Making a difference...together

Backgrounder

May 26 2021

Project Board Highlights

- The McLoughlin Point Wastewater Treatment Plant delivered by the Project exceeds the scope defined in the Business Case in two key respects: the capability to increase the capacity of the plant (from 108 megalitres of wastewater per day to 124 megalitres per day), enabling it to accommodate population growth beyond 2040; and the capability to include effluent disinfection in the future if required.
- Based on extensive flow monitoring data and future wastewater flow estimates, consultants Kerr Wood Leidal (KWL) determined that three components included in the Business Case (capacity expansion of the Currie Pump Station, twinning of the Currie Forcemain, and twinning of the East Coast Interceptor) would not provide any benefit now, or in the future. Based on KWL's work, the Project Board approved refining the Project's scope to remove the three components that would provide no benefit to CRD residents.

CRD's Ongoing Operational Requirements

- The CRD is responsible for managing and optimising the operation and maintenance of each Project component and any impacts on the operation of other components of the core area wastewater system.
- Contractual warranties for each of the Project components will be reviewed and any minor deficiency items that may remain will be addressed.
- The CRD will provide guidance to optimize plant performance over the remainder of the two-year performance period for the McLoughlin Point Wastewater Treatment Plant.
- Any final construction and restoration requirements for the Core Area Wastewater Treatment system will be managed by the CRD.
- Some operating and equipment challenges are not uncommon in the period of time immediately after handover of a facility from a contractor to an operator, as a period of fine-tuning and optimising operations is to be expected. The CRD will continue to monitor and address any issues that may occur.

Financial Information & Key Facts

- Approved Budget: $775 million
- Forecasted Final Project Cost (including various contingencies): $766.7 million
- The remaining $8.3 million of the approved budget will be held as a program reserve fund.

- Construction for the Wastewater Treatment Project has taken place across three municipalities and within the traditional territories of the Esquimalt, Songhees, Tsartlip, Tsawout, Tseycum and Pauquachin Nations.
- Three levels of wastewater treatment take place at McLoughlin Point: primary treatment is the physical separation of solids from wastewater; secondary treatment is a biological process that removes dissolved and suspended organic compounds in the wastewater; and tertiary treatment is a physical process that reduces solids that remain after the secondary treatment process.
- A new outfall was installed at McLoughlin Point that is 2 km long and discharges treated effluent at a water depth of 60 metres. The outfall pipe is made of HDPE (high density polyethylene) and has 350 concrete ballast weights spaced 4-6 metres apart, each weighing approximately 11,400 kg. There are also 20 bridges across the pipe to allow for migration of sea life across the pipe. Additionally, artificial reefs were constructed near the shoreline to create habitat for a variety of marine species, including salmon.
- A cross-harbour undersea pipe from Ogden Point in Victoria to McLoughlin Point in Esquimalt was installed in 2018, to connect the Clover Point Pump Station to the McLoughlin Point Wastewater Treatment Plant. The cross-harbour pipe is made of steel and is 1.1 metres in diameter. It took 9 months to drill a 1 kilometre-long tunnel under the harbour, 6 weeks to assemble and weld 78 pieces of steel pipe sections together on Niagara Street, and 3 days to pull the 1 kilometre pipe through the tunnel. At its deepest, the harbour crossing is more than 60 metres below the ocean floor.
- The Clover Point Pump Station was originally built in the 1970s to discharge wastewater from Victoria, Oak Bay and Saanich into the ocean. It has been expanded and upgraded to convey wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment.
- A new Macaulay Point Pump Station has been built in Esquimalt, replacing the 48-year-old pump station that was located on that site. The Macaulay Point Pump Station conveys wastewater from Esquimalt, View Royal, Langford, Colwood, Saanich, Victoria and the Esquimalt and Songhees Nations to the McLoughlin Point Wastewater Treatment Plant for treatment.
- Over 35 km of pipes were installed to carry wastewater from across the core area to the McLoughlin Point Wastewater Treatment Plant for treatment, and residual solids to the Residuals Treatment Facility at Hartland Landfill for further treatment. The Residuals Treatment Facility has capacity to treat more than 14,000 dry tonnes of residual solids per year.
- One of the Project's goals was to add value to the surrounding community and enhance the livability of neighborhoods. This was achieved by improving infrastructure and adding amenities in neighbourhoods impacted by the construction of the Project, including:
    - Clover Point public space improvements including a viewing plaza and public washrooms
    - Dallas Road cycle track
    - Creating a park amenity at Macaulay Point Pump Station
    - Improving the level of water service to properties in Saanich near Hartland Landfill

For more information, visit: www.crd.bc.ca/wastewater