Item 7.1

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF TUESDAY, JULY 7, 2020

SUBJECT **Wastewater Treatment Project May 2020 Monthly Report**

ISSUE

To provide the Core Area Wastewater Treatment Project Board with the Wastewater Treatment Project May 2020 Monthly Report.

BACKGROUND

On May 25, 2016 the Regional Board of the CRD:

i) Adopted by resolution the Core Area Wastewater Treatment Project Board Terms of Reference (Project Board Terms of Reference) for the purposes of establishing principles governing the Core Area Wastewater Treatment Project (the Wastewater Treatment Project or the WTP);
ii) Established the Core Area Wastewater Treatment Project Board (Project Board) under Bylaw 4109 (the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016) for the purposes of administering the Core Area Wastewater Treatment Project; and
iii) Delegated certain of its powers, duties and functions to the Project Board under Bylaw 4110 (the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016).

On September 14, 2016 the Regional Board of the CRD:

i) Received the final report of the Project Board with respect to its recommendation for the CAWTP, dated September 7, 2016 (the Final Report); and
ii) Approved the business case attached as Appendix 1 (the Business Case) to the Final Report.

DISCUSSION

The Core Area Wastewater Treatment Project Board (the Project Board) Terms of Reference requires, amongst other things: that the Project Board provide the CRD Board with monthly progress reports and a comprehensive quarterly report on the Project.

The Monthly report for the period of May 2020 is attached as Appendix A.

RECOMMENDATION

That the Core Area Wastewater Treatment Project Board approve the following resolution:

RESOLVED that:

The Staff Report, 'Wastewater Treatment Project May 2020 Monthly Report', be received for information and forwarded to the Core Area Liquid Waste Management Committee and CRD Board for information.

Elizabeth Scott, Deputy Project Director
Wastewater Treatment Project

Dave Clancy, Project Director
Wastewater Treatment Project
Concurrence

Attachments: 1

Appendix A: Wastewater Treatment Project May 2020 Monthly Report

ES:er

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: May 2020

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1 Executive Summary

1.1 Introduction

This Monthly Report covers the reporting period of May 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 construction progress and may delay some interim project milestones, such as the transition to commissioning. 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: installation of the chemical distribution system; roofing and envelopes in the Primary treatment area; Biological Aerated Filter (BAF) tank covers in the Secondary treatment area; secondary effluent fiberglass reinforced plastic (FRP) baffles; lower level 1 pumps and mechanical piping in the tertiary treatment area; Lower level interior flooring, millwork painting and door installation; the green roof installation. In addition the blind was removed from the outfall, and FRP baffles installed, pig receiving station piping completed, and installation of main plant water service is ongoing on site.

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: external pipe connections on Digester 1 and the Digested Solids Storage Tank (DSST); ongoing electrical work, and commissioning of the overhead crane in the Residuals Handling Building; mechanical and insulation installation and the generator run and load test are completed in the Residuals Drying Facility; completed hydro test of water storage tank, chemical piping installation and fiberglass reinforced plastic (FRP) duct installation continued in the Residuals Storage and Odour Control Building; and the architectural finishes are complete and electrical and mechanical deficiencies are being closed out in the Operations Building.

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 activities over the reporting period including: completed pipe supports, completed bypass pumping for tie-in at new inlet channel installed fuel storage tank and exhaust fan for diesel generator; progressed work on fuelling system; and progressed work at the new public plaza and washroom.

- Macaulay Point Pump Station: Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction activities over the reporting period including: completed fiberglass reinforced plastic (FRP) platform and ducting in the wet well; completed installation of wood siding on the north side of the building; ongoing installation of penthouse louver; installed the inlet fire damper in the genset room; ongoing commissioning of the programmable logic control (PLC) and motor control centres (MCC); and exposing and cutting pigging chamber wall and cut pipe penetration opening.

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

- Clover Forcemain: Windley Contracting Ltd. ("Windley" as the Construction Contractor) continued construction activities including: seawall balustrade replacement, poured new concrete wall and commenced grading for new sidewalk.

- 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, including: completing pipe installation and pressure testing section from the north side of Tillicum Bridge to the south side of Admirals Bridge, completed air valve chamber on Grange Road, and addressed deficiencies across all segments.

    - Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor) continued construction activities including: installation of odour control unit underground vent and drain piping, and general backfill of the site at Pump Station 1; the BC Hydro line installed and the odour control slab was poured at Pump Station 2; pressure testing and finishing items continued within the wet well and valve chamber at Pump Station 3; and the Marigold crossing was completed.

- Arbutus Attenuation Tank ("AAT"): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: completed fourth concrete pour, installed ducting from BC Hydro Pole to BC Hydro meter base, and commenced bulk excavation.

- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: completion of storm sewer relocation on

Bushby Street, commenced forcemain installation on Stannard Avenue, and concrete flow through chamber stripped and backfilled.

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 two recordable safety incidents occurred and the total recordable incident frequency increased from 1.5 at the end of the April 2020 to 1.6. 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 construction progress and may delay some interim project milestones, such as the transition to commissioning. 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 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.

Based on the value of the contracts awarded to-date and the refreshed cost estimate for the scope remaining to be procured, 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 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 if construction continues at the current pace the Project Team remain confident that 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*.					Two recordable incidents 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.					Two minor environmental incidents occurred over the reporting period.
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 is impacting construction progress and may delay some interim project milestones, such as the transition to commissioning. The Wastewater Treatment Project has made significant progress and currently 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).					Based on the value of the contracts awarded to-date and a refreshed cost estimate for the scope remaining to be procured, the Project Team has forecast the cost to complete the Project at $775M, or $10M over the Project's Control Budget. This is 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 CRD Board have approved an increase in the Project's budget by $10M, to $775M. 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 if construction continues at the current pace the Project Team remain confident that the Project cost will be within the Project's $775M budget, as a result of offsetting savings in financing costs.

* 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 (May 2020) 12 safety incidents occurred, comprising: 1 medical aid recordable, 2 first-aid, 1 lost time recordable and 8 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
May 1, 2020	Residual Solids Pump Stations	**Lost Time**	A worker sustained a hand injury when they lost their balance and crushed their finger between the handle of a cabinet and the steel cabinet.	Worker was sent to First Aid for assessment. An X-rays confirmed a fracture of the finger.	Tool-box talk held with crews to bring attention to the increase of hand injuries. They also reviewed the need for Hazard Assessments before starting work and in this case a working platform was recommended and installed.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
May 5, 2020	Residual Solids Pump Stations	First Aid	Worker sustained a minor hand injury while trimming a piece of wood.	Worker reported to first aid where the laceration was cleaned and bandaged. No further follow up was required.	Tool-box talk to remind workers to wear the appropriate rated gloves for task was conducted.
May 6, 2020	McLoughlin Pt WWTP	First Aid	A Worker sustained a minor hand injury when they grabbed the end of a piece of pipe. Worker was wearing gloves at time of incident.	Worker reported to first aid where the laceration was cleaned and bandaged. No further follow up was required.	Tool-box talk to remind workers to wear the appropriate rated gloves for task was conducted.
May 11, 2020	Residual Solids Pipes	Medical Aid	A worker sustained a hand injury by striking their finger with a sledge hammer.	Worker reported to First Aid and was sent for x-rays. X-ray confirmed that the finger was fractured.	Tool-box talk with workers to remind them to focus on task and understand the hazards with the work being undertaken was conducted.
May 12, 2020	Residual Solids Pump Stations	Report Only	Worker was pulling a cable and experienced shoulder pain.	Worker reported to First Aid where they were evaluated with no follow up required.	Worker reminded to use good ergonomic practices and to perform stretching prior to any awkward task.
May 13, 2020	Residual Solids Pipes	Report Only	A worker over torqued a steel bolt on a pipe coupler causing it to break.	The pipe was under pressure and released water into the work area. No one was hurt in incident.	Tool-box talk reminding workers to be aware of the task at hand. Along with the proper use of small hand tools.
May 19, 2020	Clover Point Pump Station	Report Only	A member of the public disregarded notices indicating that Clover Point is a construction worksite and opened the construction gate.	A worker still on site inform the driver this was a construction site and they were trespassing. The driver accelerated around the worker and in doing so struck the workers hand with their mirror. The worker reported to First Aid and no further follow up was required.	The incident was reported to Police. A tool box talk reviewing the process of deescalating situations with members of the public was conducted.
May 20, 2020	Trent Forcemain	Report Only	A gas line was damaged by material sloughing into the excavation.	All equipment was immediately shut down and the area evacuated. Fortis was called and repaired the gas line.	A tool-box talk reviewing means and methods in securing the slope in an excavation was conducted.
May 21, 2020	Trent Forcemain	Report Only	While excavating a phone line was damaged interrupting the service to a nearby residence.	Locates were arranged prior to digging. Phone cable was not highlighted.	Phone Company attended site and repaired the service.
May 26, 2020	Residual Solids Pump Stations	Report Only	An inspector while descending using precast ladder rungs in a manhole fell approximately 1m.	One of the ladder rungs dislodged causing him to fall backwards striking his lower back against a pipe support. He reported to a medical facility to be evaluated with no treatment provided.	Safety Notice was issued to all Prime Contractors in regards to incident. All contractors were instructed to inspect ladder rungs in pre-cast manholes. No other issues were reported from any of the sites.
May 29, 2020	Arbutus Attenuation Tank	Report Only	A worker rolled their ankle on an uneven surface.	Worker reported incident to First Aid Attendant on site with no further treatment provided	Tool-box talk to discuss ensuring awareness of the work area and identification of hazards was conducted.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
May 29, 2020	Residual Solids Pump Stations	Report Only	Worker was using a torque wrench on the bolts of a flange when the wrench slipped striking the worker in the face.	Worker received 2 chipped front teeth. Worker was assessed by First Aid Attendant and instructed to see a dentist to evaluate damaged teeth.	Tool-box talk to discuss proper body positioning when using handheld tools was conducted.

Key safety activities conducted during May included:

- bi-weekly project update meetings with prime contractors: Kenaidan, Windley, Don Mann, HRP, Knappett, Jacob Bros and NAC;
- weekly project update meeting with prime contractor: HRMG;
- monthly Incident Investigation reviews;
- hosted Prime Contractor Safety Coordination Meeting with Project safety representatives;
- reviewed site specific safety plans and high risk tasks;
- WTP Safety Manager and/or Construction Manager conducting regular site inspections at all active Project work sites;
- compliance checks of COVID-19 Safe Work Plans of our Prime Contractors; and
- safety email sent out to inform Prime Contractors of high incidents “hand injuries” on the Project.

Table 3: WTP Safety Information

	Reporting Period (May 2020)	Project Totals
Person Hours		
PMO	3 492	145 079
Project Contractor	98 376	1 872 994
Total Person Hours	101 868	2 018 073
PMO	30	
Project Contractors (& Project Consultants) working on Project Sites	581	
Total Number of Employees	611	
Near Miss Reports	0	45
High Potential Near Miss Reports	0	6
Report Only	8	158
First Aid	2	55
Medical Aid	1	9
Medical Aid (Modified Duty)	0	2
Lost Time	1	5
Total Recordable Incidents	2	16
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.4
Medical Aid Frequency		1.1
Lost time Frequency		0.5
Total Recordable Incident Frequency		1.6

2.2 Environment and Regulatory Management

Environmental and regulatory activities continued over the reporting period relating to both the planning and permitting of upcoming work and 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.

Key environmental management activities completed in May included:

- The CRD, District of Saanich and Knappett met at the Colquitz River crossing site to discuss plans for riparian restoration and tree replacement; and
- The CRD, Parsons, Don Mann and their environmental consultant McElhanney met at the site of a culvert replacement on the Interurban Trail. The purpose of the visit was to discuss upcoming in-stream work to facilitate fish passage through the culvert.

Over the reporting period, there were two minor environmental incidents at the Clover Point pump station:

- Overnight on May 6th, there was an unplanned discharge at Clover Point Pump Station when flows were diverted to the short outfall channel as a result of an electrical fault. The CRD's overflow response procedure was implemented: the CRD posted public health advisory signs and closed nearby beaches to swimming for approximately 36 hours.
- Overnight on May 29th, there was an unplanned discharge at Clover Point Pump Station when flows were diverted to the short outfall channel as a result of loss of power to the screens. The CRD's overflow response procedure was implemented: the CRD posted public health advisory signs and closed nearby beaches to swimming for approximately 5.5 days.

2.2.2 Regulatory Management

During the reporting period, the Project Team continued to monitor the advancement of construction-related regulatory approvals and supported or led the advancement of permit applications.

Key permitting activities for May included:

- The BC Ministry of Environment and Climate Change Strategy (ENV) issued an Operational Certificate to the CRD that authorizes air emissions from the Residuals Treatment Facility; and
- The CRD met with ENV to review and provide feedback on the draft MWR Registration letter.

The status of 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. Receipt of the Operational Certificate is the only change from the Key Permits Status table in April's monthly report.

Table 4- Key Permits Status

Permit/Licence	*Anticipated Date*	*Status*	*Party Responsible for Obtaining Perming*
McLoughlin Point WWTP			
Municipal Wastewater Regulation ("MWR") Registration	Q2 2020	Submitted September 2019	CRD
McLoughlin Point Harbour Crossing			
Transport Canada Lease	Following completion of construction	On track	HRP
McLoughlin Point Outfall			
Transport Canada Lease	Following completion of construction	On track	HRP
Residuals Treatment Facility			
Operational Certificate	Prior to start of RTF operations	Received	HRMG

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 WSANEC 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 May included:

- The CRD and the Esquimalt and Songhees liaisons continued to develop content for interpretive signs for installation at Clover Point, Macaulay Point and Mcloughlin Point.

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 was issued to stakeholders in the reporting period:

- Trent Forcemain: Water Service Shutdown Notice Update (May 11, 2020) (Appendix A)

The Trent Forcemain notice was hand delivered to 190 residences in the Fairfield area. As well, as part of ongoing construction communications, residents affected by localized, temporary disruptions, such as driveway or water impacts, were notified by hand delivery of notices.

Two public service announcements were distributed to local media and posted online as an alert.

- Core Area Wastewater Discharge Notice (May 7, 2020) (Appendix B); and
- Core Area Wastewater Discharge Notice (May 30, 2020) (Appendix C).

Project Website

Over the reporting period the Project website, wastewaterproject.ca, was updated with information about the Project. One construction notice and two public service announcements were posted. A map showing the progress of construction along the Residual Solids Conveyance Line (Appendix D) was updated.

The CRD's Twitter account was used to provide Project information to the public, including updates about wastewater discharge at the Clover Point Pump Station.

Two alerts were posted regarding the wastewater discharge at Clover Point following the CRD's response protocol.

Community Meetings

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

- City of Victoria staff;
- City of Victoria Technical Working Group;
- District of Saanich Technical Working Group;
- PISCES (Portage Inlet Sanctuary Colquitz Estuary Society); and
- Township of Esquimalt Liaison Committee.

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- May 2020

Inquiry Source	Contacts for May
Information phone line inquiries	33
Email inquiries responded to	6

Key themes of the public inquiries were as follows:

- interest in work on Grange Road;
- questions regarding water shut-off for the Trent Forcemain; and
- questions about final restoration.

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

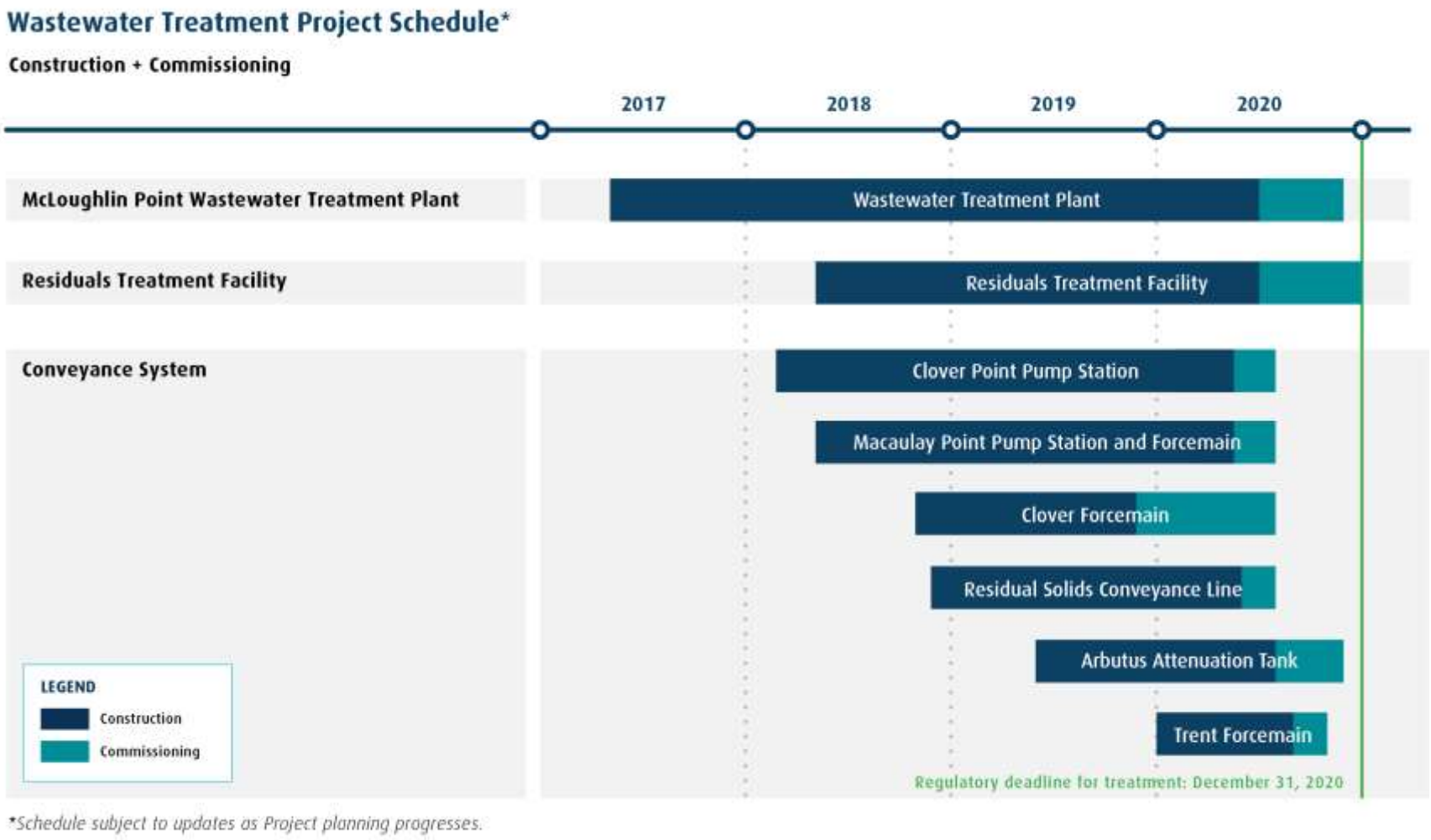
Progress over the reporting period is summarized in Section 2.9.

Figure 1 shows the high-level Project schedule. This schedule has not changed from that shown in the April 2020 Monthly Report.

The Project schedule remains subject to optimization as the Project progresses.

Over the reporting period the COVID-19 public health emergency continued to have impacts on the Project. Specifically, the COVID-19 public health emergency is impacting construction progress and may delay some interim project milestones, such as the transition to commissioning. 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



*Schedule subject to updates as Project planning progresses.

2.6.1 30 day look ahead

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

Safety

- CRD corporate occupational health and safety coordination committee meeting;
- weekly and bi-weekly prime contractor progress meetings;
- host Prime Contractor Safety Coordination Meeting with Project safety representatives;
- review of any site specific safety plans or high risk tasks;
- send out any new Safety Notices or Incident Notifications to Prime Contractor;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites;
- incident reporting review with prime contractors at active work locations;
- participate in CRD Fatigue Management Seminar; and
- issue Safety Notices for trending observations or similar incident occurring on project sites.

Environment and Regulatory Management

- The CRD anticipates receiving the MWR Registration from ENV.
- The CRD and Stantec anticipate receiving a Site Alteration Permit to allow work to proceed in recently discovered archaeological sites along Dallas Road and the adjacent seawall.

First Nations

- CRD to continue meeting with the First Nation Liaisons.

Stakeholder Engagement

- ongoing construction communications with stakeholders;
- ongoing community liaison meetings; and
- distribution of Project Update #9.

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- prepare CRD WTP annual budget; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- demobilize south tower crane;
- backfill planter walls;
- construct road structure including line painting;
- install stairway in primary odour control;
- install monorail in dirty backwash tanks;
- install roofing and cladding west entry stairwell;
- complete electrical terminations and finishes;
- install plumbing fixtures, flooring, cabinetry, and millwork in Operations & Maintenance building(O&M);
- install fire sprinkler system;

- install exterior finishes; and
- conduct walk downs and commence functional testing.

Clover Point Pump Station
- install sound dampening in generator room;
- form and pour North retaining wall and buttresses; and
- reinstall existing slide gates.

Macaulay Point Pump Station
- install outdoor site furnishings;
- complete backfill of new pump station;
- install foul air ducting to diversion chamber;
- install slide gate;
- install fire stop throughout;
- install architectural louvres;
- install heating ventilation and air conditioning (HVAC) control equipment;
- install green roof system;
- install supply and exhaust air ducting at mezzanine level;
- interior painting throughout;
- install platform and grating over grit separator;
- install exterior spilt stone finish; and
- install interior finishes in public washroom.

Residuals Treatment Facility
- continue functional start-up, wet testing and initial system verification;
- commence repair to damaged panels at Digester #1;
- complete repair to roof panels and redo pneumatic test at Digester #2;
- hydro test at Digester #3;
- complete works and hydro testing at Digested Solids Storage Tank;
- continue instrumentation at the Digester Building;
- continue installation of hopper and shelter at Other Municipal Solids Receiving Facility;
- continue biogas piping, odour control ductwork, and building systems at the Residuals Handling Building;
- continue stair installation, exterior doors & hardware, HVAC, lighting, finishes, electrical installation, load-out structure, and process piping at the Dryer Building;
- continue biogas system installation at the Digester Building;
- complete Biogas Conditioning System;
- complete electrical work at Equalization Building;
- complete electrical at the Water Pump House;
- continue electrical and ductwork installation at Odour Control Area;
- substantial completion of Operations Building; and
- continue site grading and retention ponds.

Clover Forcemain
- road and cycle track construction Montreal to Dock Street;
- demolish existing seawall; and
- install new seawall and build new railings.

Residual Solids Pipes

- final paving and restoration as required.

Residual Solids Pump Stations

- Pump Station 1, 2 & 3, commence start-up testing and commissioning;
- complete final civil works at RTF chamber;
- backfill and road pull out at leachate chamber;
- complete pipe installation at Admirals bridge; and
- system testing throughout.

Arbutus Attenuation Tank (AAT)

- complete excavation within tank footprint;
- rock removal within tank footprint;
- commence subgrade preparation within tank footprint;
- commence installation of rock anchors within tank footprint; and
- commence installation of mud mat within tank footprint.

Trent Forcemain

- install forcemain at Fairfield Road from Thurlow Road to Stannard Avenue;
- complete surface restoration;
- saw cut and remove pavement, sidewalk and curbs on Memorial Crescent; and
- install sanitary sewer on Memorial Cres from Dallas Road to Thurlow Avenue.

2.6.2 60 day look ahead

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

Safety

- participate in CRD corporate occupational health and safety coordination committee meeting;
- host Prime Contractor Safety Coordination Meeting with Project safety representatives via Team Meeting conference call
- weekly and bi-weekly 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 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.

First Nations

- The CRD and First Nation liaisons to continue planning post-construction archaeological artifact displays for community members.

Stakeholder Engagement

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

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- prepare CRD WTP annual budget; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- complete backfill of tsunami and planter walls;
- construct road structure;
- commence landscaping;
- continue building envelope throughout;
- continue process mechanical and electrical throughout;
- install cabinetry and millwork in O&M building;
- complete fire sprinkler system in O&M building;
- complete accessory installation in offices, control room and restrooms;
- complete system walk downs; and
- commence functional testing.

Clover Point Pump Station

- complete construction of existing Pumping Station upgrades;
- continue landscaping;
- complete construction Public Washroom;
- install coating for floor, walls and ceilings in screen/degritter room, wet well access room and odour control screen room;
- complete electrical works;
- commence functional and operational testing of equipment; and
- install split stone to exterior retaining walls.

Macaulay Point Pump Station

- install 1800 Weholite pipe extension;
- install slide gate;
- install fire stopping and smoke seals;
- install stainless steel door hardware;
- apply paint and sealants throughout;
- install office furniture and accessories;
- install washroom accessories and partitions; and
- install green roof system.

Residuals Treatment Facility

- continue functional start-up, wet testing and initial system verification;
- complete repair to damaged panels and redo hydrotest at Digester #1;
- commence insulation at Digester #2;
- commence insulation at Digester #3;
- complete works at the Digester Building;
- install jib crane at Other Municipal Solids Receiving Facility;
- complete biogas piping and odour control ductwork at the Residuals Handling Building;
- complete truck load-out assembly and continue ducting insulation at the Dryer Building;

- continue biogas system installation at the Digester Building;
- complete Biogas Conditioning System;
- complete instrumentation work at Equalization Building;
- complete electrical work at the Water Pump House;
- complete electrical and ductwork installation at Odour Control Area;
- set up Control Room at Operations Building; and
- continue site grading and retention ponds.

Clover Forcemain

- form and pour new seawall;
- install new seawall railings;
- install new modified curbs
- install new sidewalks;
- install new bollards; and
- complete Dallas Road surface works.

Residual Solids Pump Stations

- continue construction in Pump Stations, including completion of equipment installation, Electrical and Site Works;
- conduct interim commissioning with water in Pump Stations;
- complete construction and start of Commissioning in Marigold Control Valve Chamber;
- complete Residual Solids Forcemain and Centrate Return Line tie-in, test and commissioning; and
- complete installation of Admiral Bridge Pipe and pressure testing.

Arbutus Attenuation Tank (AAT)

- complete installation of rock anchors;
- form, rebar and install floor drains and piping in slab;
- commence installation of sumps and commence installation of FRP one sided walls;
- complete installation of temporary power for site in coordination with BC Hydro; and
- complete installation of water service for site in coordination with District of Saanich.

Trent Forcemain

- complete installation of 900mm PVC Forcemain in Fairfield Rd;
- install new 900mm PVC Forcemain in Memorial Crescent;
- install new 900mm Sanitary Sewer Main in Bushby Street;
- install new 900mm PVC Forcemain in Brooke Street; and
- supply and install blowdown assembly with manhole frame & cover in Fairfield Road, Stannard Ave and Memorial Crescent.

2.7 Cost Management and Forecast

The monthly cost report for May is shown in Appendix E. The cost report summarizes 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.

Based on the value of the contracts awarded to-date and the refreshed cost estimate for the scope remaining to be procured, 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 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 if construction continues at the current pace the Project Team remain confident that 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 $0.9 million. The significant commitments made in the reporting period comprised 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 construction activities and project management office-related costs.

2.7.3 Contingency and Program Reserves

Contingency draws totalling $282,892 were made over the reporting period, as summarised in Table 6. The draws to-date, remaining contingency and program reserve balances are 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 April 30, 2020		$ (53,677,075)
Contingency and Program Reserve balance as at April 30, 2020		**$ 15,640,976**
Preparation of the application for a Certificate of Compliance for McLoughlin Point	May-20	$ (217,924)
Procurement and installation of equipment to allow for the continuous monitoring of odor control treatment System emissions via SCADA	May-20	$ (64,968)
WWTP Total Draw		$ (282,892)
RTF Total Draw		$ -
Conveyance Total Increase		$ -
PMO Total Draw		$ -
BC Hydro Total Draw		$ -
WTP Program Reserve Draw		$ -
Contingency and Program Reserve draws in the reporting period		$ (282,892)
Contingency and Program Reserve balance as at May 31, 2020		**$ 15,358,084**

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, funding from the P3 Canada Fund and the remainder of the funding from the Government of British Columbia 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	$2.5M	$103.3M
Government of Canada (Green Infrastructure Fund)	$50M	$0.7M	$44.0 M
Government of Canada (P3 Canada Fund)	$41M	-	-
Government of British Columbia	$248M	-	$186.0M
Federation of Canadian Municipalities	$0.3M	-	-
TOTAL	**$459.3M**	**$3.2M**	**$333.3M**

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.

There were no changes to the active risks summary in the 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).	M	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

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
Downstream works delays.	Delay to the commissioning of the conveyance projects delays commissioning of the WWTP and the RTF.	Schedule has sufficient time allowance to ensure conveyance elements complete prior to requirement. Contractor agreements will include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration.	M	No change but this risk may be impacted by the COVID-19 public health emergency (assessment is currently underway)
Upstream works delays.	Delay to the commissioning of either the WWTP or the RTF impacts the commissioning of the other plant.	Contracts with HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) and HRMG (as the Design-Build-Finance-Operate Maintain contractor for the RTF) include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration. Liquidated damages for late delivery are included in both HRP and HRMG contracts.	L	No change but this risk may be impacted by the COVID-19 public health emergency (assessment is currently underway)
Municipal Wastewater Regulation (MWR) Registration is not achieved or is delayed.	A delay to achieving MWR Registration of the wastewater treatment system would mean that the CRD could not discharge treated effluent, and therefore would not be able to commission the WWTP or RTF.	The Project Team (with HRP and Stantec representatives) have been meeting regularly with Ministry of Environment representatives since September 2017 to review the MWR Registration application requirements and the Project's schedule, in order to mitigate the risk of an incomplete application and/or schedule delays in the registration. The MWR Registration application was submitted to the Ministry of Environment in September 2019. The Project Team, MOE and relevant contractors have continued to meet regularly to track progress and discuss issues.	M	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.	M	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.	M	No change but this risk may be impacted by the COVID-19 public health emergency (assessment is currently underway)
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.	M	No change but this risk may be impacted by the COVID-19 public health emergency (assessment is currently underway)
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 is continuing with Harbour Resource Partners ("HRP" as the Design-Build contractor for the McLoughlin Point WWTP) progressing:

- Primary treatment area:
  - Densadeg 1, 2 and 3 are going through final walk downs prior to hand over to commissioning;
  - primary odour control fiberglass reinforced plastic (FRP) pipe and equipment nearing completion;
  - plate settler 1 & 2 are progressing through final walk downs prior to hand over to commissioning;
  - chemical distribution systems installation ongoing, PVC piping is progressing; and
  - roofing and envelopes are nearing completion across the primary area.

- Secondary treatment area:
  - moving bed bio reactor (MBBR) 1 & 2 are mechanically complete, covers are complete;
  - Biological Aerated Filter (BAF) cell 12 is complete;
  - electrical teams have transitioned to field terminations by system from the work in the main electrical room;
  - all motor control centres are now powered;
  - communication network is ongoing;
  - electrical work in the blower building is nearing completion;
  - heat recovery room is progressing;
  - penthouse building envelopes are nearing completion; and
  - BAF tank covers are progressing.

- Tertiary treatment area:
  - continued upper disk filter walls, including outfall shaft roof slab, concrete is complete;
  - installation of secondary effluent FRP baffles ongoing;
  - lower level 1 pumps and mechanical piping installation is nearing completion;
  - level 2 process pipe continued with installation of UV system and pumps; and
  - cinder block masonry is ongoing.

- O&M building:
  - lower level interior flooring and millwork in progress;
  - lower level drywall is complete;
  - lower level painting and suspended ceiling is progressing;
  - door installation is in progress;
  - level 2 heating ventilation and air conditioning (HVAC) plumbing and fire suppression are all nearing completion;
  - steel stud installation on level 2 is nearing completion and drywall, paint, drop ceilings, flooring and millwork are underway;
  - roofing is complete, cladding on all levels is nearing completion, green roof installation is in progress; and
  - glazing installation complete on level 1 and nearing completion on level 2.

- Site Works:
  - removed outfall blind and installed FRP baffles;
  - pig receiving station piping complete;
  - installation of main plant water service is ongoing; and
  - storm line no.2 installed and backfill progressed across site.

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

Figure 2− McLoughlin Point Wastewater Treatment Plant - Coating of leading edge Operations & Maintenance roofing.

Figure 3− McLoughlin Point Wastewater Treatment Plant- Installed floor coating in the laboratory.

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Figure 4− McLoughlin Point Wastewater Treatment Plant- Installation of Hydronic lines to Odour Control roof to unit.

Figure 5− McLoughlin Point Wastewater Treatment Plant- Installing insulation and cladding on east face of Blower Building.

2.9.2 Residuals Treatment Facility

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:

- Digester Area:
  - Digester 1 external pipe connections;
  - Digester 2 Pneumatic test;
  - Digester 3 Close up and make ready for hydro test;
  - Digested Solids Storage Tank external pipe connections; and
  - Digester Building mechanical and electrical is in progress.

- Other Municipal Solids Receiving Facility:
  - Electrical cable terminations are in progress.

- Residuals Handling Building:
  - electrical work continued in all areas;
  - FRP grating install is in progress;
  - FRP ducting install ongoing; and
  - overhead crane commissioning completed.

- Residuals Drying Facility:
  - mechanical installation is in progress;
  - electrical terminations continued;
  - insulation install is in progress; and
  - generator run and load test completed.

- Residuals Storage & Odour Control:
  - mechanical and electrical work is in progress;
  - FRP duct install is progressing;
  - hydro test of water storage tank was completed; and
  - chemical piping install commenced.

- Operations Building:
  - completed all architectural finishes; and
  - electrical and mechanical deficiency's being closed out.

Photographs of construction progress over the month of May at the Residuals Treatment Facility are shown in Figures 6-8.

Figure 6− Residuals Treatment Facility- Installation of fiberglass reinforced plastic ducting for odour control systems being installed as well as structural supports.

Figure 7− Residuals Treatment Facility- Installation of fire alarm systems ongoing throughout site.

Figure 8− Residuals Treatment Facility – Fire protection water system mechanical installations nearing completion in Water Pump House.

2.9.3 Conveyance System

2.9.3.1 Clover Point Pump Station

Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction activities over the reporting period including: completed pipe supports, completed bypass pumping for tie-in at new inlet channel; installed fuel storage tank and exhaust fan for diesel generator; progressed work on fuelling system; and progressed work at the new public plaza and washroom.

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

- progressed civil works (saw cut/demolition);
- completed pipe supports;
- progressed drag struts;
- completed bypass pumping for 1500mm tie-in at new inlet channel;
- installed fuel storage tank and exhaust fan for diesel generator;
- progressed work on fuelling system;
- progressed civil/concrete works at existing inlet sanitary channels;
- progressed de-gritter cone/head cell works;
- progressed demolition/concrete works at new inlet channel; and
- progressed works at the new public plaza and washroom.

Photographs of construction progress over the month of May at Clover Point are shown in Figures 9-11.

Figure 9−Clover Point Pump Station- Headcell installation.

Figure 10−Clover Point Pump Station- Diesel fuel tank storage room location.

Figure 11- Clover Point Pump Station – Cable tray installation in screen & degritter room.

2.9.3.2 Macaulay Point Pump Station and Forcemain

Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressed construction activities over the reporting period including:

- completed fiberglass reinforced plastic (FRP) platform in the wet well;
- ongoing installation of FRP platform and stairs in the pump room;
- completed installation of FRP ducting in the wet well;
- completed installation of wood siding on North side of the building;
- ongoing process piping installation in the pump room is ongoing;
- inlet fire damper in the genset room is installed;
- installation of louver on the west side of the building;
- ongoing installation of penthouse louver;
- ongoing commissioning of programmable logic control and motor control centres;
- pigging chamber outfall pipe has been received and fused;
- exposed Pigging chamber wall and cut pipe penetration opening; and
- ongoing installation of Weholite pipe to the drop structure.

Photographs of construction progress over the month of May at Macaulay Point Pump Station are shown in Figures 12-13.

Figure 12−Macaulay Point Pump Station- Wet well fiberglass reinforced plastic platform installation.

Figure 13−Macaulay Point Pump Station- Pump Room progression.

2.9.3.3 Clover Forcemain (CFM)

Windley Contracting Ltd. (“Windley” as the Construction Contractor) continued construction activities including:

- continued seawall balustrade replacement construction;
- commenced pouring new concrete wall; and
- commenced new sidewalk grading.

Photographs of construction progress over the month of May on the Clover Forcemain are shown in Figures 14-15.

Figure 14−Clover Forcemain- Curb and gutter and sidewalk prep at Dock Street and Dallas road looking west.

Figure 15−Clover Forcemain- New concrete wall replacing old balustrade wall, rebar installed for sidewalk and concrete curb delineating Cycle Track and sidewalk, Dallas Road from Dock Street looking east.

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, including:

- Segment #1
  - completed pipe installation and a pressure test was conducted from the north side of Tillicum Bridge to south side of Admirals Bridge (Pass).
- Segment #2**:**
  - completed air valve chamber on Grange Road; and
  - pipe leak was detected and repaired.

- Segment #3:
  - cleaned up and demobilized after base-paving around the low point drains at Interurban Road north of Quayle Road;
  - completed the installation of the relocated line valve on Interurban Road; and
  - final restoration (line painting, etc.) and deficiency repairs were completed along the Interurban Road and trail.

- Segment #4
  - final deficiencies were addressed, including sign and bollard reinstallation, soil and seed placement, etc.

Photographs of construction progress over the month of May on the Residual Solids Pipes are shown in Figures 16-18.

Figure 16− Residual Solids Pipes- Milling asphalt prior to paving on Grange Road.

Figure 17−Residual Solids Pipes- Back fill and compaction on Grange Road after coupler repair.

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Figure 18−Residual Solids Pipes -Installing plug valves at Selkirk Ave.

Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor for the Residual Solids Pump Stations) continued construction activities including:

- Pump Station 1
  - installed odour control unit underground vent and drain piping;
  - commenced the south pipe tie in;
  - electrical crews worked on the kiosk, installed conduit, and finished items in the wet well; and
  - general backfill took place across the site.

- Pump Station 2
  - BC Hydro line was installed;
  - pressure testing continued along with associated tie ins; and
  - The odour control slab was poured.

- Pump Station 3
  - surge tank line valve was installed and the line was trenched; and
  - pressure testing and finishing items continued within the wet well and valve chamber.

- Marigold Crossing:
  - Marigold crossing was completed, with asphalt paving left to complete.

- Tillicum Bridge:
  - Pipe spools were installed along with associated deflection spools and flexible couplings; and
  - The pipe was pressure tested and passed.

- Admirals Bridge:
  - Pipe hanger installation commenced.

Photographs of construction progress over the month of May on the Residual Solids Pump Stations are shown in Figures 19-20.

Figure 19−Residual Solids Pump Stations– Marigold Road – Backfilling and compaction of pipe installed on east side of Colquitz Creek.

Figure 20 −Residual Solids Pump Stations – Tillicum Bridge pipe installed under Tillicum Bridge.

2.9.3.5 Arbutus Attenuation Tank

NAC Constructors Ltd. (as the Construction Contractor for the Arbutus Attenuation Tank) continued construction activities including:

- completed concrete pour #4 for the tie beam;
- installed ducting from BC Hydro pole to BC Hydro meter base;
- concrete equipment pad for BC Hydro meter base formed and poured; and
- bulk excavation commenced and continued throughout the month.

A photograph of construction progress during the month of May at the Arbutus Attenuation Tank is shown in Figure 21.

Figure 21−Arbutus Attenuation Tank- Excavation continues with placement of base course gravel installed.

2.9.3.6 Trent Forcemain

Jacob Bros. Construction Inc. (as the Construction Contractor for the Trent Forcemain) progressed construction activities including:

- concrete flow through chamber stripped and backfilled;
- completed storm sewer relocation on Bushby Street;
- completed Memorial Cres and Fairfield Road watermain tie-in works; and
- commenced forcemain installation on Stannard Ave.

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

Figure 22- Trent Forcemain – Stannard Avenue – Forcemain installation progresses.

Appendix A− Trent Forcemain: Water Service Shutdown Notice Update (May 11, 2020) (Appendix A)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

UPDATE

May 11, 2020

Trent Forcemain: Water Service Shutdown Notice

As part of construction for the Trent Forcemain, a water main is being relocated along Fairfield Road and Memorial Crescent. Connecting the new water main to the existing system requires a temporary interruption of water service between the hours of 10:00 a.m. and 2:00 p.m. on the following dates:

- Wednesday, May 13
- Thursday, May 14

If you require the use of water during these hours, we ask that you prepare prior to the shut-off time of 10:00 a.m. each day.

What to Expect

- Water service will be temporarily shut off each day from approximately 10:00 a.m. to 2:00 p.m.
- The actual duration of the shut-off will depend on the conditions encountered.
- The water may be discoloured after the water service is restored. While the water is safe for consumption, we encourage you to run the tap on cold in the tub or shower until the water runs clear.

Traffic Impacts

- Fairfield Road will have single lane alternating traffic on Wednesday, May 13.
- Memorial Crescent will have single lane alternating traffic on Thursday, May 14.
- Traffic control areas will be delineated by cones and signs and controlled by flaggers.

Work Hours

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

If you have any further questions about the water disruption, please contact the Project Team at our 24/7 phone line 1-844-815-6132.

Thank you for your patience as this work is completed. We apologize for any inconvenience this may cause.

About the 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 Nations by the end of 2020.

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− Core Area Wastewater Discharge Notice (May 7, 2020) (Appendix B)

Making a difference...together

Public Service Announcement

For Immediate Release
May 7 2020

Core Area Wastewater Discharge Notice

Victoria, BC- Construction at the Clover Point Pump Station resulted in an unplanned wastewater discharge out the short outfall the morning of May 7, 2020. The areas affected are in the vicinity of Clover Point Park, between Cook Street and Hollywood Place. This pump station is currently undergoing upgrades related to the Wastewater Treatment Project.

As a result of this discharge, residents are advised to avoid entering the waters along the affected shorelines, as the wastewater may pose a health risk.

As a precaution and in consultation with Island Health, beaches within the affected areas will be posted with public health advisory signs for one day. Due to the small amount of discharge, the advisory signs are anticipated to be removed tomorrow afternoon.

For updates, please visit www.crd.bc.ca and follow us on Twitter @crd_bc

The CRD delivers regional, sub-regional and local services to 13 municipalities and three electoral areas on southern Vancouver Island and the Gulf Islands. Governed by a 24-member Board of Directors, the CRD works collaboratively with First Nations and all levels of government to enable sustainable growth, foster community well-being, and develop cost-effective infrastructure while continuing to provide core services to residents throughout the region. Visit us online at www.crd.bc.ca.

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For media inquiries, please contact:
Andy Orr, Senior Manager
CRD Corporate Communications
Office 250.360.3229
Cell 250.216.5492

Appendix C− Core Area Wastewater Discharge Notice (May 30, 2020) (Appendix C)

Making a difference...together

Public Service Announcement

For Immediate Release
May 30 2020

Core Area Wastewater Discharge Notice

Victoria, BC- Construction at the Clover Point Pump Station resulted in an unplanned wastewater discharge out the short outfall the night of May 29, 2020. The areas affected are in the vicinity of Clover Point Park, between Cook Street and Hollywood Place. This pump station is currently undergoing upgrades related to the Wastewater Treatment Project.

As a result of this discharge, residents are advised to avoid entering the waters along the affected shorelines, as the wastewater may pose a health risk.

As a precaution and in consultation with Island Health and the local municipalities, beaches within the affected areas will be posted with public health advisory signs until sample results indicate enterococci levels are below the 70CFU/100mL recreational limit.

For updates, please visit www.crd.bc.ca and follow us on Twitter @crd_bc

The CRD delivers regional, sub-regional and local services to 13 municipalities and three electoral areas on southern Vancouver Island and the Gulf Islands. Governed by a 24-member Board of Directors, the CRD works collaboratively with First Nations and all levels of government to enable sustainable growth, foster community well-being, and develop cost-effective infrastructure while continuing to provide core services to residents throughout the region. Visit us online at www.crd.bc.ca.

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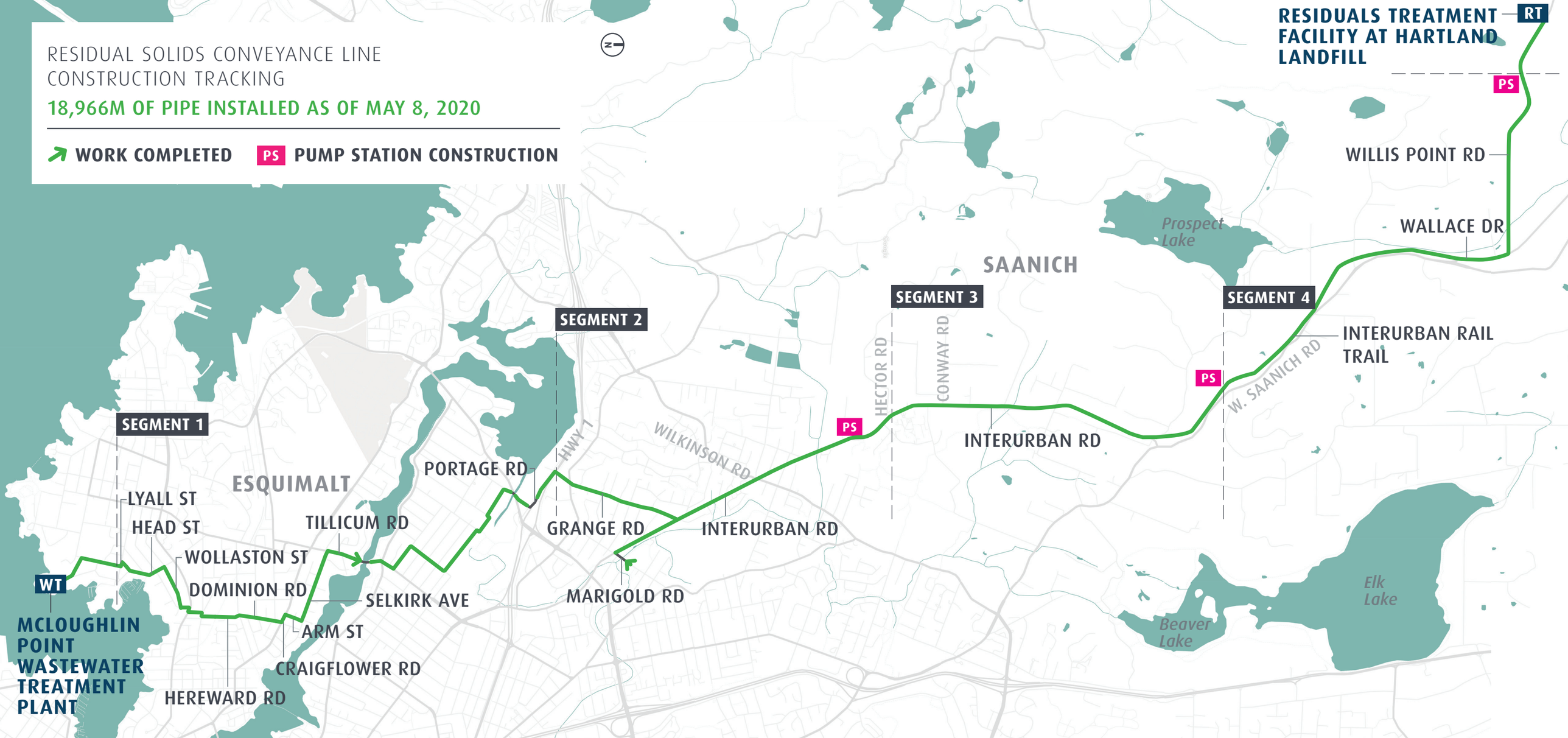
For media inquiries, please contact:
Andy Orr, CRD, Senior Manager, Corporate Communications
Office 250.360.3229 Cell 250.216.5492

Appendix D– Residual Solids Conveyance Line Map (May 8, 2020)


RESIDUAL SOLIDS CONVEYANCE LINE CONSTRUCTION TRACKING
18,966M OF PIPE INSTALLED AS OF MAY 8, 2020
WORK COMPLETED
PS PUMP STATION CONSTRUCTION
RESIDUALS TREATMENT FACILITY AT HARTLAND LANDFILL
RT
PS
WILLIS POINT RD
WALLACE DR
Prospect Lake
SAANICH
SEGMENT 4
SEGMENT 3
SEGMENT 2
SEGMENT 1
INTERURBAN RAIL TRAIL
W. SAANICH RD
HECTOR RD
CONWAY RD
INTERURBAN RD
WILKINSON RD
HWY 1
PORTAGE RD
GRANGE RD
INTERURBAN RD
MARIGOLD RD
ESQUIMALT
LYALL ST
HEAD ST
TILLICUM RD
WOLLASTON ST
DOMINION RD
SELKIRK AVE
ARM ST
CRAIGFLOWER RD
HEREWARD RD
WT
MCLOUGHLIN POINT WASTEWATER TREATMENT PLANT
Beaver Lake
Elk Lake

Appendix E− Monthly Cost Report (May)

MONTHLY COST REPORT
as at May 31, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to April 30, 2020	Expended over reporting period (May 2020)	Expended to May 31, 2020	Expended to May 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at May 31, 2020	Total Committment at May 31, 2020	Unexpended Commitment at May 31, 2020	Uncommitted Allocated Budget at May 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**	**328.1**	**288.1**	**5.8**	**293.8**	**90%**	**34.3**	**321.1**	**27.3**	**7.0**	**34.3**	**328.1**	**-**	**0%**
Construction	306.7	321.0	287.5	5.8	293.3	91%	27.7	320.5	27.2	0.5	27.7	321.0	-	0%
Contingency	14.9	0.2	-	-	-	0%	0.2	-	-	0.2	0.2	0.2	-	0%
Financing	9.8	6.9	0.6	-	0.6	8%	6.3	0.7	0.1	6.2	6.3	6.9	-	0%
Residuals Treatment Facility	**159.4**	**139.8**	**10.6**	**0.2**	**10.9**	**8%**	**128.9**	**138.8**	**127.9**	**1.0**	**128.9**	**139.8**	**-**	**0%**
Construction	145.4	138.8	10.6	0.2	10.9	8%	127.9	138.8	127.9	0.0	127.9	138.8	-	0%
Contingency	12.3	0.2	-	-	-	0%	0.2	-	-	0.2	0.2	0.2	-	0%
Financing	1.7	0.8	0.0	-	0.0	2%	0.8	0.0	0.0	0.8	0.8	0.8	-	0%
Conveyance System	**158.1**	**215.9**	**155.0**	**6.0**	**160.9**	**75%**	**55.0**	**194.8**	**33.9**	**21.1**	**55.0**	**215.9**	**-**	**0%**
Macaulay Point Pump Station	25.4	30.8	26.2	0.7	26.9	87%	3.9	30.8	3.9	0.0	3.9	30.8	-	0%
Macaulay Forcemain	5.6	7.4	6.6	0.8	7.4	99%	0.1	7.4	0.1	-	0.1	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	24.6	0.1	24.7	91%	2.6	27.2	2.5	0.1	2.6	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	11.8	0.4	12.2	50%	12.3	23.1	10.9	1.4	12.3	24.6	-	0%
Clover Forcemain	14.6	32.5	29.0	0.2	29.2	90%	3.3	31.9	2.7	0.6	3.3	32.5	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.3	1.2	0.5	1.7	15%	9.6	8.1	6.4	3.2	9.6	11.3	-	0%
Residual Solids Conveyance Line	19.1	36.1	31.7	2.1	33.8	94%	2.3	36.0	2.2	0.1	2.3	36.1	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	18.3	10.5	1.2	11.7	64%	6.6	16.9	5.1	1.4	6.6	18.3	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.4	0.3	-	0.3	74%	0.1	0.4	0.1	0.1	0.1	0.4	-	0%
Contingency	16.8	10.4	-	-	-	0%	10.4	-	-	10.4	10.4	10.4	-	0%
Financing	5.8	4.1	0.3	-	0.2	6%	3.8	0.3	0.1	3.7	3.8	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**54.8**	**1.0**	**55.8**	**72%**	**22.0**	**69.4**	**13.5**	**8.5**	**22.0**	**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	17.5	13.7	0.4	14.1	81%	3.4	17.5	3.4	-	3.4	17.5	-	0%
Conveyance Design	5.0	9.5	7.4	0.2	7.6	80%	1.9	8.4	0.8	1.1	1.9	9.5	-	0%
Advisors & Professional Support	7.0	15.0	10.1	0.1	10.2	68%	4.8	11.4	1.2	3.6	4.8	15.0	-	0%
Project Board	2.0	1.3	0.9	0.0	0.9	71%	0.4	0.9	-	0.4	0.4	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	23.1	15.6	0.3	15.9	69%	7.2	22.8	6.9	0.3	7.2	23.1	-	0%
Project Team Expenses	1.2	0.5	0.3	-	0.3	60%	0.2	0.3	-	0.2	0.2	0.5	-	0%
CRD Financial Services	1.5	1.4	0.9	0.0	0.9	64%	0.5	1.4	0.5	-	0.5	1.4	-	0%
CRD Human Resources	0.3	0.3	0.2	0.0	0.2	85%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	-	0.2	86%	0.0	0.2	0.0	-	0.0	0.2	-	0%
CRD Real Estate	0.3	0.3	0.2	-	0.2	88%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	68%	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	81%	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	71%	0.0	0.1	0.0	-	0.0	0.1	-	0%
Office Lease	1.5	1.3	0.8	0.0	0.8	65%	0.4	1.2	0.4	0.1	0.4	1.3	-	0%
Office Supplies, Communications & Vehicles	1.2	0.7	0.5	0.0	0.5	79%	0.2	0.5	0.0	0.1	0.2	0.7	-	0%
Computer Hardware, Software & Training	1.0	1.1	0.6	-	0.6	60%	0.4	0.6	-	0.4	0.4	1.1	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.0**	**-**	**2.0**	**48%**	**2.3**	**2.1**	**0.0**	**2.2**	**2.3**	**4.3**	**-**	**0%**
Third Party Commitments	**8.1**	**8.1**	**3.8**	**0.1**	**3.9**	**47%**	**4.3**	**6.8**	**2.9**	**1.3**	**4.3**	**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**	**514.3**	**13.0**	**527.3**	**68%**	**247.6**	**733.0**	**205.6**	**42.0**	**247.6**	**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