



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

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: October 2020

TABLE OF CONTENTS

1	<i>Executive Summary</i>	3
1.1	Introduction	3
1.2	Dashboard	5
2	<i>Wastewater Treatment Project Progress</i>	8
2.1	Safety	8
2.2	Environment and Regulatory Management	10
2.2.1	Environment	10
2.2.2	Regulatory Management	11
2.3	First Nations	12
2.4	Stakeholder Engagement	12
2.5	Resolutions from Other Governments	13
2.6	Schedule	13
2.6.1	30 day look ahead	15
2.6.2	60 day look ahead	16
2.7	Cost Management and Forecast	18
2.7.1	Commitments	18
2.7.2	Expenses and Invoicing	18
2.7.3	Contingency and Program Reserves	19
2.7.4	Project Funding.....	19
2.8	Key Risks and issues	20
2.9	Status (Engineering, Procurement and Construction)	23
2.9.1	Wastewater Treatment Plant (McLoughlin Point WWTP)	23
2.9.2	Residuals Treatment Facility	25
2.9.3	Conveyance System	26
	<i>Appendix A– Trent Forcemain: Dallas Road Closure (October 19, 2020)</i>	36
	<i>Appendix B– Environmental Incident at the Residual Treatment Facility</i>	37
	<i>Appendix C– Monthly Cost Report (October)</i>	38

1 Executive Summary

1.1 Introduction

This Monthly Report covers the reporting period of October 2020 and outlines the progress made on the Wastewater Treatment Project over this time.

The Wastewater Treatment Project (the “Project”) includes three main Project Components (the “Project Components”): the McLoughlin Point Wastewater Treatment Plant (the “McLoughlin Point WWTP”), the Residuals Treatment Facility (the “RTF”) and the Conveyance System (which includes upgrades to the conveyance network including the construction of pump stations and pipes). The Project scope is being delivered through a number of contracts with a variety of contracting strategies.

Over the reporting period the COVID-19 public health emergency continued to have impacts on the Project. The Project Team and Project contractors are actively monitoring the status of the COVID-19 public health emergency and are taking additional precautions to protect our staff, contractors, and the public. Construction is ongoing at all of the Project’s sites in accordance with guidelines established by the Provincial Health Officer.

While construction is ongoing, the public health emergency is impacting the Project. However, based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.

The McLoughlin Point WWTP Project Component is continuing with Harbour Resource Partners (“HRP” as the Design-Build contractor for the McLoughlin Point WWTP) progressing: air flushing of the heating ventilation and air conditioning (HVAC) system; preparation for final commissioning of safety systems in the Operations and Maintenance Building; commissioning of biological systems; and functional completion was achieved.

The RTF Project Component is continuing with Hartland Resource Management Group (“HRMG” as the Design-Build-Finance-Operate-Maintain contractor for the RTF) progressing construction activities including: installation of roof handrails on Digester Building; installation of canopy on the Other Municipal Solids Receiving Facility; main gate foundation was poured; and the storm ponds were hydro seeded.

The Conveyance System is being delivered through seven construction contracts: two design-build contracts and five design-bid-build contracts.

The two design-build Conveyance System contracts progressed over the reporting period as follows:

- Clover Point Pump Station: Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: progressing exterior stone veneer, grading for walkways outside of pump station; fine tuning performance of screen and degritting system; and demobilization of site compound commenced.
- Macaulay Point Pump Station: Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: backfilling around existing drop structure and new diversion

chamber; new diversion chamber was completed; demolition of the old pump station continued; and installation of genset stair.

The design-bid-build Conveyance System contracts progressed over the reporting period, as follows:

- Clover Forcemain: Windley Contracting Ltd. (“Windley” as the Construction Contractor) completed construction and commissioning activities including: final clean-up of the lay down area.
- Residual Solids Conveyance Line (“RSCL”): the RSCL is being delivered through two construction contracts, with work progressing as follows:

Residual Solids Pipes: Don Mann Excavating Ltd. (“Don Mann” as the Construction Contractor) continued construction activities over the reporting period for the Saanich infrastructure improvement being undertaken at Peers Creek, including: backfilling both headwalls, removing west side cofferdam, and area clean-up; archaeological material was replaced on site and east side area was topped with screened topsoil; the concrete curb and sidewalk on the east side was replaced and final paving was completed.

- Residual Solids Pump Stations: Knappett Projects Inc. (“Knappett” as the Construction Contractor) continued construction and commissioning activities including: regraded and backfilling the centrate return line on Willis Point Road near the RTF entrance; odour control unit fences at pump stations 1, 2 and 3 were completed; scaffolding was removed from the Tillicum and Admirals Bridges; the Hartland Flow Control Bypass was installed; and piping at Hartland Pump Station was completed and pressure tested.
- Arbutus Attenuation Tank (“AAT”): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: completing installation of attenuation tank perimeter walls and divider wall reinforcing steel; ongoing cleaning of caisson wall system; installation of attenuation tank column reinforcing steel was commenced; and concrete pours were ongoing on the perimeter wall and divider wall.
- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installation of 35m of forcemain; recommenced Eberts Street gravity main at intersection with Dallas Road; completed final restoration of sidewalk, curb and gutter on Memorial Crescent and Bushby Street, and Bushby Street and Memorial Crescent; and completed top-soil restoration at Ross Bay Cemetery.

1.2 Dashboard

Table 1 indicates the high level status of the Project and each Project Component with regards to the six Key Performance Indicators (“KPI”) that were defined within the Project Charter.

There were no changes made to the KPIs over the reporting period.

The safety KPI for the Project and the conveyance system remains yellow. Over the reporting period one recordable safety incident occurred and the total recordable incident frequency increased from 1.5 at the end of the second quarter of 2020 to 1.6 at the end of the reporting period.

The Project Team continues to work with and ensure that all of the prime contractor partners maintain safety as their number one priority. The Project Team is also actively monitoring the status of the COVID-19 public health emergency and is taking additional precautions to protect our staff, contractors, and the public. The BC Government has designated construction as an essential service, and issued guidelines for construction sites to minimize the risks of COVID-19 transmission or illness. All Project contractors have implemented additional precautions to ensure the health and safety of their workers. These measures follow the direction set by the BC Government, including emphasizing the importance of maintaining social distance, increasing handwashing stations, reducing in-person meetings and increasing cleaning of common areas. The Project Team will continue to monitor contractors’ compliance with the direction of the government as the situation evolves.

The schedule KPI for the Project overall and the Project components remains green. The COVID-19 public health emergency is impacting the Project. However, construction is ongoing in accordance with provincial guidelines and commissioning of each of the key facilities continued over the reporting period, and based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.

























The cost KPI for the Project overall and the conveyance system remained red over the reporting period, and are expected to remain red for the duration of the Project, primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. As a result of these budget pressures, the Project Team forecast the cost to complete the Project at \$775M, or \$10M over the Project’s control budget. In May 2019 the CRD Board approved an increase in the Project’s budget by \$10M to \$775M.

Subsequent to May 2019 the Project Team have continued to manage risks and there have been two main opposing budget drivers:





- i) The Project’s financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and
- ii) The Project’s construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

It is too early to determine the cost impact to the Project, but given the ability to offset the unforeseen costs of COVID-19 through the finance cost savings, the Project Team remain confident that, if construction continues at the current pace, the Project cost will be within the Project's \$775M budget.

Table 1- Executive Summary Dashboard

Key Performance Indicators		Project Overall	WWTP	RTF	Conveyance System	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.					One recordable incident occurred over the period. Site inspections are ongoing. The Project Team is actively monitoring the status of the COVID-19 public health emergency and is taking additional precautions to protect our staff, contractors, and the public. All Project contractors have implemented additional precautions to ensure the health and safety of their workers. The Project Team will continue to monitor and follow the direction of the government during this evolving situation.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.					Three environmental incidents occurred over the reporting period. There were two releases of residual solids (one at the Residuals Treatment Facility and one at a valve chamber on the Residual Solids Conveyance Line), and a release of wastewater at the McLoughlin Point Wastewater Treatment Plant. All three releases were reported to Emergency Management BC, in accordance with the Spill Reporting Regulation, and in each case environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.					No regulatory issues.
Stakeholders	Continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders.					Engagement activities were ongoing over the reporting period. Significant efforts were made to provide accurate and timely information to stakeholders.
Schedule	Deliver the Project by December 31, 2020.					The COVID-19 public health emergency has and is impacting the Project. The schedule KPI for the Project overall and the Project components remains green. The COVID-19 public health emergency is impacting the Project's progress. However, construction is ongoing in accordance with provincial guidelines and commissioning of each of the key facilities commenced over the reporting period, and based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.
Cost	Deliver the Project within the Control Budget (\$765 million).					<p>The CRD Board approved an increase to the Project's budget by \$10M, to \$775M, based on the Project Team's forecast of the cost to complete the Project. The increase was required primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020.</p> <p>Many contractors have advised that there are cost impacts from the COVID-19 public health emergency. It is too early to determine the cost impact to the Project, but given the ability to offset the unforeseen costs of COVID-19 through the finance cost savings, the Project Team remain confident that, if construction continues at the current pace, the Project cost will be within the Project's \$775M budget.</p>

* A TRIF of no more than 1 means that there is 1 or fewer recordable incidents (being a work-related injury or illness that requires medical treatment beyond first aid or causes death, days away from work, restricted work or transfer to another job, or loss of consciousness) for every 200,000 person-hours of work

Status	Description
	KPI unlikely to be met
	KPI at risk unless correction action is taken
	KPI at risk but corrective action has been identified/is being implemented
	Good progress against KPI

2 Wastewater Treatment Project Progress

2.1 Safety

Safety information for the reporting period and cumulative for the Project from January 1, 2017 is summarized in Table 3.

The Project Team is actively monitoring the status of the COVID-19 public health emergency and is taking additional precautions to protect our staff, contractors, and the public. The BC Government has designated construction as an essential service, and issued guidelines for construction sites to minimize the risks of COVID-19 transmission or illness.

All Project contractors have implemented additional precautions to ensure the health and safety of their workers. These measures follow the direction set by the BC Government, including emphasizing the importance of maintaining social distance, increasing handwashing stations, reducing in-person meetings and increasing cleaning of common areas. The Project Team will continue to monitor contractors’ compliance with the direction of the government during this evolving situation.

Site safety tours and weekly safety inspections were carried out by Project Management Office (“PMO”) construction and safety personnel over the reporting period at all active worksites: McLoughlin Point WWTP, RTF, Macaulay Point Pump Station, Clover Point Pump Station, Clover Forcemain, Residual Solids Pipes; Residual Solids Pump Stations; Arbutus Attenuation Tank and Trent Forcemain.

Over the reporting period (October 2020) 5 safety incidents occurred, comprising: one first-aid, one medical aid recordable, three report-only incidents, as summarized in Table 2.

Table 2: Safety Incidents over the Reporting Period

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
October 2, 2020	McLoughlin Pt WWTP	Report Only	Water hose developed a leak allowing potable water to escape.	An operator that was in the immediate area was sprayed by the potable water.	Tool-Box talk to discuss inspection of hoses and replacing anything that looks defective was held.
October 12, 2020	RTF	Medical Aid Recordable	While grinding a worker had a small sliver of steel enter their eye.	The worker went to first aid where they flushed the eye, but were unable to remove the object. The worker was then sent to the hospital where the sliver was removed.	Worker was wearing appropriate safety glasses at the time of the incident. Upon review of the activity use of a face shield for further protection was added to the job task description.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
October 15, 2020	McLoughlin Pt WWTP	Report Only	Drainage of a waterline in the Tertiary Building in order to perform repairs resulted in the Tertiary Building basement flooding causing equipment damage.	Area was drained of water and equipment was removed to be inspected and repaired. Workers were never at risk.	Tool-Box talk to discuss isolation procedures and ensuring personnel are available to monitor activity. Also reminded team that a permit review is to be performed prior to commencement of work.
October 20, 2020	McLoughlin Pt WWTP	First Aid	While cutting rebar a worker received a small cut to their forearm from a portable saw.	Worker reported to first aid where the cut was cleaned and bandaged. No further treatment was required.	Tool-box talk to remind workers that hazard assessments of the work activity must be conducted prior to commencement.
October 28, 2020	Clover Point Pump Station	Report Only	Sub-contractors inadvertently interrupted operations of the grit system.	While maneuvering scaffolding in a restricted space part of their scaffold hit the emergency STOP button for the grit pump. No damage occurred and the operators restarted the equipment.	Tool-box talk to discuss proper care and control while moving materials in a restricted area.

Key safety activities conducted during October included:

- bi-weekly project update meetings with prime contractors: Knappett, NAC, HRMG, Kenaidan, Jacob Brothers
- monthly update meetings with prime contractors: HRP
- monthly Incident Investigation reviews;
- Great Shake Out Earthquake and Annual Emergency Evacuation Drill;
- reviewed site specific safety plans and high risk tasks; and
- Safety Manager and/or Construction Manager conducting regular site inspections at all active Project work sites.

Table 3: WTP Safety Information

	Reporting Period (October 2020)	Project Totals
Person Hours		
PMO	3,041	161,269
Project Contractor	49,577	2,235,366
Total Person Hours	52,618	2,396,635
Total Number of Employees		
PMO	27	
Project Contractors (& Project Consultants) working on Project Sites	265	
Total Number of Employees	292	
Near Miss Reports		
Near Miss Reports	0	47
High Potential Near Miss Reports	0	7
Report Only	3	182
First Aid	1	68
Medical Aid	1	12
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	1	19
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.7
Medical Aid Frequency		1.1
Lost time Frequency		0.4
Total Recordable Incident Frequency		1.6

2.2 Environment and Regulatory Management

Environmental and regulatory activities continued over the reporting period relating primarily to the execution of current work.

2.2.1 Environment

Environmental work progressed as planned over the reporting period. The focus was on environmental monitoring of construction activities and planning for upcoming BC Hydro work.

Key environmental management activities completed in October included:

- Riparian restoration planting was completed at the Peers creek and Colquitz River sites. Plantings included replacement trees and native plants.
- The CRD submitted an Environmental Effects Determination Amendment to the Department of National Defence for the construction of an access road for new BC Hydro power lines.

Over the reporting period, there were three environmental incidents:

- On October 13, there was a release of residual solids at the Residuals Treatment Facility (RTF) site. A temporary pipe failed during the commissioning process. Some of the

residual solids were contained on-site (within Hartland Landfill) but some travelled through a culvert and collected in a nearby low area in the CRD's Mount Work Regional Park. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols. It was determined that there was no surface flow to Durrance Lake but samples were taken as a precaution: microbiological indicators in the samples were present at consistent or slightly lower levels than prior to the incident, demonstrating that the release did not impact Durrance Lake.

- On October 19, there was a minor release of residual solids at a low point drain valve location on the Residual Solids Conveyance Line within Hartland Landfill, as a result of a valve failure. The valve was changed and all valve chambers on the Residual Solids Conveyance Line were inspected to confirm that the installed fail-safe mechanisms were operable. The release was mostly contained within a manhole, although some residual solids over-topped the manhole and drained through gravel. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols.
- On October 27, there was a small release of wastewater into the ocean at the McLoughlin Point Site. After a power outage a gate closed resulting in wastewater flowing into the site's storm system. The majority of wastewater was collected on-site but approximately 5 cubic meters entered a planter in the site's storm system and then into the ocean. An environmental professional assessed the potential impacts to be very low, and water samples were collected to confirm this. There is no indication of public health or long-term environmental impacts. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation.

2.2.2 Regulatory Management

Over the reporting period, the Project Team continued to support or lead the advancement of remaining permit applications. There are few regulatory approvals remaining.

Key permitting activities over the reporting period included:

- The CRD received a Certificate of Compliance (CoC) from the Province for the McLoughlin Point site. The CoC is a provincial legal instrument that demonstrates that a given site complies with contamination remediation standards.

The status of the two remaining key Project permits are summarized in Table 4. The table is not a list of all required Project permits, but rather a summary of the status of key Project permits. For the two permits in the table, the anticipated date and party responsible were updated from the table presented in the Project's Q3 2020 Quarterly Report:

- The anticipated date was changed from 'following completion of construction' to Q1 2021; and
- The party responsible for obtaining the two remaining key Project permits was updated from HRP to the CRD, as HRP have met their responsibilities and the CRD is finalizing the text of the leases with Transport Canada.

Table 4- Key Permits Status

Permit/Licence	Anticipated Date	Status	Party Responsible for Obtaining Perming
McLoughlin Point Harbour Crossing			
Transport Canada Lease	Q1 2021	On track	CRD
McLoughlin Point Outfall			
Transport Canada Lease	Q1 2021	On track	CRD

2.3 First Nations

First Nations communication and engagement was ongoing over the reporting period. Meetings with the Esquimalt and Songhees' liaisons continued, as did meetings with the WSÁNEC Leadership Council's (WLC) liaison. The meetings are a forum for covering both Project-related issues with the potential to impact First Nations, as well as an opportunity for broader discussion of CRD-related issues.

Key activities in October included:

- The CRD and the Songhees, Esquimalt and WLC liaisons discussed re-interment of Ancestral remains following Project completion. Discussions included scheduling of a burning ceremony to honour the Ancestors and planning a burning ceremony that complies with COVID protocols.

2.4 Stakeholder Engagement

The Project maintained its ongoing two-way Communications and Engagement Plan to provide Project information to stakeholders, communities and the public and to respond to public inquiries. The key focus of the communications and engagement activities over the period was to keep residents and stakeholders informed of Project plans, progress and construction information, and to receive and respond to questions and concerns raised by the community. A variety of communications tools and engagement activities were utilized to support the implementation of the plan, including stakeholder meetings, Project website updates and notifications of construction through notices and a public inquiry program, among other methods.

Construction Communications

One construction notice and was issued to stakeholders in the reporting period:

- Trent Forcemain: Dallas Road Closure (October 19, 2020) (Appendix A)

The construction notice was hand delivered to four buildings, including an apartment building, on Dallas Road near the road closure. In addition, as part of ongoing construction communications, residents affected by localized, temporary disruptions, such as driveway impacts, were notified by hand delivery of notices.

Project Website

Over the reporting period the Project website, wastewaterproject.ca, was updated with information about the Project. The construction notice and an update on the Environmental Incident at the Residual Treatment Facility (Appendix B) were posted.

The CRD's Twitter and Facebook accounts was used to provide Project information to the public, including: a traffic advisory regarding the closure of Dallas Road required for Trent Forcemain construction work; and information on the Environmental Incident at the Residual Treatment Facility.

Community Meetings

Over the reporting period, the Project Team held meetings with the following community groups and representatives, and municipality representatives:

- City of Victoria Technical Working Group;
- District of Saanich Technical Working Group; and
- meeting and site tour with representative from the Willis Point Residents Association.

Public Inquiries

Public inquiry numbers from the Project email address and 24/7 information phone line (1 844 815-6132) are noted in Table 5.

Table 5 – Project Inquiries- October 2020

Inquiry Source	Contacts for October 2020
Information phone line inquiries	22
Email inquiries responded to	21

Key themes of the public inquiries were as follows:

- questions regarding scaffolding at Gorge Bridge and Admirals Bridge;
- interest in restoration, landscaping along Dallas Road and at Clover Point; and
- questions regarding impacts to driveway access and parking due to construction and restoration work.

2.5 Resolutions from Other Governments

There were no resolutions related to the Project passed by other governments during the reporting period.

2.6 Schedule

Progress over the reporting period is summarized in Section 2.9.

Figure 1 shows the high-level Project schedule. There has been no change from that shown in the Q3 2020 Quarterly Report.

Over the reporting period the COVID-19 public health emergency continued to have impacts on the Project. However, construction is ongoing at all of the Project's sites, in accordance with provincial guidelines, and based on current progress the Wastewater Treatment Project remains on schedule to meet the provincial and federal regulations for treatment for the Core Area's wastewater by December 31, 2020.

Figure 1- High-Level Project Schedule

Wastewater Treatment Project Schedule*

Construction + Commissioning



*Schedule subject to updates as Project planning progresses.

2.6.1 30 day look ahead

Key activities and milestones for the next 30 days (November) are outlined below by function.

Safety

- bi-weekly and monthly prime contractor progress meetings;
- review of any site specific safety plans or high risk tasks;
- review prime contractor document submissions;
- issue Safety Notices for trending observations or similar incidents occurring on project sites;
- review of any site specific safety plans or high risk tasks;
- review any new COVID-19 document submissions;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites; and
- incident reporting review with prime contractors at active work locations.

Environment and Regulatory Management

- CRD anticipates receiving end-of-spill reports for the October 13 and October 19 spills.

First Nations

- CRD and Songhees and Esquimalt liaisons to begin discussions on Support Agreement close-out documentation.

Stakeholder Engagement

- ongoing construction communications with stakeholders; and
- ongoing community liaison meetings.

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- interim audit, auditors on site.

Construction

McLoughlin Point

- complete Operations & Maintenance (O&M) Building work to allow for occupancy;
- start acceptance testing;
- coordinate with CRD for installation of Corporate IT equipment; and
- coordinate with CRD for move of Core Area SCADA servers to McLoughlin Point WWTP.

Clover Point Pump Station

- install feature railings;
- Install pathway;
- landscaping and hydro seeding;
- install grass pavers; and
- commence demobilization.

Macaulay Point Pump Station

- commence demobilization;
- landscaping, plant trees, shrubs, and hydro seeding;
- install gravel pathways; and
- install boardwalk and viewing plaza.

Residuals Treatment Facility

- apply for Functional Completion certificate;
- continue process commissioning with residuals;
- continue biogas commissioning; and
- continue site landscaping.

Residual Solids Pump Stations

- commence landscaping;
- Hartland water reservoir commissioning; and
- commence clean up and demobilize.

Arbutus Attenuation Tank (AAT)

- install fiberglass reinforced plastic (FRP) walls and divider walls;
- install FRP columns;
- continue with concrete wall pours; and
- commence install of FRP overflow channel.

Trent Forcemain

- asphalt pavement restoration at St. Charles Street;
- continue City of Victoria improvements on Memorial Crescent; and
- commence concrete reinforced pipe shoring support, excavation and backfill along the seawall.

2.6.2 60 day look ahead

Key activities and milestones for the next 60 days (December) are outlined below by function.

Safety

- bi-weekly and monthly prime contractor progress meetings;
- review of any site specific safety plans or high risk tasks;
- review prime contractor document submissions;
- issue Safety Notices for trending observations or similar incidents occurring on project sites;
- WTP Safety Manager will conduct regular site inspections at all active Project work sites; and
- incident reporting review with prime contractors at active work locations.

Environment and Regulatory Management

- Ongoing environmental monitoring of the active construction sites.

First Nations

- Songhees and Esquimalt to host a ceremonial burning to honour the ancestors that were encountered during Project construction prior to their reburial.

Stakeholder Engagement

- ongoing construction communications with stakeholders; and
- ongoing community liaison meetings.

Cost Management and Forecast

- prepare cost reports
- prepare for year-end; and
- monitor schedule.

Construction

McLoughlin Point

- training; and
- connect servers to network at site.

Clover Point Pump Station

- install pathways;
- install water fountain, benches, garbage cans, and bike maintenance station and public art; and
- install washroom accessories.

Macaulay Point Pump Station

- complete demolition of old pump station;
- clean up and demobilize site; and
- restore area E to green space.

Residuals Treatment Facility

- complete process commissioning with residuals;
- complete biogas commissioning;
- commence acceptance testing; and
- complete site landscaping.

Residual Solids Pump Stations

- complete landscaping; and
- complete clean up and demobilization.

Arbutus Attenuation Tank (AAT)

- install electrical duct banks;
- install monorail and platform in valve chamber;
- install stainless steel piping and valves flowmeter to tank;
- form and pour suspended slab and curbs in main tank; and
- install FRP stairway.

Trent Forcemain

- install sanitary sewer on Dallas Rd between Bushby and Eberts streets;
- remove sidewalks along Dallas Road; and
- surface restoration as required.

2.7 Cost Management and Forecast

The monthly cost report for October is attached in Appendix C. The cost reports summarize Project expenditures and commitments by Project Components and the major cost centres common to the Project Components.

The Project Team has been reporting budget pressures through its monthly reports to the Project Board (and CRD Board) since September 2017, primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020.

The Project Team forecast the cost to complete the Project at \$775M, or \$10M (1.3%) over the Project's control budget. In May 2019 the CRD Board approved an increase in the Project's budget by \$10M to \$775M, and on August 14, 2019, the associated amendment to the 2019-2023 Financial Plan was approved.

Subsequent to May 2019 the Project Team have continued to manage risks and there have been two opposing budget drivers:

- i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and
- ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

It is too early to determine the cost impact to the Project, but given the ability to offset the unforeseen costs of COVID-19 through the finance cost savings, the Project Team remain confident that, if construction continues at the current pace, the Project cost will be within the Project's \$775M budget.

2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The net commitments made during the reporting period resulted in an increase in committed costs of \$1.3 million. The significant commitments made in the reporting period include work on the Trent Forcemain related to site access and, the installation of a secant pile to protect the sanitary sewer main, and the approval of provisional items in construction contracts and contract change orders.

2.7.2 Expenses and Invoicing

The Project expenditures for the reporting period were as expected and were within the budget allocations for each of the budget areas. The main Project expenditures incurred over the reporting period were associated with commissioning, construction activities and project management office-related costs.

2.7.3 Contingency and Program Reserves

Over the reporting period contingency draws of \$90k were made, and \$15k in credits were added, as summarised in Table 6. The draws to-date and remaining contingency and program reserve balances are also summarized in Table 6.

Table 6- Contingency and Program Reserve Draw-Down Table

WTP Contingency and Program Reserve Draws and Reallocations	Draw Date	\$ Amount
Contingency and Program Reserve (in Control Budget)		\$ 69,318,051
Net Contingency and Program Reserve draws to September 30, 2020		\$ (54,424,667)
Contingency and Program Reserve balance as at September 30, 2020		\$ 14,893,384
DND Request to Convert Temporary Area D Yard Works Laydown into Permanent Facility (CCN-021)	Oct-20	\$ 15,000
WWTP- Z.48 – Sample Sinks Washdown Water	Oct-20	\$ (25,595)
Costs associated with seeking the Certificate of Compliance for Remediation of WWTP Site	Oct-20	\$ (64,735)
WWTP Total Draw		\$ (75,330)
RTF Total Draw		\$ -
Conveyance Total Draw		\$ -
PMO Total Draw		\$ -
BC Hydro Total Draw		\$ -
WTP Program Reserve Draw		\$ -
Contingency and Program Reserve credits in the reporting period		\$ 15,000
Contingency and Program Reserve draws in the reporting period		\$ (90,330)
Contingency and Program Reserve balance as at October 31, 2020		\$ 14,818,054

2.7.4 Project Funding

The federal and provincial governments are assisting the Capital Regional District in funding the Project.

The Government of British Columbia will provide \$248 million towards the three components of the Project, while the Government of Canada is contributing:

- \$120 million through the Building Canada Fund Major infrastructure Component towards the McLoughlin Point WWTP;
- \$50 million through the Green Infrastructure Fund towards the conveyance system; and
- up to \$41 million towards the RTF through the P3 Canada Fund.

The Project Team has applied to the Federation of Canadian Municipalities (FCM) for additional funding and has executed a grant agreement for the contribution of up to \$346,900 towards the delineation of the contamination and remediation and risk assessment for the McLoughlin Point Wastewater Treatment Plant.

The status of funding claims is summarised in Table 7. Note that the timing for the provision of Government of British Columbia and Government of Canada's funding differs by funding source. The Project Team will submit claims to the funding partners in accordance with the relevant funding agreements. In accordance with the funding agreements, the remainder of the funding cannot be claimed until relevant Project components are substantially complete.

Table 7- Project Funding Status

Funding Source	Maximum Contribution	Funding Received in the Reporting Period	Funding Received to Date
Government of Canada (Building Canada Fund)	\$120M	-	\$108M
Government of Canada (Green Infrastructure Fund)	\$50M	-	\$45M
Government of Canada (P3 Canada Fund)	\$41M	-	-
Government of British Columbia	\$248M	-	\$186M
Federation of Canadian Municipalities	\$0.3M	-	-
TOTAL	\$459.3M	-	\$339M

2.8 Key Risks and issues

The Project Team actively identified and managed Project risks over the reporting period. Table 8 summarizes the highest-level risks that were actively managed over the reporting period, as well as the mitigation steps identified and/or undertaken over the reporting period. The only changes made to the active risks summary were the removal of two risks (downstream and upstream work delays) that were closed in the previous reporting period.

The COVID-19 public health emergency continued to have impacts on the Project over the reporting period. It is anticipated that these impacts may affect several of the Project's risks. The Project Team are currently evaluating the impact of the public health emergency on the Project's risks, and anticipates that changes may be made to several of the risks as the situation evolves. Those risks that the Project Team have identified as potentially impacted, and that are currently under review, are identified in Table 8.

Table 8- Project Active Risks Summary

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level	Trend in risk level from previous reporting period
Project				
Misalignment between First Nations' interests and the implementation of the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with First Nations interfacing with, or interested in, the Project.	First Nations engagement activities remained ongoing over the reporting period (see section 2.3 for further details).	L	No change
Divergent interests between multiple parties and governance bodies whose co-operation is required to successfully deliver the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with municipal, provincial and federal government departments.	The Project Team continued engagement with municipal, provincial and federal government departments throughout the reporting period.	L	No change
Misalignment between Project objectives/scope and stakeholder expectations.	The assessed risk level reflects the Project Team's priority of establishing strong and effective community stakeholder engagement.	Community engagement activities were ongoing over the reporting period (see section 2.4 for further details).	L	No change
Lack of integration between Project Components.	Planning challenges and system integration between the McLoughlin point WWTP, RTF and Conveyance System components of the Project results in schedule delays and/or additional Project costs.	Physical and schedule interfaces are clearly delineated in all construction contracts along with the requirement for commissioning and control plans. The Project Team has used a single Owner's engineer (Stantec) to develop the indicative design for all critical project components with significant interfaces. Commissioning and control plans are under development	L	No change
Senior government funds issue delayed.	The assessed risk level reflects the Project Team's priority of ensuring Project funding commitments are honoured.	Responsibility for meeting funding commitments has been assigned and is being monitored.	L	No change
Public directly contacting contractors at sites.	Direct contact between the public and contractors could expose both parties to worksite hazards and potential injuries.	Communications and engagement plan and coverage of communications in contractor orientations.	L	No change.

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level	Trend in risk level from previous reporting period
Change in law.	A change in law impacts the scope, cost or schedule of the Project.	Keep apprised of proposed modifications to relevant regulations so as to do the following as appropriate: submit comments on proposed modifications; and/or consider including anticipated modifications in contracts.	H	No change: this risk has been impacted by the COVID-19 public health emergency
Labour - availability and/or cost escalation.	There is insufficient labour available to construct the Project, and/or there is significant labour cost.	The Project Team will, through the use of competitive selection processes for all construction contracts, ensure that all Project contractors have appropriate experience and therefore understand labour risk.	L	No change
Disagreement on contractual obligations of the construction contractors.	There is a disagreement between the Project Team and a contractor regarding the performance of their contractual obligations.	The Project Team takes a proactive management approach to the resolution of any changes, claims and disputes that arise, working expeditiously to achieve resolution with the goal of minimizing any impacts to budget and schedule while ensuring adherence to the terms of the construction contracts.	M	No change but this risk may be impacted by the COVID-19 public health emergency (assessment is currently underway)

Risk Level Key - Assessed risk level (based on likelihood and potential impact)			
Low	Medium	High	Closed
L	M	H	C

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP)

The McLoughlin Point WWTP Project Component continued with Harbour Resource Partners (“HRP” as the Design-Build contractor for the McLoughlin Point WWTP) progressing construction and commissioning activities.

Key activities in progress or completed by HRP in October were as follows:

- Primary, secondary and tertiary treatment areas: commissioned biological systems.
- O&M building:
 - heating ventilation and air conditioning (HVAC) air flush underway; and
 - safety systems nearing final commissioning.
- Site works:
 - achieved functional completion; and
 - site landscaping nearing completion.

Photographs of construction progress over the month of October at McLoughlin Point WWTP are shown in Figures 2-5.



Figure 2– McLoughlin Point Wastewater Treatment Plant – Placing topsoil before planting at North Road landscape area.

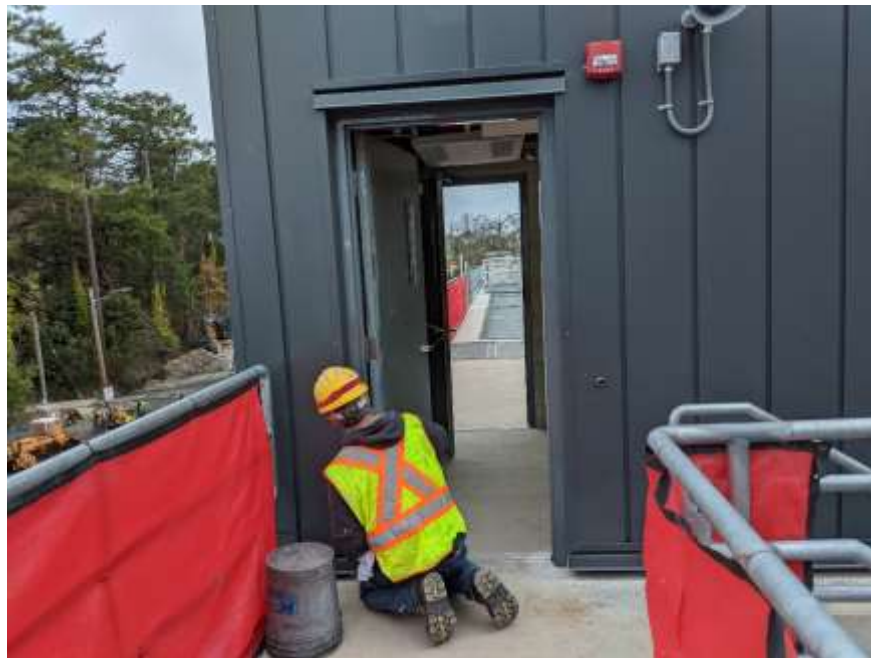


Figure 3– McLoughlin Point Wastewater Treatment Plant- Painting doors on West stairway penthouse.



Figure 4– McLoughlin Point Wastewater Treatment Plant- Planting shrubs in planter area south of biological aerated filter cell #9.



Figure 5– McLoughlin Point Wastewater Treatment Plant- Asphalt paving on Victoria View Road.

2.9.2 Residuals Treatment Facility

The RTF Project Component continued with Hartland Resource Management Group (“HRMG” as the Design-Build-Finance-Operate-Maintain contractor for the RTF) progressing construction and commissioning activities.

Key activities in progress or completed by HRMG in October were as follows:

- Digester Area: installed roof handrails on Digester Building.
- Other Municipal Solids Receiving Facility: installed canopy.
- Residuals Drying Facility: commissioning of various systems in progress.
- Site Works:
 - poured main gate foundation; and
 - hydro seeded storm ponds.

Photograph of construction progress over the month of October at the Residuals Treatment Facility are shown in Figure 6.



Figure 6– Residuals Treatment Facility- Construction of boardwalk in storm pond north of operations building.

2.9.3 Conveyance System

2.9.3.1 Clover Point Pump Station

The Clover Point Pump Station continued with Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressing construction and commissioning activities over the reporting period, including:

Key construction activities in progress or completed by Kenaidan in October included:

- progressed exterior stone veneer;
- progressed grading for walkways outside of pump station;
- commenced demobilizing site compound;
- functional testing of HVAC;
- installed pipe straps to pipe supports;
- progressing painting and coating;
- fine tuning performance of screen and degritting systems; and
- complete installation of grinder pump/forcemain for public washroom.

Photographs of construction progress over the month of October at Clover Point are shown in Figures 7-8.



Figure 7—Clover Point Pump Station- Exterior of public washroom.



Figure 8—Clover Point Pump Station- Rock face on new pump station.

2.9.3.2 Macaulay Point Pump Station and Forcemain

The Macaulay Point Pump Station and Forcemain continued with Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressing construction and commissioning activities over the reporting period, including:

Key construction activities in progress or completed by Kenaidan in October were as follows:

- Diversion Chamber
 - completed new diversion chamber;
 - ongoing backfill around the existing drop structure and new diversion chamber; and
 - completed foreshore drain works.

- Pump Station
 - demolition for the old pump station is ongoing;
 - installed non-classified flow switches;
 - installed door sidelights;
 - completed concrete deficiency repairs;
 - installed genset stair;
 - pump station acceptance test has started and is ongoing; and
 - mechanical deficiency repairs are ongoing.

A photograph of construction progress over the month of October at Macaulay Point Pump Station is shown in Figure 9.



Figure 9–Macaulay Point Pump Station- Ongoing demolition of old pump station.

2.9.3.3 Clover Forcemain (CFM)

Windley Contracting Ltd. (“Windley” as the Construction Contractor) completed all construction and commissioning activities over the reporting period, including:

- completed final clean up.

Photographs of construction progress over the month of October on the Clover Forcemain are shown in Figures 13-16.



Figure 13–Clover Forcemain- Cycle track with lines painted, bollards installed and sidewalk and fence complete.



Figure 14–Clover Forcemain- Landscaping complete and lounge chairs installed.



Figure 15–Clover Forcemain- Dallas road paved and benches and lounge chairs installed on sidewalk.



Figure 16–Clover Forcemain- Ogden Point restoration.

2.9.3.4 Residual Solids Conveyance Line

The RSCL is being delivered through two construction contracts:

- Residual Solids Pipes; and
- Residual Solids Pump Stations

Residual Solids Pipes: Don Mann Excavating Ltd. (“Don Mann” as the Construction Contractor for the Residual Solids Pipes) continued construction activities over the reporting period for the Saanich infrastructure improvement being undertaken at Peers Creek.

Key construction activities in progress or completed by Don Mann in October were as follows:

- Peers Creek Culvert Replacement.
 - backfilled both headwalls;
 - outlet weir was shaped and cobbles placed;
 - west side cofferdam was removed and the area cleaned up, including cobble placement around the inlet;
 - all archaeological material was able to be replaced onsite and the entire east side area was topped with screened topsoil;
 - garden mulch was delivered and placed around east headwall for use by Current Environmental as they replant the riparian area;
 - coco matting was secured to the gravel embankment on either side of the west headwall;
 - storm drain installation was completed;
 - replaced concrete curb and sidewalk on the east side;
 - topsoil and grass seed were placed over the storm drain alignment adjacent to the new sidewalk; and
 - completed final paving.

A photograph of construction progress over the month of October on the Residual Solids Pipes is shown in Figure 17.



Figure 17–Residual Solids Pipes – Peers Creek – Vegetation restoration.

Residual Solids Pump Stations: Knappett Projects Inc. (“Knappett” as the Construction Contractor for the Residual Solids Pump Stations) continued construction and commissioning activities over the reporting period.

Key construction activities in progress or completed by Knappett in October included:

- regraded and backfilled the centrate return line on Willis Point Rd near the RTF entrance;
- backfilled the Residuals Treatment Facility chamber and leachate connection chamber
- completed the odour control unit fence at pump stations 1, 2 and 3;
- completed backfill and trail prep at pump station 2;
- installed dampers in the Marigold valve chamber at Marigold Pump Station;
- removed fencing from multiple locations on the project;
- scaffolding was removed and sites cleaned up at Tillicum and Admirals Bridges;
- installed Hartland Flow Control Bypass;
- completed and pressure tested piping at Hartland Pump Station; and
- commenced installation of Hartland Reservoir kiosks.

Photographs of construction progress over the month of October on the Residual Solids Pump Stations are shown in Figures 18 and 19.



Figure 18–Residual Solids Pump Stations–Pump Station 2 – Single and double gates for the Omega fence around the odour control unit were installed



Figure 19 –Residual Solids Pump Stations – Pump Station 3- Compacted the final lift of granular material on the west end of the site

2.9.3.5 Arbutus Attenuation Tank

NAC Constructors Ltd. (as the Construction Contractor for the Arbutus Attenuation Tank) continued construction activities over the reporting period.

Key construction activities in progress or completed by NAC Constructors Ltd. in October included:

- completed installation of valve chamber suspended slab reinforcing steel, water stop, and shoring;
- completed installation of attenuation tank perimeter walls and divider wall reinforcing steel;
- ongoing caisson wall system cleaning;
- commenced installation of attenuation tank column reinforcing steel;
- commenced installation of wall formwork;
- ongoing perimeter wall and divider wall concrete pours took place; and
- poured concrete for valve chamber suspended slab.

Photographs of construction progress during the month of October at the Arbutus Attenuation Tank are shown in Figures 20 and 21.



Figure 20—Arbutus Attenuation Tank- Main tank overview.



Figure 21—Arbutus Attenuation Tank- Valve chamber suspended slab pour.

2.9.3.6 Trent Forcemain

Jacob Bros. Construction Inc. (as the Construction Contractor for the Trent Forcemain) progressed construction activities over the reporting period.

Key construction activities in progress or completed by Jacob Bros. in October included:

- completed 35m of St Charles Street Forcemain;
- ongoing storm and watermain relocation;
- recommenced Eberts Street Gravity Main at intersection with Dallas Road;
- large diameter manhole installed on Dallas Road;
- completed curb and gutter restoration on Memorial Crescent, and Bushby Street and Memorial Crescent;
- completed sidewalk restoration on Memorial Crescent and Bushby Street, and Bushby Street and Eberts;
- completed pavement restoration at Bushby Street, Brooke Street and Stannard Avenue intersection, and Memorial Crescent and May Street intersection;
- completed top-soil restoration at Ross Bay Cemetery; and
- completed stop bars on Bushby Street, Brooke Street, and May Street.

A photograph of construction progress during the month of October at the Trent Forcemain is shown in Figure 22.



Figure 22–Trent Forcemain- Poured curbing at the intersection of Memorial Crescent and Bushby Street.

Appendix A– Trent Forcemain: Dallas Road Closure (October 19, 2020)



UPDATE

October 21, 2020

Trent Forcemain: Dallas Road Closure

As part of construction for the Trent Forcemain, a pipe will be installed along Dallas Road and under the pedestrian path on the Dallas Road Seawall. This work will require the closure of Dallas Road at Eberts Street during work hours on the following dates:

- Monday, October 19
- Tuesday, October 20
- Wednesday, October 21
- Thursday, October 22
- Friday, October 23

On street parking along Dallas Road between Eberts Street and Memorial Crescent will be restricted during this work. Please refer to construction signage.

What to Expect

- A trench will be excavated, the pipe will be installed, and the trench will be backfilled.
- Steel road plates may be installed overnight in some locations.
- Noise associated with this work includes excavation machinery and truck back-up beepers.
- Equipment will be temporarily stored in the area.

Traffic Impacts

- Dallas Road will be closed at Eberts Street during work hours for approximately one week. A detour will be in place.
- Traffic control areas will be delineated by cones and signs and controlled by flaggers.

Access

- On street parking along Dallas Road between Eberts Street and Memorial Crescent will be restricted while construction takes place on Dallas Road.
- Access to your property may be impacted for short periods of time due to the presence of equipment.

Work Hours

- Monday to Friday from 7:00 a.m. to 7:00 p.m.
- Saturday 8:00 a.m. to 7:00 p.m.

Thank you for your patience while we complete this work. We apologize for any inconvenience this may cause.

Any questions about the work, please contact the Project Team.



24/7 Phone Line
1.844.815.6132



Email
wastewater@crd.bc.ca



Website
wastewaterproject.ca

Appendix B– Environmental Incident at the Residual Treatment Facility

Residual Treatment Facility Environmental Incident

During commissioning of the Residuals Treatment Facility, a temporary pipe failed on October 13, 2020 resulting in the release of residual solids. Some of the residual solids were contained on-site (within the Hartland Landfill) but some travelled through a culvert and collected in a nearby low area in the CRD's Mount Work Regional Park. Signs have been installed advising park users not to enter the affected area.

There is no indication of public health or long-term environmental impacts, including to Durrance Lake.

Environmental professionals assessed the affected area, are overseeing the remediation activities, and are advising on the appropriate monitoring and testing protocols.

The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation.

Any questions about the work, please contact the Project Team.



24/7 Phone Line
1.844.815.6132



Email
wastewater@crd.bc.ca



Website
wastewaterproject.ca

Appendix C– Monthly Cost Report (October)

MONTHLY COST REPORT
as at October 31, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to September 30, 2020	Expended over reporting period (October 2020)	Expended to October 31, 2020	Expended to October 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at October 31, 2020	Total Commitment at October 31, 2020	Unexpended Commitment at October 31, 2020	Uncommitted Allocated Budget at October 31, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion \$	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	331.4	329.7	311.0	2.3	313.3	95%	16.4	321.8	8.5	7.9	16.4	329.7	-	0%
Construction	306.7	321.3	310.6	2.3	312.9	97%	8.4	321.2	8.3	0.1	8.4	321.3	-	0%
Contingency	14.9	1.5	-	-	-	0%	1.5	-	-	1.5	1.5	1.5	-	0%
Financing	9.8	6.9	0.4	-	0.4	6%	6.5	0.7	0.3	6.2	6.5	6.9	-	0%
Residuals Treatment Facility	159.4	140.6	11.5	0.4	11.8	8%	128.8	139.2	127.4	1.4	128.8	140.6	-	0%
Construction	145.4	139.2	11.5	0.4	11.8	8%	127.4	139.2	127.4	0.0	127.4	139.2	-	0%
Contingency	12.3	1.0	-	-	-	0%	1.0	-	-	1.0	1.0	1.0	-	0%
Financing	1.7	0.4	-	-	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	158.0	213.4	181.7	2.5	184.2	86%	29.3	197.6	13.4	15.9	29.3	213.4	-	0%
Macaulay Point Pump Station	25.4	31.0	29.6	0.0	29.6	95%	1.4	31.0	1.4	0.0	1.4	31.0	-	0%
Macaulay Forcemain	5.6	7.4	7.4	-	7.4	100%	-	7.4	-	-	-	7.4	-	0%
Craigflower Pump Station	12.5	12.4	12.4	-	12.4	100%	-	12.4	-	-	-	12.4	-	0%
Clover Point Pump Station	23.7	27.3	24.7	-	24.7	91%	2.5	27.3	2.5	0.0	2.5	27.3	-	0%
Currie Pump Station^	2.8	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Arbutus Attenuation Tank	14.2	24.6	18.0	0.7	18.8	76%	5.8	23.6	4.8	1.0	5.8	24.6	-	0%
Clover Forcemain	14.6	32.3	31.1	0.5	31.6	98%	0.7	31.8	0.2	0.5	0.7	32.3	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.6	6.0	-	6.0	52%	5.5	9.2	3.1	2.4	5.5	11.6	-	0%
Residual Solids Conveyance Line	19.1	36.6	35.8	0.7	36.5	100%	0.0	36.6	0.0	0.0	0.0	36.6	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.8	15.7	0.6	16.3	91%	1.6	17.3	1.1	0.5	1.6	17.8	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	-	0.3	100%	-	0.3	-	-	-	0.3	-	0%
Contingency	16.8	7.8	-	-	-	0%	7.8	-	-	7.8	7.8	7.8	-	0%
Financing	5.8	4.1	0.1	-	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	75.8	77.9	60.1	1.1	61.2	79%	16.6	71.0	9.8	6.8	16.6	77.9	-	0%
Project costs Aug 2016-Dec 2016	2.2	2.2	2.2	-	2.2	100%	-	2.2	-	-	-	2.2	-	0%
Owner's Engineering	17.2	17.7	15.7	0.4	16.0	91%	1.7	17.7	1.7	0.0	1.7	17.7	-	0%
Conveyance Design	5.0	9.5	8.3	0.0	8.3	88%	1.1	9.0	0.7	0.5	1.1	9.5	-	0%
Advisors & Professional Support	7.0	14.8	10.5	0.1	10.7	72%	4.1	11.7	1.0	3.1	4.1	14.8	-	0%
Project Board	2.0	1.3	1.0	0.0	1.0	78%	0.3	1.0	-	0.3	0.3	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.2	17.1	0.5	17.6	76%	5.6	23.2	5.6	-	5.6	23.2	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	-	0.2	65%	0.1	0.2	-	0.1	0.1	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	-	0.1	73%	0.0	0.1	-	0.0	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	1.0	0.0	1.0	73%	0.4	1.4	0.4	-	0.4	1.4	-	0%
CRD Human Resources	0.3	0.3	0.2	0.0	0.3	96%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	-	0.2	95%	0.0	0.2	0.0	-	0.0	0.2	-	0%
CRD Real Estate	0.3	0.3	0.3	-	0.3	96%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	76%	0.1	0.4	0.1	-	0.1	0.4	-	0%
CRD Insurance	0.1	0.0	0.0	-	0.0	100%	-	0.0	-	-	-	0.0	-	0%
CRD Operations	0.6	0.6	0.5	0.0	0.5	91%	0.1	0.6	0.1	-	0.1	0.6	-	0%
CRD Legislative Services	0.1	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
CRD Corporate Safety	0.2	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
CRD Executive Services	-	0.1	0.1	-	0.1	86%	-	0.1	-	-	-	0.1	-	0%
Office Lease	1.9	1.3	0.9	0.0	1.0	74%	0.3	1.2	0.3	0.1	0.3	1.3	-	0%
Office Supplies	0.1	0.2	0.2	-	0.2	92%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	-	0.2	95%	0.0	0.2	-	-	0.0	0.2	-	0%
Connections Call Center	-	0.0	0.0	-	0.0	100%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.7	-	0.7	69%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	12.9	4.3	2.1	0.0	2.1	48%	2.2	2.1	0.0	2.2	2.2	4.3	-	0%
Third Party Commitments	8.1	8.1	4.2	0.1	4.3	52%	3.9	6.9	2.6	1.3	3.9	8.1	-	0%
Program Reserves	19.2	0.9	-	-	-	0%	0.9	-	-	0.9	0.9	0.9	-	0%
Core Area Wastewater Treatment Project	765.0	775.0	570.5	6.3	576.8	74%	198.1	738.6	161.7	36.4	198.1	775.0	-	0%

* Values presented in \$millions, results in minor rounding differences

** Cost report presents approved expenditures

^ Component no longer required, and would not provide any value therefore removed from Project Scope; Costs include Seaterra initiation, planning and design