

Wastewater Treatment Project Overview

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.

With funding, approvals and permitting in place, Wastewater Treatment Project construction will begin this spring to meet the end of 2020 delivery deadline, comply with the law and meet our commitments to senior governments. The Wastewater Treatment Project consists of three main elements:

McLoughlin Point Wastewater Treatment Plant

Located at McLoughlin Point in Esquimalt, the 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 a Residual Treatment Facility 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 residual solids to the Residuals Treatment Facility at Hartland Landfill.

PROJECT FUNDING

The Wastewater Treatment Project costs \$765 million and is being funded by:

Government of Canada

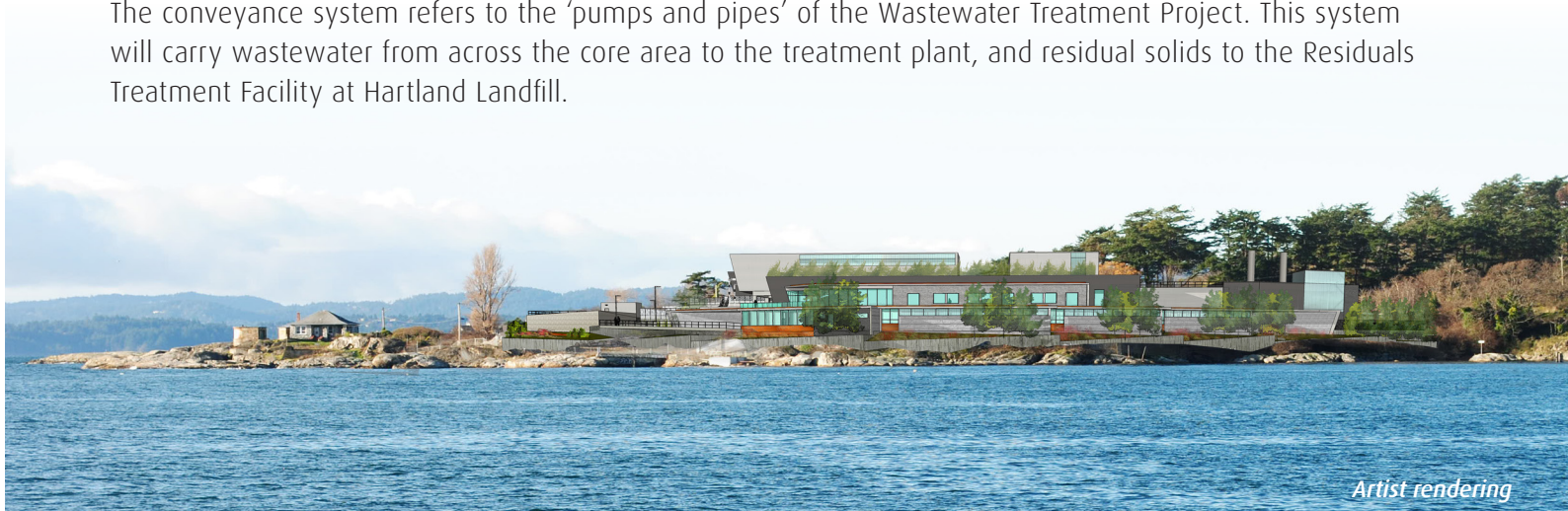
- Up to \$120 million through the Building Canada Fund for the McLoughlin Point Wastewater Treatment Plant
- Up to \$50 million through the Green Infrastructure Fund for the conveyance system
- Up to \$41 million from P3 Canada for the Residuals Treatment Facility

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



How We Got Here

The approved McLoughlin Point Wastewater Treatment Plant design is significantly revised from earlier plans to respond to the interests of the surrounding community:



It is further set back from the shoreline



It has extensive landscaping and a multi-level green roof irrigated with treated water



Refinements to the exterior of the wastewater treatment plant and landscaping address the Design Review Committee and other input as part of the development permit process



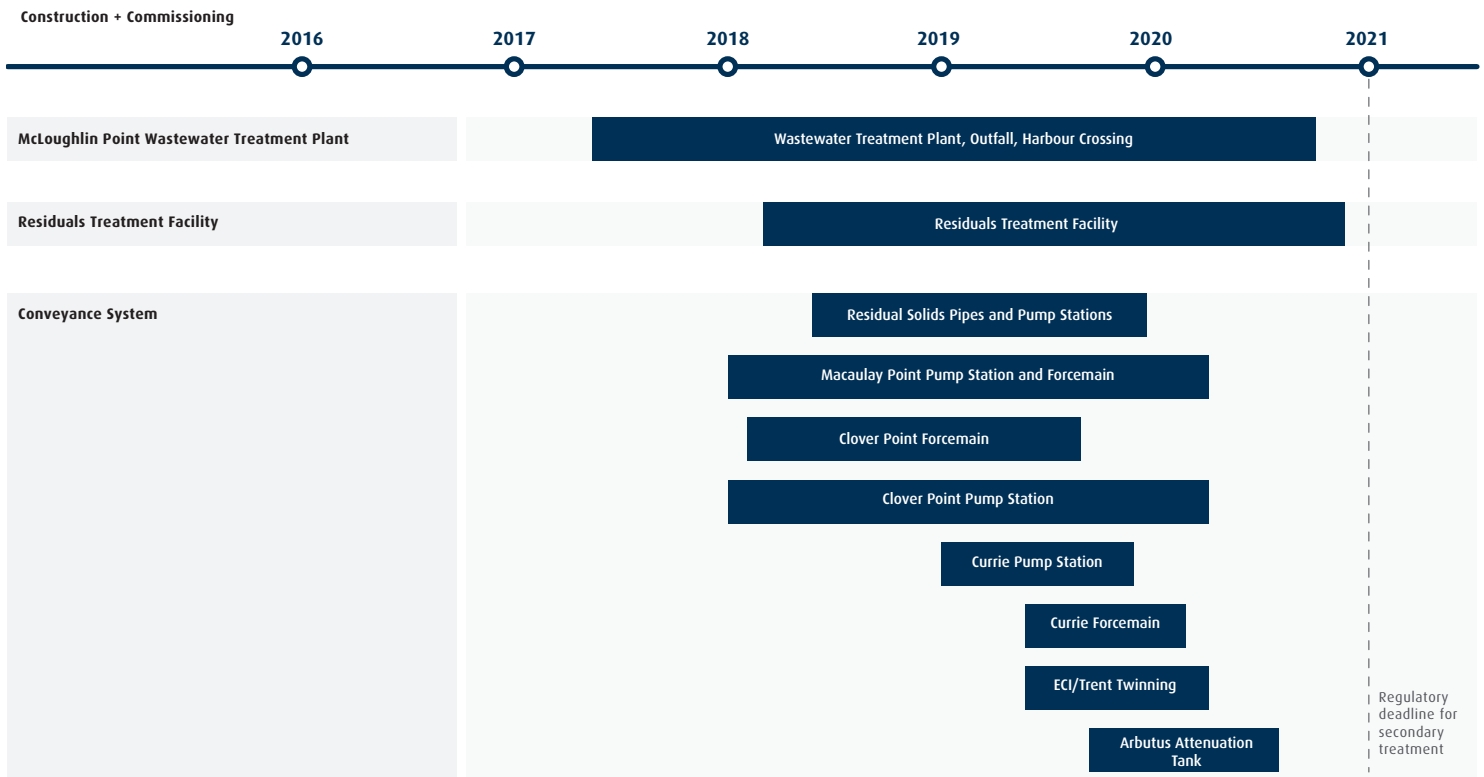
The plant will go beyond secondary treatment and include tertiary treatment, providing even better protection of the marine environment



Odour control systems will reduce odour emissions to a level not detectable by residents

Wastewater Treatment Project Schedule*

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.



* Schedule subject to updates as project planning progresses.

Odour Control: McLoughlin Point Wastewater Treatment Plant

The McLoughlin Point Wastewater Treatment Plant has been designed so there will be no detectable odour by residents. Modelling shows odour will be approximately 2 OU at the plant's property line.

The plant will have one of the highest levels of odour capture and treatment in the industry:

- All treatment processing tanks are covered
- All air is captured and treated

A 24-hour odour control monitoring system will ensure requirements are met or exceeded. Back-up odour control equipment and back-up power generators will be installed, reducing the possibility of odour escaping the facility if there is an equipment failure.

There will be detailed procedures for responding to odour issues, in the unlikely event that one occurs. The public will be able to call a CRD phone line and report any odour issues 24 hours a day, once the plant is in operation.

What is an Odour Unit (OU)?

- An odour unit is a standard measure used to describe the amount of odour present in one cubic metre of neutral air.
- Odour is not discernible at 5 OU or less.
- A typical residential neighbourhood has a background odour of 7 to 20 OU which may include:
 - Grass
 - Plants
 - Mulch
 - Marine environment

Noise During Operations: McLoughlin Point Wastewater Treatment Plant

Per the Township of Esquimalt's Zoning Bylaw, operational noise from the McLoughlin Point Wastewater Treatment Plant will not exceed 60 decibels (dBA) at the plant's property line. This means predicted noise levels in James Bay, the closest location to the treatment plant in Victoria, will not exceed 35 dBA. This is 5 dBA below the most stringent limit in the City of Victoria's noise bylaw.

The Wastewater Treatment Project Team will engage with residents through 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

Phone:
Available May 1, 2017



Construction is beginning this spring on the McLoughlin Point Wastewater Treatment Plant in Esquimalt and the cross-harbour undersea pipe between McLoughlin Point and Ogden Point. Construction will take place at Ogden Point to drill the undersea pipe; this will take just over a year to complete. Construction and commissioning of the Wastewater Treatment Plant at McLoughlin Point will take place from spring 2017 to fall 2020.

**OGDEN POINT CONSTRUCTION ACTIVITIES:
ANTICIPATED APRIL 2017 – JUNE 2018***

APRIL TO MAY 2017

Remove Anglers Hut

Set up work site

- Bring equipment and materials to the site; on average five trucks per day
- Build noise wall

JUNE 2017

Install casing

- Involves approximately two weeks of pile driving
- On average five trucks per day

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- Involves equipment and generators for drilling operations
- On average five trucks per day

JUNE 2018

Assemble pipe on Niagara Street

- Deliver pipe segments
- Weld pipe together

Pull pipe through directional drill passage (24 hours per day for approximately four days)

**McLOUGHLIN POINT CONSTRUCTION
ACTIVITIES: ANTICIPATED APRIL 2017 –
FALL 2020***

APRIL/MAY 2017

Set up construction laydown area

- Heavy equipment and personnel preparing the site

MAY 2017 TO AUG 2017

Site preparation (excavation/blasting)

- On average 30 trucks per day hauling excavated material
- Blasting activities will be periodically scheduled and communicated to immediate neighbours; blasting schedule will be posted to project website weekly

JUNE 2017 TO JUNE 2018

Conduct horizontal directional drilling

- On average five trucks per day

AUG 2017 TO FALL 2018

Pouring concrete

- On average 15 trucks per day with more for large pours

SPRING 2018 TO FALL 2019

Plant construction

- On average 10 trucks per day

FALL 2019 TO FALL 2020

Plant commissioning

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