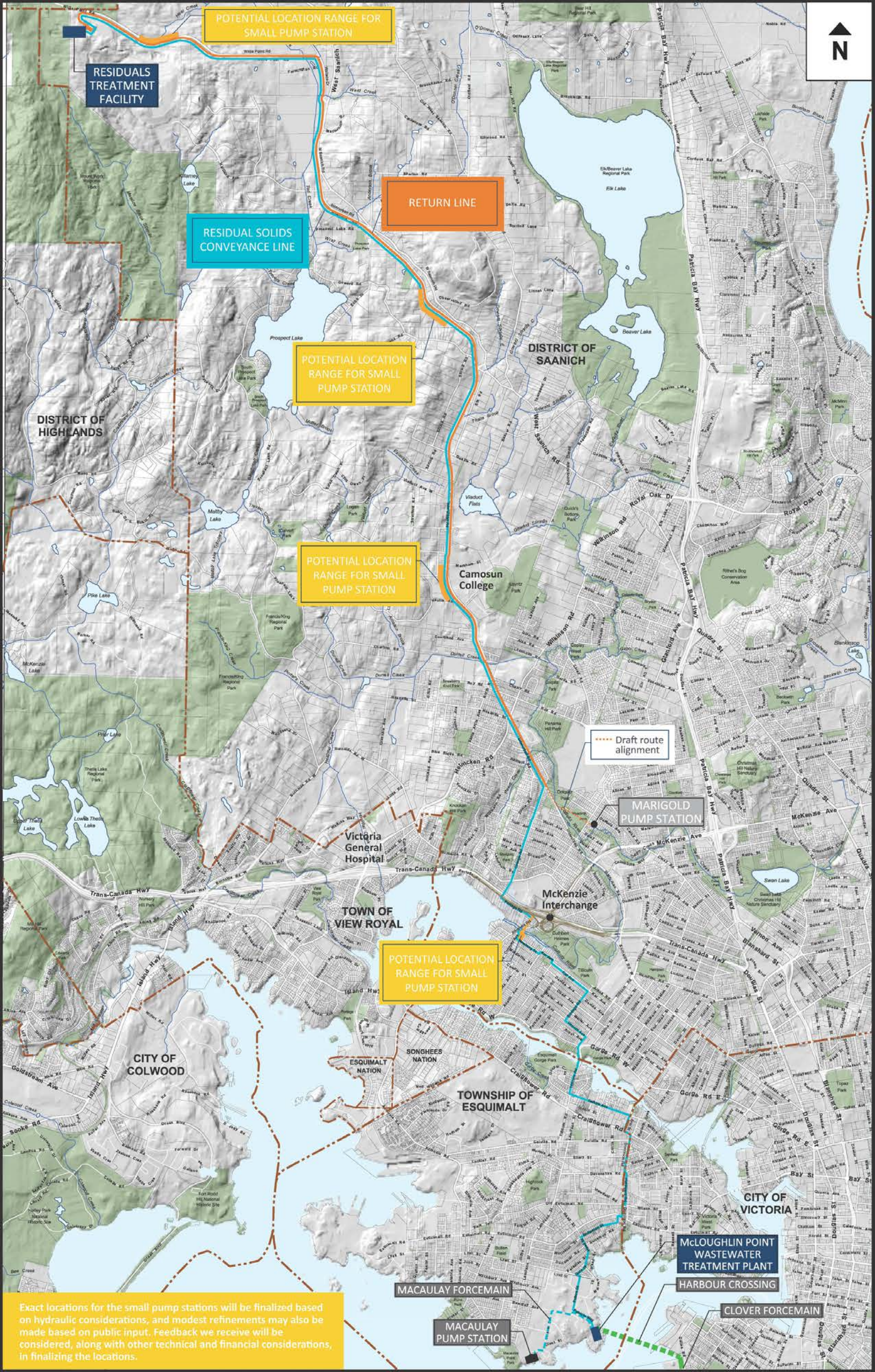
1. Survey the pipe location and confirm existing underground utilities
2. Install traffic controls and construction signage
3. Cut the pavement
4. Join the pipe and store it on the surface of the ground
5. Dig the trench and place the pipe in the trench
6. Backfill the trench and compact the surface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

OPERATION AND MONITORING OF THE RESIDUAL SOLIDS CONVEYANCE SYSTEM

All of the Wastewater Treatment Project's facilities, including the treatment plant, residuals treatment facility, pump stations and conveyance system, are 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. Pipe operation would be automatically halted in the event of an alarm, based on change in flow or pressure, and incident response procedures would be immediately initiated. Pipe operation would only be resumed following investigation.

The CRD and core area municipalities operate over 175 pump stations and 110km of existing sanitary sewer pipe in the core area similar to the RSCL pipe. 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**.



POTENTIAL LOCATION RANGE FOR SMALL PUMP STATION

RESIDUALS TREATMENT FACILITY

RESIDUAL SOLIDS CONVEYANCE LINE

RETURN LINE

POTENTIAL LOCATION RANGE FOR SMALL PUMP STATION

DISTRICT OF HIGHLANDS

DISTRICT OF SAANICH

POTENTIAL LOCATION RANGE FOR SMALL PUMP STATION

Camosun College

Draft route alignment

MARIGOLD PUMP STATION

Victoria General Hospital

TOWN OF VIEW ROYAL

McKenzie Interchange

POTENTIAL LOCATION RANGE FOR SMALL PUMP STATION

CITY OF COLWOOD

ESQUIMALT NATION

SONGHEES NATION

TOWNSHIP OF ESQUIMALT

CITY OF VICTORIA

McLOUGHLIN POINT WASTEWATER TREATMENT PLANT

HARBOUR CROSSING

MACAULAY FORCEMAIN

CLOVER FORCEMAIN

MACAULAY PUMP STATION

Exact locations for the small pump stations will be finalized based on hydraulic considerations, and modest refinements may also be made based on public input. Feedback we receive will be considered, along with other technical and financial considerations, in finalizing the locations.