



CORE AREA WASTEWATER TREATMENT PROJECT BOARD
Notice of a Meeting on **Thursday, September 24, 2020 at 9:00 am**
Room 652, 6th floor, 625 Fisgard Street, Victoria, BC

Don Fairbairn (Chair)	Dana Hayden (Vice-Chair)	Brenda Eaton	David Howe
Bob Lapham	Colin Smith	Tim Stanley	

AGENDA

1. Territorial Acknowledgement
2. Approval of Agenda and Statement of No Conflict
Motion:
That the Agenda be approved.
3. Safety Minute
4. Approval of the July 30, 2020 Meeting Minutes.
Motion:
That the minutes of the July 30, 2020 meeting be approved.
5. Report of the Chair
6. Presentations/Delegations
 - No one has registered to speak.
7. Project Board Business
 - 7.1. Staff Report for Information: Wastewater Treatment Project July 2020 Monthly Report
Motion:
That the Staff Report 'Wastewater Treatment Project July 2020 Monthly Report' be received for information and forwarded to the Core Area Liquid Waste Management Committee and CRD Board for information.
 - 7.2. Staff Report for Information: Wastewater Treatment Project August 2020 Monthly Report
Motion:
That the Staff Report 'Wastewater Treatment Project August 2020 Monthly Report' be received for information and forwarded to the Core Area Liquid Waste Management Committee and CRD Board for information.
8. Correspondence

To ensure quorum, contact Erika Russell (erussell@crd.bc.ca) if you are unable to attend.

**Core Area Wastewater Treatment Project Board
Agenda September 24, 2020**

2

9. New Business

Confirmation of upcoming Meeting Dates:

1. Next Project Board Meeting: October 22, 2020
2. Next Core Area Liquid Waste Management Committee Meeting: October 7, 2020

10. Motion to Close the Meeting

Motion:

That the Core Area Wastewater Treatment Project Board meeting be closed in accordance with the Community Charter: Part 4, Division 3 90(1)(j) *information that is prohibited or information that if it were presented in a document would be prohibited under section 21 of the Freedom of Information and Protection of Privacy Act*

11. Adjournment



**Minutes of a Meeting of the Core Area Wastewater Treatment Project Board
Held Tuesday, July 30, 2020 CRD Boardroom, 625 Fisgard Street, Victoria, BC**

Members: D. Fairbairn (Chair); D. Hayden (Vice-Chair) (EP); T. Stanley; D. Howe; C. Smith (EP); B. Eaton (EP); R. Lapham;

CRD Staff: D. Clancy, Project Director; E. Scott, Deputy Project Director; E. Russell (recorder);

*EP= Electronic Participation

The meeting was called to order at 9:00 am.

1. Territorial Acknowledgement

Chair Fairbairn provided a territorial acknowledgement.

2. Approval of Agenda and Statement of No Conflict

The members stated they had no conflict with the agenda items.

MOVED by D. Howe, **SECONDED** by R. Lapham,

That the circulated agenda be approved.

CARRIED

3. Safety Minute

D. Clancy provided a safety moment about the safe use of face masks, including best practices for cleaning and handling of reusable masks, and ensuring a proper fit.

4. Approval of the July 7, 2020 Meeting Minutes.

MOVED by R. Lapham, **SECONDED** by D. Howe,

That the minutes of the July 7, 2020 meeting be approved.

CARRIED

5. Report of the Chair

The Chair reported his attendance at the July 22nd Core Area Liquid Waste Management Committee, at which he, along with the Project Director and Deputy Project Director presented an update on the status of the Project and progress made. The Chair reported that feedback received from the committee was supportive, and noted that there is still a lot of work to be done before the Project is complete.

6. Presentations and Delegations

No registrations/delegations

7. Project Board Business

7.1. Staff Report for Information: Wastewater Treatment Project Q2 2020 Quarterly Report

MOVED by B. Eaton, **SECONDED** by D. Hayden,

That the Staff Report, Wastewater Treatment Project Q2 2020 Quarterly Report, be received for information and forwarded to the Core Area Liquid Waste Management Committee and CRD Board for information.

CARRIED

D. Clancy and E. Scott provided an overview of the Q2 2020 Quarterly Report including:

- No changes were made to the KPIs over the reporting period.
- Over the quarterly reporting period the safety KPI for the Project and the conveyance system remained yellow and the Total Recordable Incident Frequency remains at 1.6. In June there were 12 safety incidents, 1 of which was a reportable incident. The Project Team continues to monitor all of the Project's sites, including office and site trailers, for compliance with COVID-19 Protocols.
- Over the reporting period there were three minor environmental incidents: two occurred at the Clover Point Pump Station and involved short duration unplanned wastewater discharges through the short outfall, the third was a small gasoline release.
- The Project Team remains confident that the regulatory deadline will be met: water has successfully been conveyed from both pump stations to the treatment plant and the next step will be to introduce wastewater to the system.
- Project expenditures are within the control budget: total expenditures to date are \$539.2 million, comprising 70% of the budget.
- An update on construction progress (including after the reporting period of Q2 2020):
 - McLoughlin Point WWTP: the second shift has been discontinued, the second crane has been removed; primary tanks and residuals pumping are now complete and ready for the introduction of wastewater; the Operations building is being fitted out; and the green roof installation is nearly complete, with landscaping underway.
 - Clover Point Pump Station: the new pump station has commenced pumping out the outfall; the storm station is now on standby mode; and landscaping and work on the public realm improvements are underway.
 - Macaulay Point Pump Station: the new pump station is being used to pump wastewater out of the long outfall; the next step is the demolition of the old station, followed by landscaping.
 - Residuals Treatment Facility: mechanical and electrical work continues on all buildings; the final tie-ins to the conveyance system will be completed this week; work on the digesters continues; and commissioning of the odour control is in progress.
 - Clover Forcemain: work on the balustrade is nearly complete; removal of the old balustrade is complete, and the new railing is nearly finished.

Core Area Wastewater Treatment Project Board Minutes – July 30, 2020

3

- Residual Solids Conveyance Line: the entire line has been installed, and an infrastructure improvement for the District of Saanich at Peers Creek is underway.
- Residual Solids Pump Stations and Bridge Crossings: five crews are focusing on restoration; the pump stations and conveyance line have been tested and are ready to start conveying residual solids.
- Arbutus Attenuation Tank: drilling and installation of rock anchors is ongoing, with the forming of the concrete walls being scheduled to begin in the next few weeks.
- Trent Forcemain: one crew is working on road restoration and the other is installing the forcemain.
- Communications: the Project Team attended a meeting with the James Bay Neighbourhood Association to provide an update on Project. This will be one of the last meetings with the James Bay Neighbourhood Association as construction is concluding in that area, but there will be ongoing engagement with the Esquimalt Liaison Committee beyond the construction period of the Project.

C. Smith enquired about the Project's schedule, which shows some activities continuing beyond the regulatory deadline. E. Scott advised that the Project is on-track to provide wastewater treatment by the regulatory deadline, but some commissioning activities and potentially construction on other components of the Project may extend beyond the end of the year.

C. Smith enquired about when public access to Clover Point would be restored. E. Scott advised that the City of Victoria has asked that vehicular access to Clover Point continue to be limited in an effort to promote social distancing.

B. Eaton asked if, as remediation of the Project's construction sites is completed, there is a review or sign-off process with the relevant municipality. D. Clancy confirmed that there is a sign-off process with the relevant municipality.

D. Hayden enquired about the restoration work on Willis Point Road. E. Scott noted that the road lines on the restored portion of Willis Point Road were initially painted in the wrong location, narrowing the hard shoulder that has been used by cyclists. E. Scott noted that this was an error that was brought forward to the Project Team, and also independently discovered by the contractor, and will be corrected in the near term.

8. Correspondence

No correspondence received.

9. New Business

9.1. Confirmation of upcoming meeting dates:

1. Next Project Board Meeting: September 24, 2020
2. Next Core Area Liquid Waste Management Committee Meeting: October 22, 2020

10. Motion to Close the Meeting

**Core Area Wastewater Treatment Project Board
Minutes – July 30, 2020**

4

MOVED by D. Howe, **SECONDED** by R. Lapham,

That the Core Area Wastewater Treatment Project Board meeting be closed in accordance with the Community Charter: Part 4, Division 3 90(1)(j) *information that is prohibited or information that if it were presented in a document would be prohibited under section 21 of the Freedom of Information and Protection of Privacy Act*

CARRIED

11. Adjournment

The Project Board moved to closed session at 9:39 AM
On motion the meeting adjourned at 11:20 PM

Item 7.1



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

**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF THURSDAY, SEPTEMBER 24, 2020**

SUBJECT Wastewater Treatment Project July 2020 Monthly Report

ISSUE

To provide the Core Area Wastewater Treatment Project Board with the Wastewater Treatment Project July 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 July 2020 is attached as Appendix A.

RECOMMENDATION

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

Core Area Wastewater Treatment Project Board – September 24, 2020
Wastewater Treatment Project July 2020 Monthly Report

2

RESOLVED that:

The Staff Report, 'Wastewater Treatment Project July 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 July 2020 Monthly Report

ES:er



Wastewater Treatment Project

Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: July 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	11
2.2.1	Environment	11
2.2.2	Regulatory Management	12
2.3	First Nations	12
2.4	Stakeholder Engagement	13
2.5	Resolutions from Other Governments	14
2.6	Schedule	14
2.6.1	30 day look ahead	16
2.6.2	60 day look ahead	18
2.7	Cost Management and Forecast	20
2.7.1	Commitments	20
2.7.2	Expenses and Invoicing	21
2.7.3	Contingency and Program Reserves	21
2.7.4	Project Funding	21
2.8	Key Risks and issues	22
2.9	Status (Engineering, Procurement and Construction)	26
2.9.1	Wastewater Treatment Plant (McLoughlin Point WWTP)	26
2.9.2	Residuals Treatment Facility	29
2.9.3	Conveyance System	31
	<i>Appendix A– Trent Forcemain: Road Closure at Fairfield and Stannard (July 15, 2020)</i>	43
	<i>Appendix B– Macaulay Point Pump Station: Transition to New Pump Station (July 13, 2020)</i>	44
	<i>Appendix C– Core Area Wastewater Discharge Notice (July 24, 2020)</i>	45
	<i>Appendix D– Residual Solids Conveyance Line Map (July 20, 2020)</i>	46
	<i>Appendix E– Monthly Cost Report (July)</i>	47

1 Executive Summary

1.1 Introduction

This Monthly Report covers the reporting period of July 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: wet commissioning at Densadegs 1, 2 and 3; primary odour control system, plate settler one and two, sludge tank, plant drain tank and valve vault; biological aerated filter (BAF) cell nine; wet commissioning on the blower; installation of disk filter system piping and equipment; lower level interior, second level interior and building envelope are all nearing completion in the Operations and Maintenance building; progressed final north planter and tsunami walls; and the Fortis gas tie-in and the BC Hydro inspection of the generator start-up were completed.

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: erection of scaffolding for gas membrane installation in the Digester area; insulating piping and installation of receiving hopper in the Other Municipal Solids Receiving Facility; insulation of hot water piping and commissioning of various systems in the Residuals Handling Building; completed installation of external stairs in the Residuals Drying Facility; completion of fiberglass reinforced plastic (FRP) duct installation, and chemical piping installation; and commissioning of various system in the Residuals Storage and Odour Control area.

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: electro-mechanical works in the public plaza washroom; completing seismic upgrades, installation of new diesel generator exhaust, fuelling system, diesel generator, and grit separation equipment; and functional and operational tests for upgrades at the existing pump station.
- Macaulay Point Pump Station: Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressed construction activities over the reporting period including: installation of flow splitters in the wet well; commenced grout around the slide gate; ongoing installation of FRP platform and stairs in the pump room and FRP installation in the Bin Room; and completion of the wood siding installation, installation of doors and grout for the flow splitter.

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: cycle track and road restoration; seawall balustrade replacement construction; installing new aluminium fence and progressed installation of new bollards.
- 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 all pipe work, and commencing utility locates and survey layout along with equipment mobilization in preparation for undertaking Saanich infrastructure improvements at Peers Creek.
 - Residual Solids Pump Stations: Knappett Projects Inc. (“Knappett” as the Construction Contractor) continued construction activities including: installation of curbing at Pump Station 1, Hartland Reservoir underground pipe work; completed commissioning of pipes, and pump stations including pigging of the lines; and completed Admirals Bridge installation including pressure testing.
- Arbutus Attenuation Tank (“AAT”): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: commencing drilling/grouting and installation of rock anchors; completed final excavation within the tank; and installation of the mud mat base at base of the tank.
- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installation of 269 m of forcemain along

Fairfield Road and Memorial Crescent; and installation of air release valve chamber at Fairfield Road and Stannard Avenue.

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 no recordable safety incidents occurred and the total recordable incident frequency decreased from 1.6 (at the end of the June 2020) to 1.5.

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 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*.					No 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 incident occurred over the reporting period: flows at the Clover Point Pump Station were temporarily diverted from the long outfall to the short outfall, and there was a small fuel leak from a compressor at the Arbutus Attenuation Tank site.
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).					<p>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.</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 Pump Stations; Arbutus Attenuation Tank and Trent Forcemain.

Over the reporting period (July 2020) 12 safety incidents occurred, comprising: seven first-aid, and five 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
July 3, 2020	RTF	Report Only	Minor damage caused by telehandler to parked vehicle.	Scratches to the paint on the driver's side rear quarter panel occurred. Contractor will cover cost of repairs. No one was injured or required first aid.	Tool-box talk with crews to remind them to use spotters when backing equipment or working in restricted areas.
July 7, 2020	Residual Solids Pump Stations	Report Only	Access by public to a construction site.	Members of the public on bikes entered a restricted construction site. When asked to leave a verbal confrontation ensued.	Signage to be placed in a more visible area so the public is aware of the site closure. Site security was enhanced to prevent unauthorized entry by the public.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
July 8, 2020	McLoughlin Pt WWTP	Report Only	Lifting equipment shut-off while in use.	Unit was not loaded at the time. No injuries to any workers reported.	Tags placed on controls and a worker was placed in the area to prevent accidental shut-down of equipment.
July 10, 2020	McLoughlin Pt WWTP	First Aid	Worker lowering equipment into a tank.	Worker felt pain in lower back. Reported to first aid for evaluation. No follow up actions were required.	Tool-box talk to remind workers of the correct way to lift and lower materials and equipment.
July 10, 2020	McLoughlin Pt WWTP	First Aid	Worker was kneeling for a prolonged duration.	Worker felt pain in lower back. Reported to first aid for evaluation. No follow up actions were required.	Workers reminded of proper ergonomics and stretching prior to task in the event they may be in a fixed position for a period of time.
July 13, 2020	McLoughlin Pt WWTP	First Aid	Worker tripped on a fitting that was left under a pipe stand.	Worker sustained a minor injury to their foot. Reported to first aid for evaluation. No follow up actions were required.	Tool-box talk reviewing the importance of always being aware of your work space and ensuring housekeeping practices are followed.
July 13, 2020	Trent Forcemain	Report Only	Minor damage caused by excavator to parked vehicle.	An excavator reversed and contacted a City of Victoria garbage truck which was parked behind the equipment, causing minor damage to the truck.	Tool-box talk conducted to remind workers that spotters are required prior to backing up any equipment.
July 14, 2020	McLoughlin Pt WWTP	First Aid	Worker sustained a hand injury when pinched between scissor lift and steel trough.	Worker reported to first aid where a small cut to their hand was attended to. No follow up was required.	Tool-box talk to remind workers to be aware of their work area at all times.
July 15, 2020	McLoughlin Pt WWTP	Report Only	Worker bumped a ventilation duct while working overhead.	Falling object damaged equipment below.	Workers reminded to perform a risk assessment and identify any potential hazards that may be associated with task. Loose items to be secured with extra caution used when working around them if there is potential for them to fall if bumped.
July 17, 2020	McLoughlin Pt WWTP	First Aid	Worker sustained a hand injury while working in a panel.	Worker reported to first aid to have a small cut on their finger attended to. Worker was wearing gloves at time of incident which limited the injury. No further follow up was required.	Workers reminded to be more aware of hand positioning when opening and closing panel doors.
July 22, 2020	Arbutus Attenuation Tank	First Aid	Worker sustained an ankle injury while crossing site.	Worker stepped on a rock causing the foot to twist. Worker reported to first aid for evaluation. No follow up was required.	Workers reminded to be aware of their surroundings when walking on uneven ground and to ensure that traffic areas are kept free and clear of tripping hazards.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
July 27, 2020	McLoughlin Pt WWTP	First Aid	Worker experienced a strain.	While attempting to adjust a louver installed in a wall the worker felt pain in forearm. They reported to first aid and no follow up was required.	Tool box talk conducted on the proper techniques for lifting and working overhead.

Key safety activities conducted during July included:

- bi-weekly project update meetings with prime contractors: HRMG, Kenaidan, Windley, Don Mann, HRP, Knappett, Jacob Bros and NAC;
- monthly Incident Investigation reviews;
- 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;
- office safety orientation for all WTP staff as they returned to working in the office, with a focus on COVID-19 protocols;
- host Prime Contractor Safety Coordination Meeting with Project safety representatives;
- heat stress safety notice issued to Prime Contractors;
- review of Prime Contractor Training Safe Work Practice protocols to be used on site; and
- site tour at Macaulay, McLoughlin and Clover Point for CRD Corporate Safety Manager and Emergency Response Coordinator.

Table 3: WTP Safety Information

	Reporting Period (July 2020)	Project Totals
Person Hours		
PMO	3,345	152,077
Project Contractor	89,362	2,061,961
Total Person Hours	92,707	2,214,038
Total Number of Employees		
PMO	29	
Project Contractors (& Project Consultants) working on Project Sites	478	
Total Number of Employees	507	
Near Miss Reports		
Near Miss Reports	0	46
High Potential Near Miss Reports	0	6
Report Only	5	170
First Aid	7	65
Medical Aid	0	10
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	0	17
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.9
Medical Aid Frequency		1.1
Lost time Frequency		0.5
Total Recordable Incident Frequency		1.5

2.2 Environment and Regulatory Management

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

Key environmental management activities completed in July included:

- The CRD, Parsons (as Design Consultant), Don Mann (as Construction Contractor) and McElhanney (as the Construction Contractor's environmental consultant) met at the site of a culvert at Peers Creek on Interurban Road, that is being replaced as a Saanich infrastructure improvement. The purpose of the meeting was to discuss the environmental protection measures that would be implemented during the work.
- The CRD, District of Saanich and Don Mann (as Construction Contractor) visited the site adjacent to the Admirals Bridge to assess the restoration completed by Don Mann. The CRD and District of Saanich were satisfied with the restoration, with plans to revisit the site later in the fall, once the rains return and the seeding begins to germinate.

Over the reporting period, there were two minor environmental incidents:

- Overnight on July 23rd flows at Clover Point Pump Station were diverted from the long outfall to the short outfall 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 6 days.
- NAC Constructors Ltd. (NAC) experienced a minor fuel leak from a compressor at the Arbutus Attenuation Tank site. The amount was less than a litre, and was therefore not reportable. A spill kit was used to clean-up the spilled material and the used components of the spill kit were disposed of at an appropriate facility. The compressor was placed on a drip tray and crews were reminded of that requirement for all small equipment.

2.2.2 Regulatory Management

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

Key permitting activities for July included:

- The CRD and Transport Canada met to discuss the Harbour Crossing Licence Agreement; and
- A similar meeting to discuss the McLoughlin Point outfall will take place in September.

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.

Table 4- Key Permits Status

<i>Permit/Licence</i>	<i>Anticipated Date</i>	<i>Status</i>	<i>Party Responsible for Obtaining Perming</i>
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

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 WSÁNEĆ 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 July included:

- The CRD, Knappett (as Construction Contractor), Millennia Research (CRD's archaeological consultant) and members of the WLC met to discuss the screening of archaeological material that was excavated from the site of one of the Residual Solids Pump Stations. The purpose of the meeting was discuss methods and schedule.

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

Two construction notices were issued to stakeholders in the reporting period:

- Trent Forcemain: Road Closure at Fairfield and Stannard (July 15, 2020) (Appendix A); and
- Macaulay Point Pump Station: Transition to New Pump Station (July 13, 2020) (Appendix B)

The construction notices were hand delivered in the community. The Trent Forcemain notice was delivered to 75 residences along the closure and detour route and the Macaulay Point Pump Station notice was delivered to 46 residences near the pump station. 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.

One public service announcement was distributed to local media and posted online as an alert:

- Core Area Wastewater Discharge Notice (July 24, 2020) (Appendix C)

Project Website

Over the reporting period the Project website, wastewaterproject.ca, was updated with information about the Project. Two construction notices were posted. A map showing the progress of construction along the Residual Solids Conveyance Line (Appendix D) was updated to show that pipe installation is complete. One alert was added and resolved for the wastewater discharge out of the short outfall at Clover Point, in accordance with the CRD's response protocol.

The CRD's Twitter and Facebook account were used to provide Project information to the public, including updates about the wastewater discharge at the Clover Point Pump Station and traffic advisories for the work on the Trent Forcemain.

Community Meetings

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

- James Bay Neighbourhood Association;
- City of Victoria Technical Working Group;

- City of Victoria staff;
- District of Saanich Technical Working Group; 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- July 2020

Inquiry Source	Contacts for July 2020
Information phone line inquiries	22
Email inquiries responded to	37

Key themes of the public inquiries were as follows:

- interest in restoration, landscaping and public amenities;
- questions regarding work hours and noise associated with construction; and
- interest in when specific construction areas will be finished.

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.

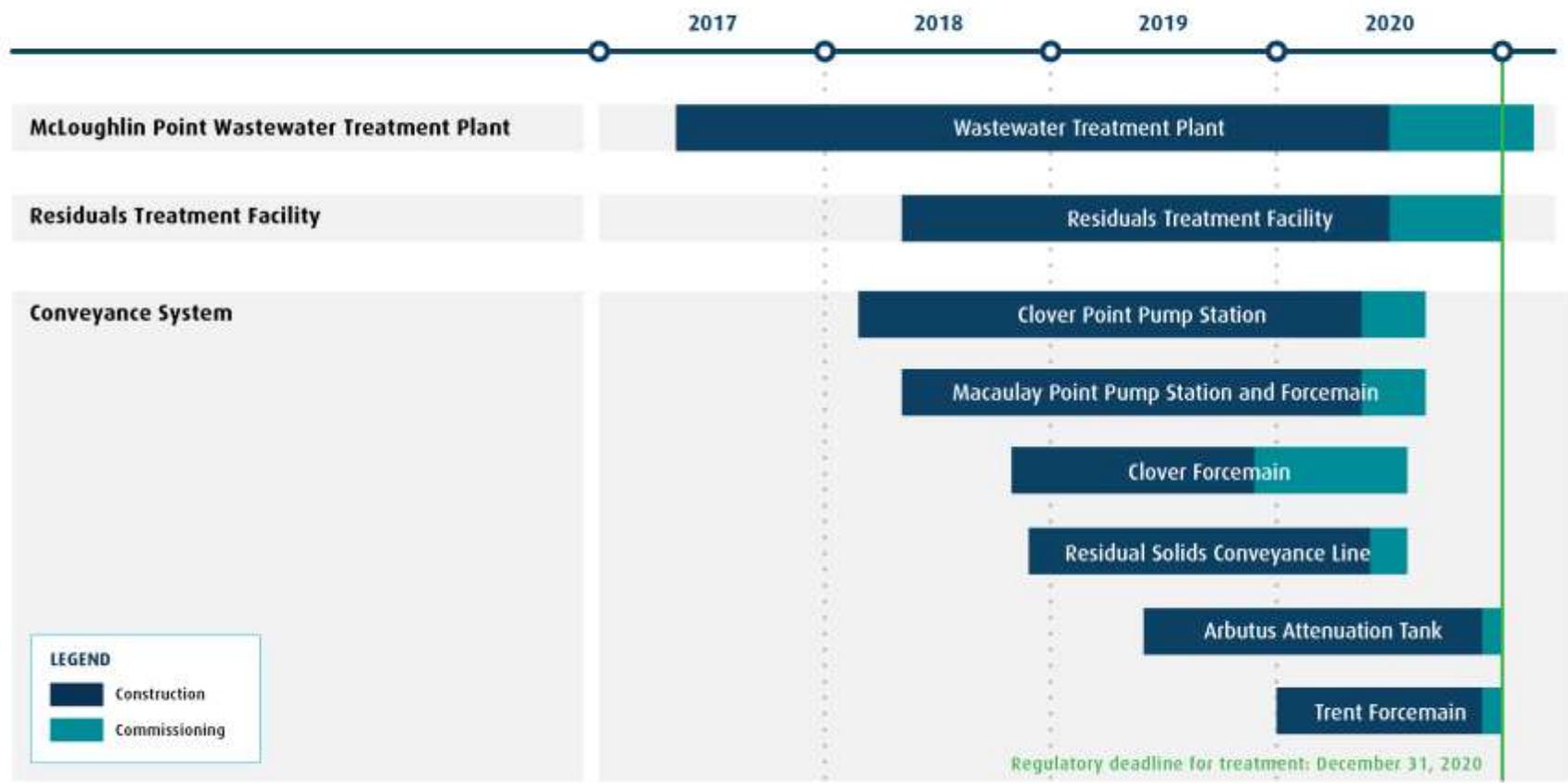
Figure 1 shows the high-level Project schedule. This schedule is unchanged from that shown in the Project's Q2 2020 Quarterly Report.

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

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 (August) are outlined below by function.

Safety

- CRD corporate occupational health and safety coordination committee meeting;
- site safety tour with Corporate CRD OHS Manager;
- 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
- 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;
- incident reporting review with prime contractors at active work locations; and
- issue Safety Notices for trending observations or any similar incidents occurring on project sites.

Environment and Regulatory Management

- McElhanney (Don Mann qualified environmental professional) to complete stream isolation work at Peers Creek and if fish are present, salvage and relocate them.

First Nations

- CRD to continue meeting with First Nation liaisons.

Stakeholder Engagement

- ongoing construction communications with stakeholders;
- ongoing community liaison meetings; and
- distribution of Dallas Road Update.

Cost Management and Forecast

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

Construction

McLoughlin Point

- construct site road structures;
- complete landscaping including green roof;
- install plumbing fixtures;
- install electrical finishes, fire sprinkler finishes and ceiling tiles O&M Level 1; and
- continue with functional testing, wet testing and commissioning.

Clover Point Pump Station

- form, pour and strip north retaining wall and buttresses;
- paint generator and fuel storage walls;
- install split stone to exterior retaining walls;
- form, pour and strip landscape retaining walls at public plaza lookout level;
- install doors and hardware to existing pump station; and
- touch-up and final painting.

Macaulay Point Pump Station

- install outdoor site furnishings;
- commence demolition of existing structure;
- install manhole and slide gate for 1350mm pipe replacement; and
- install green roof system.

Residuals Treatment Facility

- continue functional start-up, wet testing and initial system verification;
- tie-in to Residuals Solids Conveyance Line;
- prepare for installation of membrane roof on Digested Solids Storage Tank;
- complete Digester Building construction;
- installation of receiving hopper and weather cover at Other Municipal Solids Receiving Facility;
- continue testing and commissioning activities at the Residuals Handling Building;
- complete truck load-out assembly, complete final mechanical tie-ins, complete insulation; and continue testing and commissioning activities at the Dryer Building;
- complete biogas piping;
- complete Equalization Building construction;
- complete piping insulation at Water Pump House;
- complete testing of Odour Control System; and
- continue site grading, road paving, and retention ponds.

Clover Forcemain

- complete road and cycle track from Lewis Street to Dock Street;
- complete installation of new railings along seawall; and
- commence paving of Dallas Road from Lewis Street to Dock Street.

Residual Solids Pipes

- Peers Creek Culvert replacement.

Residual Solids Pump Stations

- Pump Station 3, final grading; fence installation and landscaping
- Pump Station 2, final grading; fence installation and landscaping; and
- Pump Station 1, final grading, fence installation and landscaping.

Arbutus Attenuation Tank (AAT)

- commence excavation for valve chamber;
- complete mud slab within attenuation tank excavation;
- complete rock anchor installation; and
- commence installation of reinforcing steel, formwork, and concrete pour (staged) for attenuation tank base slab.

Trent Forcemain

- install pipe at Memorial Crescent from Dallas Road to Thurlow Road; and
- restoration and paving at Memorial Crescent.

2.6.2 60 day look ahead

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

Safety

- CRD corporate occupational health and safety coordination committee meeting;
- host Prime Contractor Safety Coordination Meeting with Project safety representatives;
- 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.

Environment and Regulatory Management

- finalizing the Licence Agreements for the Harbour Crossing and McLoughlin Point Outfall with Transport Canada.

First Nations

- continue meeting with First Nation liaisons.

Stakeholder Engagement

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

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- prepare for Quarter 3 close; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- commission security systems, mechanical systems, fire systems, and plumbing systems;
- building systems integration; and
- biological growth and process optimization.

Clover Point Pump Station

- install split stone to exterior walls;
- install firestop and smoke seals;
- plant trees and shrubs;

- complete final painting and touch ups;
- spray foam insulation; and
- backfill north retaining wall.

Macaulay Point Pump Station

- install outdoor site furnishings;
- commence demolition of existing structure;
- remove and salvage existing equipment; and
- plant trees and shrubs, and install green roof system.

Residuals Treatment Facility

- continue functional start-up, wet testing and initial system verification;
- install membrane roof on Digested Solids Storage Tank;
- testing in Digester Building construction;
- complete installation of receiving hopper and weather cover at Other Municipal Solids Receiving Facility;
- continue testing and commissioning activities at the Residuals Handling Building;
- continue testing and commissioning activities at the Dryer Building;
- testing biogas piping;
- testing in Equalization Building;
- testing in Water Pump House;
- commission Odour Control System; and
- continue site grading, road paving, and retention ponds.

Clover Forcemain

- final paving of Dallas Rd from Lewis Street to Dock Street; and
- clean-up and demobilize.

Residual Solids Pipes

- complete Peers Creek culvert replacement.

Residual Solids Pump Stations

- final grading, trail restoration; and installation of fence and landscaping at Pump Station #2;
- final grading and install fence at Pump Station #3; and
- remove scaffolding from Admirals and Tillicum bridges.

Arbutus Attenuation Tank (AAT)

- install valve chamber piping;
- commence construction of concrete walls, columns, stairs within the attenuation tank; and
- install manhole and associated piping.

Trent Forcemain

- commence installation of pipe on Dallas Road;
- install pipe and valve chamber at Memorial Crescent from Dallas Road to Thurlow Road; and
- restoration and paving at Memorial Crescent.

2.7 Cost Management and Forecast

The monthly cost report for July 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 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 \$0.5 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 credits totalling \$0.2M were received 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 June 30, 2020		\$ (54,479,967)
Contingency and Program Reserve balance as at June 30, 2020		\$ 14,838,084
Control and Instrumentation OSI PI Initial Deployment Credit	Jul-20	\$ 199,327
WWTP Total Draw		\$ -
RTF Total Draw		\$ -
Conveyance Total Increase		\$ -
PMO Total Draw		\$ -
BC Hydro Total Draw		\$ -
WTP Program Reserve Draw		\$ -
Contingency and Program Reserve credits in the reporting period		\$ 199,327
Contingency and Program Reserve balance as at July 31, 2020		\$ 15,037,411

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	\$4.7M	\$108M
Government of Canada (Green Infrastructure Fund)	\$50M	\$0.7M	\$45M
Government of Canada (P3 Canada Fund)	\$41M	-	-
Government of British Columbia	\$248M	-	\$186M
Federation of Canadian Municipalities	\$0.3M	-	-
TOTAL	\$459.3M	\$5.4M	\$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.

No changes were made to the active risks summary over 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).	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

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)
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
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
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

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
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 July were as follows:

- Primary treatment area:
 - dry commissioned, and commencing wet commissioning at Densadegs 1, 2, & 3;
 - primary odour control system ready for influent;
 - plate settler 1 & 2 ready for influent;
 - sludge tank, plant drain tank and valve vault ready for influent;
 - untreated wash down water system ready for influent;
 - fine screens ready for influent; and
 - treated wash down water system progressed.

- Secondary treatment area:
 - moving bed bio reactor ready for influent;
 - biological aerated filter cell 9 progressed;
 - blower dry commissioning complete, ready for wet commissioning; and
 - heat recovery room steady progression, nearing construction completion.

- Tertiary treatment area:
 - outfall and clean water tank ready for influent;
 - backwash and clean water pumping systems dry commissioned and ready for wet commissioning;
 - progressed installation of disk filter system piping and disk filter equipment;
 - untreated wash down water system ready for influent; and
 - progressed treated wash down water system.

- O&M building:
 - lower level interior south of the workshop approaching completion;
 - building envelope is nearing completion; and
 - green roofing continued.

- Site Works:
 - progressed final north planter and tsunami walls;
 - continued backfill on site;
 - completed Fortis gas tie-in; and
 - completed BC Hydro inspection of generator start-up.

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



Figure 2– McLoughlin Point Wastewater Treatment Plant – Installation of cabinets in the Laboratory.



Figure 3– McLoughlin Point Wastewater Treatment Plant- operations and maintenance building north façade cladding and observation deck green roof membrane inspection.



Figure 4- McLoughlin Point Wastewater Treatment Plant- Tertiary building stairway cladding installation.



Figure 5- McLoughlin Point Wastewater Treatment Plant- North tsunami wall concrete pour.

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 July were as follows:

- Digester Area
 - erect scaffolding for gas membrane installation; and
 - commissioning systems and install of biogas piping on roof of Digester Building.
- Other Municipal Solids Receiving Facility
 - insulation of piping; and
 - installation of receiving hopper.
- Residuals Handling Building
 - commissioning of various systems; and
 - insulation of hot water piping.
- Residuals Drying Facility
 - completed installation of external stairs; and
 - commissioning of various systems in progress.
- Residuals Storage & Odour Control
 - completed installation of fiberglass reinforced plastic (FPR) duct installation; and
 - chemical piping installation complete.
- Operations Building
 - commenced fire alarm verification.

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



Figure 6– Residuals Treatment Facility- Ongoing placement and compaction of road base.



Figure 7- Residuals Treatment Facility- Filtrate self-priming pumps commissioning complete.



Figure 8- Residuals Treatment Facility – Wet testing and commissioning of Bio trickling Filter at Odour Control Facility.

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.

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

- completed seismic upgrades;
- completed installation of new diesel generator exhaust, fuelling system, and diesel generator;
- completed installation of grit separation equipment;
- completed works in the new wastewater channel;
- progressed electro-mechanical works in the public plaza washroom; and
- completed functional and operational test for upgrades at existing pump station.

Photographs of construction progress over the month of July at Clover Point are shown in Figures 9-10.



Figure 9–Clover Point Pump Station- Stone siding being installed on the public washroom.



Figure 10- Clover Point Pump Station – Curved landscape retaining wall formwork.

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.

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

- Diversion Chamber
 - completed concrete work around the slide gate;
 - commenced grout around the slide gate; and
 - installed slide gate.
- Pump Station
 - completed installation of turning vanes in wet well;
 - ongoing installation of fiberglass reinforced plastic (FRP) platform and stair in the pump room;
 - completed wood siding installation;
 - completed installation of all doors;
 - installed flow splitters in the wet well;
 - completed grout for the flow splitter; and
 - commenced FRP grating installation in the bin room.

Photographs of construction progress over the month of July at Macaulay Point Pump Station are shown in Figures 11-12.



Figure 11–Macaulay Point Pump Station- Final section of pipe being installed.



Figure 12–Macaulay Point Pump Station- Exterior finishes.

2.9.3.3 Clover Forcemain (CFM)

Windley Contracting Ltd. (“Windley” as the Construction Contractor) continued construction activities over the reporting period.

Key construction activities in progress or completed by Windley in July included:

- continued seawall balustrade replacement construction;
- removed old wall;
- completed new concrete wall;
- completed new sidewalk;
- installed new aluminium fence; and
- progressed bollard installation.

Photographs of construction progress over the month of July on the Clover Forcemain are shown in Figures 13-14.



Figure 13–Clover Forcemain- Installing parking bollards along Dallas Road



Figure 14–Clover Forcemain- New aluminium fence installed along Dallas Road.

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 and commissioning activities over the reporting period.

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

- All pipe work was completed.
- Peers Creek: utility locates and survey layout were conducted along with equipment mobilization in preparation for construction activity to replace a culvert as part of a Saanich infrastructure improvement.

Photographs of construction progress over the month of July on the Residual Solids Pipes are shown in Figures 15-16.



Figure 15– Residual Solids Pipes- Pressure washing manhole at Lyall Street and Peters Street.



Figure 16-Residual Solids Pipes - Building layers of geobag wall at Admirals Bridge.

Residual Solids Pump Stations: Knappett Projects Inc. (“Knappett” as the Construction Contractor for the Residual Solids Pump Stations) continued construction activities over the reporting period. Key construction activities in progress or completed by Knappett in July included:

- completed commissioning of the pipes and pump stations;
- completed pigging of the lines;
- at the pump stations, the odour control unit (OCU) installation was completed and stainless steel stacks were erected;
- OCU advanced start up began;
- completed and pressure tested pig receiver piping at Marigold Pump Station;
- completed Admirals Bridge installation;
- completed final paving and line painting on Willis Point Road;
- installed curbing at Pump Station1; and
- Hartland Reservoir underground pipe work.

Photographs of construction progress over the month of July on the Residual Solids Pump Stations are shown in Figures 17-18.



Figure 17–Residual Solids Pump Stations– Pump Station 1 –Installing bollard sleeves on the Odour Control pad.



Figure 18 –Residual Solids Pump Stations – Pump Station # 1: Excavating to install curbs.

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 July included:

- completed final excavation within attenuation tank;
- commence drilling / grouting / installation of rock anchors; and
- complete installation of mud matt at base of attenuation tank.

Photographs of construction progress during the month of July at the Arbutus Attenuation Tank is shown in Figures 19 and 20.



Figure 19–Arbutus Attenuation Tank- Base Slab Steel Installation Progress.



Figure 20–Arbutus Attenuation Tank- Installed Rock Anchors and Granular Material Compaction.

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 July included:

- installed 202m on Bushby Street including concrete cap running the entire length;
- installed 59m pipe at Fairfield Road, including the installation of three bends and corresponding thrust blocks;
- installed 210m of pipe along Memorial Crescent;
- installed air release valve chamber at the intersection of Fairfield Road and Stannard Avenue; and
- completed Fortis BC gas main relocation at Brooke Street.

A photograph of construction progress during the month of July at the Trent Forcemain is shown in Figure 21.



Figure 21–Trent Forcemain- Fairfield Road curb and sidewalk subgrade preparation.

Appendix A– Trent Forcemain: Road Closure at Fairfield and Stannard (July 15, 2020)



July 15, 2020

Trent Forcemain: Road Closure at Fairfield and Stannard

As part of the Wastewater Treatment Project, an air valve chamber is being constructed at Stannard Avenue and Fairfield Road. This work will require the closure of Fairfield Road between the Fairfield Shopping Centre and Arnold Avenue. The closure is expected to take place during work hours starting on Thursday, July 16 and be complete within approximately two days. A detour will be in place (see map on reverse).

What to Expect

- The area will be excavated, the chamber installed, and the site will be temporarily restored.
- Final restoration will take place after the section of forcemain along Fairfield Road has been tested and completed.
- Noise associated with this work includes excavation machinery and truck back-up beepers.
- Pipes and equipment will be temporarily stored in the area while this work is completed.

Traffic Impacts

- A signed detour will be in place during work hours.
- On-street parking along Memorial Crescent and St Charles Street will be removed to allow for detour traffic.
- Traffic control areas will be delineated by cones and signs and controlled by flaggers.

Access

- Vehicle access to residences will not be impacted.
- Emergency services will have access at all times.
- Garbage and recycling services will be picked up as usual.

Work Hours

- Monday to Friday from 7:00 a.m. to 7:00 p.m.
- Saturday from 10:00 a.m. to 7:00 p.m.

Thank you for your patience as this work is completed.

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



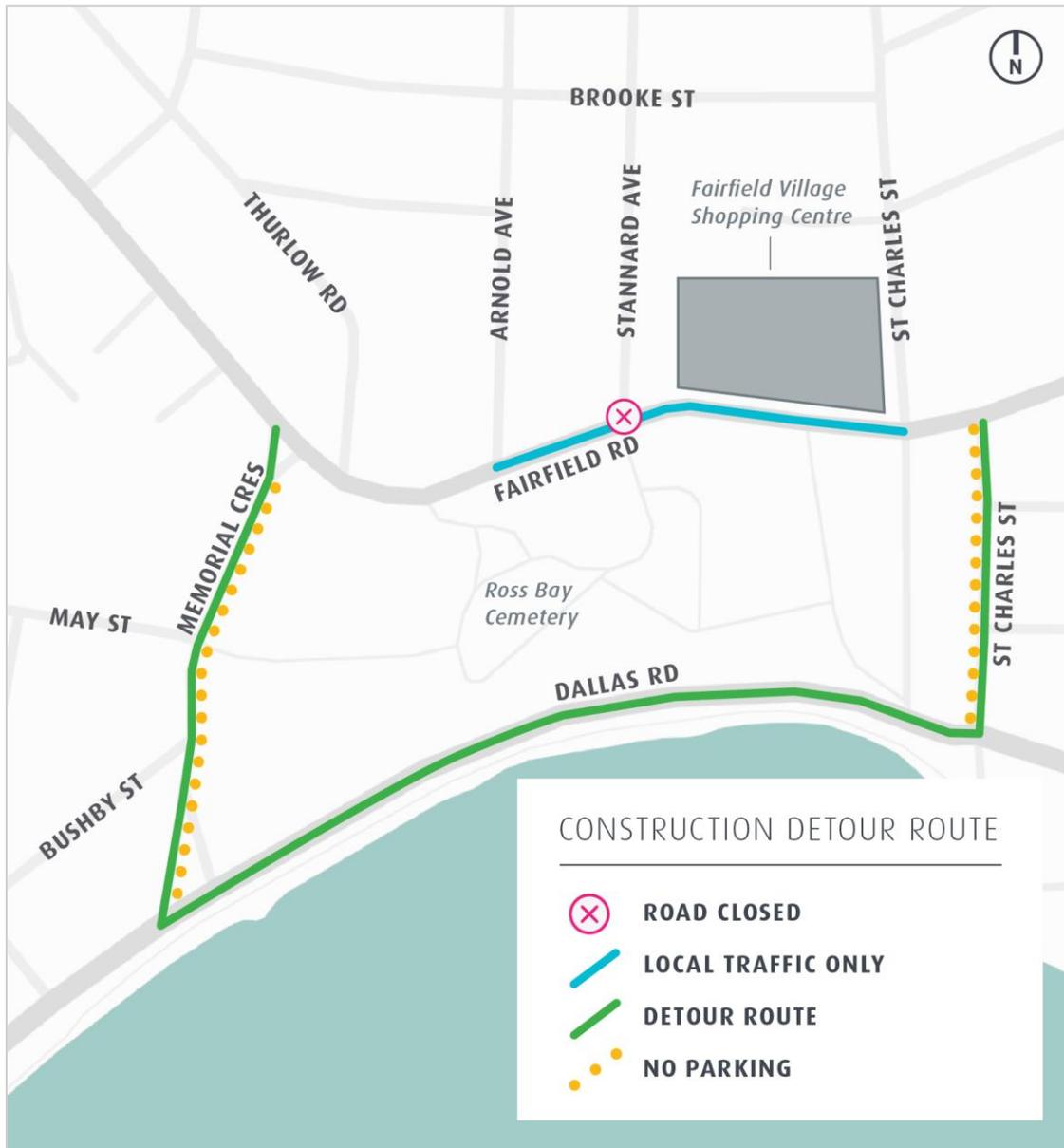
Email
wastewater@crd.bc.ca



Website
wastewaterproject.ca



Detour Route



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– Macaulay Point Pump Station: Transition to New Pump Station (July 13, 2020)



July 13, 2020

Macaulay Point Pump Station: Transition to New Pump Station

The Macaulay Point Pump Station is starting commissioning and wastewater will soon be diverted from the existing pump station to the new pump station. Diesel-powered pumps outside the pump station will be operating during the day beginning July 14 for one week, and will then operate continuously for an anticipated three weeks. Some overnight work, anticipated to begin the week of July 20, will also be required.

What to Expect

- Diesel-powered pumping units will operate outside the Macaulay Point Pump Station.
 - Beginning July 14, the pumps will operate during the day.
 - Beginning the week of July 20, the pumps will operate 24 hours a day until the work is complete (anticipated to be by the end of the first week of August)
- The pumps are equipped with acoustic enclosures to reduce noise.
- For overnight work, construction equipment will be in operation, including lights and truck back-up beepers.
- Increased short-term odour may occur intermittently during this work.

Work Hours

- Monday to Friday from 7:00 a.m. to 7:00 p.m.
- Saturday from 7:00 a.m. to 5:00 p.m.
- Some overnight work will be required for short periods the week of July 20.

Traffic Impacts

- No traffic impacts are expected.

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 C– Core Area Wastewater Discharge Notice (July 24, 2020)



Making a difference...together

Public Service Announcement

For Immediate Release

July 24 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 for intermittent periods overnight on July 23, 2020, and into the morning of July 24, 2020. The shorelines affected are along Dallas Road between Government Street and Crescent Road including Holland Point, Clover Point, Ross Bay and Gonzales Bay. 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](https://twitter.com/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.

-30-

For media inquiries, please contact:

Andy Orr, Senior Manager

CRD Corporate Communications

Office 250.360.3229

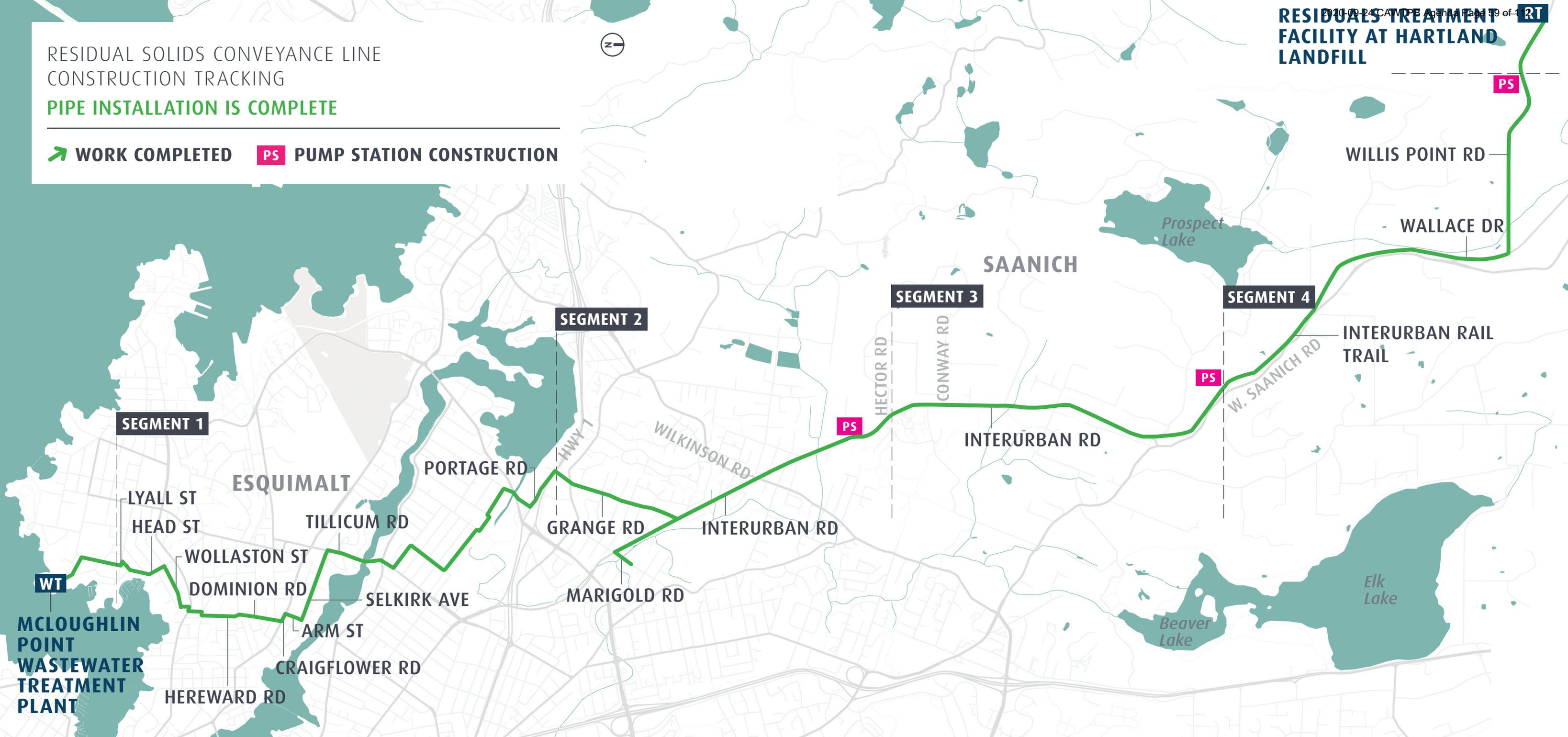
Cell 250.216.5492

Appendix D– Residual Solids Conveyance Line Map (July 20, 2020)

RESIDUAL SOLIDS CONVEYANCE LINE
CONSTRUCTION TRACKING

PIPE INSTALLATION IS COMPLETE

➔ WORK COMPLETED **PS** PUMP STATION CONSTRUCTION



SEGMENT 1

SEGMENT 2

SEGMENT 3

SEGMENT 4

WT
MCCLOUGHLIN
POINT
WASTEWATER
TREATMENT
PLANT

PS

PS

RT

ESQUIMALT

SAANICH

INTERURBAN RAIL
TRAIL

LYALL ST
HEAD ST

WOLLASTON ST
DOMINION RD

TILLICUM RD

ARM ST
CRAIGFLOWER RD

HEREWARD RD

PORTAGE RD

GRANGE RD

MARIGOLD RD

WILKINSON RD

INTERURBAN RD

HECTOR RD

CONWAY RD

INTERURBAN RD

W. SAANICH RD

WALLACE DR

WILLIS POINT RD

Prospect
Lake

Beaver
Lake

Elk
Lake



Appendix E– Monthly Cost Report (July)

MONTHLY COST REPORT
as at July 31, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to June 30, 2020	Expended over reporting period (July 2020)	Expended to July 31, 2020	Expended to July 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at July 31, 2020	Total Commitment at July 31, 2020	Unexpended Commitment at July 31, 2020	Uncommitted Allocated Budget at July 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	298.8	4.3	303.0	92%	25.1	321.0	17.9	7.1	25.1	328.1	-	0%
Construction	306.7	320.8	298.2	4.3	302.6	94%	18.2	320.3	17.7	0.5	18.2	320.8	-	0%
Contingency	14.9	0.4	-	-	-	0%	0.4	-	-	0.4	0.4	0.4	-	0%
Financing	9.8	6.9	0.5	-	0.5	7%	6.4	0.7	0.2	6.2	6.4	6.9	-	0%
Residuals Treatment Facility	159.4	140.0	11.3	0.1	11.4	8%	128.6	139.0	127.6	1.0	128.6	140.0	-	0%
Construction	145.4	139.0	11.3	0.1	11.4	8%	127.6	139.0	127.6	0.0	127.6	139.0	-	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	158.0	215.7	166.3	4.2	170.4	79%	45.3	195.7	25.3	19.9	45.3	215.7	-	0%
Macaulay Point Pump Station	25.4	30.9	27.7	0.0	27.7	90%	3.2	30.9	3.2	0.0	3.2	30.9	-	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	13.5	1.2	14.7	60%	9.9	23.3	8.6	1.3	9.9	24.6	-	0%
Clover Forcemain	14.6	32.5	30.0	0.3	30.3	93%	2.2	31.9	1.6	0.6	2.2	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	2.6	1.3	3.9	34%	7.4	8.1	4.2	3.2	7.4	11.3	-	0%
Residual Solids Conveyance Line	19.1	36.6	34.3	0.1	34.4	94%	2.2	36.5	2.1	0.1	2.2	36.6	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	18.1	13.0	1.2	14.1	78%	4.0	17.0	2.8	1.1	4.0	18.1	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.4	0.3	-	0.3	76%	0.1	0.4	0.0	0.1	0.1	0.4	-	0%
Contingency	16.8	9.9	-	-	-	0%	9.9	-	-	9.9	9.9	9.9	-	0%
Financing	5.8	4.1	0.2	-	0.2	4%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	75.8	77.9	56.8	0.6	57.4	74%	20.4	70.0	12.6	7.8	20.4	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	14.5	-	14.5	83%	3.0	17.5	3.0	-	3.0	17.5	-	0%
Conveyance Design	5.0	9.5	7.6	0.2	7.8	82%	1.7	8.8	1.0	0.7	1.7	9.5	-	0%
Advisors & Professional Support	7.0	15.0	10.3	0.0	10.3	69%	4.7	11.5	1.1	3.5	4.7	15.0	-	0%
Project Board	2.0	1.3	0.9	0.0	0.9	74%	0.3	0.9	-	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	0.1	0.1	-	0%
Project Team	29.1	23.1	16.3	0.3	16.5	71%	6.6	22.9	6.4	0.2	6.6	23.1	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	-	0.2	59%	0.2	0.2	-	0.2	0.2	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	-	0.1	67%	0.1	0.1	-	0.0	0.1	0.2	-	0%
CRD Financial Services	1.5	1.4	0.9	0.0	0.9	67%	0.5	1.4	0.5	-	0.5	1.4	-	0%
CRD Human Resources	0.3	0.3	0.2	0.0	0.2	88%	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	92%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	71%	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	86%	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%	0.0	0.1	0.0	-	0.0	0.1	-	0%
Office Lease	1.9	1.3	0.9	0.0	0.9	69%	0.4	1.2	0.3	0.1	0.4	1.3	-	0%
Office Supplies	0.1	0.2	0.2	-	0.2	88%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	-	0.2	89%	0.0	0.2	0.0	-	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	1.1	0.6	-	0.7	61%	0.4	0.7	-	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	4.0	0.1	4.1	50%	4.1	6.8	2.8	1.3	4.1	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	539.2	9.2	548.4	71%	226.5	734.6	186.2	40.3	226.5	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

Item 7.2



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

**REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF THURSDAY, SEPTEMBER 24, 2020**

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

ISSUE

To provide the Core Area Wastewater Treatment Project Board with the Wastewater Treatment Project August 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 August 2020 is attached as Appendix A.

RECOMMENDATION

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

Core Area Wastewater Treatment Project Board – September 24, 2020
Wastewater Treatment Project August 2020 Monthly Report

2

RESOLVED that:

The Staff Report, 'Wastewater Treatment Project August 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 August 2020 Monthly Report

ES:er



Wastewater Treatment Project

Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: August 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	11
2.4	Stakeholder Engagement	11
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	17
2.7	Cost Management and Forecast	19
2.7.1	Commitments	19
2.7.2	Expenses and Invoicing	20
2.7.3	Contingency and Program Reserves	20
2.7.4	Project Funding	20
2.8	Key Risks and issues	21
2.9	Status (Engineering, Procurement and Construction)	25
2.9.1	Wastewater Treatment Plant (McLoughlin Point WWTP)	25
2.9.2	Residuals Treatment Facility	28
2.9.3	Conveyance System	30
	<i>Appendix A– Trent Forcemain: Updated Work Hours (August 6, 2020)</i>	42
	<i>Appendix B– Dallas Road Update (August 6, 2020)</i>	43
	<i>Appendix C– Trent Forcemain: Dallas Road Seawall (August 17, 2020)</i>	44
	<i>Appendix D– Monthly Cost Report (August)</i>	45

1 Executive Summary

1.1 Introduction

This Monthly Report covers the reporting period of August 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, and over the reporting period an important step was taken towards meeting the deadline: wastewater was pumped from Clover Point Pump Station and Macaulay Point Pump Station to McLoughlin Point WWTP for the first time, allowing commissioning of the treatment system to commence.

The McLoughlin Point WWTP Project Component is continuing with Harbour Resource Partners (“HRP” as the Design-Build contractor for the McLoughlin Point WWTP) commencing commissioning with wastewater and progressing: commissioning of the sludge tank, plant drain tank, plate settler 1 and 2 and fine screen processes in the primary treatment area; commissioning of moving bed bio reactor (MBBR) and biological aerated filter (BAF) processes in the secondary treatment area; commissioning of the outfall and clean water, backwash and clean water pumping system processes in the tertiary treatment area; and completion of the green roof system in the Operations and Maintenance Building.

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 insulation for Digesters 2 and 3, installation of biogas piping on the roof of the Digester building to tie into the Digester tanks in the Digester area; installation of hopper in the Other Municipal Solids Receiving Facility; commissioning of various system including boilers and completed insulation of hot water piping in the Residuals Handling Building; continued commissioning of various systems in the Residuals Drying Facility; and commenced the insulation of the fiberglass reinforced plastic (FRP) ductwork in the Residuals Storage and Odour Control Area.

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: commencing pumping of wastewater to the McLoughlin Point WWTP; forming, pouring and stripping of concrete benches and upper plaza retaining walls; installation of stone exterior of the pump station; installed crane stops for electrical room monorail; installed public washroom accessories and finishes; and completed installation of pigging chamber.
- Macaulay Point Pump Station: Kenaidan Contracting Limited (“Kenaidan” as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: commencing pumping of wastewater to the McLoughlin Point WWTP; installation of vent pipes and ongoing backfill around the existing structure at the Diversion Chamber; installation of FRP platform and stairs in the pump room; installation of acoustic insulation panels in the genset and pump rooms; and ongoing installation of electrical sleeves to the low level chamber.

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 and commissioning activities including: supporting the commencement of pumping of wastewater from the Clover Point Pump Station, through the Clover Forcemain to the McLoughlin Point WWTP; ongoing construction of the seawall balustrade replacement and enhanced 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 for the Saanich infrastructure improvement being undertaken at Peers Creek, including: realignment of a section of existing watermain; replacing existing sewer pipe with ductile iron pipe within a casing; removal of existing storm drain manhole and culvert pipes; and installation of new culverts and storm drain manhole.
 - Residual Solids Pump Stations: Knappett Projects Inc. (“Knappett” as the Construction Contractor) continued construction activities including: forming and pouring new pump bases and continued installation of mechanical equipment and piping for the Hartland water system improvements; replaced threaded hangar rods on Admirals and Tillicum Bridges; and installed odour control vent piping at all pump stations.
- Arbutus Attenuation Tank (“AAT”): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: sections of mud mat poured

and completed; completed valve chamber excavation and subbase placement; backfill of culvert extension; and completed base slab pours for the valve chamber, lower sump and trough areas of the main tank.

- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installation of Memorial Crescent air valve chamber; installation of forcemain on Stannard Avenue; reinstated three external drop structure manholes on Brooke Street; and installed 187m of forcemain on Brooke Street.

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 no recordable safety incidents occurred and the total recordable incident frequency decreased from 1.5 at the end of the July 2020 to 1.49.

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 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*.					No 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.					There were no environmental incidents 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).					<p>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.</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 (August 2020) six safety incidents occurred, comprising: two first-aid, one high potential for harm and 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
August 13, 2020	McLoughlin Pt WWTP	First Aid	Worker chipping concrete sustained minor eye injury.	A small piece of concrete entered right eye. Worker was wearing safety glasses, but was not wearing a face shield.	Tool-box talk with crews to remind them of personal protective equipment requirement of wearing a face-shield over safety glasses when chipping or grinding.
August 13, 2020	McLoughlin Pt WWTP	First Aid	While moving a door on a rack the load shifted pinching the worker's left index finger.	Worker reported to first aid where the small laceration was attended to. No follow up was required. Worker was wearing gloves at time of incident which lessened the injury.	Reminder to crews to always be aware of their surrounding and potential for injury when undertaking activities

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
August 17, 2020	McLoughlin Pt WWTP	High Potential for Harm First Aid	A worker fell through an opening in the Tertiary building floor when a fiberglass cover panel gave way.	<p>The channel cover panel was not secured properly, nor cordoned off and gave way beneath the worker.</p> <p>Worker fell approximately 15 feet into a water filled channel.</p> <p>Prime Contractor's Emergency Response Plan was initiated and worker was quickly retrieved from the channel area with minor abrasions. Worker was assessed onsite by first aid and paramedics and then transported to hospital for further assessment.</p> <p>Site stand down was initiated.</p> <p>Worker returned to work the following day, no further medical follow up required.</p>	<p>WorkSafeBC called, attended site and full investigation completed.</p> <p>Control zone established around the loose channel covers.</p> <p>All channel covers were inspected and covers not fastened were immediately done.</p>
August 17, 2020	McLoughlin Pt WWTP	Report Only	During commissioning clean water was directed to the effluent channel, instead of the dirty backwash tank.	Personnel working in the tertiary area noticed water level rise in channel and reported it to operations team.	Procedures review with staff to ensure awareness of systems and operations protocols to prevent unintended direction of flows.
August 17, 2020	Residual Solids Pump Station	Report Only	Car damaged from contractors temporary fence.	Fencing blew over and landed on the vehicle	Additional securing of the fencing was completed to prevent a reoccurrence.
August 17, 2020	McLoughlin Pt WWTP	Report Only	A loader carrying pipe contacted a parked vehicle causing minor damaged.	Owner contacted and contractor will be responsible for the repairs	<p>Tool-box talk to remind loader operator to be aware of their surroundings and proximity in and around the work area.</p> <p>Crews to avoid travel on non-project roads as they are narrow with cars are parked on both sides.</p>

Key safety activities conducted during August included:

- bi-weekly project update meetings with prime contractors: Kenaidan, Windley, Don Mann, HRP, Knappett, Jacob Bros and NAC;
- monthly update meetings with prime contractors: Don Mann, HRP;
- monthly Incident Investigation reviews;
- 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; and
- hosted Prime Contractor Safety Coordination Meeting with Project safety representatives.

Table 3: WTP Safety Information

	Reporting Period (August 2020)	Project Totals
Person Hours		
PMO	2,877	154,954
Project Contractor	64,412	2,126,373
Total Person Hours	67,289	2,281,327
Total Number of Employees		
PMO	29	
Project Contractors (& Project Consultants) working on Project Sites	371	
Total Number of Employees	400	
Near Miss Reports		
Near Miss Reports	0	46
High Potential Near Miss Reports	1	7
Report Only	3	173
First Aid	2	67
Medical Aid	0	10
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	0	17
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.9
Medical Aid Frequency		1.1
Lost time Frequency		0.4
Total Recordable Incident Frequency		1.5

2.2 Environment and Regulatory Management

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

Key environmental management activities completed in August included:

- Don Mann and their environmental consultant McElhanney completed in-stream work at the site of the Peers Creek culvert replacement on Interurban Road. The in-stream work involved isolating the stream from fish and installing dewatering equipment in preparation for culvert construction. There were no fish present in the isolation zone.

2.2.2 Regulatory Management

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

Key permitting activities for August included:

- The CRD provided a draft Statutory Right-of-Way Plan to the BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development. The Plan would be used to convert the current Licence of Occupation for the McLoughlin Point outfall into a long term tenure.

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. There were no changes made from the table presented in the Project's July 2020 Monthly Report.

Table 4- Key Permits Status

<i>Permit/Licence</i>	<i>Anticipated Date</i>	<i>Status</i>	<i>Party Responsible for Obtaining Perming</i>
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

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 WSÁNEĆ 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 August included:

- The CRD and the Esquimalt, Songhees and WLC, during their respective meetings, discussed screening of archaeological material that was encountered during construction. The purpose of these discussions was to identify potential locations for the material that remained after screening.

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

A letter providing information to residents about a change in working hours for the Trent Forcemain was hand delivered to 142 residents along the route (Appendix A). 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.

Signs were posted near the entrances to the Dallas Road seawall pedestrian path describing the work that would be taking place for the Trent Forcemain (Appendix B).

A postcard was mailed to 2,959 households in James Bay and Fairfield providing residents with an update regarding the timing for the remaining construction work and public amenities along Dallas Road (Appendix C).

Project Website

Over the reporting period the Project website, wastewaterproject.ca, was updated with information about the Project. The Dallas Road Update postcard and Dallas Road Seawall sign were posted.

The CRD's Twitter and Facebook accounts was used to provide Project information to the public, including an update on the work taking place along Dallas Road.

Community Meetings

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

- City of Victoria Technical Working Group; and
- District of Saanich Technical Working Group;

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- July 2020

Inquiry Source	Contacts for August 2020
Information phone line inquiries	18
Email inquiries responded to	17

Key themes of the public inquiries were as follows:

- interest in restoration, landscaping and public amenities;
- questions regarding noise associated with construction; and
- interest in when construction in specific areas will be finished.

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.

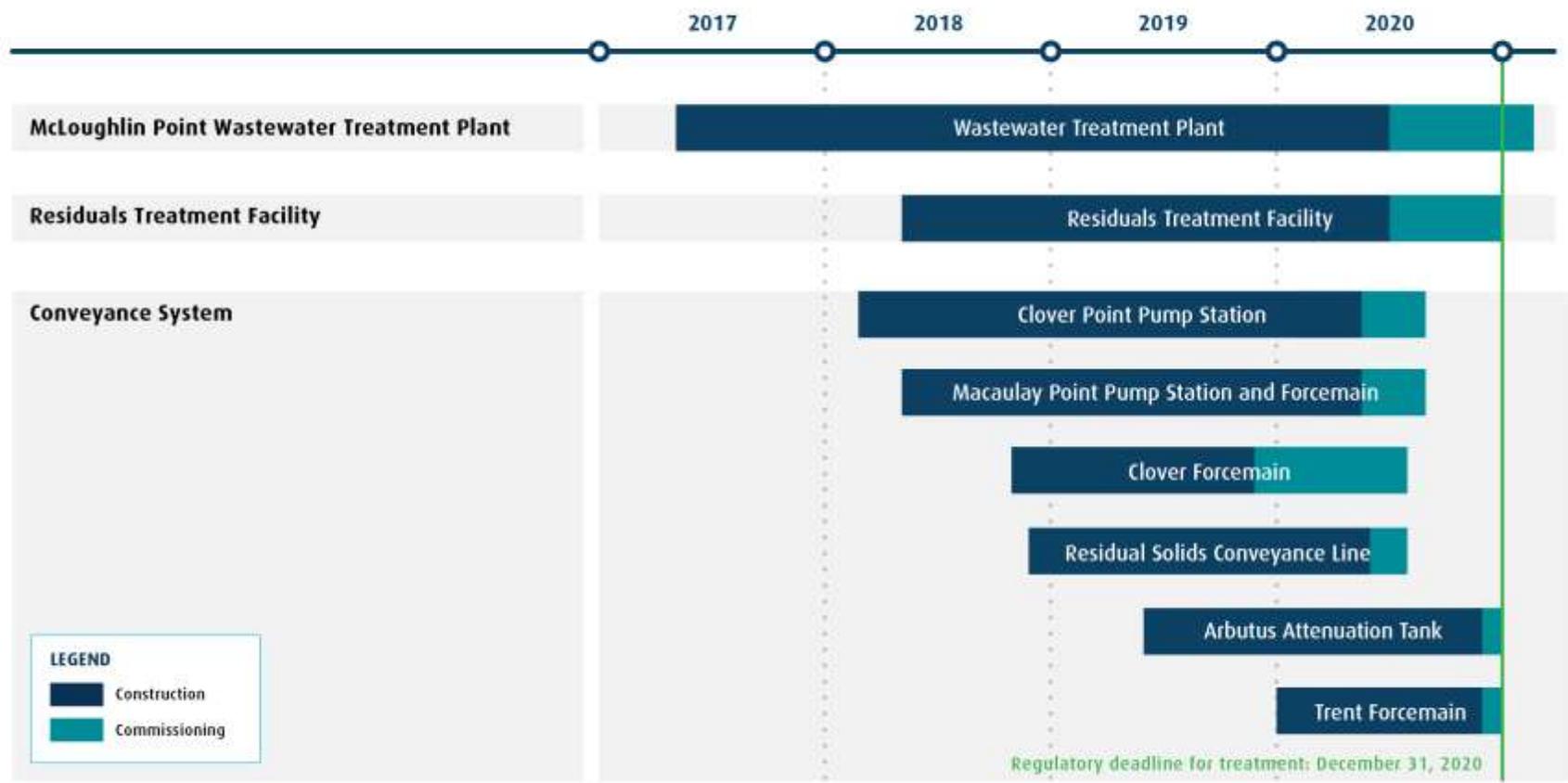
Figure 1 shows the high-level Project schedule. This schedule is unchanged from that shown previously.

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

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 (September) are outlined below by function.

Safety

- CRD corporate occupational health and safety coordination committee meeting;
- host Prime Contractor Safety Coordination Meeting with Project safety representatives;
- 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.

Environment and Regulatory Management

- finalizing the Licence Agreements for the Harbour Crossing and McLoughlin Point Outfall with Transport Canada.

First Nations

- continue meeting with First Nation liaisons.

Stakeholder Engagement

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

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- prepare for Quarter 3 close and interim audit; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- commission security systems, mechanical systems, fire systems, and plumbing systems;
- building systems integration; and
- biological growth and process optimization.

Clover Point Pump Station

- install split stone to exterior walls;
- install firestop and smoke seals;
- install green roof system;
- plant trees and shrubs;
- complete final painting and touch ups;
- spray foam insulation; and

- backfill north retaining wall.

Macaulay Point Pump Station

- install outdoor site furnishings;
- commence demolition of existing structure;
- remove and salvage existing equipment; and
- plant trees and shrubs, and install green roof system.

Residuals Treatment Facility

- continue functional start-up, wet testing and initial system verification;
- commence process commissioning with residual solids;
- complete exterior insulation and hydro test Digester #1;
- complete exterior insulation Digester #2;
- hydro testing and pneumatic testing Digested Solids Storage Tank;
- complete pipe insulation, jib crane and weather cover at Other Municipal Solids Receiving Facility;
- continue testing and commissioning activities at the Residuals Handling Building;
- continue testing and commissioning activities at the Dryer Building;
- install lime stabilization unit; and
- continue site grading, fencing, road paving, and retention ponds.

Clover Forcemain

- final paving of Dallas Rd from Lewis Street to Dock Street; and
- clean-up and demobilize.

Residual Solids Pipes

- commence conveyance operations; and
- complete Peers Creek culvert and supporting utility replacement.

Residual Solids Pump Stations

- commence conveyance operations; and
- final grading, trail restoration; and installation of fence and landscaping at Pump Station #2;
- final grading and install fence at Pump Station #3; and
- remove scaffolding from Admirals and Tillicum bridges.

Arbutus Attenuation Tank (AAT)

- install valve chamber piping;
- commence construction of concrete walls, columns, stairs within the attenuation tank; and
- install manhole and associated piping.

Trent Forcemain

- commence installation of sanitary sewer on Dallas Road;
- install sanitary sewer and valve chamber at Memorial Crescent from Dallas Road to Thurlow Road; and
- restoration and paving at Memorial Crescent.

2.6.2 60 day look ahead

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

Safety

- 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.

Environment and Regulatory Management

- finalizing a long term tenure with the Province for the portion of the McLoughlin Point outfall that is outside of the Victoria Harbour boundary.

First Nations

- delivering archaeological screening material to the Esquimalt and Tsartlip Nations.

Stakeholder Engagement

- ongoing construction communications with stakeholders;
- ongoing community liaison meetings; and
- planning and execution of opening media event.

Cost Management and Forecast

- prepare cost reports;
- prepare Q3 financial close reporting;
- prepare for interim audit; and
- balance and confirm all funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund) are submitted.

Construction

McLoughlin Point

- achieve functional completion;
- complete landscaping;
- complete commissioning;
- complete integration of remote SCADA;_and
- commence acceptance testing.

Clover Point Pump Station

- install grass Crete pavers;
- reinstate curbs, walkway and roadways;
- install pathways;
- form and pour upper plaza level;
- install public art to generator exhaust stack; and
- install water fountain, City of Victoria benches, trash cans and bike maintenance station.

Macaulay Point Pump Station

- achieve substantial completion;
- plant trees and shrubs;
- place topsoil and finish grading;
- install gravel pathways;
- install boardwalk and viewing plaza; and
- place seeded turf.

Residuals Treatment Facility

- achieve Functional Completion;
- continue process commissioning with residuals;
- complete odour control biotrickling filter acclimation period; and
- complete retention ponds, perimeter fencing and commence site landscaping.

Clover Forcemain

- final clean up;
- demobilize site; and
- achieve total completion.

Residual Solids Pipes

- Complete Peers Creek culvert and supporting utility replacement.

Residual Solids Pump Stations

- final clean up; and
- demobilization.

Arbutus Attenuation Tank (AAT)

- install curb, pipe supports, monorail and aluminium platform for the valve chamber;
- install attenuation exterior walls; and
- install attenuation tank interior walls and columns.

Trent Forcemain

- install secant and soldier pile walls;
- removal of existing retaining wall and walkway at Dallas Road; and
- install curb and gutter and sidewalk at Memorial Crescent.

2.7 Cost Management and Forecast

The monthly cost report for August is shown in Appendix D. 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 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 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

Over the reporting period a contingency draw of \$0.28M was made and \$0.4M was reallocated from savings in a budgeted line item (RTF financing) into contingency, 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 July 31, 2020		\$ (54,280,640)
Contingency and Program Reserve balance as at July 31, 2020		\$ 15,037,411
Residual Solids Discharge Line Connection to the Secondary Bypass Line	Aug-20	\$ (281,522)
WWTP Total Draw		\$ (281,522)
Reallocation of savings in a budgeted line item (RTF Financing) into RTF Contingency	Aug-20	\$ 400,000
RTF Total Increase		\$ 400,000
Conveyance Total Draw		\$ -
PMO Total Draw		\$ -
BC Hydro Total Draw		\$ -
WTP Program Reserve Draw		\$ -
Contingency and Program Reserve credits in the reporting period		\$ 400,000
Contingency and Program Reserve draws in the reporting period		\$ (281,522)
Contingency and Program Reserve balance as at August 31, 2020		\$ 15,155,889

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	-	\$108M
Government of Canada (Green Infrastructure Fund)	\$50M	-	\$45 M
Government of Canada (P3 Canada Fund)	\$41M	-	-
Government of British Columbia	\$248M	-	\$186.0M
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.

No changes were made to the active risks summary over 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).	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

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)
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
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
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

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
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, including commencing commissioning with wastewater.

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

- Primary treatment area:
 - completed wet commissioning of Densadeg 1, 3 and 2;
 - commenced commissioning of Plate settler 1 & 2 process;
 - commenced Sludge tank, plant drain tank process commissioning; and
 - commenced fine screens process commissioning.

- Secondary treatment area:
 - commenced moving bed bio reactor (MBBR) process commissioning;
 - commenced biological aerated filter (BAF) process commissioning;
 - BAF cell 9 biolite installed, final covers and piping install underway;
 - commenced Blower process commissioning; and
 - Suez continued progressing through their pre-commissioning and commissioning tasks.

- Tertiary treatment area:
 - commenced outfall and clean water tank process commissioning;
 - commenced Backwash and Clean water pumping systems process commissioning;
 - disk filter system turned over to the commissioning team;
 - untreated wash down water system ready for influent; and
 - treated wash down water system progressed.

- O&M building:
 - Lower level interior south of the workshop nearing completion;
 - Second level throughout is nearing completion; and
 - Green roof system is complete.

- Site Works:
 - completed final north planter and tsunami walls; and
 - continued miscellaneous backfill on site.

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



Figure 2– McLoughlin Point Wastewater Treatment Plant – appliances being installed

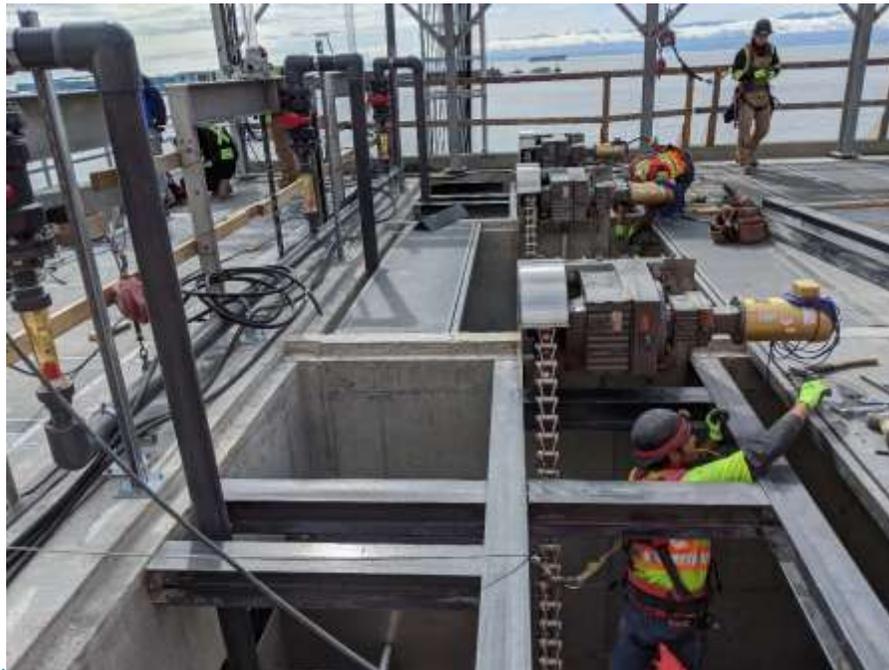


Figure 3– McLoughlin Point Wastewater Treatment Plant- Installation of rotating system on the disk filter channels.



Figure 4- McLoughlin Point Wastewater Treatment Plant- Cabinet installation in workshop – Operations and Maintenance Level 1.



Figure 5- McLoughlin Point Wastewater Treatment Plant- Louvers installed at west entrance above doorway.

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 August were as follows:

- Digester Area
 - installation of insulation at Digesters 2 and 3;
 - commenced filling Digested Solids storage tanks with water for hydro test and installation of gas membrane; and
 - installation of biogas piping on roof of Digester Building tying into digester tanks.
- Other Municipal Solids Receiving Facility
 - completed install of hopper.
- Residuals Handling Building
 - commissioning of various systems including boilers; and
 - completed insulation of hot water piping.
- Residuals Drying Facility
 - commissioning of various systems in progress.
- Residuals Storage & Odour Control
 - commenced insulation of fiberglass reinforced plastic (FRP) ductwork.
- Operations Building
 - Fire alarm verification is progressing.

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



Figure 6– Residuals Treatment Facility- Dryer building and residuals handling building.



Figure 7- Residuals Treatment Facility- Operations building area.



Figure 8- Residuals Treatment Facility – Filling of the Digested Solids Storage Tank.

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 commencing the pumping of wastewater from the Clover Point Pump Station, through the Clover Forcemain to the McLoughlin Point WWTP.

Other key construction activities in progress or completed by Kenaidan in August included:

- formed, placed and stripped concrete benches and upper plaza retaining walls;
- formed and poured north retaining wall;
- installed stone exterior to pump station;
- installed pipe supports to storm pumps;
- installed crane stops for electrical room monorail;
- installed public washroom accessories and finishes;
- completed installation of pigging chamber; and
- installed acoustic panels in generator room.

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



Figure 9–Clover Point Pump Station- Stonework masonry completed on exterior of public washroom.



Figure 10–Clover Point Pump Station- concrete pour of north retaining wall.



Figure 11- Clover Point Pump Station – Backfill and grading around the landscaping walls.

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 commencing the pumping of wastewater from the Macaulay Point Pump Station, through the Macaulay Forcemain, to the McLoughlin Point WWTP.

Other key construction activities in progress or completed by Kenaidan in August were as follows:

- Diversion Chamber:
 - ongoing backfill around the existing drop structure; and
 - installation of vent pipes.
- Pump Station:
 - installed additional air release valves in the pump room;
 - ongoing installation of fiberglass reinforced plastic (FRP) platform and stairs in the pump room;
 - ongoing FRP grating installation in the bin room;
 - installation of Acoustic Insulation Panels in Genset Room and Pump Rooms;
 - ongoing vent pipe installation on the East side;
 - continued backfill on the East side; and
 - ongoing installation of electrical sleeves to the low level chamber.

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

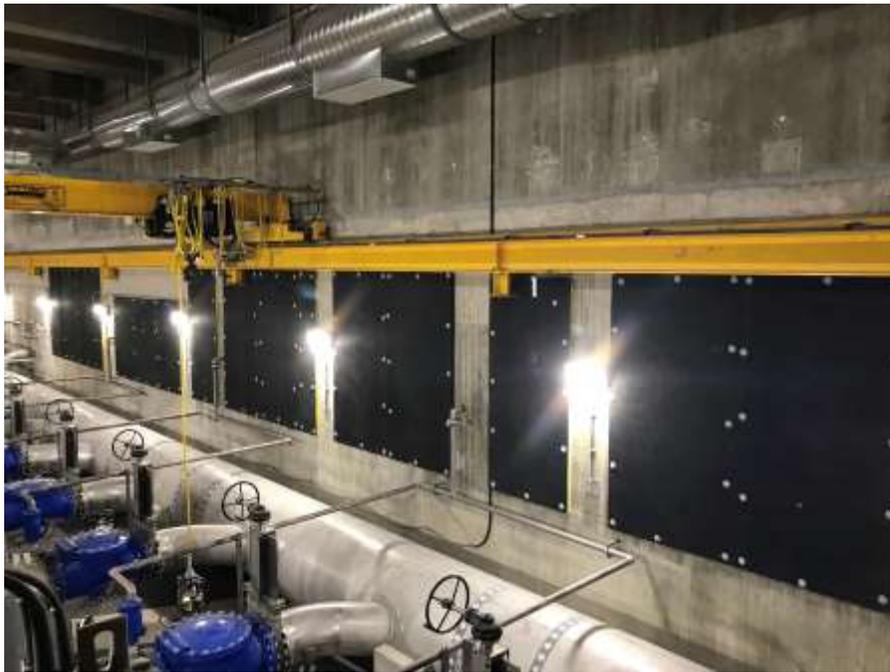


Figure 12–Macaulay Point Pump Station- Installation of acoustic panels in Drywell.



Figure 13—Macaulay Point Pump Station- Clean up and landscaping east of the blue house.

2.9.3.3 Clover Forcemain (CFM)

Windley Contracting Ltd. (“Windley” as the Construction Contractor) continued construction and commissioning activities over the reporting period, including supporting the commencement of pumping of wastewater from the Clover Point Pump Station, through the Clover Forcemain to the McLoughlin Point WWTP.

Key construction activities in progress or completed by Windley in August included:

- seawall balustrade replacement construction continues; and
- construction of enhanced sidewalk.

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



Figure 14–Clover Forcemain- new aluminium railing is installed and sidewalk ongoing



Figure 15–Clover Forcemain- Parking bollards installed.

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 August were as follows:

- fish salvage and creek dewatering was conducted with supervision by McElhanney;
- existing concrete-encased BC Hydro transmission duct bank was exposed, and more concrete was added to the surround;
- realigned a section of an existing watermain, the new section was successfully tested and tied in to the existing main by Saanich with support from Don Mann;
- existing sewer pipe was replaced with ductile iron pipe within a casing;
- removal of existing storm drain manhole and culvert pipes;
- installed twin culverts across Interurban Road;
- installation and connection of a new storm drain manhole; and
- two boreholes were advanced to assess soil conditions as part of concrete
- Headwall design.

Photographs of construction progress over the month of August on the Residual Solids Pipes are shown in Figures 16-17.



Figure 16– Residual Solids Pipes- Peers Creek – Base gravel being placed and graded over culverts.



Figure 17-Residual Solids Pipes – Peers Creek – Backfilling and compacting of culverts.

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 August included:

- form and pour new pump bases and continue installation of mechanical equipment and piping for the Hartland water system improvements;
- replaced threaded hanger rods on Admirals and Tillicum bridges;
- installed valve chamber hatch drains at pump stations 2 & 3;
- install odour control unit vent piping at all pump stations; and
- completed site grading at the Marigold pump station.

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



Figure 18–Residual Solids Pump Stations– Tillicum Bridge – Installing new hanger rods.



Figure 19 –Residual Solids Pump Stations – Pump Station # 1: installing pipe stands on the Odour Control Unit vent piping.

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 August include:

- sections of Attenuation Tank mud mat poured and completed;
- completed valve chamber excavation, subbase placement, and mud mat placement;
- commenced coring of valve chamber piping and doorway;
- completed 90% of the main tank and 100% of the valve chamber base slab reinforcing steel, injection and PVC water stop;
- completed and backfilled installation of culvert extension;
- additional anchors were proof tested to resolve the failed anchor along with supplementary reinforcing steel installation around adjacent anchors; and
- Completed base slab pours of the Valve Chamber, the Lower Sump and Trough area of the Main Tank.

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



Figure 20–Arbutus Attenuation Tank- Base Slab night time concrete pour



Figure 21–Arbutus Attenuation Tank- slab pour complete and covered with wet blankets for curing.

2.9.3.6 Trent Forcemain

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

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

- installed Memorial Crescent air valve chamber and internal hardware setup ready for commissioning;
- installation of forcemain on Stannard Avenue and Brooke Street;
- reinstated three external drop structure manholes on Brooke Street prior to backfill; and
- completed Memorial Crescent watermain grade adjustment work.

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



Figure 22–Trent Forcemain- base course paving on Eberts Street.

Appendix A– Trent Forcemain: Updated Work Hours (August 6, 2020)



Wastewater Treatment Project

August 6, 2020

Dear Resident,

We are writing to notify you that the contractor for the Trent Forcemain project will be changing their work hours on Saturdays and will be starting at 8:00 a.m. beginning August 8.

Work hours are now Monday to Friday from 7:00 a.m. to 7:00 p.m. and Saturday from 8:00 a.m. to 7:00 p.m.

Construction for the Trent Forcemain continues with over 50% of the pipes installed (1,000m of 1,900m).

We appreciate your patience while this work is being completed. Please feel free to contact us at our 24/7 phone line 1-844-815-6132 or email wastewater@crd.bc.ca if you have any questions.

Thank you,

Wastewater Treatment Project Team



Appendix B– Dallas Road Update (August 6, 2020)



Clover Point



The majority of construction on the pump station is complete and commissioning (or system testing) is underway.



Public space improvements are currently being built: a new viewing plaza, connecting pathways, benches, water fountain, public art, bike racks, and a new public washroom. Anticipated opening: November 2020.



Clover Point Road remains closed and the City of Victoria will determine when it will reopen.



The site trailer and laydown area will be fully restored to its original condition in fall 2020.

Dallas Road



The City of Victoria is replacing the seawall balustrade near Ogden Point on Dallas Road and adding a plaza to the sidewalk. Anticipated completion: September 2020.



The City of Victoria has designated the new bike path along Dallas Road as a multi-use path for cyclists and pedestrians to share as a pilot project, similar to the Galloping Goose or E&N Rail Trail. Signs and pathway markings anticipated to be complete: end of August 2020.



Final paving of Dallas Road between Lewis and Dock streets: September. Standard and accessible parking stalls marked on Dallas Road: fall 2020.



Pathway lighting, garbage cans, and bike racks have been installed along the path and 88 trees have been planted in Beacon Hill Park.

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– Trent Forcemain: Dallas Road Seawall (August 17, 2020)



Dallas Road Seawall

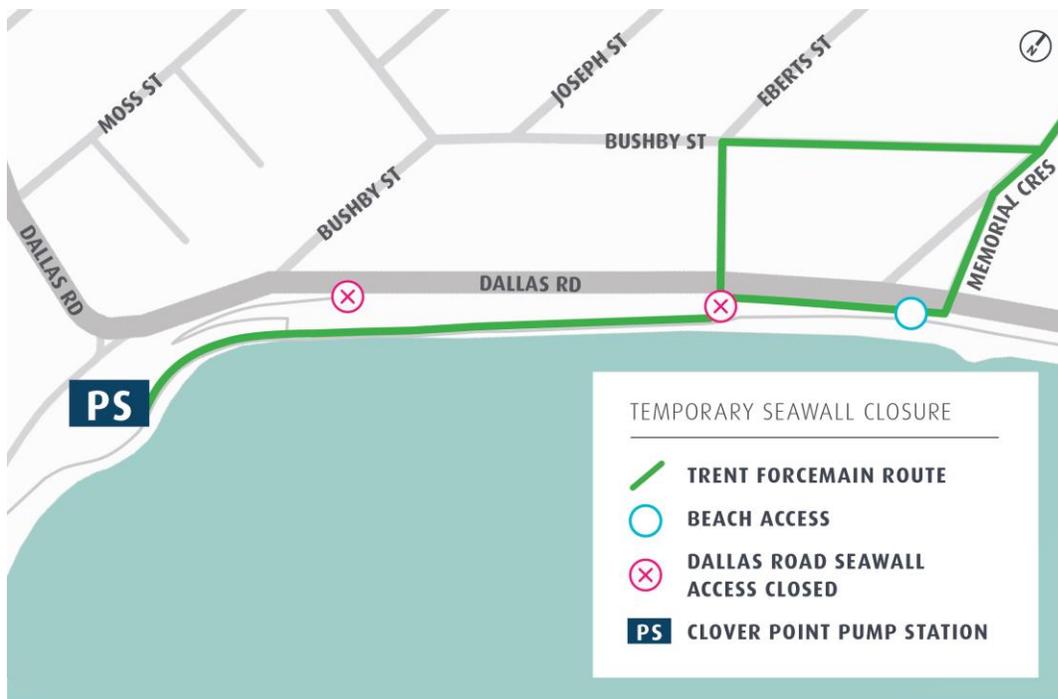
The Wastewater Treatment Project includes construction of the Trent Forcemain, 1.9km of pipes that will be installed from the intersection of Chandler Avenue and St. Charles Street to the Clover Point Pump Station. This work includes installing a pipe under the pedestrian path on the Dallas Road Seawall. The path will be temporarily closed and some parking will be restricted during construction. Beach access will be maintained.

What's Happening

- The Dallas Road Seawall between Memorial Crescent and the Clover Point Pump Station will be excavated and a pipe will be installed.
- Final restoration of the pedestrian path will take place after this section has been tested and completed.

Timeline

- Pipe installation is expected to begin in August 2020.
- Restoration of the seawall is anticipated to be complete in fall 2020.



Thank you for your patience as this work is completed.

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 D– Monthly Cost Report (August)

MONTHLY COST REPORT as at August 31, 2020														
Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to July 31, 2020	Expended over reporting period (August 2020)	Expended to August 31, 2020	Expended to August 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at August 31, 2020	Total Commitment at August 31, 2020	Unexpended Commitment at August 31, 2020	Uncommitted Allocated Budget at August 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	303.0	4.2	307.2	94%	20.9	321.2	14.0	6.9	20.9	328.1	-	0%
Construction	306.7	321.1	302.6	4.2	306.8	96%	14.3	320.5	13.8	0.5	14.3	321.1	-	0%
Contingency	14.9	0.1	-	-	-	0%	0.1	-	-	0.1	0.1	0.1	-	0%
Financing	9.8	6.9	0.5	-	0.5	7%	6.4	0.7	0.2	6.2	6.4	6.9	-	0%
Residuals Treatment Facility	159.4	140.1	11.4	0.0	11.4	8%	128.7	139.1	127.7	1.0	128.7	140.1	-	0%
Construction	145.4	139.1	11.4	0.0	11.4	8%	127.6	139.1	127.6	0.0	127.6	139.1	-	0%
Contingency	12.3	0.6	-	-	-	0%	0.6	-	-	0.6	0.6	0.6	-	0%
Financing	1.7	0.4	0.0	-	0.0	3%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	158.0	215.6	170.4	5.1	175.6	81%	40.1	196.2	20.7	19.4	40.1	215.6	-	0%
Macaulay Point Pump Station	25.4	30.9	27.7	0.8	28.5	92%	2.4	30.9	2.4	0.0	2.4	30.9	-	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	14.7	1.0	15.7	64%	8.9	23.3	7.6	1.3	8.9	24.6	-	0%
Clover Forcemain	14.6	32.5	30.3	0.3	30.6	94%	1.9	31.9	1.3	0.6	1.9	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	3.9	0.9	4.8	42%	6.5	8.5	3.7	2.8	6.5	11.3	-	0%
Residual Solids Conveyance Line	19.1	36.6	34.4	0.8	35.2	96%	1.4	36.6	1.4	0.0	1.4	36.6	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	18.0	14.1	1.3	15.5	86%	2.5	17.1	1.6	0.9	2.5	18.0	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.4	0.3	-	0.3	76%	0.1	0.4	0.0	0.1	0.1	0.4	-	0%
Contingency	16.8	9.9	-	-	-	0%	9.9	-	-	9.9	9.9	9.9	-	0%
Financing	5.8	4.1	0.2	-	0.1	4%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	75.8	77.9	57.4	1.6	59.1	76%	18.8	70.4	11.4	7.4	18.8	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	14.5	0.9	15.4	87%	2.3	17.7	2.3	-	2.3	17.7	-	0%
Conveyance Design	5.0	9.5	7.8	0.2	8.0	85%	1.5	8.9	0.9	0.6	1.5	9.5	-	0%
Advisors & Professional Support	7.0	14.8	10.3	0.1	10.4	71%	4.4	11.6	1.1	3.2	4.4	14.8	-	0%
Project Board	2.0	1.3	0.9	0.0	1.0	76%	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	0.1	0.1	-	0%
Project Team	29.1	23.1	16.5	0.4	16.9	73%	6.3	22.9	6.1	0.2	6.3	23.1	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	-	0.2	62%	0.1	0.2	-	0.1	0.1	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	-	0.1	67%	0.0	0.1	-	0.0	0.1	0.2	-	0%
CRD Financial Services	1.5	1.4	0.9	0.0	1.0	70%	0.4	1.4	0.4	-	0.4	1.4	-	0%
CRD Human Resources	0.3	0.3	0.2	0.0	0.2	92%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	-	0.2	90%	0.0	0.2	0.0	-	0.0	0.2	-	0%
CRD Real Estate	0.3	0.3	0.2	-	0.2	92%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	74%	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	88%	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%	0.0	0.1	0.0	-	0.0	0.1	-	0%
Office Lease	1.9	1.3	0.9	0.0	0.9	71%	0.4	1.2	0.3	0.1	0.4	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	-	0.0	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	1.1	0.7	-	0.7	61%	0.4	0.7	-	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	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	4.1	0.1	4.1	51%	4.0	6.9	2.7	1.3	4.0	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	548.4	11.0	559.4	72%	215.5	735.9	176.5	39.1	215.5	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