Wastewater Treatment Project
Treated for a cleaner future

CORE AREA WASTEWATER TREATMENT PROJECT BOARD
Notice of a Meeting on **Monday, November 26, 2018 at 10:00 a.m.**
Room 652, 6th floor, 625 Fisgard Street, Victoria, BC

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

AGENDA

1. Approval of Agenda and Statement of No Conflict

   Motion:
   That the Agenda be approved.

2. Safety Minute

3. Approval of the October 25, 2018 Meeting Minutes.

   Motion:
   That the minutes of the October 25, 2018 meeting be approved.

4. Report of the Chair

5. Presentations/Delegations

6. Project Board Business

   6.1. Staff Report for Information: Wastewater Treatment Project October Monthly Report

   Motion:
   That the Staff Report, Wastewater Treatment Project Monthly Report – October 2018 be received for information and forwarded to the Core Area Liquid Waste Management Committee and CRD Board for information.

   6.2. Staff Report for Information: Declaration of Related Party Transactions

   Motion:
   That the Staff Report, Declaration of Related Party Transactions be received for information.

7. Correspondence

8. New Business

   8.1. Confirmation of upcoming Meeting Dates:
   - Next Project Board Meeting: Thursday, January 31, 2019
   - Next Core Area Liquid Waste Management Committee Meeting: TBD (2019)

9. Motion to Close the Meeting
   Motion:
   That the Core Area Wastewater Treatment Project Board meeting be closed in accordance with the Community Charter, **Part 4, Division 3, 90(1) (m)** a matter that, under another enactment, is such that the public may be excluded from the meeting.

10. Adjournment

To ensure quorum, advise Rachel Mattiuz 250.360.3267 if you are unable to attend.

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Minutes of a Meeting of the Core Area Wastewater Treatment Project Board
Held Thursday, October 25, 2018 in Room 488, 625 Fisgard Street, Victoria, BC

Members: D. Fairbairn (Chair); B. Eaton Acting Chair (Vice Chair); D. Hayden; D. Howe; R. Lapham; C. Smith; T. Stanley;
CRD Staff: D. Clancy, Project Director, E. Scott, Deputy Project Director; R. Mattiuz (recorder)

The meeting was called to order at 9:03 a.m.

1. Approval of Agenda and Statement of No Conflict
The members stated they had no conflict with the agenda items.

MOVED by D. Hayden, **SECONDED** by D. Howe,
That the agenda be approved as circulated.

CARRIED

2. Safety Moment
D. Clancy provided the safety moment "Marijuana in the Workplace" relating to the new legislation which came into place Canada-wide on October 17, 2018.

3. Approval of the September 26, 2018 Meeting Minutes

MOVED by D. Howe, **SECONDED** by R. Lapham,
That the minutes of the September 26, 2018 meeting be approved.

CARRIED

4. Report of the Chair
The Acting Chair deferred this item for discussion following item 6.1.

5. Presentations/Delegations:
There were no presentations or delegations.

6. Project Board Business

6.1. Staff Report for Information: Wastewater Treatment Project Q3 Quarterly Report – July - September 2018

D. Clancy and E. Scott provided a summary presentation of the Q3 July – September 2018 Quarterly report including:

- safety performance;
- cost management, forecast and budget expenditures;
- changes in the status of key permits;
- construction activities; and
- communications and engagement activities.

Discussion ensued on safety reporting with key contractors, key permits, and schedule.

T. Stanley joined meeting at 9:28 AM.
D. Fairbairn joined meeting at 9:31 AM.

Discussion ensued on the possibility of adding commissioning to the high-level Project schedule and showing transition into operations.

MOVED by C. Smith, **SECONDED** by R. Lapham,
That the Staff Report, Wastewater Treatment Project Quarterly Report – Q3 – July to September 2018, be received for information and forwarded to the Core Area Liquid

DRAFT

Waste Management Committee and CRD Board for information with the amendments noted by Staff.

CARRIED

7. Deferred Item 4 – Report of the Chair

   B. Eaton congratulated D. Howe on his re-election to the CRD Board. D. Fairbairn provided an update on various meetings he had recently attended representing the Project Board, including meetings with Mayor Helps and W̱SÁNEĆ Leadership Council.

8. Correspondence

9. New Business

   9.1. Confirmation of upcoming Meeting Dates:
   - Next Project Board Meeting: Monday, November 26, 2018
   - Next Core Area Liquid Waste Management Committee Meeting: 2019 – Dates TBD

10. Motion to Close the Meeting

    MOVED by C. Smith, **SECONDED** by D. Fairbairn,
    That the Core Area Wastewater Treatment Project Board meeting be closed in accordance with the Community Charter, **Part 4, Division 3, 90(1) (m)** a matter that, under another enactment, is such that the public may be excluded from the meeting.

CARRIED

11. Adjournment

    The Project Board moved to closed session at 10:01 a.m.
    The Project Board rose from its closed session at 11:30 a.m. without report.
    On motion the meeting adjourned at 11:30 a.m.

_____
CHAIR

_____
RECORDER

Wastewater Treatment Project
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REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD MEETING OF MONDAY, NOVEMBER 26, 2018

SUBJECT **Wastewater Treatment Project Monthly Report – October 2018**

ISSUE

To Provide the Core Area Wastewater Treatment Project Board with the Monthly Report for October 2018.

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.

The Business Case established the CAWTP control budget (the Control Budget) of $765 million.

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 2018 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 Monthly Report – October 2018, 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 Monthly Report – October 2018

ES:rm

Wastewater Treatment Project

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CRD Wastewater Treatment Project

Monthly Report

Reporting Period: October 2018

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1 Executive Summary

1.1 Introduction

This monthly report covers the reporting period of October 2018 and outlines the progress made on the Wastewater Treatment Project during 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.

Overall the Project is progressing as planned with no changes to the construction/commissioning start and completion dates.

The WWTP Project Component is continuing with Harbour Resource Partners ("HRP" as the Design-Build Contractor for the McLoughlin Point WWTP) progressing in October: engineering of the WWTP and outfall; construction at Mcloughlin Point including: continuing concrete pours for the process building base slabs and tertiary building walls; and starting erection of process building wall formwork.

The RTF Project Component is continuing with Hartland Resource Management Group ("HRMG" as the Design-Build-Finance-Operate-Maintain Contractor for the RTF) progressing design engineering and construction activities over the reporting period including rock blasting, excavation and backfilling.

The Conveyance System is anticipated to be delivered through eight construction contracts: two design-build contracts and six 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 planning, design and construction activities over the reporting period, including: providing the final design submission report to CRD Project Team for review; excavating, blasting and removal of rock, installing scaffolding access tower, and placing concrete mud mats.
- Macaulay Point Pump Station and Forcemain: Kenaidan Contracting Ltd. ("Kenaidan" as the Design-Build Contractor) progressed planning, design and construction activities over the reporting period, including submission of early works 1 final design package for temporary works and construction activities including installation of a new temporary screenings conveyor, stripping overburden, drilling and blasting, installation of the dewatering system, and excavation slope protection.

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

- Clover Forcemain: Windley Contracting Ltd. ("Windley" as the Construction Contractor) commenced pre-construction activities including: submission of construction work plans and shop drawings for Project Team review; submission of permit applications to

authorities having jurisdiction; site office and laydown area mobilization; utility locates, initial geotechnical and soil assessment survey; and pre-construction archaeological test digs.

- Residual Solids Conveyance Line ("RSCL"): The RSCL is being delivered through three construction contracts, with work progressing as follows:
  - RSCL 100 Residual Solids Pipes: The Project Team awarded the construction contract. Don Mann Excavating Ltd. ("Don Mann" as the Construction Contractor for RSCL100) commenced pre-construction activities including submission of construction work plans and shop drawings for CRD Project Team review, and submission of permit applications to authorities having jurisdiction;
  - RSCL 200 Residual Solids Pump Stations: Parsons (as the Design Consultant for the RSCL) progressed the 90% design submittal, and the Project Team progressed the procurement process through issuance of the Request for Proposals to the pre-qualified contractors; and
  - RSCL 300 Saanich Infrastructure Improvements: the Project Team will be arranging a detailed design kick-off meeting with Parsons (as the Design Consultant) and the District of Saanich before year end.
- Arbutus Attenuation Tank: Kerr Wood Leidal Ltd. ("KWL" as the Design Consultant for the Arbutus Attenuation Tank), continued to finalize the 100% design deliverable and the Project Team prepared for the issue of the Invitation to Tender.
- Remainder of Conveyance Component: the Project Team is undertaking preliminary engineering activities including scope review, in preparation to commence detailed design in Q1 2019.

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 ("KPIs") that were defined within the Project Charter.

There were no changes made to the dashboard during the reporting period.

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; site inspections are ongoing.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction					No environmental issues.
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 in the reporting period. Significant efforts were made to provide accurate and timely information to stakeholders.
Schedule	Deliver the Project by December 31, 2020.					No schedule issues.
Cost	Deliver the Project within the Control Budget ($765 million).					Project expenditures within Control Budget but cost pressures experienced on multiple Conveyance procurements as a result of inflation in the Vancouver Island construction market. Corrective action has been identified and is being implemented (see Section 2.7 for details), but further action is anticipated to be required to maintain the Control 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 2.

Site safety tours and weekly safety inspections were carried out by PMO construction and safety personnel over the reporting period at all active worksites: Clover Point Pump Station, Clover Forcemain, McLoughlin Point WWTP, RTF, and Macaulay Point Pump Station. Office and site orientations were delivered as required.

During the month of October three incidents occurred: a near miss incident and a high potential near miss incident occurred at the Macaulay Point Pump Station site and a first aid incident occurred at the McLoughlin Point Wastewater Treatment Plant site.

On October 15, 2018 a near miss incident occurred at the Macaulay Point Pump Station site. While excavating to relocate a waterline, a temporary 120 volt power line was severed. The incident was a near miss as no injuries were reported. The temporary power cable was repaired and reburied with caution tape placed above the line.

Corrective actions with respect to the incident were taken as follows:

- procedures were updated to indicate that all temporary cables must be buried at least 18 inches deep with caution tape above and where a depth of less than 18 inches exists there will be warning signs and markers to identify the shallow depth of burial; and
- this incident and the installation of temporary power lines will be reviewed at all active construction sites.

On October 25, 2018 a high potential near miss incident occurred during a blast at the Macaulay Point Pump Station site. Blast holes were drilled into the rocks located at the northeast corner of site. Large blast mats were placed around these holes to prevent material from escaping the excavation. When the blast occurred, the mats used on the east side of the blast site shifted allowing some rock to escape. The escaped material struck the unoccupied home adjacent to the construction site causing minor damage to the siding and also cracked the windshield of a contractor's parked truck. No one was injured and no other damage was reported.

The incident was reportable under WorkSafeBC "Serious Incident Reporting" and a WorkSafeBC Officer was sent to the site to investigate and report. The results of the investigation identified three areas of concern. It was determined that: there was insufficient room at the blast location to release the energy created; the location and/or quantity of the blasting mats was insufficient to absorb the blast energy; and that the safety area around the blast was too small.

Corrective actions with respect to the incident were taken as follows:

- additional blast mats have been added to ensure a minimum overlap of four feet and cover eight feet from all blast holes;
- a minimum of two feet of space between drill holes will be targeted: if the minimum distance cannot be provided, the number of blast mats used will be doubled;
- prior to blasting, the blaster will review the blast design with the site supervisor, including the number of holes bored, relief slope, mat locations, and loads; and

- the blast safety area will be extended to 70 meters.
- this incident will be reviewed at all active construction sites.

On October 29, 2018 a first aid incident occurred at the McLoughlin Point WWTP site involving a rebar installer struck by his safety harness. The chain on his body belt hit him in the lip as rebar was hoisted into place. He received first aid treatment on site and returned to work.

The incident was reviewed at the next toolbox talk and all were reminded that when a body belt is being worn but is not in use its chains are to be secured to the connecting rings on the belt in order to prevent the chain from swinging uncontrolled.

Key safety activities conducted during October included:

- CRD contractor safety orientation for Parsons, Windley and Don Mann;
- reviewed document submissions from prime contractors;
- reviewed site specific safety plans and high risk tasks, including:
    - blasting plan revision reviews for Macaulay Point Pump Station, Clover Point Pump Station and Clover Forcemain projects;
    - traffic management, safe work plan and public mitigation plan review for Clover Forcemain;
    - safe job procedure review for temporary bin room at Macaulay Point Pump Station;
- shift into winter driving course for CRD Project staff;
- performed the Great Shake Out/Annual Emergency drill;
- WTP Safety Manager and/or Construction Manager conducted monthly office/site inspections with prime contractors and CRD Corporate staff at all active sites;
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager;
- weekly project update meetings with HRP and HRMG;
- bi-weekly project update meetings with Kenaidan;
- incident reporting review with prime contractors at active work locations;
- prime contractor monthly safety meeting with CRD; and
- the WTP Safety Manager attended the British Columbia Construction Safety Association (BSCSA) Symposium on marijuana and the workplace.

Table 2 – WTP Safety Information

	Reporting Period (October 2018)	Project Total to-Date (from January 1, 2017)
Person Hours		
PMO	4,147	79,099
Project Contractor	25,278	282,454
Total Person Hours	29,425	361,553
PMO	31	
Project Contractors (and Project Consultants) working on Project sites	148	
Total Number Of Employees	179	
Near Miss Reports	1	9
High Potential Near Miss Reports	1	3
Report Only	0	5
First Aid	1	6
Medical Aid	0	0
Medical Aid (Modified Duty)	0	1
Lost Time	0	0
Total Recordable Incidents	0	1
	2018 Frequency (from January 1, 2018)	Project Frequency (from January 1, 2017)
First Aid Frequency		3.3
Medical Aid Frequency		0.5
Lost Time Frequency		0
Total Recordable Incident Rate		0.5

2.2 Environment and Regulatory Management

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

2.2.1 Environment

Environmental work progressed as planned over the reporting period.

Key environmental management activities completed in October included:

- Parsons (as Design Consultant for the RSCL) prepared a BC Water Sustainability Act Section 11 Notification for in-stream work associated with RSCL construction, and a Request for Review for submission to Fisheries and Oceans Canada (DFO) for the Colquitz River crossing;
- HRMG (Design-Build-Finance-Operate-Maintain Contractor for the RTF) completed statistical analysis of their soil testing results at the RTF site and determined that soils at the RTF site are of commercial quality, and that the RTF site is not contaminated; and
- Millennia Research (the Project's Archaeological Advisor) planned archaeological excavations (archaeological data recovery) to be undertaken prior to the start of construction of the Clover Forcemain. The archaeological excavations are a condition of the Site Alteration Permit that the Project received from the Province, and began on October 30th.

2.2.2 Regulatory Management

In October, the Project Team continued to monitor the advancement of construction-related regulatory approvals and supported or led the advancement of permit applications. Key permitting activities for the reporting period involved supporting HRMG (Design-Build-Finance-Operate-Maintain Contractor for the RTF) in the development and review of permit applications; engaging with federal and provincial regulators in support of obtaining key permits (summarized in Table 3); continuing to advance the Municipal Wastewater Regulation (MWR) Registration; and planning for future permit applications.

Key permitting activities for October include:

- HRP (Design-Build Contractor for the McLoughlin Point WWTP) received an Authorization under the Fisheries Act from DFO to construct the McLoughlin Point Outfall; and
- HRMG (Design-Build-Finance-Operate-Maintain Contractor for the RTF) submitted a draft Information Requirements Table (IRT) to the BC Ministry of Environment and Climate Change Strategy (ENV). The IRT serves as terms of reference for HRMG's application to ENV for an Operational Certificate for the RTF. The Operational Certificate will authorize the RTF to operate and produce Class A Biosolids.

The status of key Project permits are summarized in Table 3. The table is not a list of all required Project permits, but rather a summary of the status of key Project permits.

Table 3 has been updated since the Project's Q3 July - September 2018 Quarterly Report as follows:

- The status of the following permits have been updated:
    - McLoughlin Point Outfall:
        - changed Fisheries and Oceans Canada (DFO) *Fisheries Act* Authorization to received;
        - changed Transport Canada Facilities Alteration Permit to received; and
        - changed Transport Canada Licence (works access) to received.
    - ECI/Trent Twinning
        - changed anticipated receipt date for Notice from the Director to Construct under Section 40 (b) of the MWR from Q4 2018 to Q2 2019, to reflect the anticipated start of construction; and

- removed the City of Victoria Licence (works access) as this permit is not anticipated to be required.

Table 3 - Key Permits Status

Permit / Licence	Anticipated Date	Status	Party Responsible for Obtaining Permit
McLoughlin Point WWTP			
Municipal Wastewater Regulation ("MWR") Registration	Q4 2019	On track	CRD
McLoughlin Point Harbour Crossing			
Transport Canada Lease	Following completion of construction	On track	HRP
McLoughlin Point Outfall			
Fisheries and Oceans Canada (DFO) *Fisheries Act* Authorization	Q4 2018	**Received**	HRP
Transport Canada Facility Alteration Permit	Q4 2018	**Received**	HRP
Transport Canada Licence (works access)	Q4 2018	**Received**	HRP
Transport Canada Lease	Following completion of construction	On track	HRP
Macaulay Point Pump Station Upgrade			
Township of Esquimalt Phased Building Permits (Phase 1 received; Phase 2 anticipated for submission Q4 2018)	Phase 1 - Q3 2018 Phase 2 – Q4 2018	Phase 1 received Phase 2 on track	Kenaidan
ECI/Trent Twinning			
Notice from the Director to Construct under Section 40 (b) of the MWR	**Q2 2019**	On track	Design engineer
Arbutus Attenuation Tank			
Notice from the Director to Construct under Section 40 (b) of the MWR	Q4 2018	On track	Kerr Wood Leidal
District of Saanich Building Permit	Q4 2018	On track	Kerr Wood Leidal
Residuals Treatment Facility			
Operational Certificate	Prior to start of RTF operations	On track	HRMG
District of Saanich Development and Building Permits	Q4 2018	On track	HRMG

2.3 First Nations

First Nations communication and engagement was ongoing over the reporting period. Ongoing meetings with the Esquimalt and Songhees Liaisons continued.

In October Millennia (as the Project's Archaeological Advisor) planned and then began archaeological pre-construction digs along the Clover Forcemain route with Windley (as the construction contractor for the Clover Forcemain) and members of the Esquimalt and Songhees Nations. The archaeological pre-construction digs are located in a registered archaeological site that encompasses a historical Lekwungen village. Prior to the digs, members of the Esquimalt

and Songhees Nations received safety training from Windley and the crews from Windley received archaeological awareness training.

The CRD and Esquimalt and Songhees Liaisons, along with elders from Songhees Nation prepared for the archaeological pre-construction digs by reviewing a proposed ossuary that was built by CRD Regional Parks. The ossuary would provide temporary storage of ancestral remains should they be encountered during the pre-construction digs or during construction. At the end of the Project, any ancestral remains would be reinterred at a location to be determined in consultation with Esquimalt and Songhees Nations.

The Project Team and CRD continued ongoing consultation and engagement with the W̱SÁNEĆ Leadership Council. The focus of the consultation and engagement was the RTF and the RSCL, but also included discussions related to the CRD's government-to-government relationship with the W̱SÁNEĆ Nations.

Related to the Project's First Nations communication and engagement activities, at its October 10, 2018 meeting the CRD Board approved a set of recommendations from the Final Report of the Special Task Force on First Nations Relations. The recommendations capture the Task Force's view of optimal next steps to guide the CRD's path towards a more inclusive governance model for the region.

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 reporting period was to keep residents and stakeholders informed of Project plans, progress and construction information, and to receive and respond to questions and concerns raised by the community. A variety of communications tools and engagement activities were utilized to support the implementation of the Plan, including stakeholder meetings, Project website updates, and notifications of construction through notices and a public inquiry program, among other methods.

Construction Communications

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

- Clover Point Pump Station: Blasting (October 2, 2018) (Appendix A); and
- Clover Forcemain: Archaeological Work (October 22, 2018) (Appendix B).

The Clover Point Pump Station: Blasting construction notice was hand delivered to 64 residences along Dallas Road in advance of blasting to advise residents of what to expect, and uploaded to the Project website. The Clover Forcemain: Archaeological Work construction notice was mailed to 557 residents in James Bay and distributed to stakeholders. It was also added to the Project website as an alert and posted on the CRD Twitter feed on October 29, 2018 to notify the public about upcoming single lane alternating traffic on Dallas Road.

The public was also notified through the CRD Twitter feed on October 30, 2018 about the pruning of trees on Dallas Road, in preparation for construction of the Clover Forcemain.

Project Website

Throughout the month of October, the Project website, wastewaterproject.ca, was updated with information about the Project. Two construction notices were posted and the community questions section, which features commonly-asked questions about the Project, was updated with new information regarding the Clover Forcemain. A new page, "Dallas Road Construction" was created under current construction activities, to host ongoing updates, notices and alerts to maintain effective communication with the public as the Clover Forcemain is being constructed.

Community Meetings

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

- Chair of the Liquid Waste Management Committee;
- City of Victoria staff;
- Greater Victoria Harbour Authority;
- Township of Esquimalt Liaison Committee; and
- University of Victoria.

Public Inquiries

Public inquiry numbers from the Project email address and 24/7 information phone line (1-844-815-6132) are noted in Table 4.

Table 4 - Project Inquiries – October 2018

Inquiry Source	Contacts for October
Information phone line inquiries	9
Email inquiries responded to	13

Key themes of the public inquiries were as follows:

- construction impacts and mitigation efforts at Project sites (bright lights, dust on the road, truck route); and
- questions about public space improvements at Clover Point and on Dallas Road.

2.5 Resolutions from Other Governments

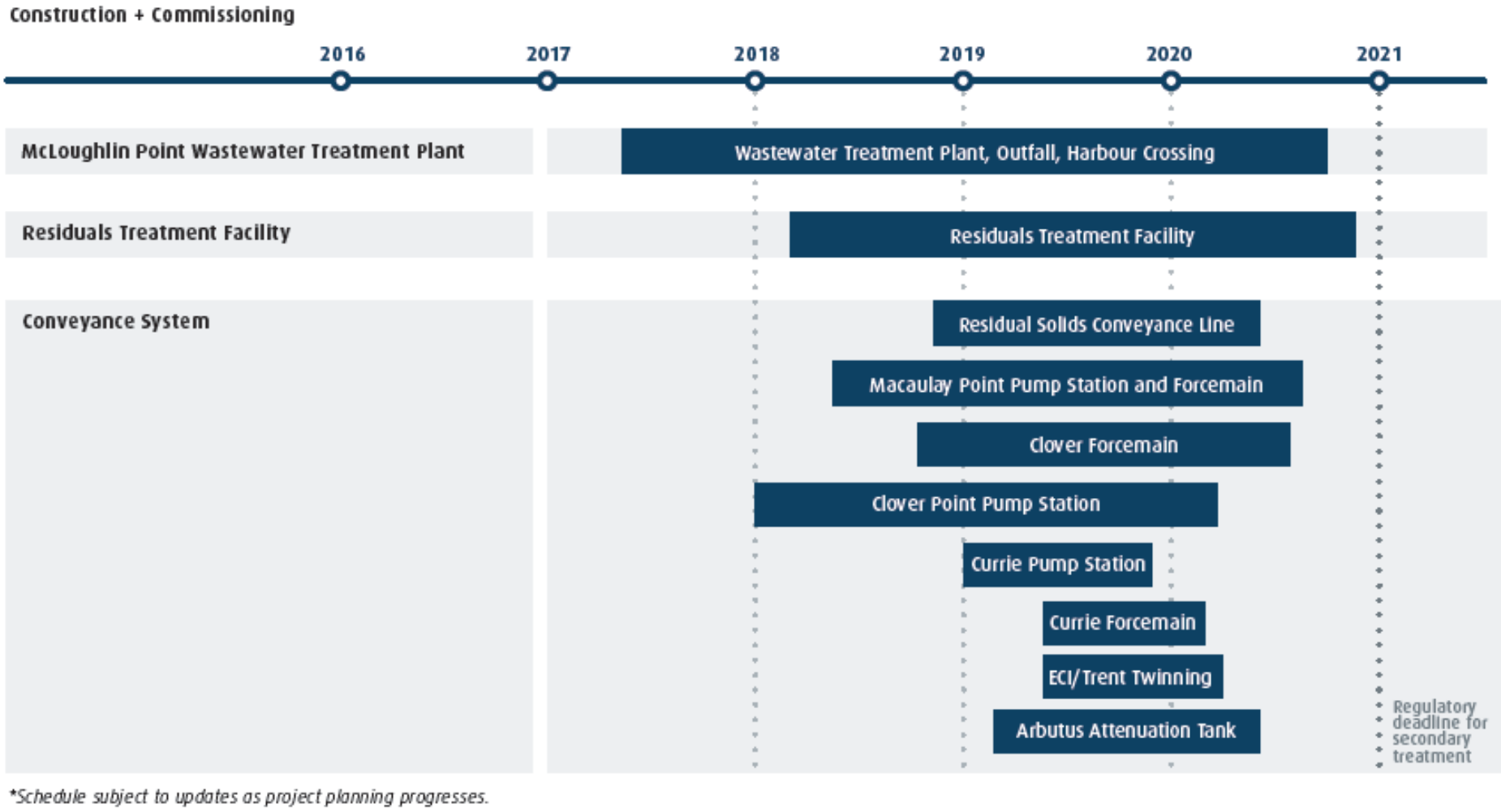
There were no resolutions related to the Project passed by other Governments during the reporting period.

2.6 Schedule

Overall the Project's scheduled activities progressed as planned during October. All major and key interface milestones were on target to be completed as per the schedule. Progress over the reporting period is summarised in section 2.9.

Figure 1 shows the high-level Project schedule. This schedule is unchanged from that shown in the previous Project report, however it remains subject to optimization as the Project and planning progresses.

Figure 1-High-Level Project Schedule[1]



*Schedule subject to updates as project planning progresses.

[1] The schedule remains subject to optimization.

2.6.1 30 and 60 day lookahead

Key activities and milestones for the next 30 days (November) are:

Safety

- review prime contractor document submissions;
- review of any site specific safety plans or high risk tasks;
- document review for Residual Solids Conveyance Line;
- underwater blasting plan review for McLoughlin Point WWTP site;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites;
- monthly prime contractor project safety meeting with all active Project safety representatives;
- monthly office/site inspections with contractors and CRD Corporate at all active sites; and
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager.

Environment and Regulatory Management

- CRD and KWL (as design consultant for the Arbutus Attenuation Tank) to submit an application for Notice from the Director to Construct under Section 40 (b) of the MWR.

First Nations

- ongoing consultation and engagement with the W̱SÁNEĆ Leadership Council; and
- Millennia Research with the support of Songhees and Esquimalt archaeological technicians to undertake archaeological data recovery excavations along the Clover Forcemain alignment.

Stakeholder Engagement

- ongoing construction communications with stakeholders;
- two community open house meetings for the RSCL; and
- ongoing community liaison meetings.

Cost Management and Forecast

- prepare cost reports;
- interim audit; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- continue to form and pour biological aerated filter (BAF) slabs and walls;
- continue to form and pour tertiary walls;
- commence dredging of marine outfall trench; and
- continue surface runoff/groundwater treatment and discharge.

Clover Point Pump Station

- place mud in pump room;
- form and pour concrete base slabs; and
- commence forming and pouring concrete walls.

Macaulay Point Pump Station

- continue drilling and blasting;
- continue rock removal to underside of the wet well;
- crushing of blast rock; and
- forming and pouring of tower crane foundation.

Residuals Treatment Facility

- crushing of aggregate and haul to stockpile;
- prepare slab on grade for digesters #1 and #2;
- backfill to subgrade at residual handling and drying area;
- excavate, install and backfill storm water system;
- continue construction of access road, including residual solids and centrate return pipes;
- commence forming, rebar and grounding for digester #1 tank base; and
- commence forming and rebar installation for solids receiving building foundation.

Clover Forcemain

- complete preconstruction archaeological digs;
- perform utility locates;
- site survey;
- begin utility relocates; and
- continue soil testing.

Residual Solids Conveyance Line (RSCL)

- TransCanada Highway Crossing:
  - complete installation of casing pipe, phase #1.
- RSCL 100: Residual Solids Pipes:
  - mobilize equipment;
  - utility locates; and
  - set up site offices.

Engineering

McLoughlin Point WWTP:

- finalize overall design submission and issue for construction (IFC).

Residuals Treatment Facility:

- early works package #2 (digester foundations): final (100%) design submission;
- early works package #3 (municipal solids receiving facility foundations): final (100%) design submission;

- overall design submission: supplemental 60% design submission; and
- continue development of 90% design for the RTF.

Clover Point Pump Station:

- complete overall final (100%) design submission and issue for construction (IFC).

Macaulay Point Pump Station:

- complete overall final (100%) design submission and issue for construction (IFC).

Residuals Solids Conveyance Line:

- RSCL 100: Residual Solids Pipes: finalize outstanding contractor work plans.
- RSCL 200: Residual Solids Pumps: complete final (100%) design deliverable.

Arbutus Attenuation Tank:

- complete final (100%) design deliverables.

Procurement

Residual Solids Conveyance Line:

- RSCL 200: Residual Solids Pumps: respond to inquiries and issue addenda, as needed.

Arbutus Attenuation Tank:

- issue Invitation to Tender, and respond to inquiries and issue addenda, as needed.

Key activities and milestones for the next 60 days (December) are:

Safety

- review document submissions from prime contractors;
- review of any site specific safety plans or high risk tasks;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites;
- monthly office/site inspections with contractors and CRD Corporate at all active sites; and
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager.

Environment and Regulatory Management

CRD, Stantec, KWL, HRP and Lorax Environmental (the Project's Dispersion Modelling Consultant) to continue progressing the MWR Registration, through work on dispersion modelling of the McLoughlin Point, Clover Point and Macaulay Point outfalls.

First Nations

- ongoing consultation and engagement with the W̱SÁNEĆ Leadership Council; and
- ongoing meetings with the Esquimalt and Songhees Liaisons.

Stakeholder Engagement

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

Cost Management and Forecast

- prepare cost reports;
- monitor schedule;
- prepare for fiscal year end; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

Construction

McLoughlin Point

- continue to form and pour biological aerated filter (BAF) walls and columns;
- form and pour suspended slab in the clean water storage area;
- drill and blast in the outfall marine trench;
- complete phase 2 structural piles;
- continue tertiary concrete wall pours; and
- continue surface runoff/groundwater treatment and discharge.

Clover Point Pump Station

- place concrete for base slab in pump room;
- commence forming and rebar for pump room walls; and
- install base slab in wet well.

Macaulay Point Pump Station

- continue blast rock removal;
- continue crushing of blast rock;
- erect tower crane; and
- commence forming of concrete base slabs.

Residuals Treatment Facility

- form, install rebar and place concrete in base slabs in areas 1 and 2;
- install storm water system at area 1;
- install potable and firewater lines at area 1; and
- test and backfill potable and firewater lines.

Clover Forcemain

- continue with utility crossing confirmation;
- utility relocations; and
- sanitary sewer relocation

Residual Solids Conveyance Line (RSCL)

- RSCL 100: Residual Solids Pipes:
  - continue with utility locates;

- install hydro vaults and duct bank; and
- drill bore holes for soils sampling.

Engineering

- McLoughlin WWTP: receive training plan for review;
- Residuals Treatment Facility: review early work packages and submit overall 90% design;
- Clover Point Pump Station: submit overall final (100%) design deliverable; and
- Macaulay Point Pump Station: submit overall final (100%) design deliverable.

Procurement

- RSCL 200 Residual Solids Pumps: respond to inquiries and issue addenda, as needed.
- Arbutus Attenuation Tank: respond to inquiries and issue addenda, as needed.

2.7 Cost Management and Forecast

The monthly cost report for October is attached as Appendix C. The cost report summarizes Project expenditures and commitments by the three Project Components and the major cost centres common to the Project Components.

Project expenditures are within the Control Budget but cost pressures continue to be significant on the conveyance components of the Project. In July and August the Project Team received proposals for the Clover Forcemain and the Residual Solids Conveyance Line, respectively. The Project Team held competitive procurements for each of these components of the Project and was successful in engaging qualified experienced contractors that submitted proposals under competitive conditions. However, the proposal prices received were greater than estimated as a result of cost escalation due to inflationary pressures in the Victoria area construction market and material supply.

The Project Team awarded the Clover Forcemain and Residual Solids Conveyance Line in September and October, respectively, and has now procured (and secured pricing) for all components of the Project that are critical to meeting provincial and federal regulations for tertiary treatment of the core area's wastewater, other than the Residual Solids Pump Stations contract which is under active procurement and anticipated to be awarded in January 2019. The Project has contingency in-place to manage risks such as escalation, but to offset the escalation the Project Team continues to look for cost saving measures. In order to address the cost pressures on the Conveyance component of the Project the Project Team has implemented value engineering and is reviewing the scope of work for the remainder of the contracts.

2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The commitments made during the reporting period resulted in an increase in committed costs of $29.8 million, primarily associated with the award of the Residual Solids Conveyance Line (RSCL) construction contract.

2.7.2 Expenses and invoicing

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

2.7.3 Contingency and Program Reserves

Contingency draws over the reporting period are itemized in Table 5 and outlined herein. In total $13.6M of contingency and program reserve draws were made over the reporting period, associated with the following:

- a contingency draw was made for a development servicing agreement with the District of Saanich, related to water system improvements that the Project has committed to make to improve the level of service to the Hartland Landfill site and other properties in the area, consistent with: the Project's goal of delivering a solution that adds value to the surrounding community and enhances the livability of neighborhoods; and the District of Saanich Water System Master Plan; and
- a program reserve draw was made for the award of the Residual Solids Conveyance Line construction contract. As outlined in Section 2.7 the Project Team ran a competitive procurement for this contract but proposal prices received were greater than estimated, primarily as a result of cost escalation. Specifically, there has been greater than anticipated escalation in labour supply, as well as cost increases due to the impact of tariffs on steel prices and escalation in the cost of specific materials (HDPE pipe).

The remaining contingency and program reserve is anticipated to be sufficient to deliver the Project within the Control Budget.

Table 5 - 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**
Contingency and Program Reserve Draws to Sept 30, 2018		$ (13,160,177)
Contingency and Program Reserve balance as at Sept 30, 2018		**$ 56,157,874**
WWTP Total Draw		$ -
District of Saanich Development Servicing Agreement	Oct-18	$ (56,475)
RTF Total Draw		$ (56,475)
Residual Solids Conveyance Line construction contract award	Oct-18	$ (1,700,000)
Conveyance Total Draw		$ (1,700,000)
PMO Total Draw		$ -
BC Hydro Total Draw		$ -
Residual Solids Conveyance Line construction contract award	Oct-18	$(11,823,397)
WTP Program Reserve Draw		$(11,823,397)
Contingency and Program Reserve draws in the reporting period (Oct)		**$(13,579,872)**
Total Contingency and Program Reserve draws to October 31, 2018		**$(26,740,049)**
Contingency and Program Reserve balance as at October 31, 2018		**$ 42,578,002**

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 up to $248 million towards the three components of the project, while the Government of Canada is contributing:

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

The status of funding claims is summarised in Table 6. Note that the timing for the provision of the 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 Government of British Columbia cannot be claimed until the relevant Project components are substantially complete, which is scheduled to occur in 2020.

Table 6 – Grant Funding Status

Funding Source	Maximum Contribution	Funding Received in the Reporting Period	Funding Received to Date
Government of Canada (Building Canada Fund)	$120M	-	$30.6M
Government of Canada (Green Infrastructure Fund)	$50M	-	$9.4M
Government of Canada (P3 Canada Fund)	$41M	-	-
Government of British Columbia	$248M	-	-
TOTAL	**$459M**	**-**	**$40.0M**

2.8 Key Risks and Issues

The Project Team actively identified and managed Project risks over the reporting period.

Table 7 summarizes the highest-level risks that were actively managed over the reporting period, as well as the mitigation steps identified and/or undertaken over the reporting period.

There were no changes to the active risks summary during the reporting period.

Table 7- Project Active Risks Summary

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
Project				
Misalignment between First Nations' interests and the implementation of the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with First Nations interfacing with, or interested in, the Project.	First Nations engagement activities remained ongoing over the reporting period (see section 2.3 for further details).	M	No change
Divergent interests between multiple parties and governance bodies whose co-operation is required to successfully deliver the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with municipal, provincial and federal government departments.	The Project Team continued engagement with municipal, provincial and federal government departments throughout the reporting period.	M	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).	M	No change
Lack of integration between Project Components.	Planning challenges and system integration between the 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 is using a single Owner's engineer (Stantec) to develop the indicative design for all critical project components with significant interfaces.	M	No change

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
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 have been assigned and are being monitored.	M	No change
Downstream works delays.	Delay from conveyance projects delay delivery of wastewater to WWTP.	Schedule has sufficient time allowance to ensure conveyance elements complete prior to requirement. Contractor agreements will include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration.	M	No change
Downstream works delays.	Delay of the delivery of residual solids to the RTF.	Contract with HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) includes terms that require the contractor to recover schedule delays and/or allow for CRD acceleration. Liquidated damages for late delivery in HRP contract.	M	No change
Municipal Wastewater Regulation (MWR) Registration is not achieved or is delayed	A delay to achieving MWR Registration of the wastewater treatment system would mean that the CRD could not discharge treated effluent, and therefore would not be able to commission the WWTP or RTF.	The Project Team (with HRP and Stantec representatives) have been meeting regularly with Ministry of Environment representatives since September 2017 to review the MWR Registration application requirements and the Project's schedule, in order to mitigate the risk of an incomplete application and/or schedule delays in the registration. A workplan and schedule have been developed and the Project Team, MOE and relevant contractors will continue to meet regularly to track progress and discuss issues.	M	No change

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
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, contractor orientation.	M	No change
Change in Law.	A change in law impacts the scope, cost or schedule of the Project.	Keep apprised of proposed modifications to relevant regulations so as to do the following as appropriate: submit comments on proposed modifications; consider including anticipated modifications in contracts.	M	No change
Labour - Availability and/or cost escalation.	There is insufficient labour available to construct the Project, and/or there is significant labour cost.	The Project Team will, through the use of competitive selection processes for all construction contracts, ensure that all Project Contractors have appropriate experience and therefore understand labour risk.	M	No change
McLoughlin Point Wastewater Treatment Plant				
Unexpected contaminated soil conditions during excavation.	Site has more contaminated soils than initial assessment.	CRD and HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) are working collaboratively to minimize the costs associated with remediating the McLoughlin Point site while ensuring that contaminated materials are removed and disposed of in accordance with all applicable legislation.	H	No change

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
Conveyance				
Unexpected geotechnical conditions results in higher procurement and/or construction costs.	Geotechnical conditions result in redesign and/or higher construction cost than budgeted.	Ensure adequate investigations to manage the risk of unexpected geotechnical conditions: comprehensive geotechnical investigations have been undertaken for the Clover Forcemain, Macaulay Point Pump Station and Forcemain, and RSCL. This geotechnical information has been provided to procurement participants. Geotechnical investigations are to be undertaken for all remaining conveyance components.	M	No change
Due to high cost escalation (inflation) Conveyance works contracts' amount higher than budgeted.	Cost of conveyance contracts higher than estimated and budgeted.	Conveyance contracts will be competitively-procured. The Project Team in concert with Stantec are reviewing the scope and construction cost estimates for the contracts that haven't yet been awarded in order to identify opportunities where savings could be realized to offset escalation.	H	No change

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
Engineering design development results in increases to the estimated construction cost.	Conveyance contract amounts higher than budget due to design development (through indicative and detailed design phases).	Reconfirm construction cost estimates at each stage of the design process. The Project Team in concert with Stantec are reviewing the scope in order to identify opportunities where savings could be realized to offset any increases during design development. Application of Value Engineering during design development and associated updated costs estimates at discrete design points.	H	No change

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

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (WWTP)

The WWTP Project Component is continuing with Harbour Resource Partners ("HRP" as the Design-Build Contractor for the McLoughlin Point WWTP) progressing in October: engineering of the WWTP and outfall; construction at Mcloughlin Point including: continuing concrete pours for the process building base slabs and tertiary building walls; and starting erection of process building wall formwork.

Engineering

HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) progressed planning and design activities in October, including addressing most of the 100% design submittal comments.

Construction

McLoughlin Point

Photographs of construction progress at McLoughlin Point are shown in Figures 2 – 8. Key construction activities in progress or completed by HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) in October were as follows:

- placed concrete in biological aerated filter (BAF) slabs S2, S3 and S4;
- erected biological aerated filter (BAF) wall forms including mechanical and electrical penetrations;
- formed and poured tertiary walls TB-1-W6, TB-1-W11, TB-1-W4, TB-1-W5, TB-2-W1 and TB-2-W6;
- placed concrete in dirty backwash slabs 1 and 2;
- installed anchors to rock areas; and
- continued surface runoff/groundwater treatment and discharge.

Figure 2 – McLoughlin Point Wastewater Treatment Plant: Installing mechanical penetrations in biological aerated filter (BAF) wall 13.

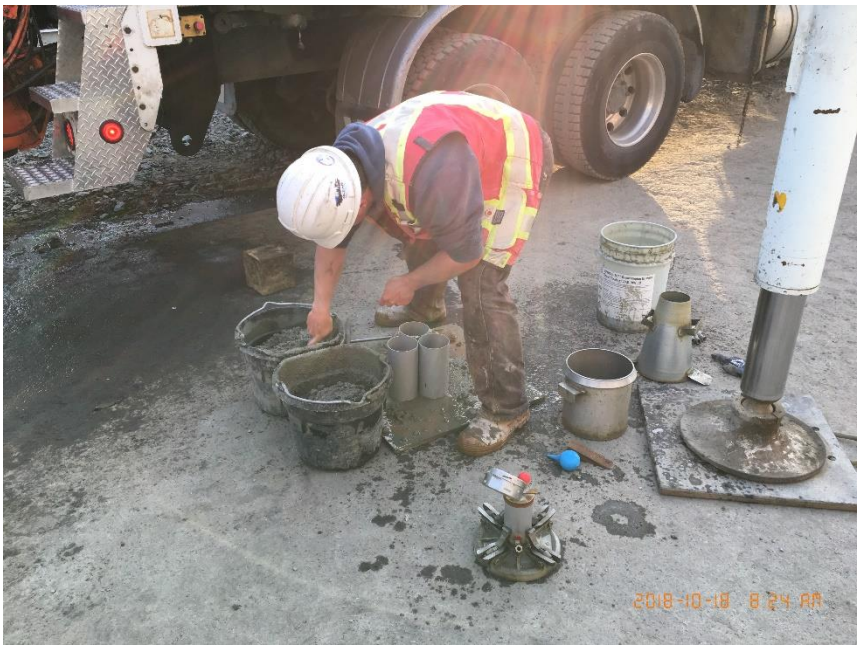


Figure 3 - McLoughlin Point Wastewater Treatment Plant: Concrete testing for tertiary wall TB-1-W11 pour.

Figure 4 – McLoughlin Point Wastewater Treatment Plant: Closing tertiary wall TB-1-W11 and box out for wall TB-1-W12.

Figure 5 – McLoughlin Point Wastewater Treatment Plant: Duct bank and rebar installation in biological aerated filter (BAF) slab S5.

Figure 6 – McLoughlin Point Wastewater Treatment Plant: Installing rebar in biological aerated filter (BAF) wall forms.

Figure 7 – McLoughlin Point Wastewater Treatment Plant: Erecting biological aerated filter (BAF) wall gang forms.

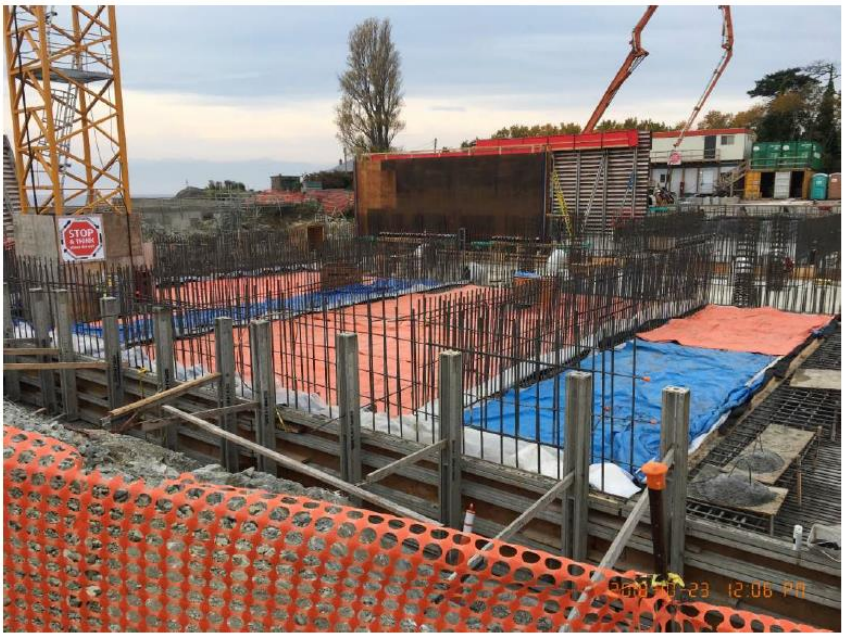


Figure 8 – McLoughlin Point Wastewater Treatment Plant: Curing of biological aerated filter (BAF) slab.

2.9.2 Residuals Treatment Facility (RTF)

The RTF Project Component is continuing with HRMG (as the Design-Build-Finance-Operate-Maintain Contractor for the RTF) progressing design engineering activities and construction activities over the reporting period including rock blasting, excavation and backfilling.

Engineering

HRMG progressed planning and design activities in October, including:

- submitted early works package #2 – 100% design for the digester foundations;
- submitted early works package #3 – 100% design for the municipal solids receiving facility foundations;
- working on supplemental 60% design submittal;
- prepared and submitted various project plans and submittals;
- progressed with vendor selection;
- held kick-off meeting with independent certifier;
- worked with BC Hydro to confirm power requirements to the site; and
- worked with District of Saanich and the Ministry of Environment on permitting requirements.

Construction

Photographs of construction progress at the Residuals Treatment Facility are shown in Figures 9 to 12. Activities on site included:

- continued excavation of previously placed fill material in location of centrifuge and dryer buildings as well as below residual solids tanks, effluent tank and pump building, water tower and pump station;
- excavated blasted rock material from location of digester #2;
- stripped bedrock and cleaned for inspection prior to starting backfill with processed material;
- backfilled to top of subgrade (top of 75mm minus) in location of digester #2;
- backfilled water tower, pump station, residual solids tanks, effluent tank area to top of subgrade;
- backfilled below dryer building and centrifuge building until processed 75mm minus fill material ran out;
- cleared and grubbed east side of access in preparation for blasting for utility installation and widening;
- excavated utility trench up main access road;
- blasted bedrock in utility trench on main access road; and
- assembled utility poles for above-ground portion of hydro service.

Figure 9 – Residuals Treatment Facility: Filling, grading and compacting complete at digester #2 site.

Figure 10 – Residuals Treatment Facility: Site progress looking northeast from the Hartland Landfill upper access road.

Figure 11 – Residuals Treatment Facility: Geotechnical engineer examining suitability of bedrock prior to placement of fill.

Figure 12 – Residuals Treatment Facility: Drilling rock for blasting for installation of underground utilities on main access road.

2.9.3 Conveyance System

Clover Point Pump Station

Kenaidan (as the Design-Build Contractor for the Clover Point Pump Station) progressed planning, design and construction activities over the reporting period, as follows:

Engineering

Kenaidan completed the following engineering activities:

- design comment review meeting was held with Kenaidan, Stantec and CRD to review outstanding comments from the civil/structural design review and develop a path to design completion of the structural package; and
- final design submission report provided to Project Team for review.

Construction

Photographs of construction progress at Clover Point Pump Station are shown in Figures 13 to 17. Key construction activities in progress or completed by Kenaidan in October were as follows:

- blasted and removed rock at wet well area;
- installed scaffolding access tower;
- final grading of excavation; and
- placed mass concrete levelling pads.

Figure 13 – Clover Point Pump Station: Excavation to final grade.

Figure 14 – Clover Point Pump Station: Placing mass concrete levelling pad 8.

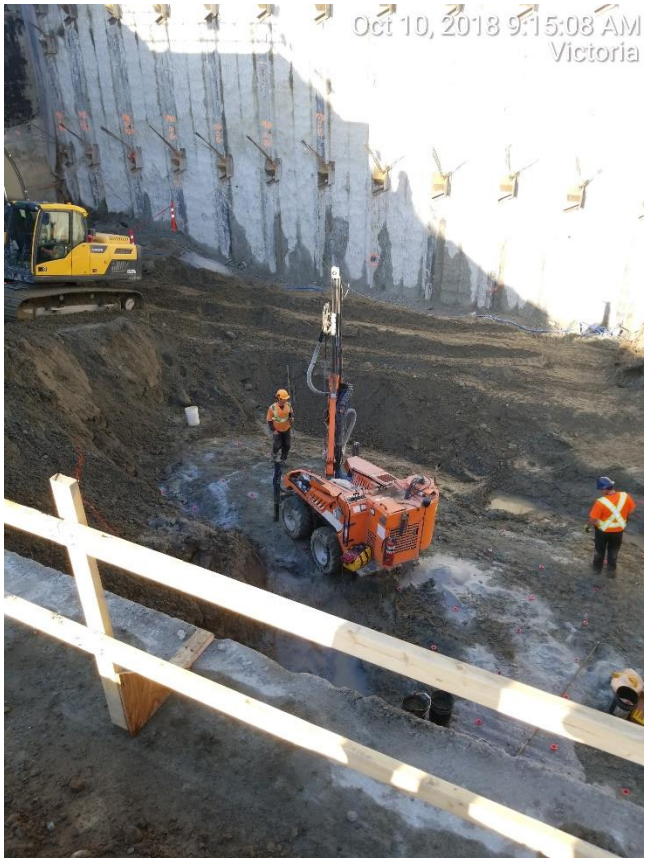


Figure 15 – Clover Point Pump Station: Drilling rock in wet well area.

Figure 16 – Clover Point Pump Station: Set up of dewatering equipment.

Figure 17 – Clover Point Pump Station: Installation of scaffolding access tower.

Macaulay Point Pump Station and Forcemain

Kenaidan (as the Design-Build Contractor for the Macaulay Point Pump Station and Forcemain) progressed planning, design and construction activities over the reporting period, as follows:

Engineering

Kenaidan completed the following engineering activities:

- design comment review meeting was held between Kenaidan, Stantec and CRD to review outstanding comments from the final design submission and develop a plan to design completion; and
- early works 1 design package completed for temporary works.

Construction

Photographs of construction progress at Macaulay Point Pump Station and Forcemain are shown in Figures 18 to 20. Key construction activities in progress or completed by Kenaidan in October were as follows:

- the new temporary conveyor was installed in the existing bin room to re-direct screenings to the new temporary bin room;
- stripping of overburden to bedrock in the footprint of the new pump station;
- drilling and blasting and processing of the blast rock;
- the dewatering system was installed; and
- excavation slope protection has been installed.

Figure 18 – Macaulay Point Pump Station: Additional blasting mats being delivered to site.

Figure 19 – Macaulay Point Pump Station: Stripping of overburden from the northeast corner of the site.

Figure 20 – Macaulay Point Pump Station: Placing of blast mat prior to blasting, excavation slope protection shown in the background.

Clover Forcemain (CFM)

Windley (as the Construction Contractor for the Clover Forcemain) commenced preconstruction activities including: submission of construction work plans and shop drawings for Project Team review; submission of permit applications to authorities having jurisdiction; site office and laydown area mobilization; utility locates, initial geotechnical and soil assessment survey; and pre-construction archaeological test digs.

Construction

Photographs of construction progress at Clover Forcemain are shown in Figures 21 to 22. Key construction activities in progress or completed by Windley in October were as follows:

- site office and laydown area mobilization;
- utility locates on Dallas Road;
- initial survey layout of forcemain;
- initial geotechnical assessment survey;
- pre-construction archaeological test digs; and
- tree removal.

Figure 21 – Clover Forcemain: Pre-construction archaeological test dig.

Figure 22 – Clover Forcemain: Mobilization of office trailer at Ogden Point.

Residuals Solids Conveyance Line (RSCL)

- RSCL 100 Residual Solids Pipes: Residual Solids Pipes: Don Mann (as the construction contractor) commenced preconstruction activities including submission of construction work plans and shop drawings for Project Team review, and submission of permit applications to authorities having jurisdiction.

- RSCL 200 Residual Solids Pump Stations: Parsons (as the Design Consultant for the RSCL) progressed the 90% design submittal, and the Project Team progressed the procurement process through issuance of the Request for Proposals to the pre-qualified contractors.

- RSCL 300 Saanich Infrastructure Improvements: the Project Team will be arranging a detailed design kick-off meeting with Parsons (as the Design Consultant for the RSCL) and the District of Saanich before year end.

Arbutus Attenuation Tank

KWL (as the Design Consultant for the Arbutus Attenuation Tank), continued to finalize the 100% design deliverable and prepare for the issue of the Invitation to Tender.

Remainder of Conveyance Component

The Project Team is undertaking preliminary engineering activities including scope review, in preparation to commence detailed design in Q1 2019.

Appendix A – Blasting Notice – Clover Point Pump Station – October 2, 2018

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

October 2, 2018

Clover Point Pump Station: Blasting

As part of excavation for the Clover Point Pump Station, the contractor, Kenaidan Contracting Ltd, will conduct controlled blasting to remove localized rock on site. This short series of blasting is anticipated to take place over the next two weeks.

What to Expect

- It is anticipated there will be two days when blasting will occur with 2-4 blasts per day.
- Noise associated with these activities will also include drilling and removal of rock.

Work Hours

- Blasting will occur between 8:00 a.m. to 4:30 p.m.
- Regular work hours are Monday to Friday 7:00 a.m. to 7:00 p.m. and Saturday from 10:00 a.m to 7:00 p.m.

Blasting Procedure

- Each blast will last less than 60 seconds
- Blasting signs will be posted on the site boundary 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
- All blasts will be covered with 5,000 pound blast mats.

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. The Wastewater Treatment Project will be built so we comply with federal regulations by the end of 2020, and is being funded by the Government of Canada, the Government of British Columbia and the CRD.

For more information, please visit wastewaterproject.ca.

To learn more about the Wastewater Treatment Project, or to sign up for construction updates, please visit **wastewaterproject.ca**. To contact the project, please email **wastewater@crd.bc.ca** or call **1.844.815.6132**.

Appendix B – Clover Forcemain: Archaeological Work – October 22, 2018

Wastewater Treatment Project
Treated for a cleaner future

Construction Notice

October 22, 2018

Clover Forcemain: Archaeological Work

The Wastewater Treatment Project includes construction of a pipe which will transport wastewater from the upgraded Clover Point Pump Station to the McLoughlin Point Wastewater Treatment Plant. This pipe, the Clover Forcemain, will run along Dallas Road from Clover Point to Ogden Point, where it will connect to the cross-harbour undersea pipe.

The contractor, Windley Contracting Ltd., has begun site preparation with the mobilization of their site trailers and laydown area at Ogden Point. Beginning the week of October 29, Windley, and the Project Archaeologist Millennia Research, will be conducting archaeological work on Dallas Road between Niagara Street and Montreal Street. This work is anticipated to take two weeks.

What to Expect

- Excavation of test holes to conduct archaeological investigations. Test holes will be backfilled as Millennia completes their assessment.
- Noise associated with this work includes excavation machinery and truck back-up beepers and will not exceed the City of Victoria's noise bylaws.
- One tree in front of Whitehall Rowing will be removed as it is located directly in the forcemain alignment.

Work Hours

- Monday to Friday from 7:00 a.m. to 5:00 p.m.

Traffic Impacts

- There will be single lane alternating traffic during work hours with road plates installed overnight to allow two-way traffic.
- Traffic control areas will be delineated by cones and signs and controlled by flaggers.
- There may be parking impacts on Dallas 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.

For more information, please visit wastewaterproject.ca.

To learn more about the Wastewater Treatment Project, or to sign up for construction updates, please visit **wastewaterproject.ca**. To contact the project, please email **wastewater@crd.bc.ca** or call **1.844.815.6132**.

Appendix C – Monthly October Cost Report

ASSET MANAGEMENT COST REPORT as at October 31, 2018

Project Component	Control Budget	Allocated Budget	COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
			Expended to September 30, 2018	Expended over reporting period (October 2018)	Expended to October 31, 2018	Expended to October 31, 2018 as a % of Budget	Remaining (Unexpended) Budget at October 31, 2018	Total Committment at October 31, 2018	Unexpended Commitment at October 31, 2018	Uncommitted Budget at October 31, 2018	Forecast to Complete	Forecast at Completion	Variance at Completion $	Variance at Completion as a % of Budget
McLoughlin Point Wastewater Treatment Plant [A]	378.0	371.7	153.0	8.3	161.3	43%	210.4	340.8	179.5	30.8	210.4	371.7	-	0%
Residuals Treatment Facility [A]	195.0	166.9	15.5	0.3	15.8	9%	151.1	150.2	134.4	16.7	151.1	166.9	-	0%
Conveyance System [A]	192.0	226.4	42.9	1.7	44.6	20%	181.8	167.8	123.2	58.6	181.8	226.4	-	0%
Total Costs	**765.0**	**765.0**	**211.4**	**10.3**	**221.7**	**29%**	**543.3**	**658.8**	**437.1**	**106.1**	**543.3**	**765.0**	**-**	**0%**

A - Including PMO and Common Costs
* Values presented in $millions, results in minor rounding differences
** Cost report presents approved expenditures

Wastewater Treatment Project
Treated for a cleaner future

REPORT TO CORE AREA WASTEWATER TREATMENT PROJECT BOARD
MEETING OF MONDAY, NOVEMBER 26, 2018

SUBJECT **Declaration of Related Party Transactions**

ISSUE

This report provides information to the Project Board on the Capital Regional District's 2018 Consolidated Financial Statement. Specifically, the Canadian Public Sector Accounting Standards Board (PSAB) issuance of two new accounting standards dealing with related party disclosures and the recognition and measurement of related party transactions between certain related parties.

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 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 WTP, dated September 7, 2016 (the Final Report); and
ii) Approved the business case attached as Appendix 1 (the Business Case) to the Final Report.

The Business Case established the WTP control budget (the Control Budget) of $765 million.

The Project Board Terms of Reference included selecting a Project Director to oversee all aspects of the Project. The Project Board has selected and appointed a Project Director and Deputy Project Director, who have built a project team (the Project Team).

The Project Team is planning, procuring and implementing the WTP within the delegation of powers, duties and functions specified in Bylaw 4186 (the CRD Delegation Bylaw No. 1, 2017).

WTP's financial position is included in the CRD consolidated financial statements and therefore the CRD's accounting standards extend to WTP transactions and activity.

DISCUSSION

The Capital Regional District (CRD) consolidated financial statements are prepared in accordance with Canadian Public Sector Accounting Standards (PSAS). A new standard, section 2200 of the CPA Canada Public Sector Accounting Handbook (PSA Handbook) has recently been released and will apply prospectively to years beginning on or after April 1, 2017. As such, CRD financial statements with the year ended December 31, 2018, and onwards are impacted by this new standard.

The standard requires disclosure of material transactions between related parties that occur at a value other than fair value. Fair value is the amount of consideration that is agreed upon in an arm's length transaction between willing parties under no compulsion to act. Materiality has been defined as amounts over $100k based on signing authority limits within Bylaw No. 4186 Delegation of Purchasing Power 3.(b) vi.

The Public Sector Accounting Board initiated this project because the CPA Canada Public Sector Accounting Handbook (PSACC) did not have an overarching standard on related party transactions. The new standard reiterates that it is focused on disclosure of information about financially significant related party transactions that effect, or if not recognized, could effect, the reported financial position. The focus on disclosing information is intended to avoid the reporting of "moral hazards" in the financial statements.

A related party for the purposes of this disclosure include:
• key management personnel and their close family members, and
• entities controlled by key management personnel or their close family members.

Definitions

"related party" means one party that has the ability to exercise, directly or indirectly, control, joint control or significant influence over the other. Two or more parties are related when they are subject to common control, joint control or common significant influence.

"related party transaction" means transfer of economic resources or obligations between related parties, or the provision of services by one party to a related party, regardless of whether any consideration is exchanged. For instance example transactions such as contractual agreements, purchases, asset transfers, leases, lending arrangements, guarantees, etc.

"key management personnel" means individuals who have authority and responsibility for planning, directing and controlling the activities of the entity. Consists of all CRD Board members (including Alternate Directors), the Project Board, the Chief Administrative Officer, and the Executive Leadership Team (including WTP Project Director and Deputy Project Director).

IMPLICATIONS

The introduction of Sections PS 2200 and PS 3420 to the PSA Handbook mean that a process was required to be developed to identify related parties and track related party transactions to ensure complete and accurate disclosure.

The CRD has developed a declaration form to be completed annually by key management personnel commencing in 2018. In addition, any identified 2018 related party transactions will need 2017 related party transactions for comparative purposes only.

Based on the fact that the Regional Board of the CRD established the Core Area Wastewater Treatment Project Board (Project Board) for the purposes of administering the Core Area Wastewater Treatment Project and delegated certain of its powers, duties and functions to the Project Board, the new standards extend to the Project Board, WTP Project Director and Deputy Project Director.

If a related party transaction meets the criteria for disclosure, the notes of the Summary Financial Statements in the Public Accounts may include details such as:
• Information about the nature of the relationship with related parties involved in related party transactions;
• The types of related party transactions that have been recognized;
• The amounts of the transactions recognized classified by financial statement category;
• The basis of measurement used;
• The amount of outstanding balances and the terms and conditions attached to them;
• Contractual obligations with related parties, separate from other contractual obligations;
• Contingent liabilities involving related parties, separate from other contingent liabilities; and
• The types of related party transactions that have occurred for which no amount has been recognized.

Please note disclosure is not required for key management personnel compensation arrangements, expense allowances and other similar payments routinely paid in exchange for services rendered.

CONCLUSION

All Project Board members, Project Director and Deputy Project Director, serving at any time in 2018 are required to complete the declaration form by January 11, 2019 to identify related party transactions that may have occurred at a value different from that which would have been arrived at if the parties were unrelated. Transactions will be assessed by the CRD's Financial Service department during the preparation of the annual financial statements and will be disclosed if they have a material financial effect on the financial statements.

The signed declaration forms should be returned to Rachel Mattiuz, Executive Assistant, Wastewater Treatment Project. If there are any questions relating to the new standard and/or completing the declaration form please contact Rianna Lachance, Senior Manager, Financial Services at 250-360-3138.

RESOLUTION

The Core Area Wastewater Treatment Project Board receive this report for information.

Nelson Chan, MBA, CPA, CMA
Chief Financial Officer
Capital Regional District

Dave Clancy, Project Director
Wastewater Treatment Project

Elizabeth Scott, Deputy Project Director
Wastewater Treatment Project
Concurrence

Appendix A: Project Board Declaration Form

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DECLARATION OF RELATED PARTY TRANSACTIONS INVOLVING DIRECTORS AND KEY MANAGEMENT

As per Section 2200 of the CPA Canada Public Sector Accounting Handbook, a declaration is required of related party transaction(s) by:

- key management personnel and their close family members, and
- entities controlled by key management personnel or their close family members.

To the best of your knowledge,

Are you aware of any transactions during **January 1 to December 31, 2018**, between yourself and the Capital Regional District at a value different than fair value? ☐ Yes ☐ No

Are you aware of any transactions during **January 1 to December 31, 2018**, between a close family member and the Capital Regional District at a value different than fair value? ☐ Yes ☐ No

Are you aware of any transactions during **January 1 to December 31, 2018**, between an entity controlled by you or a close family member and Capital Regional District at a value different than fair value? ☐ Yes ☐ No

If answered ***Yes*** to any of the above questions, please provide a *brief description* of the *type of transaction(s)* that occurred between *the parties* involved, *dates* and the *value* below.

If answered ***Yes*** to any of the above questions, please provide a *brief description* of the *type of transaction(s)* that occurred between *the parties* involved, *dates* and the value if this occurred in ***2017*** below.

Name(Print) _____ *Signature* _____

Title _____ *Date* _____