Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Notice of Meeting and Meeting Agenda
Core Area Liquid Waste Management Committee

Wednesday, January 27, 2021 **1:30 PM** **6th Floor Boardroom**
625 Fisgard Street
Victoria, BC V8W 1R7

D. Blackwell (Chair), L. Seaton (Vice-Chair), S. Brice, B. Desjardins, F. Haynes, L. Helps, B. Isitt, J. Loveday, R. Martin, R. Mersereau, K. Murdoch, C. Plant, D. Screech, N. Taylor, G. Young, C. Plant (Board Chair, ex-officio)

The Capital Regional District strives to be a place where inclusion is paramount and all people are treated with dignity. We pledge to make our meetings a place where all feel welcome and respected.

1. Territorial Acknowledgement

2. Approval of Agenda

3. Adoption of Minutes

3.1. 21-101 Minutes of the July 22, 2020 and October 7, 2020 Core Area Liquid Waste Management Committee meetings

Recommendation: That the minutes of the Core Area Liquid Waste Management Committee meetings of July 22, 2020 and October 7, 2020 be adopted as circulated.

Attachments: Minutes - July 22, 2020

Minutes - October 7, 2020

4. Chair's Remarks

5. Presentations/Delegations

In keeping with directives from the Province of BC, this meeting will be held by Live Webcast without the public present.

To participate electronically, complete the online application for "Addressing the Board" on our website. Alternatively, you may email the CRD Board at crdboard@crd.bc.ca.

6. Committee Business

6.1. 21-077 2021 Core Area Liquid Management Committee Terms of Reference

Recommendation: That the Core Area Liquid Waste Management Committee receive the 2021 Terms of Reference attached as Appendix A.

Attachments: Staff Report: 2021 CALWMC Terms of Reference

Appendix A: 2021 CALWMC Terms of Reference

6.2. 21-098 Wastewater Treatment Project Q4 2020 Quarterly Report

Recommendation: The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.

Attachments: Staff Report: WTP Q4 2020 Quarterly Report

6.3. 21-097 Wastewater Treatment Project November 2020 Monthly Report

Recommendation: The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.

Attachments: Staff Report: WTP November 2020 Monthly Report

6.4. 20-700 Wastewater Treatment Project Q3 2020 Quarterly Report

Recommendation: The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.

Attachments: Staff Report: WTP Q3 2020 Quarterly Report

6.5. 20-795 Wastewater Treatment Project October 2020 Monthly Report

Recommendation: The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.

Attachments: Staff Report: WTP October 2020 Monthly Report

7. Notice(s) of Motion

8. New Business

9. Adjournment

To ensure quorum, please advise Sherri Closson (sclosson@crd.bc.ca) if you or your alternate cannot attend.

The next meeting is April 28, 2021

Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Meeting Minutes

Core Area Liquid Waste Management Committee

Wednesday, July 22, 2020 **1:30 PM** **6th Floor Boardroom**
625 Fisgard Street
Victoria, BC V8W 1R7

PRESENT
Directors: B. Desjardins (Chair), L. Helps (Vice-Chair), D. Blackwell, S. Brice, F. Haynes, B. Isitt (EP), J. Loveday (EP), D. Kobayashi (for R. Martin)(EP), R. Mersereau, K. Murdoch, D. Screech, L. Seaton, N. Taylor, G. Young, C. Plant (Board Chair, ex-officio)

Staff: R. Lapham, Chief Administrative Officer; L. Hutcheson, General Manager, Parks and Environmental Services; T. Robbins, General Manager, Integrated Water Services; D. Fairbairn, Vice Chair, Core Area Wastewater Treatment Project Board; D. Clancy, Project Director, Core Area Wastewater Treatment Project Board; E. Scott, Deputy Project Director, Core Area Wastewater Treatment Project Board; E. Gorman, Deputy Corporate Officer; M. Lagoa, Acting Deputy Corporate Officer; S. Closson, Committee Clerk (Recorder)

EP - Electronic Participation

Regrets: Director R. Martin

The meeting was called to order at 1:30 pm.

1. Territorial Acknowledgement

Chair Desjardins provided a Territorial Acknowledgement.

2. Approval of Agenda

MOVED by Director Seaton, SECONDED by Director Helps,
That the agenda for the July 22, 2020 Core Area Liquid Waste Management Committee meeting be approved.
CARRIED

3. Adoption of Minutes

3.1. 20-439 Minutes of the January 22, 2020 Capital Regional District Board Meeting

MOVED by Director Blackwell, SECONDED by Director Taylor,
That the minutes of the Core Area Liquid Waste Management Committee meeting of January 22, 2020 be adopted as circulated.
CARRIED

4. Chair's Remarks

There were no Chair's remarks.

5. Presentations/Delegations

There were no presentations or delegations.

6. Committee Business

6.1. 20-305 Wastewater Treatment Project Q1 2020 Quarterly Report

D. Fairbairn provided an overview of the Wastewater Treatment reports, Items 6.1., 6.2., and 6.3.

Committee members expressed their appreciation to the presenters for ensuring the project will meet the completion target date of December 2020. The Committee also noted the complexity of the project and expressed their thanks for a job well done.

The reports in Items 6.1., 6.2., and 6.3. were received as one motion during the discussion of Item 6.1.

MOVED by Director Brice, SECONDED by Director Helps,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

6.2. 20-339 Wastewater Treatment Project April 2020 Monthly Report

The reports in Items 6.1., 6.2., and 6.3. were received as one motion during the discussion of Item 6.1.

MOVED by Director Brice, SECONDED by Director Helps,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

6.3. 20-418 Wastewater Treatment Project May 2020 Monthly Report

The reports in Items 6.1., 6.2., and 6.3. were received as one motion during the discussion of Item 6.1.

MOVED by Director Brice, SECONDED by Director Helps,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

7. Notice(s) of Motion

There were no Notice(s) of Motion.

8. New Business

There was no new business.

9. Adjournment

MOVED by Director Haynes, SECONDED by Director Seaton,
That the July 22, 2020 Core Area Liquid Waste Management Committee meeting be adjourned at 2:05 pm.
CARRIED

_____
Chair

_____
Recorder

Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Meeting Minutes

Core Area Liquid Waste Management Committee

Wednesday, October 7, 2020 **11:30 AM** **6th Floor Boardroom**
625 Fisgard Street
Victoria, BC V8W 1R7

Special Meeting

PRESENT:
Directors: B. Desjardins (Chair), L. Helps (Vice-Chair), L. Szpak (for D. Blackwell), S. Brice, F. Haynes (12:25 pm), B. Isitt (12:21 pm), J. Loveday, R. Martin, R. Mersereau, K. Murdoch, D. Screech, L. Seaton, N. Taylor, G. Young, C. Plant (Board Chair, ex-officio)

Staff: R. Lapham, Chief Administrative Officer; N. Chan, Chief Financial Officer; L. Hutcheson, General Manager, Parks and Environmental Services; T. Robbins, General Manager, Integrated Water Services; D. Fairbairn, Vice Chair, Core Area Wastewater Treatment Project Board; D. Clancy, Project Director, Core Area Wastewater Treatment Project Board; E. Scott, Deputy Project Director, Core Area Wastewater Treatment Project Board; M. Lagoa, Acting Deputy Corporate Officer; S. Closson, Committee Clerk (Recorder)

Regrets: Director Blackwell

The meeting was called to order at 11:45 am.

1. Territorial Acknowledgement

Chair Desjardins provided a Territorial Acknowledgement.

2. Approval of Agenda

MOVED by Director Brice, SECONDED by Director Screech,
That the agenda for the October 7, 2020 Core Area Liquid Waste Management Committee meeting be approved.
CARRIED

3. Chair's Remarks

Chair Desjardins noted the project is at a turning point. This capital project that has been ongoing for the last 4 years, and stewarded by the project board is nearing it's completion date. The Chair acknowledged the work the project board has done as monumental. The handoff is now occurring as we transition to the operation of the plant and the reins of control will be transferred over the next few months. As the committee overview switches to the operational phase, it will likely be meeting monthly over the next while.

4. Presentations/Delegations

There were no presentations or delegations.

5. Committee Business

5.1. 20-492 Wastewater Treatment Project Q2 2020 Quarterly Report

D. Fairbairn provided an overview of the project board Quarterly report.

Discussion ensued on the following:
- performance measurements
- completion timeline and targets
- landscaping at Clover Point
- Gorge Bridge construction clean-up

MOVED by Director Helps, SECONDED by Director Brice,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

5.2. 20-597 Wastewater Treatment Project July 2020 Monthly Report

MOVED by Director Helps, SECONDED by Director Brice,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

5.3. 20-598 Wastewater Treatment Project August 2020 Monthly Report

MOVED by Director Helps, SECONDED by Director Brice,
The Core Area Liquid Waste Management Committee recommend to the Capital Regional District Board:
That this report be received for information.
CARRIED

5.4. 20-602 2019-2022 Wastewater Service Planning

T. Robbins provided an overview of the 2019-2022 Wastewater Service Planning.

Discussion ensued on the following:
- staffing requirements
- key performance indicators
- capital reserve contribution strategy

MOVED by Director Murdoch, SECONDED by Director Mersereau,
That the Core Area Liquid Waste Management Committee recommends to the Capital Regional District:
That Appendix A Community Need Summary - Wastewater be approved as presented and advanced to the October 28, 2020 provisional budget review process.
CARRIED

5.5. 20-603 Core Area Wastewater Service - 2021 Operating and Capital Budget

T. Robbins spoke to the Core Area Wastewater Service - 2021 Operating and Capital Budget.

Discussion ensued on the following:
- capital projects
- grant funding
- financing strategy
- asset management and amortization
- long term planning

MOVED by Director Plant, SECONDED by Director Brice,
That the Core Area Liquid Waste Management Committee recommends that the Capital Regional District Board:
1. Review and approve the 2021 Core Area Liquid Waste Management Service operating and capital budgets as presented, at the October 28, 2020 provisional budget meeting; and
2. Direct staff to balance the 2020 actual revenue and expenses on the transfer to the debt retirement reserve fund at year end.
CARRIED

5.6. 20-577 Bylaw Nos. 4374 and 4375: Core Area Wastewater Loan Authorizations

T. Robbins introduced Bylaws 4374 and 4375, Core Area Wastewater Loan Authorizations.

MOVED by Director Brice, SECONDED by Alternate Director Szpak,
The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4374, "Liquid Waste Management Core Area and Western Communities Service Loan Authorization Bylaw No. 1, 2020" be introduced and read a first, second, and third time;
2. That Bylaw No. 4374 be referred to the Inspector of Municipalities for approval.
3. That Bylaw No. 4375, "Liquid Waste Management Core Area and Western Communities Service Loan Authorization Bylaw No. 2, 2020" be introduced and read a first, second, and third time;
4. That Bylaw No. 4375 be referred to the municipal councils of the participants for approval, and if two-thirds of approval is received, to the Inspector of Municipalities.
CARRIED

5.7. 20-576 Bylaw Nos. 4376, 4377, and 4378: Core Area Sewer Reserve Bylaws

T. Robbins introduced Bylaws 4376, 4377 and 4378, Core Area Sewer Reserve Bylaws.

MOVED by Director Plant, SECONDED by Director Mersereau,
The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4376, "Capital Regional District Sewer and Water Services Operating Reserve Fund Bylaw No. 1, 2016, Amendment Bylaw No. 2, 2020" be introduced and read a first, second, and third time; and
2. That Bylaw No. 4376 be adopted.
3. That Bylaw No. 4377, "Liquid Waste Management Core Area and Western

Communities Service Debt Repayment Reserve Establishment Bylaw No. 1, 2020", be introduced and read a first, second, and third time; and
4. That Bylaw No. 4377 be adopted.
5. That Bylaw No. 4378, "Liquid Waste Management Core Area and Western Communities Service Capital Reserve No. 1, 2020", be introduced and read a first, second, and third time; and
6. That Bylaw No. 4378 be adopted.
CARRIED

6. Notice(s) of Motion

There were no Notice(s) of Motion.

7. New Business

There was no new business.

8. Adjournment

MOVED by Director Brice, SECONDED by Director Helps,
That the October 7, 2020 Core Area Liquid Waste Management Committee meeting be adjourned at 12:44 pm.
CARRIED

_____
Chair

_____
Recorder

Making a difference...together

REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, JANUARY 27, 2021

SUBJECT **2021 Core Area Liquid Waste Management Committee Terms of Reference**

ISSUE SUMMARY

This report is to provide the 2021 Terms of Reference for the Committee's review.

BACKGROUND

Under the *Local Government Act* and the CRD Board Procedures Bylaw, the CRD Board Chair has the authority to establish Standing Committees and appoint members to provide advice and recommendations to the Board.

On December 9, 2020, the Regional Board approved the 2021 Standing Committee Terms of Reference. Terms of Reference (TOR) serve to clarify the mandate, responsibilities and procedures of standing committees and provide a point of reference and guidance for the committees and members.

Subsequently, at the January 13, 2021 Regional Board meeting, the TOR for all CRD Standing Committees were amended to allow for First Nation Member participation, in accordance with the CRD Procedures Bylaw, where the Nation has an interest in matters being considered by the committee.

In addition, minor housekeeping changes were made to the pro-forma provisions of the TOR, including updates to the language under committee composition to clarify that all Board Members can attend all committees, but not vote unless a member; and, clarification to the provision regarding creation of the committee agenda, to reinforce that Board Members may raise items for the agenda through the notice of motion process.

The TOR are being provided for review by the committee. Any proposed revisions to the TOR will require ratification by the Board.

CONCLUSION

Terms of Reference serve to clarify the mandate, responsibilities and procedures of committees and provide a point of reference and guidance for the committees and their members.

RECOMMENDATION

That the Core Area Liquid Waste Management Committee receive the 2021 Terms of Reference attached as Appendix A.

Submitted by:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT

Appendix A: 2021 Core Area Liquid Waste Management Committee Terms of Reference

Terms of Reference

CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE

PREAMBLE

The Capital Regional District (CRD) Core Area Liquid Waste Management Committee (CALWMC) is a standing committee established by the CRD Board and will oversee and make recommendations to the Board regarding the Core Area Liquid Waste Management Plan and certain aspects of the Core Area Wastewater Treatment Project (CAWTP).

The Committee's official name is to be:

Core Area Liquid Waste Management Committee

1.0 PURPOSE

a) The mandate of the Committee is to oversee and make recommendations to the Board regarding the:

   i. Administration and regulatory reporting for the Core Area Liquid Waste Management Plan

   ii. Core area trunk sewers and sewage disposal systems

   iii. Receipt of monthly updates from the Project Board and to monitor ongoing budget and risks.

b) The administration of the CAWTP has been delegated to the Core Area Wastewater Treatment Project Board (the "Project Board").

c) The Committee will act as the steering committee of the Technical and Community Advisory Committee, as outlined in Appendix A.

2.0 ESTABLISHMENT AND AUTHORITY

a) The Committee will make recommendations to the Board for consideration.

b) The Board Chair will appoint the Committee Chair, Vice Chair and Committee members annually.

3.0 COMPOSITION

a) The membership is comprised of all directors on the CRD Board from the following municipalities that are participants in the Core Area Liquid Waste Management Plan:

- Colwood
- Esquimalt
- Langford
- Oak Bay
- Saanich
- Victoria
- View Royal
- An elected representative and alternate from each of the Songhees Nation and Esquimalt Nation Councils (Board Procedures Bylaw No. 3828)

b) All Board members are permitted to participate in standing committee meetings, but not vote, in accordance with the CRD Board Procedures Bylaw; and

c) First Nation members are permitted to participate in standing committee meetings at their pleasure, in accordance with the CRD Procedures Bylaw, where the Nation has an interest in matters being considered by the committee.

4.0 PROCEDURES

a) The Committee shall meet quarterly and have special meetings as required at the call of the Committee Chair;

b) The agenda will be finalized in consultation between staff and the Committee Chair and any Committee member may make a request to the Chair to place a matter on the agenda through the Notice of Motion process;

c) With the approval of the Committee Chair and Board Chair, Committee matters of an urgent or time sensitive nature may be forwarded directly to the Board for consideration

d) A quorum is a majority of the Committee membership and is required to conduct Committee business

5.0 RESOURCES AND SUPPORT

a) The General Manager, Integrated Water Services and General Manager, Parks & Environmental Services will act as a liaison to the Committee with support from other departments, as required; and

b) Minutes and agendas are prepared and distributed by the Corporate Services Department.

Approved by CRD Board January 13, 2021

APPENDIX A

STEERING THE TECHNICAL AND COMMUNITY ADVISORY COMMITTEE CORE AREA AND WEST SHORE SEWAGE TREATMENT

In accordance with the Terms of Reference of the Technical and Community Advisory Committee Core Area and West Shore Sewage Treatment (TCAC) approved by the Capital Regional District Board (CRD), August 14, 2013, the Core Area Liquid Waste Management Committee (CALWMC) will steer the TCAC as follows:

- Make recommendations to the CRD Board to appoint TCAC members
- Make requests to TCAC for appropriate technical and community consultation advice and input in order to facilitate informed decision-making in a variety of CAWTP matters that have not been delegated to the CAWT Project Board
- Dissolve the TCAC at the end of the planning stage of the Core Area and West Shore sewage treatment project or at a time determined by the CALWMC

Wastewater Treatment Project
Treated for a cleaner future

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF WEDNESDAY, JANUARY 20, 2021

SUBJECT **Wastewater Treatment Project Q4 2020 Quarterly Report**

ISSUE

To provide the Core Area Wastewater Treatment Project Board with the Wastewater Treatment Project Q4 2020 Quarterly 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 Quarterly report for the period of October – December 2020 is attached as Appendix A.

RECOMMENDATION

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

RESOLVED that:

The Staff Report, 'Wastewater Treatment Project Q4 2020 Quarterly 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 Q4 2020 Quarterly Report

ES:er

Wastewater Treatment Project
Treated for a cleaner future

CRD Wastewater Treatment Project

Quarterly Report

Reporting Period: October- December 2020

TABLE OF CONTENTS

1 Executive Summary 3

1.1 Introduction 3

1.2 Dashboard 5

2 Wastewater Treatment Project Progress 8

2.1 Safety 8

2.2 Environment and Regulatory Management 11

2.2.1 Environment 11

2.2.2 Regulatory Management 13

2.3 First Nations 13

2.4 Stakeholder Engagement 14

2.5 Resolutions from Other Governments 16

2.6 Schedule 16

2.6.1 30 day look ahead 19

2.6.2 60 day look ahead 20

2.7 Cost Management and Forecast 22

2.7.1 Commitments 22

2.7.2 Expenses and Invoicing 22

2.7.3 Contingency and Program Reserves 23

2.7.4 Project Funding 23

2.8 Key Risks and issues 24

2.9 Status (Engineering, Procurement and Construction) 27

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP) 27

2.9.2 Residuals Treatment Facility 29

2.9.3 Conveyance System 30

Appendix A– Trent Forcemain: Dallas Road Closure (October 19, 2020) 41

Appendix B– Environmental Incident at the Residual Treatment Facility 42

Appendix C– McLoughlin Point: BC Hydro Access Road (November 6, 2020) 43

Appendix D– Trent Forcemain: Dallas Road Update Letter (November 23, 2020) 44

Appendix E– Macaulay Point Pump Station Sign 45

Appendix F– Media Release- CRD's Wastewater Treatment Project begins treating wastewater (December 15, 2020) 46

Appendix G– Monthly Cost Report (December) 47

Appendix H– Quarterly Cost Report 48

1 Executive Summary

1.1 Introduction

This Quarterly Report covers the reporting period of October - December 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.

On December 15, 2020, the Government of Canada, the Government of British Columbia, and the Capital Regional District (CRD) announced that the Wastewater Treatment Project is treating wastewater and is exceeding regulatory requirements. The majority of construction is complete on the major components of the Wastewater Treatment Project. Construction continues on the Trent Forcemain and Arbutus Attenuation Tank. These are being built to increase the capacity of the conveyance system and are expected to be complete in spring 2021.

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. At each of the remaining Project sites, construction is ongoing in accordance with guidelines established by the Provincial Health Officer.

The McLoughlin Point WWTP Project Component is continuing with Harbour Resource Partners ("HRP" as the Design-Build contractor for the McLoughlin Point WWTP) progressing: site landscaping; air flush of heating ventilation and air conditioning (HVAC) system; commissioning of biological systems; final commissioning of safety systems; and completion of the acceptance test.

The RTF Project Component is continuing with Hartland Resource Management Group ("HRMG" as the Design-Build-Finance-Operate-Maintain contractor for the RTF) progressing construction activities including: installation of roof handrails on the Digester Building; installation of the canopy on the Other Municipal Solids Receiving Facility; poured foundation for the main gate; drained water from Digester 1, and the Digested Solids Storage Tank; ongoing commissioning of various systems; completing site landscaping; installation fencing and the main gate; and progressing commissioning activities.

The Conveyance System is being delivered through seven construction contracts: two design-build contracts and five design-bid-build contracts, one of which (the Clover Forcemain) concluded in October 2020.

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: fine tuning performance of screen and degritting system; completing exterior stone veneer; grading for walkways outside of the pump station; progressed painting; and completing architectural works inside the washroom at the public plaza.

- Macaulay Point Pump Station: Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: backfilling around existing drop structure and new diversion chamber; new diversion chamber was completed; installation of screen covers; ongoing topsoil placement; completed preparation for landscaping; completed demolition of the old pump station.

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

- Clover Forcemain: Windley Contracting Ltd. ("Windley" as the Construction Contractor) completed construction and commissioning activities including: final clean-up of the lay down area.

- Residual Solids Conveyance Line ("RSCL"): the RSCL is being delivered through two construction contracts, with work progressing as follows:

    - Residual Solids Pipes: Don Mann Excavating Ltd. ("Don Mann" as the Construction Contractor) continued construction activities over the reporting period for the Saanich infrastructure improvement being undertaken at Peers Creek, and began construction of a BC Hydro access road in the Township of Esquimalt including:
        - for the Peer's Creek culvert replacement: backfilling both headwalls; removing west side cofferdam; replacing archaeological material; pumps being set up to lower the water level and inverts cut into the culverts; the concrete curb and sidewalk on the east side was replaced; final paving was completed; line painting including replacement of crosswalk lines, fog lines, and centreline; reinstated asphalt curb along the west side of the road; and
        - for the BC Hydro access road: lawn basin was installed at Bewdley Avenue; commencement of tree removal; excavated 60 meters and placed subgrade gravel on Thomas Street; and excavated road and subgrade gravels placed to the first rock outcropping on Bewdley Avenue.
        -
    - Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor) continued construction and commissioning activities including: regraded and backfilling the centrate return line on Willis Point Road near the RTF entrance; installed odour control unit fences at pump stations 1, 2 and 3; scaffolding was removed from the Tillicum and Admirals bridges; Hartland Flow Control Bypass was installed; piping at Hartland Pump Station was completed and pressure tested; installation of odour control heat trace and insulation at pump stations 1, 2 and 3; commencement of irrigation work at pump stations 1 and 2; landscape restoration, trail screening and odour control unit (OCU) damper installation at Marigold Pump Station; completed fencing at pump stations 2 and 3.

- Arbutus Attenuation Tank ("AAT"): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: completing installation of attenuation tank perimeter walls and divider wall reinforcing steel; installation of column reinforcing steel; ongoing concrete pours for majority of columns; installed wall formwork; perimeter wall and interior room divider wall concrete pours; completed attenuation tank wall formwork installation and concrete pours and commenced shoring installation for the main roof slab.

- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installation of 35 metres of forcemain; completion of gravity main low-pressure air test; installation of approximately 160 meters of sheet piles along Ross Bay seawall; excavation of pipe trench; pre-fused high density polyethylene pipe at laydown area; excavation of pipe trench between existing seawall and sheet pile wall; installed two 40 metre sections of HDPE pipe; hydro seeded sections of topsoil on Lower Memorial Green as part of City of Victoria improvements; and restoration of curb and gutter, sidewalk, pavement and topsoil along the forcemain's route.

1.2 Dashboard

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

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

The safety KPI for the Project and the conveyance system remains yellow. Over the reporting period one recordable safety incident occurred and the total recordable incident frequency was 1.5 at the start and end of the reporting period.

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

The schedule KPI for the Project overall and the Project components remains green. The COVID-19 public health emergency is impacting the Project. However, construction is ongoing in accordance with provincial guidelines and the Project met the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020.

The cost KPI for the Project overall and the conveyance system remained red over the reporting period, and are expected to remain red for the duration of the Project, primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical

considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. As a result of these budget pressures, the Project Team forecast the cost to complete the Project at $775M, or $10M over the Project's control budget. In May 2019 the CRD Board approved an increase in the Project's budget by $10M to $775M.

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

Table 1- Executive Summary Dashboard

Key Performance Indicators		Project Overall	WWTP	RTF	Conveyance System	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.					One recordable incident occurred over the period. Site inspections are ongoing. The Project Team is actively monitoring the status of the COVID-19 public health emergency and is taking additional precautions to protect our staff, contractors, and the public. All Project contractors have implemented additional precautions to ensure the health and safety of their workers. The Project Team will continue to monitor and follow the direction of the government during this evolving situation.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.					There were four environmental incidents over the reporting period: in October there were: two releases of residual solids (one at the Residuals Treatment Facility and one at a valve chamber on the Residual Solids Conveyance Line), and a release of wastewater at the McLoughlin Point Wastewater Treatment Plant; in December, due to heavy rains, there was surface run-off from the construction site at the Clover Point Pump Station into the ocean, causing a plume of silty-looking water. All four releases were reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. In each case environmental professionals assessed the affected area, and where warranted, provided oversight over remediation and monitoring activities.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.					Over the reporting period the Project met the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. The majority of construction is complete on the major components of the Wastewater Treatment Project. Construction continues on the Trent Forcemain and Arbutus Attenuation Tank: these are being built to increase the capacity of the conveyance system and are expected to be complete in spring 2021.
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.					Over the reporting period the Project met the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. The majority of construction is complete on the major components of the Wastewater Treatment Project. Construction continues on the Trent Forcemain and Arbutus Attenuation Tank: these are being built to increase the capacity of the conveyance system and are expected to be complete in spring 2021.
Cost	Deliver the Project within the Control Budget ($765 million).					The CRD Board approved an increase to the Project's budget by $10M, to $775M, based on the Project Team's forecast of the cost to complete the Project. The increase was required primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. 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.

* 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 quarterly reporting period (October – December 2020) eleven safety incidents occurred, comprising: two near-miss, six report-only, one medical aid recordable, and two first aid incidents, as summarized in Table 2.

Table 2: Safety Incidents over the Reporting Period

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
October 2, 2020	McLoughlin Pt WWTP	Report Only	Water hose developed a leak allowing potable water to escape.	An operator that was in the immediate area was sprayed by the potable water.	Tool-Box talk to discuss inspection of hoses and replacing anything that looks defective was held.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
October 12, 2020	RTF	Medical Aid Recordable	While grinding a worker had a small sliver of steel enter their eye.	The worker went to first aid where they flushed the eye, but were unable to remove the object. The worker was then sent to the hospital where the sliver was removed.	Worker was wearing appropriate safety glasses at the time of the incident. Upon review of the activity use of a face shield for further protection was added to the job task description.
October 15, 2020	McLoughlin Pt WWTP	Report Only	Drainage of a waterline in the Tertiary Building in order to perform repairs resulted in the Tertiary Building basement flooding causing equipment damage.	Area was drained of water and equipment was removed to be inspected and repaired. Workers were never at risk.	Tool-Box talk to discuss isolation procedures and ensuring personnel are available to monitor activity. Also reminded team that a permit review is to be performed prior to commencement of work.
October 20, 2020	McLoughlin Pt WWTP	First Aid	While cutting rebar a worker received a small cut to their forearm from a portable saw.	Worker reported to first aid where the cut was cleaned and bandaged. No further treatment was required.	Tool-box talk to remind workers that hazard assessments of the work activity must be conducted prior to commencement.
October 28, 2020	Clover Point Pump Station	Report Only	Sub-contractors inadvertently interrupted operations of the grit system.	While maneuvering scaffolding in a restricted space part of their scaffold hit the emergency STOP button for the grit pump. No damage occurred and the operators restarted the equipment.	Tool-box talk to discuss proper care and control while moving materials in a restricted area.
November 3, 2020	McLoughlin Pt WWTP	Report Only	While demobilizing site trailers at the laydown area workers were removing de-energized temporary power cables.	All cables were tested and deemed not energized. Unfortunately there were a number of cables and it was determined after removal that they had cut a low voltage cable which was to remain in service.	There were no injuries and the cable was reinstalled.
November 12, 2020	Trent Forcemain	Report Only	A vehicle moving through an active worksite struck and damaged the contractor's site trailer. The trailer was well off the travelled portion of the road and delineators adequately placed around the trailer.	The driver misjudged the roadway and drove over the delineators. The front right of the vehicle hit the corner of the trailer damaging a panel. At the time of the incident normal two-way traffic was occurring though the site on Dallas Road.	The contractor ensured the driver was uninjured, contacted the police and aided in safely removing the vehicle. Delineators were reinstated around the corner of the trailer.
November 12, 2020	McLoughlin Pt WWTP	Near Miss	Worker while moving around the site stopped, made eye contact with a driver of a moving vehicle. The driver signaled for the worker to proceed. .	The driver pulled forward while worker was in close proximity to the vehicle.	Tool-box talk held to discuss proper communication and eye contact. Emphasis placed on vehicle movement and signaling pedestrian to proceed.
November 24, 2020	McLoughlin Pt WWTP	Report Only	Operator identified a leak from a manway door in the BAF area.	The manway was isolated and resealed.	No injuries or damage to any equipment were recorded.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
November 26, 2020	McLoughlin Pt WWTP	Near Miss	While demobilizing site trailers at the laydown area workers were removing a stockpile of crushed blast rock. While excavating the operator notice a conduit exposed in the side of the bank.	A conduit was exposed and removal of rock immediately ceased. Upon investigation it was determined that the conduit housed an active 120V power feed.	There were no injuries or damage recorded. The conduit was re-buried and the contractor reviewed Ground Disturbance requirements when removing stockpiles from site.
December 1, 2020	McLoughlin Pt WWTP	First Aid	Worker sustained minor injury to hand while using a hand held reciprocating saw to cut a lock.	The blade jumped, causing 1/2 inch laceration to the left thumb. Worker was wearing gloves at time of incident however had not secured the lock.	Worker attended first aid and was treated on site. Tool-box talk topic on the safe use of hand tools.

Key safety activities conducted during October included:

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

Key safety activities conducted during November included:

- bi-weekly project update meetings with prime contractors: Knappett, NAC, HRMG, Jacob Brothers, Don Mann and Kenaidan;
- monthly update meetings with prime contractor: HRP;
- monthly Incident Investigation reviews;
- participated in BC Hydro access road pre-job planning meeting;
- hosted Prime Contractor Safety Meeting;
- reviewing daily progress reports and contacting Primes of any safety notations or observations contained within those reports;
- reviewed COVID-19 document submissions from CRD Corporate;
- reviewed site specific safety plans and high risk tasks; and
- Safety Manager and/or Construction Manager conducting regular site inspections at all active Project work sites.

Key safety activities conducted during December included

- bi-weekly project update meetings with prime contractors: Knappett, NAC, HRMG, Kenaidan, Jacobs Brothers and Don Mann;
- monthly update meetings with prime contractor: HRP;
- reviewed site specific safety plans and high risk tasks;
- reviewed daily progress reports and contacting Primes of any safety notations or observations contained within those reports;
- participated in CRD Corporate Health and Safety Risk Registry meeting; and
- reviewed COVID-19 document submissions from CRD Corporate.

Table 3: WTP Safety Information

	Reporting Period (October - December 2020)	Project Totals
Person Hours		
PMO	8062	166,290
Project Contractor	137,485	2,323,273
Total Person Hours	145,547	2,489,563
PMO	23	
Project Contractors (& Project Consultants) working on Project Sites	729	
Total Number of Employees	752	
Near Miss Reports	2	49
High Potential Near Miss Reports	0	7
Report Only	6	185
First Aid	2	69
Medical Aid	1	12
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	0	19
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.5
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 primarily to the execution of current work.

2.2.1 Environment

Environmental work progressed as planned over the reporting period. The focus was on environmental monitoring of construction activities.

Key environmental management activities completed in October included:

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

Key environmental management activities completed in November included:

- An End-of-Spill report was submitted to the BC Ministry of Environment and Climate Change Strategy (ENV) in fulfilment of requirements related to the minor release of

residual solids at a low point drain valve location on the Residual Solids Conveyance Line within Hartland Landfill;
- An End-of-Spill report was submitted by HRP to ENV in fulfilment of requirements related to the small release of wastewater into the ocean at the McLoughlin Point Site; and
- HRMG continued with spill remediation and environmental monitoring associated with the release of residual solids at the Residuals Treatment Facility (RTF) site that occurred on October 13.

Key environmental management activities completed in December included:
- HRMG continued monitoring activities associated with the release of residual solids at the RTF site and began preparing an End-of-Spill report for submission to ENV.

Over the reporting period, there were four environmental incidents:
- On October 13, there was a release of residual solids at the Residuals Treatment Facility (RTF) site. A temporary pipe failed during the commissioning process. Some of the residual solids were contained on-site (within Hartland Landfill) but some travelled through a culvert and collected in a nearby low area in the CRD's Mount Work Regional Park. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols. It was determined that there was no surface flow to Durrance Lake but samples were taken as a precaution: microbiological indicators in the samples were present at consistent or slightly lower levels than prior to the incident, demonstrating that the release did not impact Durrance Lake.

- On October 19, there was a minor release of residual solids at a low point drain valve location on the Residual Solids Conveyance Line within Hartland Landfill, as a result of a valve failure. The valve was changed and all valve chambers on the Residual Solids Conveyance Line were inspected to confirm that the installed fail-safe mechanisms were operable. The release was mostly contained within a manhole, although some residual solids over-topped the manhole and drained through gravel. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols.

- On October 27, there was a small release of wastewater into the ocean at the McLoughlin Point Site. After a power outage a gate closed resulting in wastewater flowing into the site's storm system. The majority of wastewater was collected on-site but approximately 5 cubic meters entered a planter in the site's storm system and then into the ocean. An environmental professional assessed the potential impacts to be very low, and water samples were collected to confirm this. There is no indication of public health or long-term environmental impacts. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation.

- During heavy rains on December 21, sediment control measures at the Clover Point pump station were initially overwhelmed, leading to a surface run-off and sediment-laden water entering the marine environment. Once Kenaidan repaired the silt fencing at the site, sediment ceased entering the environment. Kenaidan reported the sediment

release to Emergency Management BC. No long-term environmental impacts are anticipated.

2.2.2 Regulatory Management

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

Key permitting activities in October included:

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

Key permitting activities in November included:

- The Department of National Defence (DND) approved an Environmental Effects Determination (EED) Amendment related to the construction of an access road for new BC hydro power lines.

Key permitting activities in December included:

- The CRD completed and submitted an EED Amendment to DND for the temporary storage of material on their property.

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

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

Table 4- Key Permits Status

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

2.3 First Nations

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

Key activities in October included:

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

Key activities in November included:

- The CRD and the Songhees and Esquimalt liaisons discussed close-out of Support Agreement commitments and how that should be documented.

Key activities in December included:

- The CRD's archaeologist joined meetings with the Songhees, Esquimalt and WLC liaisons to provide an update on analysis of artifacts that have been uncovered during project work.

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.

October Overview

One construction notice was issued to stakeholders in October:

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

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

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

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

Over the month of October, the Project Team held meetings with the following community groups and representatives, and municipality representatives:

- City of Victoria Technical Working Group;

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

November Overview

One construction notice and one letter were issued to stakeholders in November:

- McLoughlin Point: BC Hydro Access Road (November 6, 2020) (Appendix C)
- Trent Forcemain: Dallas Road Update Letter (November 23, 2020) (Appendix D)

The construction notice was hand delivered to 54 homes on Thomas Street, Bewdley Avenue between Peek Street and Anson Street; and Anson Street between Bewdley Avenue and Thomas Street. A letter providing more information to residents about the Trent Forcemain work taking place along the Dallas Road Seawall was hand delivered to 54 residents along Dallas Road between Clover Point and Memorial Crescent, Bushby Street between Dallas Road and George Street, and Eberts Street between Dallas Road and Bushby Street. 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.

A sign was posted at the Macaulay Point Pump Station providing an update on the work that was taking place (Appendix E).

In November, the Project website, wastewaterproject.ca, was updated with information about the Project. The construction notice and Macaulay Point Pump Station sign were posted.

The CRD's Twitter account was used to provide Project information to the public, including: information about the McLoughlin Point Wastewater Treatment commissioning.

Over the month of November, the Project Team held meetings with the following community groups and representatives, and municipality representatives:

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

December Overview

In December, the CRD announced that the Wastewater Treatment Project is now treating wastewater and is exceeding regulatory requirements. This announcement was coordinated with the Project's funding partners – the Province of BC and Government of Canada – and the Project's First Nations service participants (Songhees and Esquimalt Nations).

Given the public health guidance, in-lieu of an in-person opening event the announcement was made through a media release (Appendix F) and a video (https://www.youtube.com/watch?v=w8_U5-Ofq44) which showcased the Project components, thanked the funding partners, acknowledged First Nations on whose traditional territory the Project has been built, and recognized the patience of residents over the construction period.

The announcement and video were emailed to local and Seattle media; posted to the Project website and the CRD's Twitter, Facebook, YouTube, and LinkedIn accounts; and distributed by

email to the Esquimalt Liaison Committee and more than 730 residents and stakeholders who have signed up to receive Project updates.

While the CRD were hoping to celebrate achievement of this milestone with an in-person event, we were pleased to receive the coverage that was hoped for – locally, provincially, nationally and internationally – to inform stakeholders of Project progress.

Over the month of December, the Project Team held meetings with the following community groups and representatives, and 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- October - December 2020

Inquiry Source	Contacts for October to December 2020
Information phone line inquiries	74
Email inquiries responded to	69

Key themes of the public inquiries were as follows:

- questions regarding scaffolding at Gorge Bridge and Admirals Bridge;
- interest in restoration, landscaping along Dallas Road and at Clover Point;
- questions regarding impacts to driveway access and parking due to construction and restoration work;
- questions regarding vibrations caused by Trent Forcemain work;
- questions regarding odour during the commissioning process, especially for the Residuals Treatment Facility;
- interest in tours or public access to the McLoughlin Point Wastewater Treatment Facility; and
- interest in restoration, landscaping and the final look of facilities.

2.5 Resolutions from Other Governments

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

2.6 Schedule

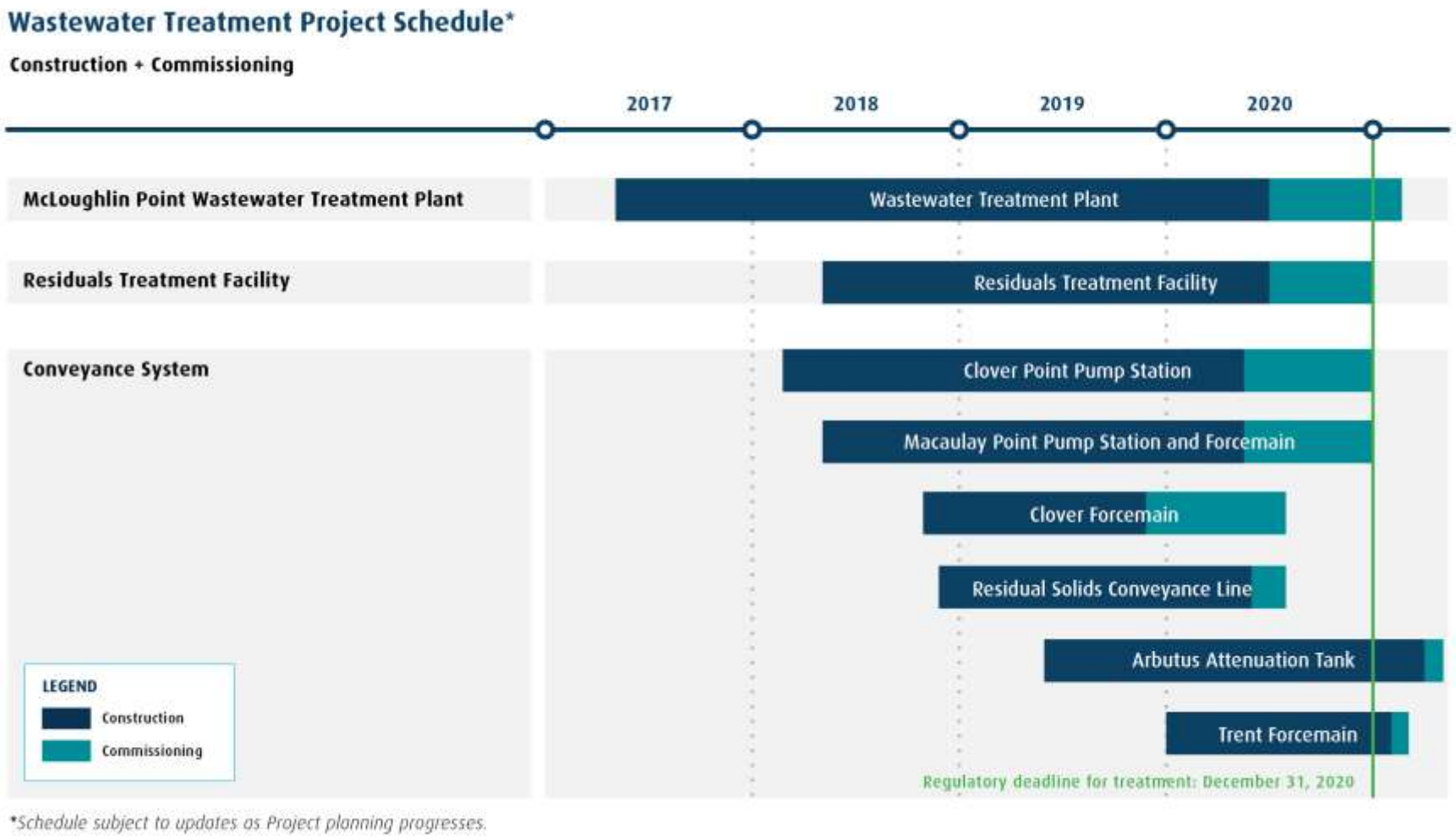
Progress over the reporting period is summarized in Section 2.9.

Figure 1 shows the high-level Project schedule. This schedule has been updated from that shown in the Q3 2020 Quarterly Report with the extension of commissioning activities at both Clover Point Pump Station and Macaulay Point Pump Station to the end of December 2020.

Over the reporting period the COVID-19 public health emergency continued to have impacts on the Project. However, on December 15, 2020, the Government of Canada, the Government of

British Columbia, and the Capital Regional District (CRD) announced that the Wastewater Treatment Project is treating wastewater and is exceeding regulatory requirements. The majority of construction is complete on the major components of the Wastewater Treatment Project. Construction continues on the Trent Forcemain and Arbutus Attenuation Tank. These are being built to increase the capacity of the conveyance system and are expected to be complete in spring 2021.

Figure 1- High-Level Project Schedule



*Schedule subject to updates as Project planning progresses.

2.6.1 30 day look ahead

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

Safety

- bi-weekly and monthly prime contractor progress meetings;
- host Prime Contractor Safety Meeting;
- review Daily Progress reports and contact prime contractors of any safety notations or observations contained within those reports;
- updating Prime Contractors WorkSafeBC Clearance and Rate information for 2021;
- review of any site specific safety plans or high risk tasks;
- review prime contractor document submissions;
- issue Safety Notices for trending observations or similar incidents occurring on project sites;
- WTP Safety Manager will conduct regular site inspections at all active Project work sites; and
- incident reporting review with prime contractors at active work locations.

Environment and Regulatory Management

- HRMG to submit an End-of-Spill report to ENV related to the October 13 residual solids spill.

First Nations

- CRD to continue meeting with the Songhees and Esquimalt liaisons and WSANEC liaison.

Stakeholder Engagement

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

Cost Management and Forecast

- prepare cost reports;
- prepare 2020 Final Service Budgets;
- monitor schedule; and
- fiscal year end close.

Construction

McLoughlin Point

- clean up and demobilize site.

Clover Point Pump Station

- installation of public art; and
- ongoing landscaping.

Macaulay Point Pump Station

- reinstate surfaces; and
- landscaping.

Residuals Treatment Facility

- load testing; and
- progress commissioning.

Residual Solids Pump Stations
- landscaping.

Arbutus Attenuation Tank (AAT)
- install electrical duct banks for power;
- install valve chamber piping;
- install air intake and supply tank;
- install air intake heating ventilation and air conditioning (HVAC) ducting;
- install gas detection panel and system in electrical room;
- install motor control centre; and
- complete roofing.

Trent Forcemain
- install sanitary sewer on Dallas Road between Bushby and Clover Point Pump Station; and
- surface restoration.

2.6.2 60 day look ahead

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

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

Environment and Regulatory Management
- HRMG to continue monitoring activities associated with the release of residual solids at the RTF site.

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

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

Cost Management and Forecast
- prepare cost reports;
- monitor schedule; and
- prepare for CRD 2020 Financial Statement Audit.

Construction

Clover Point Pump Station

- install asphalt walkways, and concrete curbs;
- install public art;
- fabricate and install feature railings; and
- odour control performance testing.

Macaulay Point Pump Station

- complete landscaping.

Residuals Treatment Facility

- acceptance testing.

Residual Solids Pump Stations

- continue to work with Contractor to finalize project turnover documentation

Arbutus Attenuation Tank (AAT)

- install motor control centre;
- install Heating ventilation and air conditioning and ductwork in tank entrance room;
- install permanent overflow for attenuation tank;
- install fire alarm system; and
- install air intake and ducting.

Trent Forcemain

- Continue with installation of the gravity section of forcemain along Dallas Road.

2.7 Cost Management and Forecast

The monthly cost report for December and the quarterly report for the period (October to December 2020) are attached in Appendices G and H respectively. The cost reports summarize Project expenditures and commitments by Project Components and the major cost centres common to the Project Components.

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The net commitments made during the reporting period resulted in an increase in committed costs of $3.5 million. The significant commitments made in the reporting period include work on the Trent Forcemain sanitary sewermain and the installation of a secant pile to protect the sanitary sewer main, work on the BC Hydro access road, ferric dosing at the WWTP, the RTF biosolids load chute, and the approval of provisional items in construction contracts and contract change orders.

2.7.2 Expenses and Invoicing

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

2.7.3 Contingency and Program Reserves

Over the reporting period contingency draws of $0.9M were made as summarised in Table 6. The draws to-date and remaining contingency and program reserve balances are also summarized in Table 6.

Table 6- Contingency and Program Reserve Draw-Down Table

WTP Contingency and Program Reserve Draws and Reallocations	Draw Date	$ Amount
Contingency and Program Reserve (in Control Budget)		**$ 69,318,051**
Net Contingency and Program Reserve draws to September 30, 2020		$ (54,424,667)
Contingency and Program Reserve balance as at September 30, 2020		**$ 14,893,384**
DND Request to Convert Temporary Area D Yard Works Laydown into Permanent Facility (CCN-021)	Oct-20	$ 15,000
WWTP- Z.48 – Sample Sinks Washdown Water	Oct-20	$ (25,595)
Costs associated with seeking the Certificate of Compliance for Remediation of WWTP Site	Oct-20	$ (64,735)
Costs associated with seeking the Certificate of Compliance for Remediation of WWTP Site	Nov-20	$ (15,909)
Ferric dosing at the Wastewater Treatment Plant	Nov-20	$ (457,100)
WWTP Total Draw		$ (548,339)
Changes to the Biosolids Loadout Chute	Dec-20	$ (86,276)
RTF Total Draw		$ (86,276)
Additional SCADA Licenses for Clover Point Pump station	Nov-20	$ (24,414)
Relocation of the Cathodic Protection Rectifier Panel	Nov-20	$ (83,440)
Additional SCADA Licenses for Macaulay Point Pump Station	Nov-20	$ (24,414)
Exhaust Stack Cladding Installation	Dec-20	$ (39,453)
Peers Creek Culvert Replacement and Supporting Utility Replacement	Dec-20	$ (78,000)
Conveyance Total Draw		$ (249,720)
PMO Total Draw		$ -
BC Hydro Total Draw		$ -
WTP Program Reserve Draw		$ -
Contingency and Program Reserve credits in the reporting period		$ 15,000
Contingency and Program Reserve draws in the reporting period		$ (899,335)
Contingency and Program Reserve balance as at December 31, 2020		**$ 14,009,048**

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.

In December the Federation of Canadian Municipalities awarded the CRD a $20 million loan and $3 million grant funded by the Government of Canada through the Green Municipal Fund (GMF). This funding body is focused on investing in innovative solutions to reduce pollution and improve energy efficiency. The combination of the loan and the grant will reduce interest costs to the Core Area Wastewater Service: it will not reduce the CRD's contribution towards the capital cost of the Project and therefore will not be tracked in Table. 7.

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

Table 7- Project Funding Status

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

2.8 Key Risks and issues

The Project Team actively identified and managed Project risks over the reporting period. Table 8 summarizes the highest-level risks that were actively managed over the reporting period, as well as the mitigation steps identified and/or undertaken over the reporting period.

The following changes were made to the active risks summary over the quarterly reporting period: the removal of two risks (downstream and upstream work delays) that were closed in the previous quarterly reporting period.

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

Table 8- Project Active Risks Summary

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

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

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

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP)

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

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

- Primary, secondary and tertiary treatment areas: commissioned biological systems.

- O&M building:
    - heating ventilation and air conditioning (HVAC) air flush underway; and
    - safety systems nearing final commissioning.

- Site works:
    - achieved functional completion; and
    - site landscaping nearing completion.

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

- commencing the acceptance test; and
- progressing site landscaping.

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

- acceptance test completed.

Photographs of construction progress over the month of December at McLoughlin Point WWTP are shown in Figures 2-4.

Figure 2– McLoughlin Point Wastewater Treatment Plant- Blower outlet process air piping insulation installed.

Figure 3− McLoughlin Point Wastewater Treatment Plant- Aerial view of plant

Figure 4− McLoughlin Point Wastewater Treatment Plant- Site view looking east

2.9.2 Residuals Treatment Facility

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

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

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

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

- draining water from Digester 1 and the Digested Solids Storage Tank;
- ongoing commissioning of various systems;
- completed fencing and main gate; and
- completed landscaping.

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

- progressed commissioning.

Photographs of construction progress over the month of December at the Residuals Treatment Facility are shown in Figures 5-6.

Figure 5– Residuals Treatment Facility- Residuals Drying Facility Building

Figure 6− Residuals Treatment Facility- Aerial view of RTF

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.

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

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

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

- completed exterior stone veneer;
- grading for walkways outside of pump station;
- continue demobilizing site compound; and
- landscaping and exterior works in plaza.

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

- install pavement to multiuse pathway’s walkways outside of pump station;
- continued demobilizing site compound;
- progressing painting;
- completed architectural works inside the washroom at the public plaza;
- progressed landscape and public plaza works.

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

Figure 7–Clover Point Pump Station- Protective Coating Installation at Mezzanine Level

Figure 8–Clover Point Pump Station- Site Overview

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.

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

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

- Pump Station
  - demolition for the old pump station is ongoing;
  - installed non-classified flow switches;
  - installed door sidelights; and
  - installed genset stair.

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

- completed demolition of the old pump station;
- installed screen covers;
- completed air balancing test;
- completed grit sampling test;
- backfill around the existing drop structure and new diversion chamber; and
- completed tree planting.

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

- completed preparation for landscaping; and
- ongoing topsoil placement.

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

Figure 9–Macaulay Point Pump Station

2.9.3.3 Clover Forcemain (CFM)

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

- completed final clean up

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, and began construction of a BC Hydro access road in the Township of Esquimalt.

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

- Peers Creek Culvert Replacement:
  - backfilled both headwalls;
  - outlet weir was shaped and cobbles placed;
  - west side cofferdam was removed and the area cleaned up, including cobble placement around the inlet;
  - all archaeological material was able to be replaced onsite and the entire east side area was topped with screened topsoil;
  - garden mulch was delivered and placed around east headwall for use by Current Environmental as they replant the riparian area;

- coco matting was secured to the gravel embankment on either side of the west headwall;
- storm drain installation was completed;
- replaced concrete curb and sidewalk on the east side;
- topsoil and grass seed were placed over the storm drain alignment adjacent to the new sidewalk; and
- completed final paving.

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

- Peers Creek Culvert Replacement:
  - pumps were set up to lower the water level on the west side of the culvert;
  - inverts of both culverts were cut out to lower the effective invert elevation;
  - installed guardrails at both headwalls; and
  - completed line painting including replacement of crosswalk lines, fog lines, and centreline.

- BC Hydro Access Road:
  - installed lawn basin at Bewdley Ave and tied into the existing drain main;
  - commenced tree removal;
  - commenced roadwork at Bewdley Ave; and
  - drilled new anchor hole for a conflicting guywire anchor.
  -

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

- Peers Creek Culvert Replacement
  - reinstated asphalt curb along the west side of the road.

- BCH Access Road
  - excavated road and subgrade gravels placed up to the first rock outcropping on Bewdley Avenue; and
  - excavated 60 meters and placed subgrade gravel on Thomas Street

A photograph of construction progress over the month of December on the Residual Solids Pipes is shown in Figure 10.

Figure 10−Residual Solids Pipes – View of site from Bewdley Ave facing south

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

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

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

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

- installed RTF leachate chamber castings, and final restoration on Willis Point Road;
- commenced irrigation work at pump stations 1 and 2;
- installed odour control unit (OCU) heat trace and insulation at pump stations 1, 2 and 3;
- Installed surge tank heat trace and insulation at pump stations 1, 2 and 3;
- landscape restoration, trail screening and OCU damper installation at Marigold Pump Station; and
- pipe tested and chlorinated at Hartland Pump Station.

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

- completed fencing at pump stations 2 and 3;
- ongoing landscaping at pump stations; and
- Hartland Reservoir:
    - installed final pad and bollards poured in place;
    - completed electrical work; and
    - reservoir filled, chlorinated, backfilled and graded.

Photographs of construction progress over the month of December on the Residual Solids Pump Stations are shown in Figures 11 and 12.

Figure 11−Residual Solids Pump Stations– Tower Fence installed around the Surge Tank

Figure 12 −Residual Solids Pump Stations – Pump Station Landscaping

2.9.3.5 Arbutus Attenuation Tank

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

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

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

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

- installed Attenuation Tank interior room divider walls lower floor reinforcing steel;
- caisson wall system cleaning;
- installed column reinforcing steel;
- ongoing concrete pours for the majority of columns;
- installed wall formwork; and
- perimeter wall and interior room divider walls concrete pours.

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

- completed attenuation tank interior room divider walls upper floor reinforcing steel installation;
- completed caisson wall system cleaning;
- ongoing column reinforcing steel installation and concrete pours;
- completed intermediate slab rebar installation;
- completed attenuation tank wall formwork installation and concrete pours; and
- commenced shoring installation for the main roof slab.

Photographs of construction progress during the month of December at the Arbutus Attenuation Tank are shown in Figures 13 and 14.

Figure 13−Arbutus Attenuation Tank- View of Tank looking south

Figure 14−Arbutus Attenuation Tank- Concrete Pour completed at the South end of the tank

2.9.3.6 Trent Forcemain

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

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

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

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

- completed gravity main low-pressure air test;
- installation of approximately 60m of sheet piles along Ross Bay seawall;
- excavate pipe trench;
- pre-fused high density polyethylene pipe at laydown area;
- installed electrical conduit and light post bases on Memorial Crescent;
- completed Lower Memorial Green sidewalk;
- restoration on St. Charles Street of curb, gutter, sidewalk, pavement and topsoil;
- restoration on Dallas Road at Eberts Street of curb, gutter, and pavement; and
- restoration on Memorial crescent of pavement and topsoil.

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

- installation 100m of sheet piles along Ross Bay Seawall;
- excavated pipe trench between existing seawall and sheet pile wall;
- installed two 40m sections of high density poly ethylene(HDPE) pipe;
- hydro-seeded sections of topsoil on Lower Memorial Green as part of City of Victoria improvements;
- restoration of topsoil on Lower Memorial Green; and
- restoration of pavement on Memorial Crescent/Dallas Road.

Photographs of construction progress during the month of December at the Trent Forcemain is shown in Figures 15 and 16.

Figure 15−Trent Forcemain- Seeding along Memorial Avenue.

Figure 16−Trent Forcemain- Work area by Seawall

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

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

UPDATE

October 21, 2020

Trent Forcemain: Dallas Road Closure

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

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

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

What to Expect

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

Traffic Impacts

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

Access

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

Work Hours

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

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

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix B− Environmental Incident at the Residual Treatment Facility

Residual Treatment Facility Environmental Incident

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

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

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

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

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix C− McLoughlin Point: BC Hydro Access Road (November 6, 2020)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

November 6, 2020

McLoughlin Point: BC Hydro Access Road

As part of construction for the McLoughlin Point Wastewater Treatment Plant, BC Hydro and the Capital Regional District will be installing new power lines and an access road. The power lines will run along Munro Street, Anson Street, and Thomas Street and a new gravel access road will be built between Thomas Street and Bewdley Avenue (please see map on reverse).

Work is expected to begin on the access road in the week of November 9 and is expected to be complete in approximately 10 weeks. Once the access road is in place BC Hydro will begin working to install the power lines.

What to Expect for the Construction of the Access Road

- The access road route will be cleared and the area prepared for construction.
- Rock will be removed by blasting and mechanical means.
- Pre- and post-blast surveys will be conducted when blasting is required. Notification will be provided to residents directly.
- The road will be graded and the gravel surface will be installed.
- Noise associated with this work includes blasting, excavation machinery, and truck back-up beepers.
- Equipment will be temporarily stored in the area.

Blasting Procedure

- Each blast will last less than 60 seconds
- All blasts will be covered with blast mats. Blasting signs will be posted, and warning signals will be used as follows:
  - 12 short whistles at one second intervals followed by a two minute pause
  - Blast will be detonated
  - One long whistle signals all is clear
  - Blasting Hours: Monday to Friday, 8:00 a.m. to 4:30 p.m.

Work Hours

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

Traffic Impacts

- There are no traffic impacts anticipated for work on the BC Hydro access road.

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

BC Hydro Power Line and Access Road 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 D− Trent Forcemain: Dallas Road Update Letter (November 23, 2020)

Wastewater Treatment Project

November 23, 2020

Dear Resident,

We would like to provide an update about the construction on the Dallas Road Seawall and acknowledge concerns we have heard regarding impacts on the neighbourhood.

Unfortunately, the construction along the seawall causes some unavoidable noise and vibration due to the nature of the work and location of infrastructure.

While vibrations have and will occur, the contractor is required to ensure that no damage is caused by construction activities. The vibrations are being monitored to ensure that they remain below the threshold for damage.

The work along the seawall is taking place in segments. It takes approximately two weeks for the contractor to install the sheet piles in one segment. For the following two weeks, after the sheet piles are installed, the work changes and a trench is excavated, pipe is installed and the trench is backfilled within that segment. The work then moves onto the next segment and the sheet piling begins once again. This approach means that the vibrations experienced due to the sheet piling activities will pause for approximately two weeks at a time.

Another concern we have been hearing is that the contractor is stockpiling materials in a parking area along Dallas Road. This location was approved by the City of Victoria and was selected for a number of reasons including safety. While the location for this stockpile won't change the contractor is looking into ways to reduce the noise and vibrations caused by working in this area.

Construction on the Trent Forcemain is nearly 80% complete and we expect the work along Dallas Road should be finished by early next year.

We appreciate your patience as 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 E− Macaulay Point Pump Station Sign

Macaulay Point Pump Station Update

The Wastewater Treatment Project Team wants to thank you for your patience during the construction of the Macaulay Point Pump Station. We are close to the end of the Project and are now in the final restoration stage.

Construction on the new Macaulay Point Pump Station is coming to an end and it is undergoing the commissioning (or testing) phase. This means that the new pump station is now pumping wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment rather than releasing untreated sewage into the ocean. During this phase some short-term increases in odour may occur. Thanks to the state-of-the-art odour control system, there should be no discernible odour in the community once testing is complete.

Landscaping

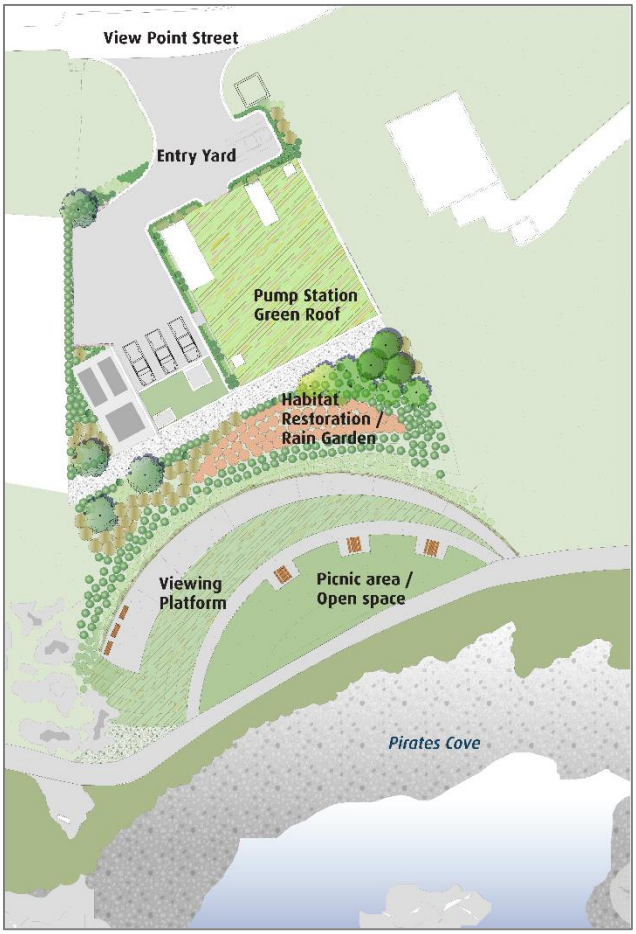
The next steps include landscaping and restoration. The landscaping will create an attractive and welcoming waterfront space to be enjoyed.

Thank you

We recognize construction has been disruptive and want to thank you for your patience. We hope you will enjoy the new park-like setting once it is complete.

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 F− Media Release- CRD's Wastewater Treatment Project begins treating wastewater (December 15, 2020)

Media Release

For Immediate Release
December 15, 2020

CRD's Wastewater Treatment Project begins treating wastewater

Victoria, BC– The Government of Canada, the Government of British Columbia, and the Capital Regional District (CRD), are pleased to announce that the Wastewater Treatment Project is now treating wastewater and is exceeding regulatory requirements.

The $775-million Wastewater Treatment Project provides wastewater treatment for the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Colwood and Langford and the Esquimalt and Songhees Nations. It was approved in 2016 and has been under construction for four years. The Project consists of three main components:

- The McLoughlin Point Wastewater Treatment Plant in Esquimalt, which provides tertiary treatment to the core area's wastewater;
- The Residuals Treatment Facility located in Saanich at the Hartland Landfill, which turns residual solids into Class A biosolids; and
- A conveyance system, which carries wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility.

The Wastewater Treatment Project was built to meet federal and provincial regulations for wastewater treatment. The McLoughlin Point Wastewater Treatment Plant can treat 108 megalitres of wastewater per day to a tertiary level – one of the highest levels of treatment available which exceeds the regulatory requirements. The wastewater system is controlled and monitored 24/7. The state-of-the-art facility has 24-hour odour control monitoring and there will be no discernible odour in the community.

The Residuals Treatment Facility turns residual solids from the McLoughlin Point Wastewater Treatment Plant into Class A biosolids. These are the highest quality by-product suitable for beneficial use. The biosolids will be transported to the Lower Mainland where they will be used as an alternative fuel source for a cement manufacturing facility for five years, helping reduce their reliance on non-renewable fuels to power the facility. The CRD is currently in the process of determining a long-term biosolids strategy.

The majority of construction is complete on the major components of the Wastewater Treatment Project. Construction continues on the Trent Forcemain and Arbutus Attenuation Tank. These are being built to increase the capacity of the conveyance system and are expected to be completed in spring 2021.

The CRD would like to thank the Lekwungen speaking peoples, known today as Songhees and Esquimalt Nations, for their support of the Wastewater Treatment Project, much of which is located on their traditional territories. The CRD would also like to thank the WSÁNEĆ Nations as the Residuals Treatment Facility and parts of the conveyance system are located within their traditional territories.

The Wastewater Treatment Project is funded by the Government of Canada ($211 million), the Government of British Columbia ($248 million) and the Capital Regional District ($316 million).

Please enjoy a video to celebrate this achievement. https://youtu.be/w8_U5-Ofq44

Video Speaking Times
00:51 – Florence Dick, Songhees Nation Liaison
04:41 - The Honourable Catherine McKenna, Minister of Infrastructure and Communities
05:27 - The Honourable John Horgan, Premier of BC and Jay Inslee, Governor of Washington State
07:31 – Colin Plant, CRD Board Chair

A backgrounder follows.

Quotes:

The Honourable Catherine McKenna, Minister of Infrastructure and Communities – "The Government of Canada's investments in wastewater treatment are helping keep the Strait of Juan de Fuca safe and clean for marine life. Operations at the new McLoughlin Point Wastewater Treatment Plant are now underway, saving energy, supporting community development and preserving the Strait for future generations. Canada's infrastructure plan invests in thousands of projects, creates jobs across the country, and builds cleaner, more inclusive communities."

The Honourable John Horgan, Premier of British Columbia – "Congratulations to the Capital Regional District for completing the McLoughlin Point Wastewater Treatment Plant. This state-of-the-art facility means a cleaner future for the region. Our government will continue to support initiatives like this one that protect our environment and create jobs for generations to come."

Colin Plant, CRD Board Chair – "This Project has been years in the making and I'm very pleased we are meeting our regulatory requirements to treat wastewater. I would like to thank the Project Board and all the staff who have delivered this project before the end of the year. I'd also like to thank residents for their patience during many months of construction and disruptions. This is the largest infrastructure project in the region's history and is a demonstration of our commitment to protect our ocean and our environment."

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-

Media Contacts:

Capital Regional District
Andy Orr, Senior Manager
CRD Corporate Communications
Tel: 250.360.3229
Cell: 250.216.5492

Infrastructure Canada
Chantalle Aubertin
Press Secretary
Office of the Minister of Infrastructure Canada and Communities
Tel: 613.941.0660
Chantalle.Aubertin@canada.ca

Ministry of Municipal Affairs
Media Relations: 778.584.2433

Backgrounder

The Wastewater Treatment Project: By the Numbers

The Wastewater Treatment Project is the largest infrastructure project in CRD history.

Key Facts:

- Construction for the Wastewater Treatment Project has taken place across three municipalities and within the traditional territories of the Esquimalt, Songhees, Tsartlip, Tsawout, Tseycum and Pauquachin Nations.
- The McLoughlin Point Wastewater Treatment Plant has capacity to treat 108 megalitres of wastewater per day. That's the equivalent of 43 Olympic-sized swimming pools.
- The plant has capacity to accommodate future population growth.
- Three levels of wastewater treatment take place at McLoughlin Point: primary treatment is the physical separation of solids from wastewater; secondary treatment is a biological process that

removes dissolved and suspended organic compounds in the wastewater; and tertiary treatment is a physical process that reduces solids that remain after the secondary treatment process.

- A new outfall was installed at McLoughlin Point that is 2 km long and discharges treated effluent at a water depth of 60 metres. The outfall pipe is made of HDPE (high density polyethylene) and has 350 concrete ballast weights spaced 4-6 metres apart, each weighing approximately 11,400 kg. There are also 20 bridges across the pipe to allow for migration of sea life across the pipe. Additionally, artificial reefs were constructed near the shoreline to create habitat for a variety of marine species, including salmon.
- A cross-harbour undersea pipe from Ogden Point in Victoria to McLoughlin Point in Esquimalt was installed in 2018, to connect the Clover Point Pump Station to the McLoughlin Point Wastewater Treatment Plant. The cross-harbour pipe is made of steel and is 1.1 metres in diameter. It took 9 months to drill a 1 kilometre-long tunnel under the harbour, 6 weeks to assemble and weld 78 pieces of steel pipe sections together on Niagara Street, and 3 days to pull the 1 kilometre pipe through the tunnel. At its deepest, the harbour crossing is more than 60 metres below the ocean floor.
- The Residuals Treatment Facility has capacity to treat more than 14,000 dry tonnes of residual solids per year.
- The Clover Point Pump Station was originally built in the 1970s to discharge wastewater from Victoria, Oak Bay and Saanich into the ocean. It has been expanded and upgraded to convey wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment.
- A new Macaulay Point Pump Station has been built in Esquimalt, replacing the 48-year-old pump station that was located on that site. The Macaulay Point Pump Station conveys wastewater from Esquimalt, View Royal, Langford, Colwood, Saanich, Victoria and the Esquimalt and Songhees Nations to the McLoughlin Point Wastewater Treatment Plant for treatment.
- Over 35 km of pipes were installed to carry wastewater from across the core area to the McLoughlin Point Wastewater Treatment Plant for treatment, and residual solids to the Residuals Treatment Facility at Hartland Landfill for further treatment.
- At the peak of construction, over 650 people were working on the Project at 24 construction sites.
- Over 2.5 million hours have been worked on the Wastewater Treatment Project, by eleven major contractors (five headquartered in BC, four in Canada and two US) with the support of multiple subcontractors:
    - Don Mann Excavating
    - Harbour Resource Management Group
        - Bird Construction Inc.
        - Maple Reinders PPP Ltd.
        - Synagro Capital
    - Harbour Resource Partners
        - AECOM Canada
        - Graham Infrastructure
    - Jacob Brothers

    - Kenaidan Contracting Ltd.
    - Knappett Projects Inc.
    - NAC Constructors Ltd.
    - Windley Contracting Ltd.
- Safety of the public and workers has been the Project's and the Project contractors' top priority. All Project contractors implemented additional precautions to ensure the health and safety of their workers and the public during the global health pandemic.
- The Project has been built to post-disaster standards so it will remain operational following a major earthquake.
- Sustainable design features include:
    - The Operations and Maintenance Building at the McLoughlin Point Wastewater Treatment Plant has been built to LEED Gold design standards.
    - Heat recovery from wastewater will be used to heat buildings at McLoughlin Point Wastewater Treatment Plant.
    - Green roofs at both the McLoughlin Point Wastewater Treatment Plant and the Macaulay Point Pump Station contribute to lower urban air temperatures by absorbing the sun's rays, retain rain water and provide wildlife habitat.
    - Processing of residual solids into class A biosolids that are suitable for beneficial use.
    - The dryer at the Residuals Treatment Facility will be fueled by biogas generated during the digestion process.
- One of the Project's goals was to add value to the surrounding community and enhance the livability of neighborhoods. This was achieved by improving infrastructure and adding amenities in neighbourhoods impacted by the construction of the Project, including:
    - Clover Point public space improvements including a viewing plaza and public washrooms
    - Dallas Road cycle track
    - Creating a park amenity at Macaulay Point Pump Station
    - Improving the level of water service to properties in Saanich near Hartland Landfill

For more information, visit www.wastewaterproject.ca.

Appendix G− Monthly Cost Report (December)

MONTHLY COST REPORT
as at December 31, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to November 30, 2020	Expended over reporting period (December 2020)	Expended to December 31, 2020	Expended to December 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at December 31, 2020	Total Committment at December 31, 2020	Unexpended Commitment at December 31, 2020	Uncommitted Allocated Budget at December 31, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	**331.4**	**329.7**	**313.2**	**2.4**	**315.6**	**96%**	**14.1**	**322.3**	**6.8**	**7.4**	**14.1**	**329.7**	**-**	**0%**
Construction	306.7	321.7	312.9	2.4	315.3	98%	6.4	321.7	6.3	0.1	6.4	321.7	-	0%
Contingency	14.9	1.1	-	-	-	0%	1.1	-	-	1.1	1.1	1.1	-	0%
Financing	9.8	6.9	0.3	(0.0)	0.2	3%	6.7	0.7	0.4	6.2	6.7	6.9	-	0%
Residuals Treatment Facility	**159.4**	**140.7**	**12.1**	**0.3**	**12.4**	**9%**	**128.3**	**139.4**	**127.0**	**1.3**	**128.3**	**140.7**	**-**	**0%**
Construction	145.4	139.4	12.1	0.3	12.4	9%	127.0	139.4	127.0	-	127.0	139.4	-	0%
Contingency	12.3	0.9	-	-	-	0%	0.9	-	-	0.9	0.9	0.9	-	0%
Financing	1.7	0.4	-	-	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	**158.0**	**213.4**	**187.7**	**2.8**	**190.5**	**89%**	**22.9**	**199.1**	**8.6**	**14.3**	**22.9**	**213.4**	**-**	**0%**
Macaulay Point Pump Station	25.4	31.1	30.0	0.6	30.6	98%	0.5	31.1	0.5	0.0	0.5	31.1	-	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	25.8	0.0	25.8	94%	1.5	27.3	1.5	0.0	1.5	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	19.6	0.8	20.4	83%	4.1	23.8	3.4	0.7	4.1	24.6	-	0%
Clover Forcemain	14.6	31.9	31.7	-	31.7	99%	0.2	31.9	0.2	0.1	0.2	31.9	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.6	6.9	0.6	7.5	65%	4.1	9.4	1.9	2.2	4.1	11.6	-	0%
Residual Solids Conveyance Line	19.1	36.9	36.5	0.2	36.7	99%	0.2	36.9	0.2	0.0	0.2	36.9	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.9	16.6	0.5	17.1	96%	0.8	17.8	0.7	0.1	0.8	17.9	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	-	0.3	100%	-	0.3	-	-	-	0.3	-	0%
Contingency	16.8	7.5	-	-	-	0%	7.5	-	-	7.5	7.5	7.5	-	0%
Financing	5.8	4.1	0.1	-	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**62.2**	**0.8**	**63.0**	**81%**	**14.8**	**71.2**	**8.2**	**6.6**	**14.8**	**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	17.9	16.3	-	16.3	91%	1.6	17.9	1.5	0.0	1.6	17.9	-	0%
Conveyance Design	5.0	9.3	8.4	0.1	8.4	91%	0.9	9.1	0.7	0.2	0.9	9.3	-	0%
Advisors & Professional Support	7.0	15.1	10.7	0.2	10.9	73%	4.1	11.8	0.8	3.3	4.1	15.1	-	0%
Project Board	2.0	1.3	1.0	0.0	1.0	82%	0.2	1.0	-	0.2	0.2	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.0	18.0	0.5	18.5	81%	4.5	23.0	4.5	-	4.5	23.0	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	-	0.2	65%	0.1	0.2	-	0.1	0.1	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	-	0.1	73%	0.0	0.1	-	0.0	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	1.0	0.0	1.1	78%	0.3	1.4	0.3	-	0.3	1.4	-	0%
CRD Human Resources	0.3	0.3	0.3	0.0	0.3	100%	-	0.3	-	-	-	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
CRD Real Estate	0.3	0.3	0.3	-	0.3	100%	-	0.3	-	-	-	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	79%	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	95%	0.0	0.6	0.0	-	0.0	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	100%	-	0.1	-	-	-	0.1	-	0%
Office Lease	1.9	1.3	1.0	0.0	1.0	78%	0.3	1.2	0.2	0.1	0.3	1.3	-	0%
Office Supplies	0.1	0.2	0.2	-	0.2	92%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	-	0.2	95%	-	0.2	-	-	-	0.2	-	0%
Connections Call Center	-	0.0	0.0	-	0.0	100%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.7	-	0.7	70%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.1**	**-**	**2.1**	**48%**	**2.2**	**2.1**	**0.0**	**2.2**	**2.2**	**4.3**	**-**	**0%**
Third Party Commitments	**8.1**	**8.1**	**4.3**	**0.1**	**4.4**	**54%**	**3.7**	**6.9**	**2.5**	**1.3**	**3.7**	**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**	**581.6**	**6.3**	**587.9**	**76%**	**187.0**	**741.0**	**153.0**	**34.0**	**187.0**	**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

Appendix H− Quarterly Cost Report

QUARTERLY COST REPORT
as at December 31, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to September 30, 2020	Expended over reporting period (Q4 2020 Oct-Dec)	Expended to December 31, 2020	Expended to December 31, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at December 31, 2020	Total Committment at December 31, 2020	Unexpended Commitment at December 31, 2020	Uncommitted Allocated Budget at December 31, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	**331.4**	**329.7**	**311.0**	**4.6**	**315.6**	**96%**	**14.1**	**322.3**	**6.8**	**7.4**	**14.1**	**329.7**	**-**	**0%**
Construction	306.7	321.7	310.6	4.8	315.3	98%	6.4	321.7	6.3	0.1	6.4	321.7	-	0%
Contingency	14.9	1.1	-	-	-	0%	1.1	-	-	1.1	1.1	1.1	-	0%
Financing	9.8	6.9	0.4	(0.2)	0.2	3%	6.7	0.7	0.4	6.2	6.7	6.9	-	0%
Residuals Treatment Facility	**159.4**	**140.7**	**11.5**	**0.9**	**12.4**	**9%**	**128.3**	**139.4**	**127.0**	**1.3**	**128.3**	**140.7**	**-**	**0%**
Construction	145.4	139.4	11.5	0.9	12.4	9%	127.0	139.4	127.0	-	127.0	139.4	-	0%
Contingency	12.3	0.9	-	-	-	0%	0.9	-	-	0.9	0.9	0.9	-	0%
Financing	1.7	0.4	0.0	-	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	**158.0**	**213.4**	**180.8**	**9.7**	**190.5**	**89%**	**22.9**	**199.1**	**8.6**	**14.3**	**22.9**	**213.4**	**-**	**0%**
Macaulay Point Pump Station	25.4	31.1	28.7	1.9	30.6	98%	0.5	31.1	0.5	0.0	0.5	31.1	-	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	1.0	25.8	94%	1.5	27.3	1.5	0.0	1.5	27.3	-	0%
Currie Pump Station^	2.8	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Arbutus Attenuation Tank	14.2	24.6	18.0	2.4	20.4	83%	4.1	23.8	3.4	0.7	4.1	24.6	-	0%
Clover Forcemain	14.6	31.9	31.1	0.5	31.7	99%	0.2	31.9	0.2	0.1	0.2	31.9	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.6	6.0	1.5	7.5	65%	4.1	9.4	1.9	2.2	4.1	11.6	-	0%
Residual Solids Conveyance Line	19.1	36.9	35.8	0.9	36.7	99%	0.2	36.9	0.2	0.0	0.2	36.9	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.9	15.7	1.4	17.1	96%	0.8	17.8	0.7	0.1	0.8	17.9	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	-	0.3	100%	-	0.3	-	-	-	0.3	-	0%
Contingency	16.8	7.5	-	-	-	0%	7.5	-	-	7.5	7.5	7.5	-	0%
Financing	5.8	4.1	0.1	-	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**60.1**	**2.9**	**63.0**	**81%**	**14.8**	**71.2**	**8.2**	**6.6**	**14.8**	**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	17.9	15.7	0.6	16.3	91%	1.6	17.9	1.5	0.0	1.6	17.9	-	0%
Conveyance Design	5.0	9.3	8.3	0.1	8.4	91%	0.9	9.1	0.7	0.2	0.9	9.3	-	0%
Advisors & Professional Support	7.0	15.1	10.5	0.4	10.9	73%	4.1	11.8	0.8	3.3	4.1	15.1	-	0%
Project Board	2.0	1.3	1.0	0.1	1.0	82%	0.2	1.0	-	0.2	0.2	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.0	17.1	1.4	18.5	81%	4.5	23.0	4.5	-	4.5	23.0	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	0.0	0.2	65%	0.1	0.2	-	0.1	0.1	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	0.0	0.1	73%	0.0	0.1	-	0.0	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	1.0	0.1	1.1	78%	0.3	1.4	0.3	-	0.3	1.4	-	0%
CRD Human Resources	0.3	0.3	0.2	0.0	0.3	100%	-	0.3	-	-	-	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	0.0	0.2	100%	-	0.2	-	-	-	0.2	-	0%
CRD Real Estate	0.3	0.3	0.3	0.0	0.3	100%	-	0.3	-	-	-	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	79%	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	95%	0.0	0.6	0.0	-	0.0	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	0.0	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Office Lease	1.9	1.3	0.9	0.1	1.0	78%	0.3	1.2	0.2	0.1	0.3	1.3	-	0%
Office Supplies	0.1	0.2	0.2	-	0.2	92%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	-	0.2	95%	-	0.2	-	-	-	0.2	-	0%
Connections Call Center	-	0.0	0.0	0.0	0.0	100%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.7	0.0	0.7	70%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.1**	**-**	**2.1**	**48%**	**2.2**	**2.1**	**0.0**	**2.2**	**2.2**	**4.3**	**-**	**0%**
Third Party Commitments	**8.1**	**8.1**	**4.2**	**0.2**	**4.4**	**54%**	**3.7**	**6.9**	**2.5**	**1.3**	**3.7**	**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**	**569.6**	**18.3**	**587.9**	**76%**	**187.0**	**741.0**	**153.0**	**34.0**	**187.0**	**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

Wastewater Treatment Project
Treated for a cleaner future

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF WEDNESDAY, JANUARY 20, 2021

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

ISSUE

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

RECOMMENDATION

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

RESOLVED that:

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

ES:er

Wastewater Treatment Project
Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: November 2020

TABLE OF CONTENTS

1 Executive Summary 3

1.1 Introduction 3

1.2 Dashboard 4

2 Wastewater Treatment Project Progress 7

2.1 Safety 7

2.2 Environment and Regulatory Management 9

2.2.1 Environment 9

2.2.2 Regulatory Management 10

2.3 First Nations 10

2.4 Stakeholder Engagement 10

2.5 Resolutions from Other Governments 12

2.6 Schedule 12

2.6.1 30 day look ahead 14

2.6.2 60 day look ahead 15

2.7 Cost Management and Forecast 17

2.7.1 Commitments 17

2.7.2 Expenses and Invoicing 17

2.7.3 Contingency and Program Reserves 18

2.7.4 Project Funding 18

2.8 Key Risks and issues 19

2.9 Status (Engineering, Procurement and Construction) 22

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP) 22

2.9.2 Residuals Treatment Facility 24

2.9.3 Conveyance System 25

Appendix A– McLoughlin Point: BC Hydro Access Road (November 6, 2020) 32

Appendix B– Trent Forcemain: Dallas Road Update Letter (November 23, 2020) 33

Appendix C– Macaulay Point Pump Station Sign 34

Appendix D- Monthly Cost Report (November) 35

1 Executive Summary

1.1 Introduction

This Monthly Report covers the reporting period of November 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. At each of the remaining Project sites, construction is ongoing in accordance with guidelines established by the Provincial Health Officer.

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

The McLoughlin Point WWTP Project Component is continuing with Harbour Resource Partners ("HRP" as the Design-Build contractor for the McLoughlin Point WWTP) commencing acceptance testing and progressing site landscaping.

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: draining water from Digester 1, and the Digested Solids Storage Tank; ongoing commissioning of various systems; completing site landscaping, and installation of fencing and the main gate.

The Conveyance System is being delivered through seven construction contracts: two design-build contracts and five design-bid-build contracts, one of which (the Clover Forcemain) concluded in October 2020.

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: completion of exterior stone veneer; and grading for walkways outside of the pump station.

- Macaulay Point Pump Station: Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: completing demolition of the old pump station; installation of screen covers; and completed air balancing and grit sampling tests.

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

- 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, and began construction of a BC Hydro access road in the Township of Esquimalt including,
        - for the Peer's Creek culvert replacement: pumps being set up to lower the water level and inverts cut into the culverts; and line painting including replacement of crosswalk lines, fog lines, and centreline; and
        - for the BC Hydro access road: lawn basin was installed at Bewdley Avenue, and commencement of tree removal and roadwork for the BC Hydro Access Road.
    - Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor) continued construction and commissioning activities including: installation of odour control heat trace and insulation at pump stations 1, 2 and 3; commencement of irrigation work at pump stations 1, and 2; and landscape restoration, trail screening and odour control unit damper installation at Marigold pump station.
- Arbutus Attenuation Tank ("AAT"): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: caisson wall system cleaning; installation of column reinforcing steel; ongoing concrete pours for majority of columns; installed wall formwork; and perimeter wall and interior room divider wall concrete pours.
- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: completion of gravity main low-pressure air test; installation of approximately 60 meters of sheet piles along Ross Bay seawall; excavation of pipe trench; pre-fused high density polyethylene pipe at laydown area; and restoration of curb and gutter, sidewalk, pavement and topsoil along the forcemain's route.

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 at the end of the reporting period remained at 1.6, as it was at the end of October 2020.

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

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

Table 1- Executive Summary Dashboard

Key Performance Indicators		Project Overall	WWTP	RTF	Conveyance System	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.					No recordable incidents occurred over the reporting 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. HRMG are continuing with spill remediation and environmental monitoring associated with the October 13, 2020 release of residual solids at the Residuals Treatment Facility.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.					No regulatory issues.
Stakeholders	Continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders.					Engagement activities were ongoing over the reporting period. Significant efforts were made to provide accurate and timely information to stakeholders.
Schedule	Deliver the Project by December 31, 2020.					The COVID-19 public health emergency has and is impacting the Project. The schedule KPI for the Project overall and the Project components remains green. The COVID-19 public health emergency is impacting the Project's progress. However, construction is ongoing in accordance with provincial guidelines and commissioning of each of the key facilities continued over the reporting period, and based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.
Cost	Deliver the Project within the Control Budget ($765 million).					The CRD Board approved an increase to the Project's budget by $10M, to $775M, based on the Project Team's forecast of the cost to complete the Project. The increase was required primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. 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.

* 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, Residual Solids Pipes; Residual Solids Pump Stations; Arbutus Attenuation Tank and Trent Forcemain.

Over the reporting period (November 2020) five safety incidents occurred, comprising: two near-miss 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
November 3, 2020	McLoughlin Pt WWTP	Report Only	While demobilizing site trailers at the laydown area workers were removing de-energized temporary power cables.	All cables were tested and deemed not energized. Unfortunately there were a number of cables and it was determined after removal that they had cut a low voltage cable which was to remain in service.	There were no injuries and the cable was reinstalled.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
November 12, 2020	Trent Forcemain	Report Only	A vehicle moving through an active worksite struck and damaged the contractor's site trailer. The trailer was well off the travelled portion of the road and delineators adequately placed around the trailer.	The driver misjudged the roadway and drove over the delineators. The front right of the vehicle hit the corner of the trailer damaging a panel. At the time of the incident normal two-way traffic was occurring though the site on Dallas Road.	The contractor ensured the driver was uninjured, contacted the police and aided in safely removing the vehicle. Delineators were reinstated around the corner of the trailer.
November 12, 2020	McLoughlin Pt WWTP	Near Miss	Worker while moving around the site stopped, made eye contact with a driver of a moving vehicle. The driver signaled for the worker to proceed. .	The driver pulled forward while worker was in close proximity to the vehicle.	Tool-box talk held to discuss proper communication and eye contact. Emphasis placed on vehicle movement and signaling pedestrian to proceed.
November 24, 2020	McLoughlin Pt WWTP	Report Only	Operator identified a leak from a manway door in the BAF area.	The manway was isolated and resealed.	No injuries or damage to any equipment were recorded.
November 26, 2020	McLoughlin Pt WWTP	Near Miss	While demobilizing site trailers at the laydown area workers were removing a stockpile of crushed blast rock. While excavating the operator notice a conduit exposed in the side of the bank.	A conduit was exposed and removal of rock immediately ceased. Upon investigation it was determined that the conduit housed an active 120V power feed.	There were no injuries or damage recorded. The conduit was re-buried and the contractor reviewed Ground Disturbance requirements when removing stockpiles from site.

Key safety activities conducted during November included:

- bi-weekly project update meetings with prime contractors: Knappett, NAC, HRMG, Jacob Brothers, Don Mann and Kenaidan;
- monthly update meetings with prime contractor: HRP;
- monthly Incident Investigation reviews;
- participated in BC Hydro access road pre-job planning meeting;
- hosted Prime Contractor Safety Meeting;
- reviewing daily progress reports and contacting Primes of any safety notations or observations contained within those reports;
- reviewed COVID-19 document submissions from CRD Corporate;
- reviewed site specific safety plans and high risk tasks; and
- Safety Manager and/or Construction Manager conducting regular site inspections at all active Project work sites.

Table 3: WTP Safety Information

	Reporting Period (November 2020)	Project Totals
Person Hours		
PMO	2780	164,049
Project Contractor	52,857	2,288,223
Total Person Hours	55,637	2,452,272
PMO	24	
Project Contractors (& Project Consultants) working on Project Sites	223	
Total Number of Employees	247	
Near Miss Reports	2	49
High Potential Near Miss Reports	0	7
Report Only	3	185
First Aid	0	68
Medical Aid	0	12
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	0	19
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.6
Medical Aid Frequency		1.1
Lost time Frequency		0.4
Total Recordable Incident Frequency		1.6

2.2 Environment and Regulatory Management

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

2.2.1 Environment

Environmental work progressed as planned over the reporting period. The focus was on environmental monitoring of construction activities.

Key environmental management activities completed in November included:

- An end-of-spill report was submitted to the BC Ministry of Environment and Climate Change Strategy (ENV) in fulfilment of requirements related to the minor release of residual solids that occurred on October 19 at a low point drain valve location on the Residual Solids Conveyance Line within Hartland Landfill;
- An end-of-spill report was submitted by HRP to ENV in fulfilment of requirements related to the small release of wastewater into the ocean at the McLoughlin Point site that occurred on October 27; and

- HRMG continued with spill remediation and environmental monitoring associated with the release of residual solids at the Residuals Treatment Facility (RTF) site that occurred on October 13.

2.2.2 Regulatory Management

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

Key permitting activities over the reporting period included:

- The Department of National Defence approved an Environmental Effects Determination Amendment related to the construction of a BC Hydro access road in the Township of Esquimalt.

The status of the two remaining key Project permits are summarized in Table 4. The table is not a list of all required Project permits, but rather a summary of the status of key Project permits. There were no changes made to the status of the key outstanding permits from the table presented in the October 2020 Monthly Report.

Table 4- Key Permits Status

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

2.3 First Nations

First Nations communication and engagement was ongoing over the reporting period. Meetings with the Esquimalt and Songhees' liaisons continued, as did meetings with the W̱SÁNEĆ 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.

2.4 Stakeholder Engagement

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

Construction Communications

One construction notice and one letter were issued to stakeholders in the reporting period:

- McLoughlin Point: BC Hydro Access Road (November 6, 2020) (Appendix A)
- Trent Forcemain: Dallas Road Update Letter (November 23, 2020) (Appendix B)

The construction notice was hand delivered to 54 homes on: Thomas Street; Bewdley Avenue between Peek Street and Anson Street; and Anson Street between Bewdley Avenue and Thomas Street.

A letter providing more information to residents about the Trent Forcemain work taking place along the Dallas Road Seawall was hand delivered to 54 residents along Dallas Road between Clover Point and Memorial Crescent, Bushby Street between Dallas Road and George Street, and Eberts Street between Dallas Road and Bushby Street.

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.

A sign was posted at the Macaulay Point Pump Station providing an update on the work that was taking place (Appendix C).

Project Website

Over the reporting period the Project website, wastewaterproject.ca, was updated with information about the Project. The construction notice and Macaulay Point Pump Station sign were posted.

The CRD's Twitter account was used to provide Project information to the public, including: information about the McLoughlin Point Wastewater Treatment commissioning.

Community Meetings

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

- Esquimalt Liaison Committee;
- City of Victoria Technical Working Group;
- District of Saanich Technical Working Group; and
- meeting and RTF site tour with representatives from the Willis Point Residents Association.

Public Inquiries

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

Table 5 – Project Inquiries- November 2020

Inquiry Source	Contacts for November 2020
Information phone line inquiries	32
Email inquiries responded to	19

Key themes of the public inquiries were as follows:

- questions regarding vibrations caused by Trent Forcemain work;
- questions regarding odour on Willis Point Road and nearby areas during the commissioning process; and
- interest in restoration, landscaping and the final look of Project facilities.

2.5 Resolutions from Other Governments

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

2.6 Schedule

Progress over the reporting period is summarized in Section 2.9.

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

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

Figure 1- High-Level Project Schedule

*Schedule subject to updates as Project planning progresses.

2.6.1 30 day look ahead

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

Safety

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

Environment and Regulatory Management

- HRMG to continue environmental monitoring related to the October 13, 2020 release of residual solids at the Residuals Treatment Facility; and
- Ongoing environmental monitoring of all other active construction sites.

First Nations

- CRD and Songhees and Esquimalt liaisons will continue to work on interpretive sign content.

Stakeholder Engagement

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

Cost Management and Forecast

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

Construction

McLoughlin Point

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

Clover Point Pump Station

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

Macaulay Point Pump Station

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

Residuals Treatment Facility
- complete process commissioning with residuals;
- complete biogas commissioning; and
- complete site landscaping.

Residual Solids Pump Stations
- complete landscaping; and
- complete clean up and demobilization.

Arbutus Attenuation Tank
- install electrical duct banks;
- install monorail and platform in valve chamber;
- install stainless steel piping and valves flowmeter to tank;
- form and pour suspended slab and curbs in main tank; and
- install Fiberglass Reinforced Plastic (FRP) stairway.

Trent Forcemain
- install sanitary sewer on Dallas Rd between Bushby and Eberts streets; and
- surface restoration as required.

2.6.2 60 day look ahead

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

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

Environment and Regulatory Management
- HRMG to submit an end-of-spill report to ENV related to the October 13 residual solids spill.

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

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

Cost Management and Forecast
- prepare cost reports;
- monitor schedule; and
- fiscal year end close.

Construction

McLoughlin Point
- clean up and demobilize site.

Clover Point Pump Station
- installation of public art; and
- ongoing landscaping.

Macaulay Point Pump Station
- reinstate surfaces.

Residuals Treatment Facility
- load testing; and
- commence acceptance testing.

Residual Solids Pump Stations
- landscaping.

Arbutus Attenuation Tank
- install electrical duct banks for power;
- install valve chamber piping;
- install air intake and supply tank;
- install air intake heating ventilation and air conditioning (HVAC) ducting;
- install gas detection panel and system in electrical room;
- install motor control centre; and
- complete roofing.

Trent Forcemain
- install sanitary sewer on Dallas Rd between Bushby and Clover Point Pump Station; and
- surface restoration as required.

2.7 Cost Management and Forecast

The monthly cost report for November is attached as Appendix D. The cost reports summarize Project expenditures and commitments by Project Components and the major cost centres common to the Project Components.

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The net commitments made during the reporting period resulted in an increase in committed costs of $2.1 million. The significant commitments made in the reporting period include work on the BC Hydro access road, ferric dosing at the WWTP, and the approval of provisional items in construction contracts and contract change orders.

2.7.2 Expenses and Invoicing

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

2.7.3 Contingency and Program Reserves

Over the reporting period contingency draws of $0.6M were made as summarised in Table 6. The draws to-date and remaining contingency and program reserve balances are also summarized in Table 6.

Table 6- Contingency and Program Reserve Draw-Down Table

WTP Contingency and Program Reserve Draws and Reallocations	Draw Date	$ Amount
Contingency and Program Reserve (in Control Budget)		**$ 69,318,051**
Net Contingency and Program Reserve draws to October 31, 2020		$ (54,499,997)
Contingency and Program Reserve balance as at October 31, 2020		**$ 14,818,054**
Costs associated with seeking the Certificate of Compliance for Remediation of WWTP Site	Nov-20	$ (15,909)
Ferric dosing at the Wastewater Treatment Plant	Nov-20	$ (457,100)
WWTP Total Draw		$ (473,009)
RTF Total Draw		$ -
Additional SCADA Licenses for Clover Point Pump station	Nov-20	$ (24,414)
Relocation of the Cathodic Protection Rectifier Panel	Nov-20	$ (83,440)
Additional SCADA Licenses for Macaulay Point Pump Station	Nov-20	$ (24,414)
Conveyance Total Draw		$ (132,267)
PMO Total Draw		$ -
BC Hydro Total Draw		$ -
WTP Program Reserve Draw		$ -
Contingency and Program Reserve draws in the reporting period		$ (605,276)
Contingency and Program Reserve balance as at November 30, 2020		**$ 14,212,778**

2.7.4 Project Funding

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

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

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

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

The status of funding claims is summarised in Table 7. Note that the timing for the provision of Government of British Columbia and Government of Canada's funding differs by funding source. The Project Team will submit claims to the funding partners in accordance with the relevant

funding agreements. In accordance with the funding agreements, the remainder of the funding cannot be claimed until relevant Project components are substantially complete.

Table 7- Project Funding Status

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

2.8 Key Risks and issues

The Project Team actively identified and managed Project risks over the reporting period. Table 8 summarizes the highest-level risks that were actively managed over the reporting period, as well as the mitigation steps identified and/or undertaken over the reporting period. No changes were made to the risk register since the October 2020 Monthly Report.

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

Table 8- Project Active Risks Summary

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

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

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

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP)

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

Key activities in progress or completed by HRP in November were commencing the acceptance test and progressing site landscaping.

Photographs of construction progress over the month of November at McLoughlin Point WWTP are shown in Figures 2-4.

Figure 2 − McLoughlin Point Wastewater Treatment Plant – Aluminium countertops and electrical outlets installed in instrumentation workshop

Figure 3 − McLoughlin Point Wastewater Treatment Plant- Gravel installation along the generator area.

Figure 4 − McLoughlin Point Wastewater Treatment Plant- Rock installation at landscape area west of process building.

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 November were as follows:

- draining water from Digester 1 and the Digested Solids Storage Tank;
- ongoing commissioning of various systems;
- completed fencing and main gate; and
- completed landscaping.

A photograph of construction progress over the month of November at the Residuals Treatment Facility is shown in Figure 5.

Figure 5 − Residuals Treatment Facility- Landscaping installation.

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.

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

- completed exterior stone veneer;
- grading for walkways outside of pump station;
- continue demobilizing site compound; and
- landscaping and exterior works in plaza.

Photographs of construction progress over the month of November at Clover Point Pump Station are shown in Figures 6 and 7.

Figure 6 − Clover Point Pump Station - Conduit area preparation.

Figure 7 − Clover Point Pump Station - Rock face on new pump station.

2.9.3.2 Macaulay Point Pump Station and Forcemain

The Macaulay Point Pump Station and Forcemain continued with Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressing construction and commissioning activities.

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

- completed demolition of the old pump station;
- installed screen covers;
- completed air balancing test;
- completed grit sampling test;
- backfill around the existing drop structure and new diversion chamber; and
- completed tree planting.

A photograph of construction progress over the month of November at the Macaulay Point Pump Station is shown in Figure 8.

Figure 8 − Macaulay Point Pump Station - Demolition of old Pump Station completed

2.9.3.3 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, and began construction of a BC Hydro access road in the Township of Esquimalt.

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

- Peers Creek culvert replacement:
  - pumps were set up to lower the water level on the west side of the culvert;
  - inverts of both culverts were cut out to lower the effective invert elevation;
  - installed guardrails at both headwalls; and
  - completed line painting including replacement of crosswalk lines, fog lines, and centreline.
- BC Hydro access road:
  - installed lawn basin at Bewdley Ave and tied into the existing drain main;
  - commenced tree removal;
  - commenced roadwork at Bewdley Ave; and
  - drilled new anchor hole for a conflicting guywire anchor.

A photograph of construction progress over the month of November on the construction of the BC Hdyro access road is shown in Figure 9.

Figure 9 − Residual Solids Pipes – Building BC Hydro Access Road.

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 November included:

- installed RTF leachate chamber castings, and final restoration on Willis Point Road;
- commenced irrigation work at pump stations 1 and 2;
- installed odour control unit (OCU) heat trace and insulation at pump stations 1, 2 and 3;
- Installed surge tank heat trace and insulation at pump stations 1, 2 and 3;
- landscape restoration, trail screening and OCU damper installation at Marigold Pump Station; and
- pipe tested and chlorinated at Hartland Pump Station.

Photographs of construction progress over the month of November on the Residual Solids Pump Stations are shown in Figures 10 and 11.

Figure 10 − Residual Solids Pump Stations–Pump Station 2 – Installation of irrigation and sprinkler heads.

Figure 11 −Residual Solids Pump Stations – Restoration of Willis Point Road Laydown area.

2.9.3.4 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 November included:

- installed Attenuation Tank interior room divider walls lower floor reinforcing steel;
- caisson wall system cleaning;
- installed column reinforcing steel;
- ongoing concrete pours for the majority of columns;
- installed wall formwork; and
- perimeter wall and interior room divider walls concrete pours.

Photographs of construction progress during the month of November at the Arbutus Attenuation Tank are shown in Figures 12 and 13.

Figure 12 – Arbutus Attenuation Tank- Column reinforcing installation process.

Figure 13 – Arbutus Attenuation Tank- Attenuation Tank Overview.

2.9.3.5 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 November included:

- completed gravity main low-pressure air test;
- installation of approximately 60m of sheet piles along Ross Bay seawall;
- excavate pipe trench;
- pre-fused high density polyethylene pipe at laydown area;
- installed electrical conduit and light post bases on Memorial Crescent;
- completed Lower Memorial Green sidewalk;
- restoration on St. Charles Street of curb, gutter, sidewalk, pavement and topsoil;
- restoration on Dallas Road at Eberts Street of curb, gutter, and pavement; and
- restoration on Memorial crescent of pavement and topsoil.

A photograph of construction progress during the month of November at the Trent Forcemain is shown in Figure 14.

Figure 14 – Trent Forcemain - Fusion of High Density Polyethylene Pipe.

Appendix A− McLoughlin Point: BC Hydro Access Road (November 6, 2020)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

November 6, 2020

McLoughlin Point: BC Hydro Access Road

As part of construction for the McLoughlin Point Wastewater Treatment Plant, BC Hydro and the Capital Regional District will be installing new power lines and an access road. The power lines will run along Munro Street, Anson Street, and Thomas Street and a new gravel access road will be built between Thomas Street and Bewdley Avenue (please see map on reverse).

Work is expected to begin on the access road in the week of November 9 and is expected to be complete in approximately 10 weeks. Once the access road is in place BC Hydro will begin working to install the power lines.

What to Expect for the Construction of the Access Road

- The access road route will be cleared and the area prepared for construction.
- Rock will be removed by blasting and mechanical means.
- Pre- and post-blast surveys will be conducted when blasting is required. Notification will be provided to residents directly.
- The road will be graded and the gravel surface will be installed.
- Noise associated with this work includes blasting, excavation machinery, and truck back-up beepers.
- Equipment will be temporarily stored in the area.

Blasting Procedure

- Each blast will last less than 60 seconds
- All blasts will be covered with blast mats. Blasting signs will be posted, and warning signals will be used as follows:
  - 12 short whistles at one second intervals followed by a two minute pause
  - Blast will be detonated
  - One long whistle signals all is clear
  - Blasting Hours: Monday to Friday, 8:00 a.m. to 4:30 p.m.

Work Hours

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

Traffic Impacts

- There are no traffic impacts anticipated for work on the BC Hydro access road.

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

BC Hydro Power Line and Access Road 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− Trent Forcemain: Dallas Road Update Letter (November 23, 2020)

Wastewater Treatment Project

November 23, 2020

Dear Resident,

We would like to provide an update about the construction on the Dallas Road Seawall and acknowledge concerns we have heard regarding impacts on the neighbourhood.

Unfortunately, the construction along the seawall causes some unavoidable noise and vibration due to the nature of the work and location of infrastructure.

While vibrations have and will occur, the contractor is required to ensure that no damage is caused by construction activities. The vibrations are being monitored to ensure that they remain below the threshold for damage.

The work along the seawall is taking place in segments. It takes approximately two weeks for the contractor to install the sheet piles in one segment. For the following two weeks, after the sheet piles are installed, the work changes and a trench is excavated, pipe is installed and the trench is backfilled within that segment. The work then moves onto the next segment and the sheet piling begins once again. This approach means that the vibrations experienced due to the sheet piling activities will pause for approximately two weeks at a time.

Another concern we have been hearing is that the contractor is stockpiling materials in a parking area along Dallas Road. This location was approved by the City of Victoria and was selected for a number of reasons including safety. While the location for this stockpile won't change the contractor is looking into ways to reduce the noise and vibrations caused by working in this area.

Construction on the Trent Forcemain is nearly 80% complete and we expect the work along Dallas Road should be finished by early next year.

We appreciate your patience as 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 C– Macaulay Point Pump Station Sign

Macaulay Point Pump Station Update

The Wastewater Treatment Project Team wants to thank you for your patience during the construction of the Macaulay Point Pump Station. We are close to the end of the Project and are now in the final restoration stage.

Construction on the new Macaulay Point Pump Station is coming to an end and it is undergoing the commissioning (or testing) phase. This means that the new pump station is now pumping wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment rather than releasing untreated sewage into the ocean. During this phase some short-term increases in odour may occur. Thanks to the state-of-the-art odour control system, there should be no discernible odour in the community once testing is complete.

Landscaping

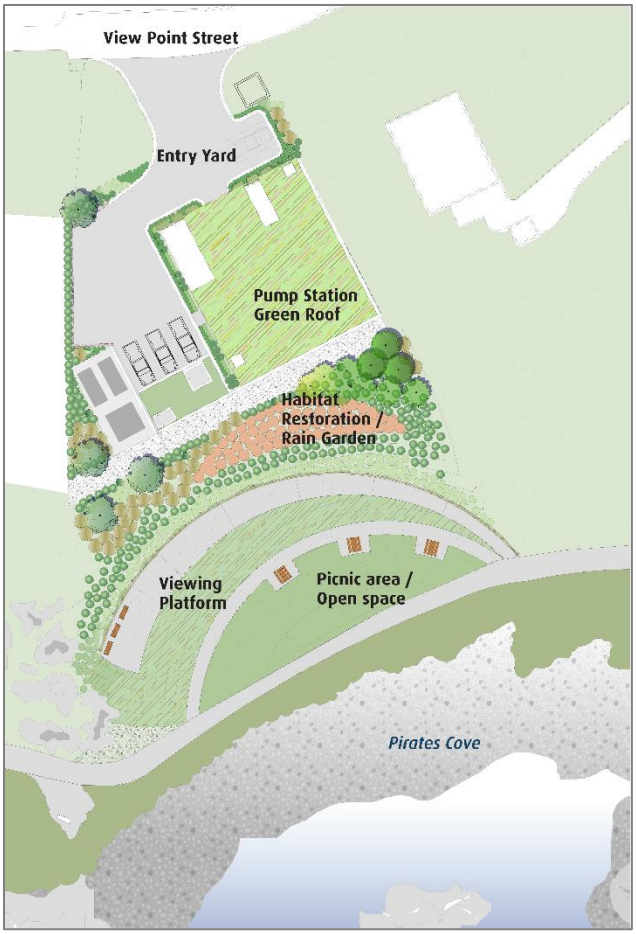
The next steps include landscaping and restoration. The landscaping will create an attractive and welcoming waterfront space to be enjoyed.

Thank you

We recognize construction has been disruptive and want to thank you for your patience. We hope you will enjoy the new park-like setting once it is complete.

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 D- Monthly Cost Report (November)

MONTHLY COST REPORT
as at November 30, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to October 31, 2020	Expended over reporting period (November 2020)	Expended to November 30, 2020	Expended to November 30, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at November 30, 2020	Total Committment at November 30, 2020	Unexpended Commitment at November 30, 2020	Uncommitted Allocated Budget at November 30, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	**331.4**	**329.7**	**313.3**	**(0.1)**	**313.2**	**95%**	**16.5**	**322.3**	**9.1**	**7.4**	**16.5**	**329.7**	**-**	**0%**
Construction	306.7	321.7	312.9	0.0	312.9	97%	8.8	321.7	8.7	0.1	8.8	321.7	-	0%
Contingency	14.9	1.1	-	-	-	0%	1.1	-	-	1.1	1.1	1.1	-	0%
Financing	9.8	6.9	0.4	(0.1)	0.3	4%	6.6	0.7	0.4	6.2	6.6	6.9	-	0%
Residuals Treatment Facility	**159.4**	**140.7**	**11.8**	**0.3**	**12.1**	**9%**	**128.6**	**139.3**	**127.2**	**1.4**	**128.6**	**140.7**	**-**	**0%**
Construction	145.4	139.3	11.8	0.3	12.1	9%	127.2	139.3	127.2	0.0	127.2	139.3	-	0%
Contingency	12.3	1.0	-	-	-	0%	1.0	-	-	1.0	1.0	1.0	-	0%
Financing	1.7	0.4	-	-	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	**158.0**	**213.4**	**184.2**	**3.6**	**187.7**	**88%**	**25.6**	**198.8**	**11.1**	**14.6**	**25.6**	**213.4**	**-**	**0%**
Macaulay Point Pump Station	25.4	31.1	29.6	0.4	30.0	96%	1.2	31.1	1.2	0.0	1.2	31.1	-	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	1.0	25.8	95%	1.5	27.3	1.5	0.0	1.5	27.3	-	0%
Currie Pump Station^	2.8	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Arbutus Attenuation Tank	14.2	24.6	18.8	0.8	19.6	80%	4.9	23.8	4.2	0.8	4.9	24.6	-	0%
Clover Forcemain	14.6	31.9	31.6	0.1	31.7	99%	0.2	31.9	0.2	0.0	0.2	31.9	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.7	6.0	0.9	6.9	59%	4.8	9.4	2.5	2.3	4.8	11.7	-	0%
Residual Solids Conveyance Line	19.1	36.8	36.5	-	36.5	99%	0.3	36.8	0.3	0.0	0.3	36.8	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.8	16.3	0.3	16.6	93%	1.2	17.7	1.1	0.1	1.2	17.8	-	0%
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	-	0.3	100%	-	0.3	-	-	-	0.3	-	0%
Contingency	16.8	7.6	-	-	-	0%	7.6	-	-	7.6	7.6	7.6	-	0%
Financing	5.8	4.1	0.1	-	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**61.2**	**1.0**	**62.2**	**80%**	**15.7**	**71.3**	**9.1**	**6.5**	**15.7**	**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	17.9	16.0	0.3	16.3	91%	1.6	17.9	1.5	0.0	1.6	17.9	-	0%
Conveyance Design	5.0	9.3	8.3	0.0	8.4	90%	0.9	9.1	0.7	0.2	0.9	9.3	-	0%
Advisors & Professional Support	7.0	14.8	10.7	0.1	10.7	73%	4.0	11.7	0.9	3.1	4.0	14.8	-	0%
Project Board	2.0	1.3	1.0	0.0	1.0	79%	0.3	1.0	-	0.3	0.3	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.2	17.6	0.4	18.0	78%	5.2	23.2	5.2	-	5.2	23.2	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	-	0.2	65%	0.1	0.2	-	0.1	0.1	0.4	-	0%
Project Support Team Expenses	0.5	0.2	0.1	-	0.1	73%	0.0	0.1	-	0.0	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	1.0	0.0	1.0	75%	0.4	1.4	0.4	-	0.4	1.4	-	0%
CRD Human Resources	0.3	0.3	0.3	0.0	0.3	100%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Corporate Communications	0.2	0.2	0.2	-	0.2	95%	-	0.2	-	-	-	0.2	-	0%
CRD Real Estate	0.3	0.3	0.3	-	0.3	96%	-	0.3	-	-	-	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	79%	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	93%	0.0	0.6	0.0	-	0.0	0.6	-	0%
CRD Legislative Services	0.1	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
CRD Corporate Safety	0.2	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
CRD Executive Services	-	0.1	0.1	-	0.1	86%	-	0.1	-	-	-	0.1	-	0%
Office Lease	1.9	1.3	1.0	0.0	1.0	76%	0.3	1.2	0.2	0.1	0.3	1.3	-	0%
Office Supplies	0.1	0.2	0.2	-	0.2	92%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	-	0.2	95%	-	0.2	-	-	-	0.2	-	0%
Connections Call Center	-	0.0	0.0	-	0.0	100%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.7	0.0	0.7	69%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.1**	**(0.0)**	**2.1**	**48%**	**2.2**	**2.1**	**0.0**	**2.2**	**2.2**	**4.3**	**-**	**0%**
Third Party Commitments	**8.1**	**8.1**	**4.3**	**0.1**	**4.3**	**53%**	**3.8**	**6.9**	**2.5**	**1.3**	**3.8**	**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**	**576.8**	**4.8**	**581.6**	**75%**	**193.4**	**740.7**	**159.1**	**34.3**	**193.4**	**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

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF TUESDAY, OCTOBER 27, 2020

SUBJECT **Wastewater Treatment Project Q3 2020 Quarterly Report**

ISSUE

To provide the Core Area Wastewater Treatment Project Board with the Wastewater Treatment Project Q3 2020 Quarterly 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 Quarterly report for the period of July- September 2020 is attached as Appendix A.

RECOMMENDATION

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

RESOLVED that:

The Staff Report, 'Wastewater Treatment Project Q3 2020 Quarterly 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 Q3 2020 Quarterly Report

ES:er

Wastewater Treatment Project
Treated for a cleaner future

CRD Wastewater Treatment Project

Quarterly Report

Reporting Period: July - September 2020

TABLE OF CONTENTS

1 Executive Summary 4

1.1 Introduction 4

1.2 Dashboard 6

2 Wastewater Treatment Project Progress 9

2.1 Safety 9

2.2 Environment and Regulatory Management 15

2.2.1 Environment 15

2.2.2 Regulatory Management 16

2.3 First Nations 17

2.4 Stakeholder Engagement 17

2.5 Resolutions from Other Governments 20

2.6 Schedule 20

2.6.1 30 day look ahead 22

2.6.2 60 day look ahead 24

2.7 Cost Management and Forecast 26

2.7.1 Commitments 26

2.7.2 Expenses and Invoicing 27

2.7.3 Contingency and Program Reserves 27

2.7.4 Project Funding 27

2.8 Key Risks and issues 28

2.9 Status (Engineering, Procurement and Construction) 33

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP) 33

2.9.2 Residuals Treatment Facility 38

2.9.3 Conveyance System 41

Appendix A– Trent Forcemain: Road Closure at Fairfield and Stannard (July 15, 2020) 56

Appendix B– Macaulay Point Pump Station: Transition to New Pump Station (July 13, 2020) 57

Appendix C– Core Area Wastewater Discharge Notice (July 24, 2020) 58

Appendix D– Residual Solids Conveyance Line Map (July 20, 2020) 59

Appendix E– Trent Forcemain: Updated Work Hours (August 6, 2020) 60

Appendix F– Dallas Road Update (August 6, 2020) 61

Appendix G– Trent Forcemain: Dallas Road Seawall (August 17, 2020) 62

Appendix H- Arbutus Attenuation Tank Overnight Work (September 11, 2020 63

Appendix I- Pump Station: Construction Update (September 17, 2020) 64

Appendix J -Trent Forcemain: Dallas Road Closure (September 18, 2020) 65

Appendix K- Macaulay Point Update (September 28, 2020) 66

Appendix L– Monthly Cost Report (September) *67*
Appendix M- Quarterly Cost Report *68*

1 Executive Summary

1.1 Introduction

This Quarterly Report covers the reporting period of July - September 2020 and outlines the progress made on the Wastewater Treatment Project over this time.

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

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

While construction is ongoing, the public health emergency is impacting the Project. However, based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020, and over the reporting period an important step was taken towards meeting the deadline: wastewater was pumped from the Clover Point and Macaulay Point Pump Stations to the McLoughlin Point WWTP for the first time, and residuals solids were conveyed to the Residuals Treatment Facility, 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) progressing: installation of the disk filter system piping and equipment; wet commissioning of Densadegs, 1, 2, and 3; commissioning of the primary odour control systems, plate settler one and two, sludge tank, plant drain tank and valve vault, biological aerated filter (BAF) cell nine; commissioning of wastewater treatment processes in the primary, secondary and tertiary treatment areas; and commissioning of the outfall and building automation systems in the Operations and Maintenance (O&M) 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: introduction of residual solids into the facility; installation of insulation for Digesters 2 and 3, pneumatic and hydro testing of Digester 1; erection of scaffolding for gas membrane installation; installation of biogas piping on the roof of the Digester building to tie into the Digester tanks in the Digester area; installation of hopper, and piping modifications in the Other Municipal Solids Receiving Facility; commissioning of various system including boilers and insulation of hot water piping; and air balancing in the Residuals Handling Building; installation of external stairs; commissioning of various systems in the Residuals Drying Facility; and continued 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: installation of grit separation equipment, installation of new diesel generator, exhaust and fuelling system, and completed functional and operational test for upgrades at the existing pump station; 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; completed exterior finishes to public washroom; installing landscape retaining walls in public plaza; installing stone exterior retaining walls of pump stations; and installing emergency egress corridor in generator room.

- Macaulay Point Pump Station: Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: installation of flow splitters in the wet well; completion of wood siding installation; commenced fiberglass reinforced concrete (FRP) grating in the bin room; commencing pumping of wastewater to the McLoughlin Point WWTP; installation of vent pipes and 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; installation of electrical sleeves to the low level chamber; demolition of the old pump station; completed green roof installation; and completed backfill on east side.

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: installation of new aluminium fence and bollards; supporting the commencement of pumping of wastewater from the Clover Point Pump Station, through the Clover Forcemain to the McLoughlin Point WWTP; top lift of paving in front of seawall and line painting; and completed construction of the seawall balustrade replacement and new plaza.

- 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: utility locates, survey layout and equipment mobilization to site; 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; installation of new culverts and storm drain manhole; installation of

eight micro piles in the headwall locations; and formed and poured east and west headwalls.

- Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor) continued construction and commissioning activities including: installation of curbing at pump station 1; installed odour control vent piping at all pump stations; fencing installed at pump stations 2 and 3; completed commissioning of pipes and pump stations including pigging of the lines; replaced threaded hangar rods on Admirals and Tillicum Bridges; forming and pouring new pump bases and continued installation of mechanical equipment and piping and installed pumps for the Hartland water system improvements.

- Arbutus Attenuation Tank ("AAT"): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: commencing drilling, grouting and installation of rock anchors; completing the final excavation within the tank; pouring sections of mud mat; completing valve chamber excavation and subbase placement; backfill of culvert extension; completed base slab pours for the valve chamber, lower sump and trough areas of the main tank; commenced perimeter walls and divider wall reinforcing steel installation; and poured concrete for valve chamber walls.

- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installing forcemain along Fairfield Road, Memorial Crescent, Stannard Avenue, Brooke Street and Dallas Road; installing an air valve chamber on Memorial Crescent; reinstatement of three external drop structure manholes on Brooke Street; completing Fairfield Road watermain realignment with City of Victoria.

1.2 Dashboard

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

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

The safety KPI for the Project and the conveyance system remains yellow. Over the reporting period one recordable safety incident occurred and the total recordable incident frequency decreased from 1.6 at the end of the second quarter of 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 the Project. However, construction is ongoing in accordance with provincial guidelines and commissioning of each of the key facilities commenced over the reporting period, and based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

Table 1- Executive Summary Dashboard

Key Performance Indicators		Project Overall	WWTP	RTF	Conveyance System	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.					One recordable incident occurred over the period. Site inspections are ongoing. The Project Team is actively monitoring the status of the COVID-19 public health emergency and is taking additional precautions to protect our staff, contractors, and the public. All Project contractors have implemented additional precautions to ensure the health and safety of their workers. The Project Team will continue to monitor and follow the direction of the government during this evolving situation.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.					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 has and is impacting the Project. The schedule KPI for the Project overall and the Project components remains green. The COVID-19 public health emergency is impacting the Project's progress. However, construction is ongoing in accordance with provincial guidelines and commissioning of each of the key facilities commenced over the reporting period, and based on current progress the Wastewater Treatment Project remains on schedule to meet the regulatory deadline for treatment by the end of 2020.
Cost	Deliver the Project within the Control Budget ($765 million).					The CRD Board approved an increase to the Project's budget by $10M, to $775M, based on the Project Team's forecast of the cost to complete the Project. The increase was required primarily as a result of inflation in the Vancouver Island construction market. Other factors that have contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020. 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.

* 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 quarterly reporting period (July - September 2020) 26 safety incidents occurred, comprising: nine first-aid, one medical aid, one near miss, one high potential near miss, and fourteen 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.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
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.
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.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
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.
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.
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
August 17, 2020	McLoughlin Pt WWTP	High Potential Near Miss	A worker fell through an opening in the Tertiary building floor when a fiberglass cover panel that was not secured correctly gave way.	The channel cover panel was not secured properly, nor cordoned off and gave way beneath the worker. Worker fell approximately 15 feet into a water filled channel. 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. Site stand down was initiated. Worker returned to work the following day, no further medical follow up required.	WorkSafeBC called, attended site and full investigation completed. Control zone established around the loose channel covers. All channel covers were inspected and covers not fastened were immediately done.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
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	Tool-box talk to remind loader operator to be aware of their surroundings and proximity in and around the work area. Crews to avoid travel on non-project roads as they are narrow with cars are parked on both sides.
September 1, 2020	Trent Forcemain	Report Only	Overhead Utility struck by Excavator.	While completing force main installation an excavator boom came into contact with a low hanging communication line. Utility was contacted and line repaired.	Tool-Box talk to discuss having a spotter available for operator if there is limited visibility or restricted work area.
September 2, 2020	McLoughlin Pt WWTP	Report Only	A driver reversed their truck and struck a piece of equipment.	While there was some damage sustained to the equipment no one was injured.	Tool-Box talk was held with the employee and emphasis placed on the requirement for a spotter to be in position before moving vehicle.
September 17, 2020	Macaulay Point Pump Station	Medical Aid	Worker injured their finger while moving a cabinet.	Worker was examined and treated by First Aid and taken to medical aid where they received stitches. The worker was wearing gloves at the time of the injury.	Tool-Box talk to review the safe practices of moving any tools/equipment on site was held.
September 24, 2020	Trent Forcemain	Report Only	A buried utility was struck by an excavator.	Locates were obtained but the utility was not identified.	City of Victoria was called to repair the line.
September 25, 2020	McLoughlin Pt WWTP	Report Only	The Electrical Contractor at the McLoughlin site had a Subcontractor on site conducting some programming work,	Worker did not have an orientation and no permit submitted for work being conducted.	Safety meeting with Electrical Company to ensure that no workers access site without a proper orientation conducted and a permit issued for any work that needs to be performed.

Date	Work Site	Incident Type	Description	Outcome	Corrective Action Taken
September 25, 2020	Residual Solids Pump Stations	Report Only	A Sub-contractor employee did not sign out on the accountability list before leaving the Hartland site.	This caused an accountability check to be performed to locate the worker to check on their well-being.	Worker was located and talked to by the Prime Contractor in regard to their responsibility when it comes to signing in/out on the Hartland Site. Worker was required to re-take their site safety orientation to refresh them on the site rules.
September 26, 2020	McLoughlin Pt WWTP	Near Miss	An employee had locked out the valves on the MBBR and was preparing to enter the cell.	An issue downstream backed flow into the MBBR overflow channel prior to the employee entering.	The flow backup was resolved and additional valves isolated in order to mitigate any future issues.
September 29, 2020	McLoughlin Pt WWTP	Report Only	Electrical Subcontractor identified a failure of the motor control center protection relays	It was determined that the safe path forward was to disconnect the line power and transfer to generator power to maintain plant operations in order to repair the relays.	The relays were replaced and the plant was reconnected to line power.

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.

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.

Key safety activities conducted during September included:

- bi-weekly project update meetings with prime contractors: Knappett, NAC, HRMG, Kenaidan, Jacobs Brothers;
- monthly update meetings with prime contractors: Don Mann, HRP;
- monthly Incident Investigation reviews;
- close out meeting with Prime Contractor and CRD for High Potential For Harm Incident;
- issued Safety Notices covering: the non-Project-related worker fatality that occurred on a construction site in downtown Victoria, reminding contractors of fall protection and inspection requirements when using aerial work platforms; and a safety recall notice for a specific type of fall protection equipment;
- reviewed site specific safety plans and high risk tasks; and
- WTP Safety Manager and/or Construction Manager conducting regular site inspections at all active Project work sites.

Table 3: WTP Safety Information

	Reporting Period (Q3 2020)	Project Totals
Person Hours		
PMO	9,496	158,228
Project Contractor	213,190	2,185,789
Total Person Hours	222,686	2,344,017
PMO	28	
Project Contractors (& Project Consultants) working on Project Sites	328	
Total Number of Employees	356	
Near Miss Reports	1	47
High Potential Near Miss Reports	1	7
Report Only	14	179
First Aid	9	67
Medical Aid	1	11
Medical Aid (Modified Duty)	0	2
Lost Time	0	5
Total Recordable Incidents	1	18
		Project Frequency (from January 1, 2017)
First Aid Frequency		5.7
Medical Aid Frequency		1.1
Lost time Frequency		0.4
Total Recordable Incident Frequency		1.5

2.2 Environment and Regulatory Management

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

2.2.1 Environment

Environmental work progressed as planned over the reporting period. The focus was on environmental monitoring of construction activities.

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.

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.

Key environmental management activities completed in September included:

- In preparation for the first heavy rainfall of the season, all contractors were reminded to check their erosion and sediment control measures. It was determined that most erosion and sediment control measures were functioning properly, and some improvements were identified that were immediately implemented.

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

- Overnight on July 23rd flows at Clover Point Pump Station where 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.
- In July, 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

Over the reporting period, the Project Team continued to support or lead the advancement of remaining permit applications.

Key permitting activities over the reporting period included:

- In July, the CRD and Transport Canada met to discuss the Harbour Crossing Licence Agreement.
- In August, 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.
- In September, the CRD met with Transport Canada to discuss the McLoughlin Point outfall Licence Agreement.

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 to the status of the key outstanding permits from the table presented in the Project's Q2 2020 Quarterly Report.

Table 4- Key Permits Status

Permit/Licence	*Anticipated Date*	*Status*	*Party Responsible for Obtaining Perming*
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 W̱SÁNEĆ 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.

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.

Key activities in September included:

- Millennia and members of the Songhees, Esquimalt, Tsartlip, Tsawout and Pauquachin Nations began screening archaeological soils at two separate locations. The archaeological soils were previously recovered from Dallas Road and Interurban Road.

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.

July Overview

Two construction notices were issued to stakeholders in July:

- 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)

Over the month of July, 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 accounts 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.

Over the month of July, 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.

August Overview

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 E). 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 F).

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 G).

Over the month of August, 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 were used to provide Project information to the public, including an update on the work taking place along Dallas Road.

Over the month of August, the Project Team held meetings with the following municipality representatives:

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

September Overview

Three construction notices and an update letter were issued to stakeholders in September:

- Arbutus Attenuation Tank: Overnight Work (September 11, 2020) (Appendix H)
- Pump Station: Construction Update (September 17, 2020) (Appendix I)
- Trent Forcemain: Dallas Road Closure (September 18, 2020) (Appendix J)
- Macaulay Point Update (September 28, 2020) (Appendix K)

The construction notices were hand delivered in the communities around the respective construction sites: Arbutus Attenuation Tank (53 residences near Haro Woods); Residual Solids Conveyance Line Pump Station (16 residences on Courtland Avenue and three residences on West Saanich Road); and Trent Forcemain (four buildings, including an apartment building, on Dallas Road near the road closure). The Arbutus Attenuation Tank notice was also circulated to stakeholders via email. 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.

The Macaulay Point update letter provided information to residents in the Work Point area about the remaining work in their neighbourhood including an upcoming pathway closure. It was distributed through the Department of National Defence and emailed to the Township of Esquimalt.

Over the month of September, the Project website, wastewaterproject.ca, was updated with information about the Project. Three construction notices and an update letter were posted. The CRD's Twitter and Facebook accounts were used to provide Project information to the public, including: a traffic advisory about the closure of Dallas Road for the Trent Forcemain work; an update on the progress of the Trent Forcemain; and information on the closure of the waterfront pathway at Macaulay Point.

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

- Esquimalt Liaison Committee meeting;
- City of Victoria Transportation Group;
- 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- Q3 2020

Inquiry Source	Contacts for Q3 2020
Information phone line inquiries	69
Email inquiries responded to	68

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 has been changed from that shown in the Q2 2020 Quarterly Report with the following updates: the forecast completion of the Arbutus Attenuation Tank and Trent Forcemain conveyance components are now in 2021. This schedule change does not impact the Project's ability to meet the regulatory deadline for wastewater treatment by December 31, 2020.

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

Figure 1- High-Level Project Schedule

*Schedule subject to updates as Project planning progresses.

2.6.1 30 day look ahead

Key activities and milestones for the next 30 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;
- review any new COVID-19 document submissions;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites; and
- incident reporting review with prime contractors at active work locations.

Environment and Regulatory Management

- 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 Tsartlip Nation.

Stakeholder Engagement

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

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 pavers;
- reinstate curbs, walkway and roadways;
- install pathways;
- form and pour upper plaza level; and
- install water fountain, City of Victoria benches, trash cans and bike maintenance station.

Macaulay Point Pump Station

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

Residuals Treatment Facility

- commence seeding of digester;
- continue process commissioning with residuals;
- complete odour control bio trickling filter acclimation period; and
- complete retention ponds, perimeter fencing and commence site landscaping.

Clover Forcemain

- final clean up; and
- demobilizing from site.

Residual Solids Pipes

- Complete work on Peers Creek culvert.

Residual Solids Pump Stations

- Install site fencing and clean up.

Arbutus Attenuation Tank (AAT)

- install curb, pipe supports, monorail and aluminium platform for the valve chamber;
- commence installation of attenuation exterior walls; and
- commence installation of 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.

2.6.2 60 day look ahead

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

Safety

- bi-weekly and monthly prime contractor progress meetings;
- review of any site specific safety plans or high risk tasks;
- review prime contractor document submissions;
- issue Safety Notices for trending observations or similar incidents occurring on project sites;
- 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

- Complete restoration of riparian areas at Colquitz River and Peers Creek.

First Nations

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

Stakeholder Engagement

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

Cost Management and Forecast

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

Construction

McLoughlin Point

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

Clover Point Pump Station

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

Macaulay Point Pump Station

- commence demobilization;
- landscaping, plant trees, shrubs, and hydro seeding;
- install gravel pathways; and

- install boardwalk and viewing plaza.

Residuals Treatment Facility

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

Residual Solids Pump Stations

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

Arbutus Attenuation Tank (AAT)

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

Trent Forcemain

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

2.7 Cost Management and Forecast

The monthly cost report for September and the quarterly cost report for the reporting period (July - September 2020) are attached in Appendices L and M, respectively. The cost reports summarize Project expenditures and commitments by Project Components and the major cost centres common to the Project Components.

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The net commitments made during the reporting period resulted in an increase in committed costs of $3.2 million. The significant commitments made in the reporting period include the conversion of DND temporary Area D into a permanent facility, changes at the Arbutus Attenuation Tank, the approval of provisional items in construction contracts and contract change orders.

2.7.2 Expenses and Invoicing

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

2.7.3 Contingency and Program Reserves

Over the reporting period contingency draws of $0.54M were made and $0.6M in credits were added; $0.2M from a control and instrumentation initial deployment credit 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 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
Residual Solids Discharge Line Connection to the Secondary Bypass Line	Aug-20	(281,522)
Convert DND Temporary Area D works yard into permanent facility	Sep-20	(127,922)
WWTP Total Increase		$ (210,117)
Reallocation - RTF contingency from RTF Financing for HRMG Lime Stabilization and Strain Press	Aug-20	$ 400,000
RTF Total Increase		$ 400,000
Enhance Macaualy Power Supply	Sep-20	$ (134,583)
Conveyance Total Draw		$ (134,583)
PMO Total Draw		$ -
BC Hydro Total Draw		$ -
WTP Program Reserve Draw		$ -
Contingency and Program Reserve credits in the reporting period (July 1 - Sept 30, 2020)		$ 599,327
Contingency and Program Reserve draws in the reporting period (July 1 - Sept 30, 2020)		$ (544,027)
Contingency and Program Reserve balance as at September 30, 2020		**$ 14,893,384**

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. Both the Building Canada Fund and the Green Infrastructure Fund grants were maximized during the reporting period.

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.

The following changes were made to the active risks summary over the quarterly reporting period:

- The risk of "Downstream works delays – WWTP delays the commissioning of the conveyance system or the delivery of residual solids to the RTF" was closed as the WWTP has commenced commissioning;
- The risk of "Delay to the commissioning of either the WWTP or the RTF impacts the commissioning of the other plant" was closed as the WWTP and RTF have commenced commissioning; and
- The risk of "Public directly contacting contractors at sites" was reduced (from medium to low) as the number of active construction sites has reduced.

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.	**C**	Closed as the WWTP has commenced commissioning
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.	**C**	Closed as the WWTP and RTF have commenced commissioning
Public directly contacting contractors at sites.	Direct contact between the public and contractors could expose both parties to worksite hazards and potential injuries.	Communications and engagement plan and coverage of communications in contractor orientations.	L	Reduced (from medium to low) as the number of active construction sites has reduced.
Change in law.	A change in law impacts the scope, cost or schedule of the Project.	Keep apprised of proposed modifications to relevant regulations so as to do the following as appropriate: submit comments on proposed modifications; and/or consider including anticipated modifications in contracts.	H	No change: this risk has been impacted by the COVID-19 public health emergency
Labour - availability and/or cost escalation.	There is insufficient labour available to construct the Project, and/or there is significant labour cost.	The Project Team will, through the use of competitive selection processes for all construction contracts, ensure that all Project contractors have appropriate experience and therefore understand labour risk.	L	No change

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 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.

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.

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

- Primary treatment area:
  - systems running in automatic; and
  - systems complete for biological commissioning.

- Secondary treatment area:
  - systems running in automatic; and
  - systems complete for biological commissioning.

- Tertiary treatment area:
  - systems running in automatic;
  - systems complete for biological commissioning; and
  - disk filter system ready to be placed in service.

- O&M building:
  - building automation systems commissioning underway, HVAC, fire alarm, security; and
  - work continues in the shop space.

- Site Works:
  - tsunami planters are now landscaped;
  - Patricia Way and main plant site paved;
  - main waterline complete; and
  - continued backfill on site.

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

Figure 2− McLoughlin Point Wastewater Treatment Plant – Railing installation in Operations & Maintenance building main entrance stairway.

Figure 3– McLoughlin Point Wastewater Treatment Plant- Lighting controls installation in general office level 2.

Figure 4– McLoughlin Point Wastewater Treatment Plant- Planting shrubs in planter next to Operations & Maintenance building workshops.

Figure 5− McLoughlin Point Wastewater Treatment Plant- Handrail installed in Operations & Maintenance main entrance stairwell.

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.

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.

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

- Digester Area
  - completed Digester 1 Hydro and Pneumatic tests;
  - completed Digester 2 insulation;
  - completed Digester 3 insulation;
  - completed DSST hydro test and install of gas membrane; and
  - introduction of residual solids into the RTF.

- Other Municipal Solids Receiving Facility
  - Piping modifications.

- Residuals Handling Building
  - Completed air balancing.

- Residuals Drying Facility
  - Commissioning of various systems in progress.

- Residuals Storage & Odour Control
  - Continued with insulation of FRP ductwork.

- Operations Building
  - Building complete no further activities planned.

Photographs of construction progress over the month of September at the Residuals Treatment Facility are shown in Figures 6 - 7.

Figure 6− Residuals Treatment Facility- Pipe insulation being installed on Dryer building process piping.

Figure 7− Residuals Treatment Facility- Ongoing installation of site perimeter fencing.

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.

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.

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.

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

- completed exterior finishes to public washroom;
- install grinder pump to public washroom;
- installing landscape retaining walls and concrete benches in public plaza area;
- backfill and grading to public plaza area;
- installing stone to exterior retaining walls of pump station;
- complete coatings in Odour Control/Screening room;
- install emergency egress corridor in generator room;
- install gypsum wall cover over existing aluminium stairs in generator room; and
- demolish wall between old transformer room/control/electrical room.

Photographs of construction progress over the month of September at Clover Point are shown in Figures 8-10.

Figure 8−Clover Point Pump Station- Exterior of public washroom.

Figure 9−Clover Point Pump Station- Concrete pour of north retaining wall.

Figure 10- Clover Point Pump Station – Control room concrete slab infills.

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.

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;
  - 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.

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

- Diversion Chamber:
  - backfill around the existing drop structure; and
  - installation of vent pipes.

- Pump Station:
  - installed additional air release valves in the pump room;
  - installation of FRP platform and stairs in the pump room;
  - FRP grating installation in the bin room;
  - installation of Acoustic Insulation Panels in Genset Room and Pump Rooms;
  - vent pipe installation on the East side;
  - continued backfill on the East side; and
  - installation of electrical sleeves to the low level chamber.

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

- Diversion Chamber
  - backfill around the existing drop structure; and
  - box Manhole Concrete formwork.

- Pump Station
  - demolition of the old pump station;
  - installed lifting brackets for two flow meters;
  - installation of the FRP grating clips;
  - complete green roof installation;
  - completed backfill on the East side;
  - hydro seeding restoration; and
  - electrical works for the low level overflow chamber.

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

Figure 11−Macaulay Point Pump Station- Macaulay signage installed.

Figure 12−Macaulay Point Pump Station- Green roof complete.

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 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.

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

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

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

- seawall replacement construction and new plaza completed;
- finishing top lift paving in front of seawall;
- line painting nearing completion;
- site office being removed; and
- final clean up underway.

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

Figure 13−Clover Forcemain- Cycle track and Dallas Road paving complete.

Figure 14−Clover Forcemain- Sidewalk complete with benches and lounge chairs.

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 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.

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.

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

- installed eight micro piles (four per headwall) in the headwall locations;
- formed and poured west (outlet) headwall;
- formed and poured east headwall; and
- storm drain redesign was approved by Saanich, and DME began construction on Sept 28.

Photographs of construction progress over the month of September on the Residual Solids Pipes are shown in Figure 15.

Figure 15−Residual Solids Pipes – Peers Creek – Forming east side headwall.

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 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.

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.

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

- RTF chamber grading and casting work on Willis Point Rd
- Pump Station 3: OCU fence posts were dug in;
- Pump Station 2: pump bases were epoxy coated and OCU fencing was erected and the handrail was installed along the retaining wall;
- Tillicum and Admirals Bridges: hanger rods were swapped out with the correct ones, and the thrust block was poured at Admirals Bridge;
- Marigold Pump Station: work continued on the Odour Control Unit system, landscaping took place, and the sump manhole received its epoxy coating;
- Hartland Reservoir saw the completion of the watermains, sanitary forcemain work, and electrical conduits were laid; and
- Hartland Pump Station, pumps were installed on the new support pads and pipe installation continued.

Photographs of construction progress over the month of September on the Residual Solids Pump Stations are shown in Figures 16-17.

Figure 16−Residual Solids Pump Stations–Admirals Bridge additional pipe support bracket installed.

Figure 17 −Residual Solids Pump Stations – Pump Station 2- Tower Fence on-site installing fence on the retaining wall.

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.

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.

Key construction activities in progress or completed by NAC Constructors Ltd. in September include:

- completed installation of valve chamber walls reinforcing steel, waterstop, and formwork;
- completed installation of Attenuation Tank base slab reinforcing steel and water stop;
- Caisson Wall system cleaning;
- completed coring of valve chamber penetration;
- poured Attenuation Tank base slab;
- commenced Attenuation Tank Perimeter Walls and divider wall reinforcing steel installation; and
- poured valve chamber walls.

Photographs of construction progress during the month of September at the Arbutus Attenuation Tank are shown in Figures 18 and 19.

Figure 18−Arbutus Attenuation Tank- Valve chamber wall formwork installed.

Figure 19−Arbutus Attenuation Tank- Valve chamber wall reinforcing steel installation.

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 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.

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.

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

- completed Fairfield Road watermain realignment in conjunction with City of Victoria;
- re-commenced pipe work on Memorial Crescent;
- installed 108m of Dallas Road pipe; and
- re-commenced Bushby Street Gravity Main at intersection with Memorial Crescent.

A photograph of construction progress during the month of September at the Trent Forcemain is shown in Figure 20.

Figure 20−Trent Forcemain- Curb work completed on Memorial Crescent.

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

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

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

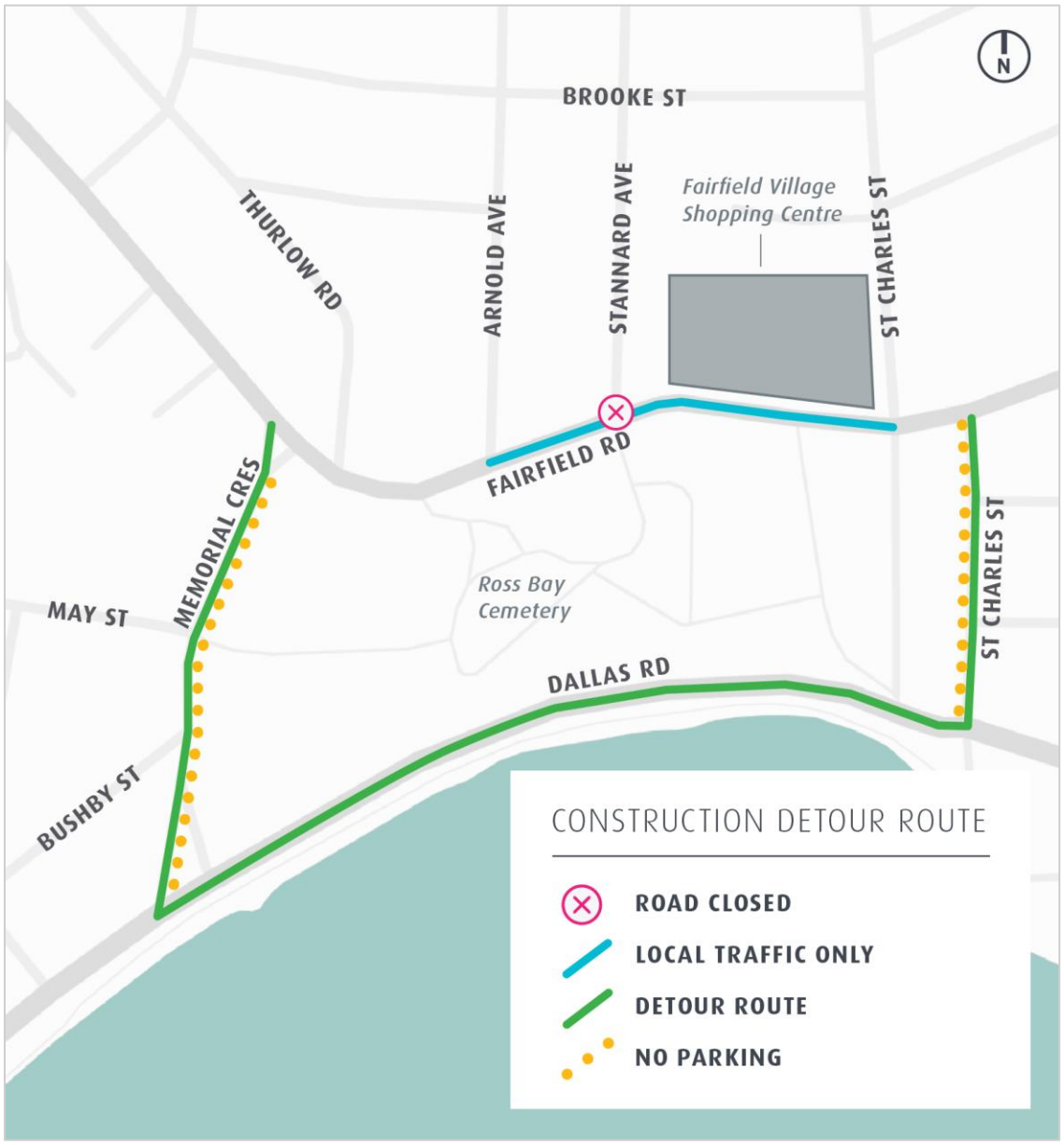
Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

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)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

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.

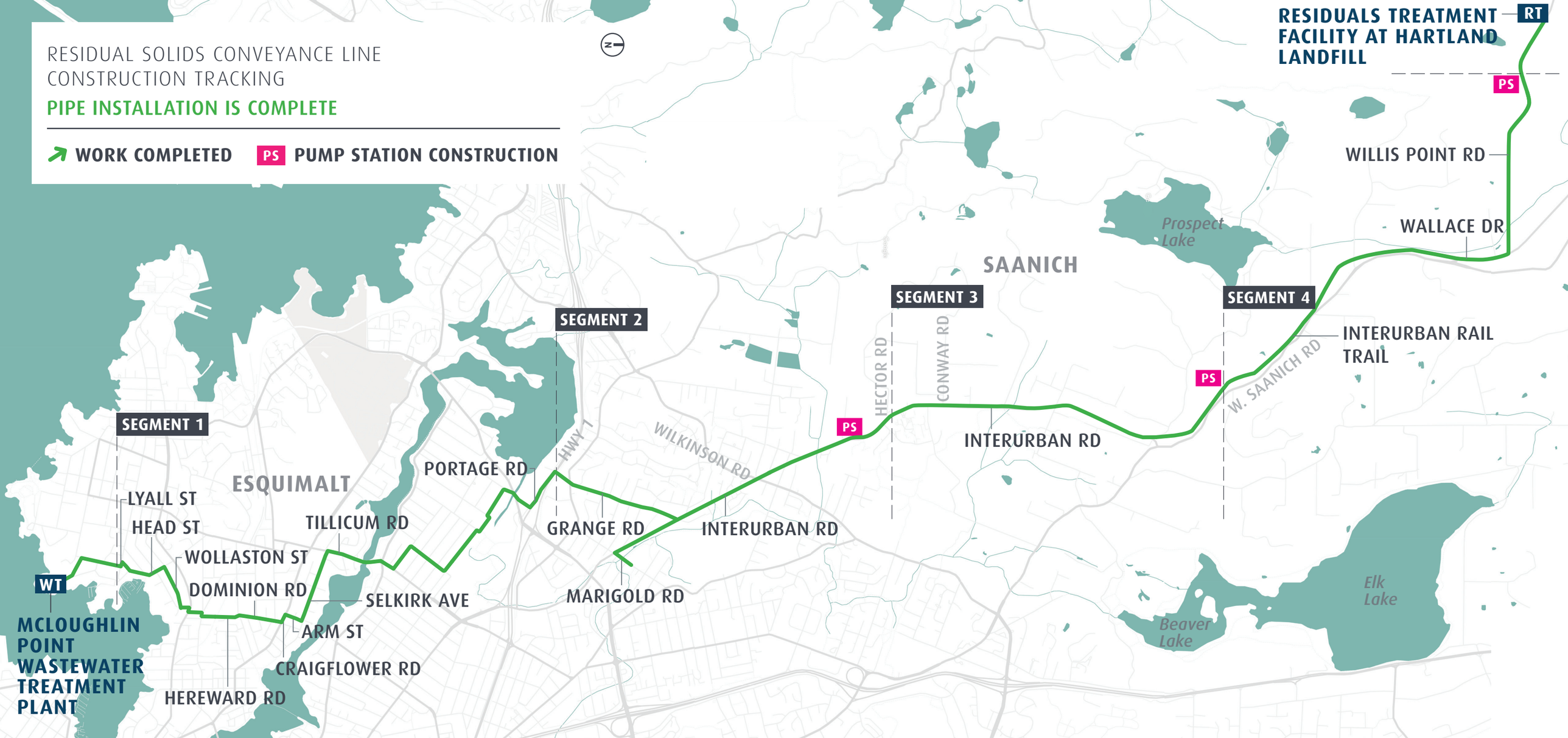
For updates, please visit www.crd.bc.ca and follow us on Twitter @crd_bc

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
RESIDUALS TREATMENT FACILITY AT HARTLAND LANDFILL
RT
PS
WILLIS POINT RD
WALLACE DR
Prospect Lake
SAANICH
SEGMENT 4
SEGMENT 3
SEGMENT 2
SEGMENT 1
INTERURBAN RAIL TRAIL
W. SAANICH RD
HECTOR RD
CONWAY RD
INTERURBAN RD
WILKINSON RD
HWY 1
PORTAGE RD
GRANGE RD
INTERURBAN RD
MARIGOLD RD
ESQUIMALT
LYALL ST
HEAD ST
TILLICUM RD
WOLLASTON ST
DOMINION RD
SELKIRK AVE
ARM ST
CRAIGFLOWER RD
HEREWARD RD
WT
MCLOUGHLIN POINT WASTEWATER TREATMENT PLANT
Elk Lake
Beaver Lake

Appendix E− 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 F− Dallas Road Update (August 6, 2020)

Wastewater Treatment Project
Treated for a cleaner future

Dallas Road Update
August 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 G− Trent Forcemain: Dallas Road Seawall (August 17, 2020)

Dallas Road Seawall

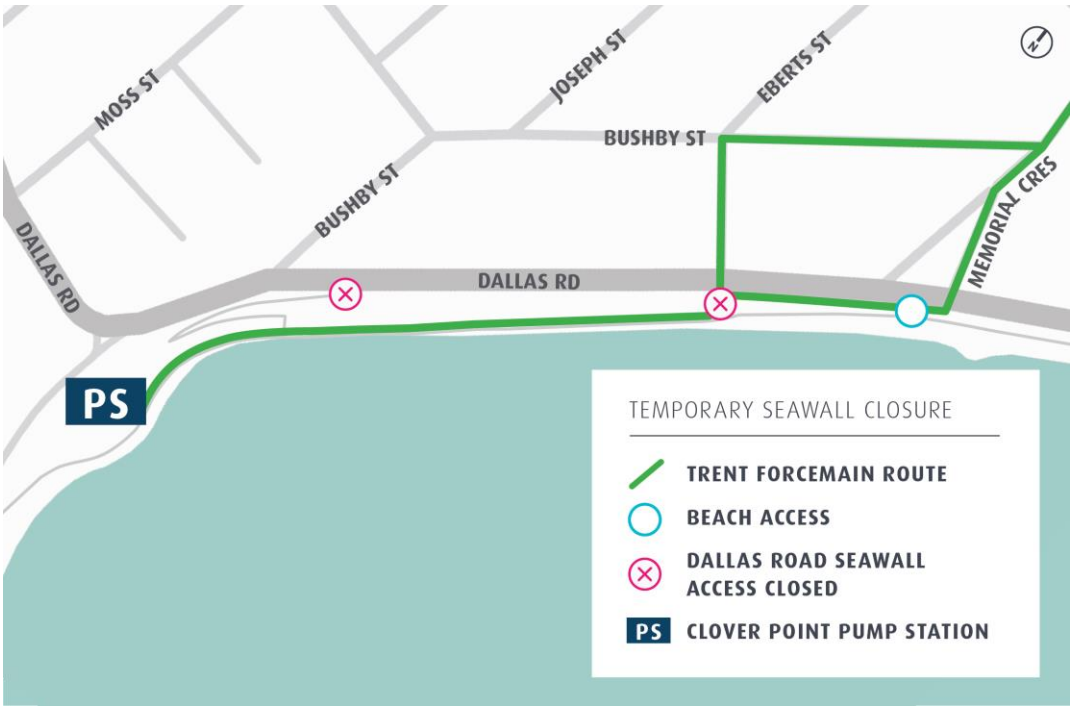
The Wastewater Treatment Project includes construction of the Trent Forcemain, 1.9km of pipes that will be installed from the intersection of Chandler Avenue and St. Charles Street to the Clover Point Pump Station. This work includes installing a pipe under the pedestrian path on the Dallas Road Seawall. 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 H- Arbutus Attenuation Tank Overnight Work (September 11, 2020

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

September 11, 2020

Arbutus Attenuation Tank: Overnight Work

Construction of the Arbutus Attenuation Tank is progressing well with the majority of the excavation work complete. The contractor has started installing the base of the storage tank. In order to maintain the quality of the concrete, a large pour will take place overnight on the following date:

- Monday, September 14, 2020.

Once the concrete has cured, the contractor will begin to work on the walls of the storage tank.

What to Expect

- Noise associated with construction will be ongoing overnight. Concrete pumping trucks and back-up beepers will be in operation.
- Flood lights will be used to safely illuminate the work area.

Work Hours

- Construction will take place overnight.
- Once this work is complete, normal work hours will resume Monday to Saturday from 7:00 a.m. to 7:00 p.m.

If you have any questions about this work, please contact the Project Superintendent, Nicholas Ellis, at 250-208-6772.

Construction at this site is expected to be complete in early 2021. Once finished, the site will be planted with vegetation appropriate for the local woodland setting.

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

About the Wastewater Treatment Project
The Wastewater Treatment Project will provide tertiary treatment for wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees Nations by the end of 2020.

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix I- Pump Station: Construction Update (September 17, 2020)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

September 17, 2020

Pump Station: Construction Update

Construction of the Wastewater Treatment Project is nearing completion on all major components. As part of the transition to operations, the next phase involves testing of the system which is now underway. For the next two to three weeks, there will be more activity at the pump stations along the Residual Solids Conveyance Line.

What to Expect

- A temporary increase in noise coming from the pump station.
- Possible short-term odour may occur.
- Increased activity at the site.

Work Hours

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

Traffic Impacts

- No traffic impacts are expected.

Once this phase is complete, final cleanup and landscaping work will be done. This work is anticipated to be complete by the end of November.

Thank you for your continued patience while this work is completed. If you have any questions, please contact the Project Team.

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 J -Trent Forcemain: Dallas Road Closure (September 18, 2020)

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

September 18, 2020

Trent Forcemain: Dallas Road Closure

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

- Monday, September 21
- Tuesday, September 22
- Wednesday, September 23

Parking will be restricted during this work. Please refer to construction signage.

What to Expect

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

Traffic Impacts

- Dallas Road will be closed during work hours for approximately three days. A detour will be in place.
- Traffic control areas will be delineated by cones and signs and controlled by flaggers.

Access

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

Work Hours

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

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

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix K- Macaulay Point Update (September 28, 2020)

Macaulay Point Update

Dear Resident,

We wanted to provide an update on the remaining work in your neighbourhood. We are close to the end of the Project and into the final restoration stage. Construction at Macaulay Point is anticipated to be completed by the end of November. The new pump station is currently operational and the remaining work includes completing demolition of the old pump station, landscaping, and restoration of the area.

Upcoming Pathway Closure

September 30 – October 21

A portion of the waterfront trail in Macaulay Point Park will be closed for three weeks to facilitate the demolition of the old pump station and restoration of the area.

A few days of blasting will be required in early October. Notification will be provided to neighbours in close proximity.

Final Paving

Final road paving of Peters Street and Patricia Way will be done in October.

Temporary Odour

The McLoughlin Point Wastewater Treatment Plant is currently undergoing commissioning (or testing) so residents may smell odour in the area until end of October. Thanks to the state-of-the-art odour control system, there will be no discernible odour in the community once testing is complete.

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Tree Planting

Thirty-two trees will be planted this fall replacing the trees that were removed to accommodate installation of the forcemain on Anson Street. The majority of the trees will be Green Ash with some Garry Oak and Red Maples also planted.

Thank you!

We recognize construction has been disruptive to your daily lives over the past couple years and we want to thank you for your patience while this work has been completed. We hope you will be able to enjoy the new waterfront park area in front of the new pump station once it is complete.

In the meantime, we remain available to answer any questions or address any concerns you may have.

Wastewater Treatment Project Team

Appendix L− Monthly Cost Report (September)

MONTHLY COST REPORT
as at September 30, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to August 31, 2020	Expended over reporting period (September 2020)	Expended to September 30, 2020	Expended to September 30, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at September 30, 2020	Total Committment at September 30, 2020	Unexpended Commitment at September 30, 2020	Uncommitted Allocated Budget at September 30, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	**331.4**	**329.7**	**307.2**	**3.8**	**311.0**	**94%**	**18.7**	**321.7**	**10.8**	**8.0**	**18.7**	**329.7**	**-**	**0%**
Construction	306.7	321.2	306.8	3.8	310.6	97%	10.6	321.1	10.5	0.1	10.6	321.2	-	0%
Contingency	14.9	1.6	-	-	-	0%	1.6	-	-	1.6	1.6	1.6	-	0%
Financing	9.8	6.9	0.5	(0.1)	0.4	6%	6.5	0.7	0.3	6.2	6.5	6.9	-	0%
Residuals Treatment Facility	**159.4**	**140.6**	**11.4**	**0.0**	**11.5**	**8%**	**129.2**	**139.2**	**127.8**	**1.4**	**129.2**	**140.6**	**-**	**0%**
Construction	145.4	139.2	11.4	0.0	11.5	8%	127.7	139.2	127.7	0.0	127.7	139.2	-	0%
Contingency	12.3	1.0	-	-	-	0%	1.0	-	-	1.0	1.0	1.0	-	0%
Financing	1.7	0.4	0.0	(0.0)	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	**158.0**	**213.5**	**175.6**	**5.2**	**180.8**	**85%**	**32.7**	**196.7**	**15.9**	**16.8**	**32.7**	**213.5**	**-**	**0%**
Macaulay Point Pump Station	25.4	31.0	28.5	0.2	28.7	92%	2.3	31.0	2.3	0.0	2.3	31.0	-	0%
Macaulay Forcemain	5.6	7.4	7.4	-	7.4	100%	-	7.4	-	-	-	7.4	-	0%
Craigflower Pump Station	12.5	12.4	12.4	-	12.4	100%	-	12.4	-	-	-	12.4	-	0%
Clover Point Pump Station	23.7	27.3	24.7	-	24.7	91%	2.5	27.3	2.5	0.0	2.5	27.3	-	0%
Currie Pump Station^	2.8	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Arbutus Attenuation Tank	14.2	24.6	15.7	2.3	18.0	73%	6.5	23.6	5.6	1.0	6.5	24.6	-	0%
Clover Forcemain	14.6	32.5	30.6	0.6	31.1	96%	1.3	31.7	0.6	0.7	1.3	32.5	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.3	4.8	1.3	6.0	53%	5.3	8.5	2.4	2.8	5.3	11.3	-	0%
Residual Solids Conveyance Line	19.1	36.6	35.2	0.6	35.8	98%	0.8	36.6	0.8	0.0	0.8	36.6	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.9	15.5	0.3	15.7	88%	2.2	17.2	1.4	0.7	2.2	17.9	-	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	7.8	-	-	-	0%	7.8	-	-	7.8	7.8	7.8	-	0%
Financing	5.8	4.1	0.1	(0.0)	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**59.1**	**1.1**	**60.1**	**77%**	**17.8**	**70.8**	**10.6**	**7.1**	**17.8**	**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	15.4	0.3	15.7	89%	2.0	17.7	2.0	0.0	2.0	17.7	-	0%
Conveyance Design	5.0	9.5	8.0	0.3	8.3	88%	1.2	8.9	0.6	0.6	1.2	9.5	-	0%
Advisors & Professional Support	7.0	14.8	10.4	0.1	10.5	71%	4.3	11.6	1.0	3.2	4.3	14.8	-	0%
Project Board	2.0	1.3	1.0	0.0	1.0	77%	0.3	1.0	-	0.3	0.3	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.2	16.9	0.3	17.1	74%	6.1	23.2	6.1	-	6.1	23.2	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	0.0	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	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	1.0	0.0	1.0	72%	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	-	0.3	96%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	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	89%	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	73%	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	0.2	-	0%
Connections Call Center	-	0.0	0.0	-	0.0	50%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.7	0.0	0.7	69%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.1**	**-**	**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**	**4.2**	**52%**	**3.9**	**6.9**	**2.7**	**1.3**	**3.9**	**8.1**	**-**	**0%**
Program Reserves	**19.2**	**0.9**	**-**	**-**	**-**	**0%**	**0.9**	**-**	**-**	**0.9**	**0.9**	**0.9**	**-**	**0%**
Core Area Wastewater Treatment Project	**765.0**	**775.0**	**559.4**	**10.1**	**569.6**	**73%**	**205.4**	**737.3**	**167.7**	**37.7**	**205.4**	**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

Appendix M- Quarterly Cost Report

QUARTERLY COST REPORT
as at September 30, 2020

Description	BUDGET		COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to June 30, 2020	Expended over reporting period (Q3 2020 July-Sept)	Expended to September 30, 2020	Expended to September 30, 2020 as a % of Allocated Budget	Remaining (Unexpended) Allocated Budget at September 30, 2020	Total Committment at September 30, 2020	Unexpended Commitment at September 30, 2020	Uncommitted Allocated Budget at September 30, 2020	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Allocated Budget
McLoughlin Point Wastewater Treatment Plant	**331.4**	**329.7**	**298.8**	**12.2**	**311.0**	**94%**	**18.7**	**321.7**	**10.8**	**8.0**	**18.7**	**329.7**	**-**	**0%**
Construction	306.7	321.2	298.2	12.3	310.6	97%	10.6	321.1	10.5	0.1	10.6	321.2	-	0%
Contingency	14.9	1.6	-	-	-	0%	1.6	-	-	1.6	1.6	1.6	-	0%
Financing	9.8	6.9	0.5	(0.1)	0.4	6%	6.5	0.7	0.3	6.2	6.5	6.9	-	0%
Residuals Treatment Facility	**159.4**	**140.6**	**11.3**	**0.2**	**11.5**	**8%**	**129.2**	**139.2**	**127.8**	**1.4**	**129.2**	**140.6**	**-**	**0%**
Construction	145.4	139.2	11.3	0.2	11.5	8%	127.7	139.2	127.7	0.0	127.7	139.2	-	0%
Contingency	12.3	1.0	-	-	-	0%	1.0	-	-	1.0	1.0	1.0	-	0%
Financing	1.7	0.4	0.0	(0.0)	-	0%	0.4	0.0	0.0	0.4	0.4	0.4	-	0%
Conveyance System	**158.0**	**213.5**	**166.3**	**14.5**	**180.8**	**85%**	**32.7**	**196.7**	**15.9**	**16.8**	**32.7**	**213.5**	**-**	**0%**
Macaulay Point Pump Station	25.4	31.0	27.7	1.0	28.7	92%	2.3	31.0	2.3	0.0	2.3	31.0	-	0%
Macaulay Forcemain	5.6	7.4	7.4	-	7.4	100%	-	7.4	-	-	-	7.4	-	0%
Craigflower Pump Station	12.5	12.4	12.4	-	12.4	100%	-	12.4	-	-	-	12.4	-	0%
Clover Point Pump Station	23.7	27.3	24.7	-	24.7	91%	2.5	27.3	2.5	0.0	2.5	27.3	-	0%
Currie Pump Station^	2.8	0.1	0.1	-	0.1	100%	-	0.1	-	-	-	0.1	-	0%
Arbutus Attenuation Tank	14.2	24.6	13.5	4.6	18.0	73%	6.5	23.6	5.6	1.0	6.5	24.6	-	0%
Clover Forcemain	14.6	32.5	30.0	1.2	31.1	96%	1.3	31.7	0.6	0.7	1.3	32.5	-	0%
Currie Forcemain^	3.3	0.2	0.2	-	0.2	100%	-	0.2	-	-	-	0.2	-	0%
Trent Forcemain	9.5	11.3	2.6	3.5	6.0	53%	5.3	8.5	2.4	2.8	5.3	11.3	-	0%
Residual Solids Conveyance Line	19.1	36.6	34.3	1.6	35.8	98%	0.8	36.6	0.8	0.0	0.8	36.6	-	0%
Residual Solids Pump Stations & Bridge Crossings	4.6	17.9	13.0	2.8	15.7	88%	2.2	17.2	1.4	0.7	2.2	17.9	-	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	7.8	-	-	-	0%	7.8	-	-	7.8	7.8	7.8	-	0%
Financing	5.8	4.1	0.2	(0.1)	0.1	3%	3.9	0.3	0.2	3.7	3.9	4.1	-	0%
Project Management Office ("PMO")	**75.8**	**77.9**	**56.8**	**3.3**	**60.1**	**77%**	**17.8**	**70.8**	**10.6**	**7.1**	**17.8**	**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	1.2	15.7	89%	2.0	17.7	2.0	0.0	2.0	17.7	-	0%
Conveyance Design	5.0	9.5	7.6	0.7	8.3	88%	1.2	8.9	0.6	0.6	1.2	9.5	-	0%
Advisors & Professional Support	7.0	14.8	10.3	0.2	10.5	71%	4.3	11.6	1.0	3.2	4.3	14.8	-	0%
Project Board	2.0	1.3	0.9	0.0	1.0	77%	0.3	1.0	-	0.3	0.3	1.3	-	0%
Project Board Expenses	0.3	0.1	0.1	-	0.1	64%	0.0	0.1	-	0.0	0.0	0.1	-	0%
Project Team	29.1	23.2	16.3	0.9	17.1	74%	6.1	23.2	6.1	-	6.1	23.2	-	0%
Project Leadership Team Expenses	0.7	0.4	0.2	0.0	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	0.0	0.2	-	0%
CRD Financial Services	1.5	1.4	0.9	0.1	1.0	72%	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	0.0	0.2	90%	0.0	0.2	0.0	-	0.0	0.2	-	0%
CRD Real Estate	0.3	0.3	0.2	0.0	0.3	96%	0.0	0.3	0.0	-	0.0	0.3	-	0%
CRD Information Technology	0.4	0.4	0.3	0.0	0.3	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	89%	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	0.0	0.1	86%	0.0	0.1	0.0	-	0.0	0.1	-	0%
Office Lease	1.9	1.3	0.9	0.1	0.9	73%	0.4	1.2	0.3	0.1	0.4	1.3	-	0%
Office Supplies	0.1	0.2	0.2	0.0	0.2	92%	0.0	0.2	-	0.0	0.0	0.2	-	0%
Vehicles	0.2	0.2	0.2	0.0	0.2	95%	0.0	0.2	-	-	0.0	0.2	-	0%
Connections Call Center	-	0.0	0.0	-	0.0	50%	-	0.0	-	-	-	0.0	-	0%
Communication support materials	0.5	0.2	0.1	-	0.1	61%	0.1	0.1	-	0.1	0.1	0.2	-	0%
Computer Hardware, Software & Training	1.0	1.0	0.6	0.0	0.7	69%	0.3	0.7	-	0.3	0.3	1.0	-	0%
Contingency	4.8	2.3	-	-	-	0%	2.3	-	-	2.3	2.3	2.3	-	0%
BC Hydro	**12.9**	**4.3**	**2.0**	**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**	**4.0**	**0.2**	**4.2**	**52%**	**3.9**	**6.9**	**2.7**	**1.3**	**3.9**	**8.1**	**-**	**0%**
Program Reserves	**19.2**	**0.9**	**-**	**-**	**-**	**0%**	**0.9**	**-**	**-**	**0.9**	**0.9**	**0.9**	**-**	**0%**
Core Area Wastewater Treatment Project	**765.0**	**775.0**	**539.2**	**30.4**	**569.6**	**73%**	**205.4**	**737.3**	**167.7**	**37.7**	**205.4**	**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

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF THURSDAY, NOVEMBER 26, 2020

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

ISSUE

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

RECOMMENDATION

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

RESOLVED that:

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

ES:er

Wastewater Treatment Project
Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: October 2020

TABLE OF CONTENTS

1 Executive Summary 3

1.1 Introduction 3

1.2 Dashboard 5

2 Wastewater Treatment Project Progress 8

2.1 Safety 8

2.2 Environment and Regulatory Management 10

2.2.1 Environment 10

2.2.2 Regulatory Management 11

2.3 First Nations 12

2.4 Stakeholder Engagement 12

2.5 Resolutions from Other Governments 13

2.6 Schedule 13

2.6.1 30 day look ahead 15

2.6.2 60 day look ahead 16

2.7 Cost Management and Forecast 18

2.7.1 Commitments 18

2.7.2 Expenses and Invoicing 18

2.7.3 Contingency and Program Reserves 19

2.7.4 Project Funding 19

2.8 Key Risks and issues 20

2.9 Status (Engineering, Procurement and Construction) 23

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP) 23

2.9.2 Residuals Treatment Facility 25

2.9.3 Conveyance System 26

Appendix A– Trent Forcemain: Dallas Road Closure (October 19, 2020) 36

Appendix B– Environmental Incident at the Residual Treatment Facility 37

Appendix C– Monthly Cost Report (October) 38

1 Executive Summary

1.1 Introduction

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

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

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

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

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

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

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

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

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

- Macaulay Point Pump Station: Kenaidan Contracting Limited ("Kenaidan" as the Design-Build Contractor) progressed construction and commissioning activities over the reporting period including: backfilling around existing drop structure and new diversion

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

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

- Clover Forcemain: Windley Contracting Ltd. ("Windley" as the Construction Contractor) completed construction and commissioning activities including: final clean-up of the lay down area.

- Residual Solids Conveyance Line ("RSCL"): the RSCL is being delivered through two construction contracts, with work progressing as follows:

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

  - Residual Solids Pump Stations: Knappett Projects Inc. ("Knappett" as the Construction Contractor) continued construction and commissioning activities including: regraded and backfilling the centrate return line on Willis Point Road near the RTF entrance; odour control unit fences at pump stations 1, 2 and 3 were completed; scaffolding was removed from the Tillicum and Admirals Bridges; the Hartland Flow Control Bypass was installed; and piping at Hartland Pump Station was completed and pressure tested.

- Arbutus Attenuation Tank ("AAT"): NAC Constructors Ltd. (as the Construction Contractor) continued construction activities including: completing installation of attenuation tank perimeter walls and divider wall reinforcing steel; ongoing cleaning of caisson wall system; installation of attenuation tank column reinforcing steel was commenced; and concrete pours were ongoing on the perimeter wall and divider wall.

- Trent Forcemain: Jacob Bros. Construction Inc. (as the Construction Contractor) progressed construction activities including: installation of 35m of forcemain; recommenced Eberts Street gravity main at intersection with Dallas Road; completed final restoration of sidewalk, curb and gutter on Memorial Crescent and Bushby Street, and Bushby Street and Memorial Crescent; and completed top-soil restoration at Ross Bay Cemetery.

1.2 Dashboard

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

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

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

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

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

Table 1- Executive Summary Dashboard

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

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

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

2 Wastewater Treatment Project Progress

2.1 Safety

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

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

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

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

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

Table 2: Safety Incidents over the Reporting Period

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

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

Key safety activities conducted during October included:

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

Table 3: WTP Safety Information

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

2.2 Environment and Regulatory Management

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

2.2.1 Environment

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

Key environmental management activities completed in October included:

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

Over the reporting period, there were three environmental incidents:

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

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

- On October 19, there was a minor release of residual solids at a low point drain valve location on the Residual Solids Conveyance Line within Hartland Landfill, as a result of a valve failure. The valve was changed and all valve chambers on the Residual Solids Conveyance Line were inspected to confirm that the installed fail-safe mechanisms were operable. The release was mostly contained within a manhole, although some residual solids over-topped the manhole and drained through gravel. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols.

- On October 27, there was a small release of wastewater into the ocean at the McLoughlin Point Site. After a power outage a gate closed resulting in wastewater flowing into the site's storm system. The majority of wastewater was collected on-site but approximately 5 cubic meters entered a planter in the site's storm system and then into the ocean. An environmental professional assessed the potential impacts to be very low, and water samples were collected to confirm this. There is no indication of public health or long-term environmental impacts. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation.

2.2.2 Regulatory Management

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

Key permitting activities over the reporting period included:

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

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

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

Table 4- Key Permits Status

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

2.3 First Nations

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

Key activities in October included:

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

2.4 Stakeholder Engagement

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

Construction Communications

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

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

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

Project Website

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

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

Community Meetings

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

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

Public Inquiries

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

Table 5 – Project Inquiries- October 2020

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

Key themes of the public inquiries were as follows:

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

2.5 Resolutions from Other Governments

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

2.6 Schedule

Progress over the reporting period is summarized in Section 2.9.

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

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

Figure 1- High-Level Project Schedule

2.6.1 30 day look ahead

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

Safety

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

Environment and Regulatory Management

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

First Nations

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

Stakeholder Engagement

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

Cost Management and Forecast

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

Construction

McLoughlin Point

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

Clover Point Pump Station

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

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

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

Residual Solids Pump Stations
- commence landscaping;
- Hartland water reservoir commissioning; and
- commence clean up and demobilize.

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

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

2.6.2 60 day look ahead

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

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

Environment and Regulatory Management
- Ongoing environmental monitoring of the active construction sites.

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

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

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

Construction

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

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

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

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

Residual Solids Pump Stations
- complete landscaping; and
- complete clean up and demobilization.

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

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

2.7 Cost Management and Forecast

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

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

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

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

i) The Project's financing costs to-date have been lower than budgeted for two reasons: firstly as a result of low interest rates since the start of the Project, and secondly due to the receipt of funding from the provincial government earlier than forecast; and

ii) The Project's construction costs may be higher than budgeted as many contractors have advised that there are cost impacts from the COVID-19 public health emergency. Impacts include labour availability, work modifications to comply with provincial guidelines, and delays to the delivery of equipment and supplies.

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

2.7.1 Commitments

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

2.7.2 Expenses and Invoicing

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

2.7.3 Contingency and Program Reserves

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

Table 6- Contingency and Program Reserve Draw-Down Table

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

2.7.4 Project Funding

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

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

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

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

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

Table 7- Project Funding Status

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

2.8 Key Risks and issues

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

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

Table 8- Project Active Risks Summary

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

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

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

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (McLoughlin Point WWTP)

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

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

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

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

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

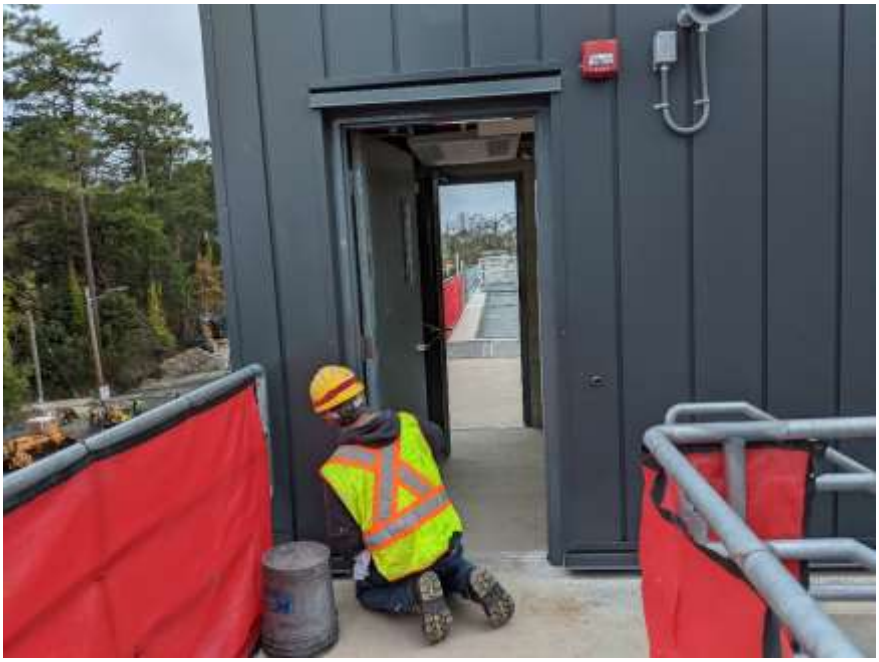


Figure 3– McLoughlin Point Wastewater Treatment Plant- Painting doors on West stairway penthouse.

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

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

2.9.2 Residuals Treatment Facility

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

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

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

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

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

2.9.3 Conveyance System

2.9.3.1 Clover Point Pump Station

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

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

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

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

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

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

2.9.3.2 Macaulay Point Pump Station and Forcemain

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

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

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

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

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

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

2.9.3.3 Clover Forcemain (CFM)

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

- completed final clean up.

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

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

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

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

Figure 16−Clover Forcemain- Ogden Point restoration.

2.9.3.4 Residual Solids Conveyance Line

The RSCL is being delivered through two construction contracts:

- Residual Solids Pipes; and
- Residual Solids Pump Stations

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

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

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

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

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

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

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

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

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

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

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

2.9.3.5 Arbutus Attenuation Tank

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

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

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

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

Figure 20−Arbutus Attenuation Tank- Main tank overview.

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

2.9.3.6 Trent Forcemain

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

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

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

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

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

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

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

UPDATE

October 21, 2020

Trent Forcemain: Dallas Road Closure

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

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

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

What to Expect

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

Traffic Impacts

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

Access

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

Work Hours

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

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

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix B− Environmental Incident at the Residual Treatment Facility

Residual Treatment Facility Environmental Incident

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

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

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

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

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

24/7 Phone Line
1.844.815.6132

Email
wastewater@crd.bc.ca

Website
wastewaterproject.ca

Appendix C− Monthly Cost Report (October)

MONTHLY COST REPORT
as at October 31, 2020

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

* Values presented in $millions, results in minor rounding differences
** Cost report presents approved expenditures
^ Component no longer required, and would not provide any value therefore removed from Project Scope; Costs include Seaterra initiation, planning and design