



Wastewater Treatment Project

Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: January 2018

Contents

1	<i>Executive Summary</i>	2
1.1	Introduction	2
1.2	Dashboard	3
2	<i>Wastewater Treatment Project Progress</i>	5
2.1	Safety	5
2.2	Environment and Regulatory Management	6
2.2.1	Environment	6
2.2.2	Regulatory Management	7
2.3	First Nations	10
2.4	Stakeholder Engagement	10
2.5	Resolutions from Other Governments	12
2.5.1	Motions from the CRD Board meeting, January 10, 2018	12
2.6	Schedule	13
2.6.1	30 and 60 day lookahead.....	15
2.7	Cost Management and Forecast	19
2.7.1	Commitments	20
2.7.2	Expenses and invoicing	20
2.7.3	Contingency and Program Reserves	20
2.7.5	Project Funding.....	21
2.8	Key Risks and Issues	22
2.9	Status (Engineering, Procurement and Construction)	28
2.9.1	Wastewater Treatment Plant (WWTP)	28
2.9.2	RTF	31
2.9.3	Conveyance System	31
	<i>Appendix A: January 22, 2018 - Construction Notice – Clover Point Pump Station</i>	33
	<i>Appendix B: Blasting Schedule - Week commencing January 29th, 2018</i>	35
	<i>Appendix C: Clover Point Pump Station and Clover Forcemain Information Sheet</i>	36
	<i>Appendix D: James Bay Meeting Invitation: January 10, 2018</i>	38
	<i>Appendix E: Fairfield Gonzales Meeting Invitation: January 11, 2018</i>	39
	<i>Appendix F: Resolutions From Other Government</i>	40
	<i>Appendix G: Monthly Cost Report</i>	42

1 Executive Summary

1.1 Introduction

This monthly report covers the reporting period for January 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 “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 will be 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: engineering of the WWTP and outfall; drilling of the harbour crossing from Ogden Point, with 34” and 42” reaming passes progressing over the reporting period; and site work including commencing erection of the south tower crane and continuing concrete pours for the tsunami and planter walls of the WWTP at McLoughlin Point.

The RTF Project Component is in the procurement phase. The Project Team and Hartland Resource Management Group (the preferred proponent) continued working toward Financial Close, including a value engineering exercise. Financial Close is expected to be achieved in early February 2018.

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

Progress on the two design-build Conveyance System contracts over the reporting period included:

- Clover Point Pump Station:
 - Kenaidan was awarded the Design-Build contract;
 - Kenaidan (as the Design-Build Contractor for the Clover Point Pump Station) progressed the design of the Clover Point Pump Station and submitted their 50% design report and drawings for CRD review; and
 - public meetings were held as summarised below.
- Macaulay Point Pump Station and Forcemain:
 - Kenaidan was awarded the Design-Build contract; and
 - Kenaidan (as the Design-Build Contractor for the Macaulay Point Pump Station and Forcemain) submitted the Development Permit Application to the Township of Esquimalt for the pump station.

The five design-bid-build Conveyance System contracts are in the engineering phase. Progress over the period included:

- Clover Forcemain:
 - a 50% design review meeting was held with KWL (as the Design Consultant for the Clover Forcemain) and the CRD;

- Request for Qualification (RFQ) is in development to pre-qualify contractors for construction of the Clover Forcemain; and
- public meetings were held as summarised below.
- Residual Solids Conveyance Line:
 - Parsons (as the Design Consultant for the Residual Solids Conveyance Line) progressed the preliminary design for the Residual Solids Conveyance Line;
 - Parsons submitted the 100% design drawings for approximately 500m of forcemain in the immediate vicinity of the McKenzie Interchange Project, currently under construction by the Ministry of Transportation and Infrastructure (MOTI); and
 - A Request for Qualifications (RFQ) is in development to pre-qualify contractors for construction of the Residual Solids Conveyance Line.
- ECI/Trent Twinning, Currie Pump Station and Currie Forcemain:
 - A Request for Proposals is being prepared for design consultant services for Currie Pump Station upgrades, Currie Forcemain upgrades, and ECI/Trent Twinning.

Related to the Clover Point Pump Station and the Clover Forcemain, the Project Team held two community meetings during the reporting period (on January 10th and January 11th) in James Bay and Fairfield Gonzales, in fulfilment of conditions in the City of Victoria licence agreements. The purpose of the meetings was to provide information and seek input for incorporation into the final design of the following:

- alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way;
- design and alignment of the Cycle Path along Dallas Road;
- design for the exterior of the Clover Point Pump Station building; and
- design of the public realm improvements.

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.

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 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 with two community meetings held in Victoria. Significant efforts will continue to be 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 identified. Corrective action has been identified and is being implemented (see section 2.7 for details).

* 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 summarised in Table 2. The total recordable incident frequency (TRIF) for the reporting period, inclusive of Project Contractors and Project Management Office (PMO) staff was zero.

Site safety tours and weekly safety inspections were carried out by PMO construction and safety personnel over the reporting period. With ongoing construction activities on the Project these inspections continued and documented site inspections were performed with an HRP and CRD representative. Office and site orientations were delivered as required.

Key safety activities conducted over the reporting period included:

- winter driving booklets were distributed to PMO members that are required to drive in winter months. Competency tests were completed by the participants;
- the PMO's Emergency Response Plan was updated to include a more specific Emergency Plan in the event of a tsunami;
- a review of Kenaidan's health and safety manual, safe work practices, and job procedures for the Clover Point Pump Station and Macaulay Point Pump Station and Forcemain;
- a review of an incident report detailing the high-pressure hose leak reported in the Project's Quarterly October – December 2017 Report that released a small amount of bentonite slurry from a drilling rig at Ogden Point to ensure that appropriate mitigation measures were adopted;
- a safety review of HRP's 50% Detailed Design Report;
- attendance of weekly prime contractor progress meetings;
- the WTP Safety Manager and CRD Corporate Safety Representative participated in a monthly coordination meeting to review project status and incident report corrective actions;
- Project Team construction and safety personnel conducted site safety tours of the Ogden Point and McLoughlin Point work sites;
- monthly office inspection was completed with the WTP Safety Manager and Worker Representative; and
- completed the 2018 Annual HRP site orientation with Project staff.

Table 2 – WTP Safety Information

	Reporting Period (January 2018)	Project Total to-Date (from January 1, 2017)
Person Hours		
PMO	4,484	37,359
Project Contractor	10,293	102,545
Total Person Hours	14,777	139,904
Number Of Employees		
PMO	29	
Project Contractors working on Project site	59	
Total Number Of Employees	88	
Number Of Occurrences		
Near Miss Reports	0	3
High Potential near Miss Reports	0	1
Report Only	0	0
First Aid	0	1
Medical Aid	0	0
Medical Aid (Modified Duty)	0	0
Lost Time	0	0
Total Recordable Incidents	0	0
Frequency		
First Aid Frequency	0	1.4
Medical Aid Frequency	0	0
Lost Time Frequency	0	0
Total Recordable Incident Rate	0	0

2.2 Environment and Regulatory Management

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

2.2.1 Environment

Environmental work in January progressed as planned, with management of contaminated soils at McLoughlin Point continuing.

Key environmental management activities completed in January included:

- Parsons (as the Design Consultant for the Residual Solids Conveyance Line) continued work on an EIS for the Residual Solids Conveyance Line;
- Kerr Wood Leidal (as the Design Consultant for the Clover Forcemain) continued work on an Environmental Assessment Report that includes management of invasive species and rare plants in the City of Victoria parks along the Clover Forcemain route;
- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) continued preparing an updated Marine EIS for submission at the end of Q1 2018; and
- the Project Team, City of Victoria and Kenaidan (as the Design-Build Contractor for Clover Point Pump Station) had an on-site meeting at Clover Point to discuss the management of rare plants.

2.2.2 Regulatory Management

In January, the Project Team continued to monitor the advancement of construction-related regulatory approvals and supported or led the advancement of permit applications. The permitting activities for the reporting period involved supporting HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) and Kenaidan (as the Design-Build Contractor) in the development of permit applications, engaging with municipalities and the federal and provincial governments in support of obtaining key permits (summarized in Table 3), continuing to advance the MWR Registration and planning for future permit applications.

Key permitting activities for January included:

- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) amended and re-submitted an application to the BC Ministry of Environment and Climate Change Strategy (ENV) to allow the discharge of treated excavation water to Victoria Harbour. The amendment was requested by ENV, as HRP is not a BC-registered corporation;
- Kenaidan (as the Design-Build Contractor for the Clover Point Pump Station) received a Delegated Development Permit from the City of Victoria, authorizing the construction of a lay-down area at Clover Point;
- Kenaidan (as the Design-Build Contractor for the Macaulay Point Pump Station and Forcemain) submitted a Development Permit Application to the Township of Esquimalt for the Macaulay Point Pump Station;
- the CRD, Stantec HRP (as the Design-Build Contractor for the McLoughlin Point WWTP), and Kenaidan (as the Design-Build Contractor) continued to advance the MWR Registration application. Bi-weekly coordination meetings; and
- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) continued to work on an application for a *Fisheries Act* Authorization. The Authorization is required for McLoughlin outfall construction. The application was originally scheduled for completion in late December, but outfall design changes required additional time and HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) intends to submit the application in early February. The delay in the schedule is not expected to impact construction timelines as the summer fisheries window is longer than required for the planned 2018 construction.

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 Q4 2017 Quarterly Report as follows:

- The following permits have all been removed from Table 3 as they have been obtained:
 - McLoughlin Point WWTP
 - Rezoning within the Township of Esquimalt;
 - Township of Esquimalt Development Permit;
 - Township of Esquimalt Phased Building Permits – Phase 1: Early Works;
 - Department of National Defence Licence (facility siting, works access and laydown, including for Macaulay Point); and
 - Notice from the Director to Construct under Section 40 (b) of the MWR.
 - McLoughlin Point Harbour Crossing
 - Greater Victoria Harbour Authority Licence (works access);
 - Transport Canada Licence (works access); and
 - Transport Canada Facility Alteration Permits (horizontal directional drilling and installation of the casing and pipe).
 - Clover Forcemain
 - City of Victoria Licence (works access).
 - Clover Point Pump Station
 - Rezoning within the City of Victoria; and
 - City of Victoria Licence (facility siting).

- The following permits have been added to Table 3 to enable tracking of the status of these key permits:
 - Notice from the Director to Construct under Section 40 (b) of the MWR (note that the need for these Notices is related to the BC Ministry of Environment and Climate Change Strategy’s request, as reported in the Project’s Q3 2017 Quarterly Report, that the Project be registered under a single MWR Registration rather than separate registrations for the different Project Components):
 - Macaulay Point Pump Station;
 - Clover Forcemain;
 - Clover Point Pump Station;
 - ECI/Trent Twinning; and
 - Arbutus Attenuation Tank.

- The anticipated receipt date of the MWR Registration has been changed to Q4 2019, as this was previously incorrectly reported as Q4 2018.

Table 3 - Key Permits Status

Permit / Licence	Anticipated Date	Status	Party Responsible for Obtaining Permit
<i>McLoughlin Point WWTP</i>			
Township of Esquimalt Development Permit Amendment	Q1 2018	On track	HRP
Township of Esquimalt Phased Building Permits (Phase 1 obtained - Future phases to be determined with Township of Esquimalt)	TBD	TBD	HRP

Permit / Licence	Anticipated Date	Status	Party Responsible for Obtaining Permit
Municipal Wastewater Regulation ("MWR") Registration	Q4 2019	On track	CRD
<i>McLoughlin Point Harbour Crossing</i>			
Transport Canada Lease	Following completion of construction		HRP
<i>McLoughlin Point Outfall</i>			
Fisheries and Oceans Canada (DFO) Fisheries Act Authorization	Q2 2018	On track	HRP
Transport Canada Facility Alteration Permit	Q2 2018	Submitted: under review by Transport Canada	HRP
Transport Canada Licence (works access)	Q2 2018	Submitted: under review by Transport Canada	HRP
Provincial Tenure Crown Grant	Q2 2018	Submitted: under review by Ministry of Forests, Lands, Natural Resource Operations and Rural Development	HRP
Transport Canada Lease	Following completion of construction	On track	HRP
Notice from the Director to Construct under Section 40 (b) of the MWR	Q2 2018	On track	HRP
<i>Macaulay Point Pump Station Upgrade</i>			
Township of Esquimalt Development Permit	Q1 2018	On track	Kenaidan
Notice from the Director to Construct under Section 40 (b) of the MWR	Q2 2018	On track	Kenaidan
<i>Clover Forcemain</i>			
Notice from the Director to Construct under Section 40 (b) of the MWR	Q2 2018	On track	Kerr Wood Leidal
<i>Clover Point Pump Station</i>			
Notice from the Director to Construct under Section 40 (b) of the MWR	Q1 2018	On track	Kenaidan
<i>ECl/Trent Twinning</i>			
Notice from the Director to Construct under Section 40 (b) of the MWR	Q4 2018	On track	Design engineer
City of Victoria Licence (works access)	Q1 2019	On track	Design engineer
<i>Arbutus Attenuation Tank</i>			
Notice from the Director to Construct under Section 40 (b) of the MWR	Q3 2018	On track	Kerr Wood Leidal
Vancouver Island Health Authority Licence (works laydown)	Q2 2019	On track	CRD
<i>Residual Solids Conveyance Line</i>			
Ministry of Transportation and Infrastructure permits (works access)	Q1 2018	On track	Parsons
Notice from the Director to Construct under Section 40 (b) of the MWR	Q2 2018	On track	Parsons

Permit / Licence	Anticipated Date	Status	Party Responsible for Obtaining Permit
<i>Residuals Treatment Facility</i>			
Operational Certificate	Prior to start of RTF operations	On track	RTF Project Co.
District of Saanich Development and Building Permits	Q2 2018	On track	RTF Project Co.

2.3 First Nations

First Nations communication and engagement was ongoing in January.

The Songhees Nation Liaison and Esquimalt Nation Liaison continued coordination activities with their respective Nations, including meeting with their leadership to discuss the incorporation of Songhees and Esquimalt heritage and culture in the Clover Forcemain and Clover Point Public Realm Improvements. Additionally, both First Nation Liaisons assisted the Project Team in distributing Project related notices to their communities.

The Project Team met to discuss how to continue to engage the WSÁNEĆ Nations in meaningful ways. The Project team anticipates sharing the Residual Solids Conveyance Line EIS with the WSÁNEĆ Leadership Committee at the next meeting.

2.4 Stakeholder Engagement

The Project maintained its ongoing two-way Communications and Engagement Program 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 were 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 two community information meetings, stakeholder meetings, Project website updates, notification of construction through notices, public inquiry program, among other methods.

The Project Team held two community meetings on January 10th and January 11th in James Bay and Fairfield Gonzales, as part of licence agreements with the City of Victoria. The purpose of the meetings was to provide information and seek input for incorporation into the final design of the following:

- alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way;
- design and alignment of the Cycle Path along Dallas Road;
- design for the exterior of the Clover Point Pump Station building; and
- design of the public realm improvements.

The community meetings were formatted as a presentation from the Project Team followed by a facilitated Q & A session for members of the public to ask questions of team members. The meetings were attended by approximately 300 residents. The presentations were distributed at each meeting and were posted to the Project website so that members of the public that were unable to attend the events could see the information presented. As part of the community consultation, a feedback form was available at the community meetings and was posted on the

Project website. The Project received 350 submissions received over the month of January. The input received is being compiled and considered by the Project Team, along with technical, financial, and environmental considerations. The revised design will be presented to the City of Victoria Council for review in March 2018.

Construction Communications

Construction Notices:

On January 27, 2018 a construction notice outlining preliminary early works at the Clover Point Pump Station was posted to the Project website, and copies were hand-delivered to homes on Dallas Road from Cook Street to Memorial Crescent. This notice, (attached as Appendix A) included information about the construction of a laydown area at Clover Point, southwest of the current pump station and the start of fencing the pump station for the expansion to the adjacent areas.

Construction Notifications

McLoughlin Point blasting schedules were posted to the website to ensure the public was aware of what to expect. An example of one of these blasting schedules is attached as Appendix B.

Information Sheets

In January, an information sheet was developed and posted to the website regarding the Clover Point Pump Station and Clover Forcemain (Appendix C).

Project Website

Throughout the month of January, the Project website, wastewaterproject.ca, was updated with information on the Project. The following items were posted: one construction notice, five blasting notifications, one information sheet, invitations for the James Bay and Fairfield Gonzales community meetings (Appendices D and E, respectively), community consultation presentations from both meetings and the feedback form for community input.

There were 6,791 page views of the Project website, of which 4,824 were unique page views.

Community Meetings

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

- Two community information meetings in James Bay and Fairfield Gonzales;
- District of Saanich staff;
- District of Saanich Technical Working Group;
- City of Victoria Mayor;
- City of Victoria staff;
- Township of Esquimalt Liaison Committee; and
- Township of Esquimalt staff.

In addition, the Project Team provided the Honourable Judith Guichon, Lieutenant Governor of British Columbia, a tour of the Wastewater Treatment Project sites.

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

Inquiry Source	Contacts for January
Information phone line inquiries	28
Email inquiries responded to	13

Key themes of the public inquiries were as follows:

- concern about loss of parking at Clover Point and along Dallas Road;
- support for/against the Cycle Path along Dallas Road;
- Cycle Path route and infrastructure design;
- design of the Clover Point amenities; and
- flood lights at the McLoughlin Point Wastewater Treatment Plant construction site.

2.5 Resolutions from Other Governments

2.5.1 Motions from the CRD Board meeting, January 10, 2018

At its January 10, 2018 meeting, the CRD Board passed the following motions:

That the Environmental Services Committee recommend to the Capital Regional District (CRD) Board:

That the CRD modify the Integrated Resource Management (IRM) work plan by:

1. Concluding the current IRM procurement process.
2. Issuing a Request for Proposals for the beneficial use of dried Class A biosolids produced by the Residuals Treatment Facility as a stand-alone procurement, according to the CRD’s restriction of land application of any product using CRD biosolids as a feedstock.
3. Pursuing an in-region or near in-region organics, (kitchen scraps, yard and garden) processing facility by initiating a new procurement process.
4. Informing the Project Board of the new direction and requesting that any Core Area Wastewater Treatment project implications be included in the upcoming update report to the Core Area Liquid Waste Management Committee in February.
5. Submitting a revised project plan for the beneficial use of biosolids and the IRM initiative to the province.

At its January 25, 2018 meeting, the Project Board discussed motion 4 and requested that the Chair of the Project Board respond to the Core Area Liquid Waste Management Committee (CALWMC) through a letter confirming that there are no implications of the new direction to the Wastewater Treatment Project. The letter is attached as Appendix F.

2.6 Schedule

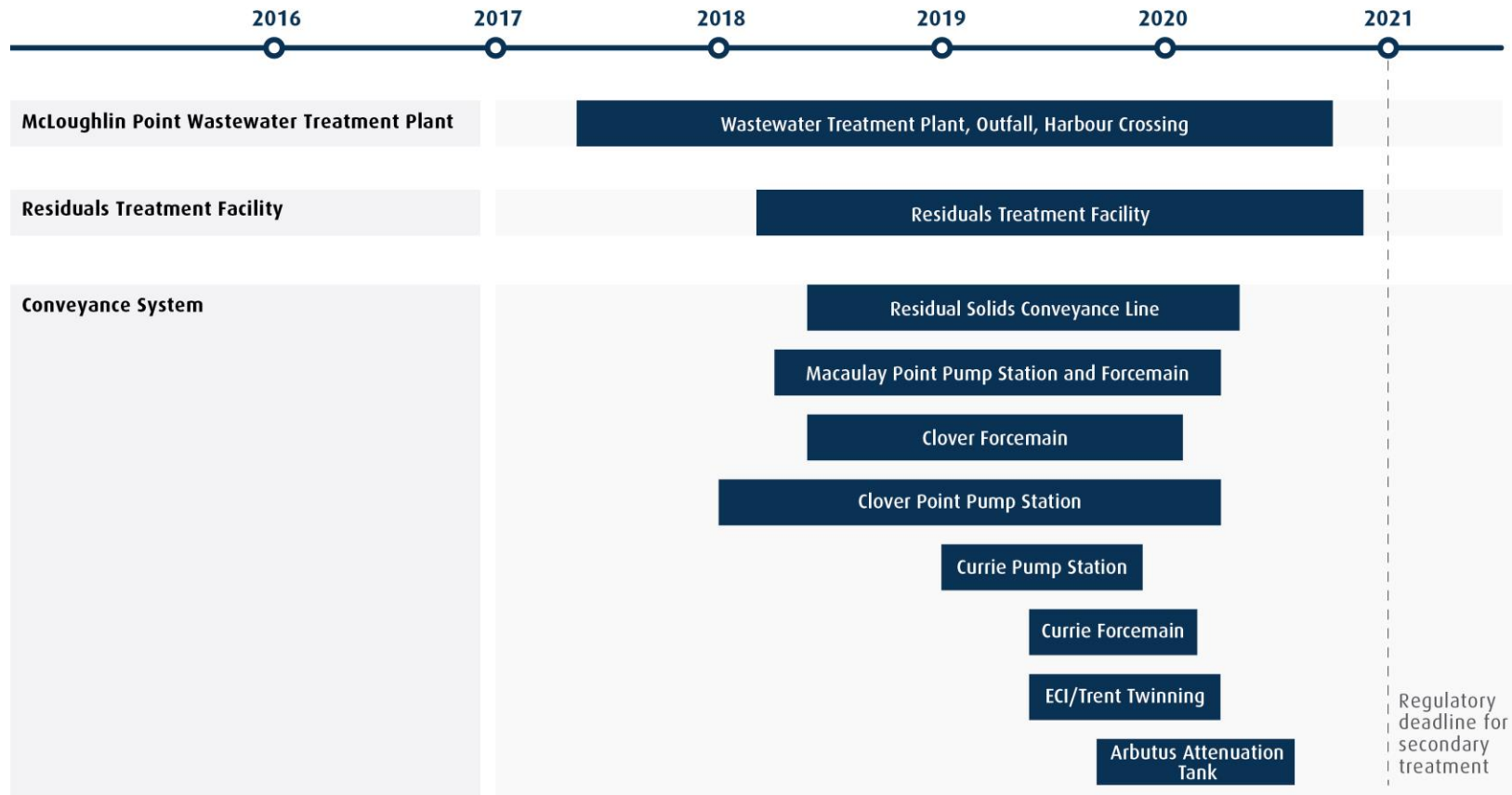
Overall the Project's scheduled activities progressed as planned during January. All major and key interface milestones were on target to be completed as per the schedule. Progress over the reporting period is summarised in section 2.9.

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

Figure 1-High-Level Project Schedule¹

Wastewater Treatment Project Schedule*

Construction + Commissioning



* Schedule subject to updates as project planning progresses.

¹ This schedule is unchanged from that shown in the Q4 2017 Quarterly Report, however it remains subject to optimization as the Project and planning progress.

2.6.1 30 and 60 day lookahead

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

Safety

- new contractor Project safety orientation for HRMG;
- participate in Niagara Street risk review with HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) for the upcoming pipe-pull activities;
- review of any site specific safety plans or high risk tasks;
- source and order an Emergency Response Kit for the PMO; and
- WTP Safety Manager and/or Construction Manager will conduct daily site inspections at all active Project work sites.

Environment and Regulatory Management

- Project Team to continue preparing application deliverables (including HRP updates to the Marine Environmental Impact Study) for MWR Registration;
- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) to submit application for a Fisheries Act Authorization;
- Project Team anticipates receipt of a Site Alteration Permit for the Clover Point and a Site Alteration Permit for all other Project components for which there is a Registered Archaeological Site; and
- planning related to environmental protection and reclamation at the Arbutus Attenuation Tank location.

First Nations

- First Nations members will be in the field, supporting Millennia archeologists as they complete ongoing archaeological investigations and monitor geotechnical drilling investigations at Hartland landfill and construction activities at Clover Point; and
- the Esquimalt and Songhees Liaisons will continue working with the Project Team to advance the incorporation of their heritage and culture in the design of the Public Realm Improvements along the Clover Forcemain route and at Clover Point.

Stakeholder Engagement

- information meetings for residents along Niagara Street to present information about the pipe assembly and pipe pull;
- ongoing engagement with Niagara Street residents;
- update “Community Questions” on the project website;
- notifications of blasting schedule for the McLoughlin Point Wastewater Treatment Plant; and
- ongoing community liaison meetings.

Cost Management and Forecast

- assign WBS codes to the new contracts;
- prepare cost reports;
- monitor schedule;

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

Construction

Ogden Point

- continue the reaming process for the Victoria Harbour Crossing;
- commence Harbour Crossing pipe internal lining;
- commence Niagara Street pre-work for overhead BC Hydro power line relocation; and
- continue to develop the construction plan for the Niagara Street pipe pull.

McLoughlin Point

- continue tsunami wall and planter wall construction;
- continue outfall shaft blasting;
- continue blast rock crushing;
- detailed excavation for pipe trenches;
- complete south tower crane erection and commence erection of north tower crane;
- BC Hydro relocation of overhead power lines to the west side of Victoria View Road;
- commence installation of foundation piles;
- remove contaminated material as required; and
- continue surface runoff/groundwater treatment and discharge.

Clover Point Pump Station

- complete fencing at pump station site compound;
- install fencing at laydown and office compound;
- mobilize office trailer to site and set up;
- install temporary power poles for offices; and
- connect temporary power.

Residuals Treatment Facility

- Project kick off meeting;
- geotechnical investigations at plant site;
- topographical survey of project site;
- perform utility locates; and
- mobilize site trailers.

Engineering

- advance 90% design for the McLoughlin Point WWTP, including a Hazard and Operability Review (HAZOP) workshop with CRD operations and maintenance staff;
- continue review of HRP's (as the Design-Build Contractor for the McLoughlin Point WWTP) foundation system design for the McLoughlin Point WWTP;
- commence design of early works packages and the overall 30% design for the Residuals Treatment Facility;
- facilitate a 50% Design Workshop with City of Victoria and First Nations representatives for the Clover Point Pump Station Building Exterior and Public Realm Improvements;

- progress 90% design for Clover Point Pump Station including a HAZOP workshop with CRD operations and maintenance staff;
- commence 30% design for the Macaulay Point Pump Station and Forcemain;
- facilitate a 50% Design Workshop with City of Victoria and First Nations representatives for the Clover Forcemain and Cycle Path;
- progress 90% design for the Clover Forcemain and Cycle Path;
- receive and review 30% and 50% design for the Residual Solids Conveyance Line;
- continue development of detailed design for the Arbutus Attenuation Tank, including additional road frontage improvements (Cycle Path and sidewalks) on Arbutus Road (as requested by the District of Saanich); and
- progress the final (100%) design for the Arbutus Attenuation Tank, including additional road frontage improvements (Cycle Path and sidewalks) on Arbutus Road (as requested by the District of Saanich).

Procurement

- complete value engineering and achieve Financial Close for the Residuals Treatment Facility;
- issue Request for Qualifications to pre-qualify general contractors for construction of the Residual Solids Conveyance Line;
- issue Request for Proposal (RFP) for Design Consultant Services associated with the ECI/Trent Twinning and the Currie Pump Station and Currie Forcemain; and
- commence preparation of Requests for Proposals (RFP) for construction of the Clover Forcemain and Residuals Conveyance Line.

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

Safety

- new staff orientations as required;
- New contractor Project safety orientations;
- development of any required safety forms;
- site tours;
- monthly office/site inspections with contractors and CRD Corporate Safety Manager;
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager; and
- review of any site specific safety plans or high risk tasks.

Environment and Regulatory Management

- Parsons (as the Design Consultant for the Residual Solids Conveyance Line) to finalise the EIS for the Residual Solids Conveyance Line;
- Kerr Wood Leidal (as the Design Consultant for the Clover Forcemain) to finalise the Environmental Assessment Report for the Clover Forcemain; and
- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) to continue preparing an updated Marine EIS for submission at the end of Q1 2018.

First Nations

- First Nations members will be in the field, supporting Millennia archeologists as they complete ongoing archaeological investigations and monitor construction activities; and
- the Esquimalt and Songhees Nation Liaisons will continue working with the CRD to finalise an archeology protocol in Q1, 2018.

Stakeholder Engagement

- ongoing engagement with Niagara Street residents in advance of and during the construction phase of the pipe assembly and pipe pull;
- presentation to the City of Victoria Council of the:
 - design proposal for the exterior of the Clover Point Pump Station and the Public Realm Improvements associated with the Clover Point Pump Station;
 - alignment of the Clover Forcemain;
 - alignment and design of the Cycle Path (connecting Clover Point to Dock Street) associated with the Clover Forcemain; and
 - feedback heard through community engagement, and how that feedback has been considered in the design.
- update “Community Questions” on the project website;
- develop and post information sheets to the website on the Residuals Treatment Facility and Macaulay Point Pump Station;
- notifications of blasting schedule for the McLoughlin Point Wastewater Treatment Plant;
- ongoing community liaison meetings; and
- planning for future Project Update content.

Cost Management and Forecast

- assign WBS codes to new contracts;
- prepare cost reports;
- prepare quarterly progress report for grant funders;
- monitor schedule;
- prepare and submit funding claims to Infrastructure Canada (under the Building Canada Fund);
- prepare funding claims for Infrastructure Canada; and
- fiscal year end close.

Construction

Ogden Point

- continue the reaming process for the Victoria Harbour Crossing;
- continue Harbour Crossing pipe internal lining;
- complete Niagara Street pre-work for overhead BC Hydro power line relocation;
- commence equipment and pipe delivery to Niagara Street;
- set up welding equipment inside enclosure on Niagara Street; and
- commence welding of Harbour Crossing pipe sections on Niagara Street.

McLoughlin Point

- continue construction of tsunami and planter walls;
- continue installing foundation piles;
- continue outfall shaft blasting and stabilize outfall shaft walls;
- complete erection of north tower crane; and
- commence construction of base/mud slabs at tertiary treatment/outfall chamber and odour control area.

Clover Point Pump Station

- prepare site in preparation for construction; and
- commence construction of secant caisson wall.

Residuals Treatment Facility

- commence rock excavation; and
- commence early works site preparation.

Engineering

- advance design of the McLoughlin Point WWTP, including review of Construction Package 4 (underslab piping);
- continue review of HRP's (as the Design-Build Contractor for the McLoughlin Point WWTP) foundation system design for the McLoughlin Point WWTP;
- review of early works design packages and continued development of 30% design for the Residuals Treatment Facility;
- continue developing detailed design for the Clover Point Pump Station and the Macaulay Point Pump Station and Forcemain;
- continue developing design of the Clover Forcemain and Residual Solids Conveyance Line; and
- continue development of detailed design for the Arbutus Attenuation Tank, including additional road frontage improvements (sidewalks and cycle paths) on Arbutus Road (as requested by the District of Saanich).

Procurement

- commence evaluation of RFQ responses to pre-qualify general contractors for construction of the Residuals Conveyance Line;
- issue Request for Qualifications to pre-qualify general contractors for construction of the Clover Forcemain;
- commence evaluation of proposals for design of the ECI Twinning, Trent Siphon Extension and Currie Pump Station and Currie Forcemain; and
- prepare Requests for Proposals (RFPs) for construction of the Residuals Conveyance Line and Clover Forcemain.

2.7 Cost Management and Forecast

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

Cost pressures were identified in the Project's Q4 2017 Quarterly Report as a result of two risks that materialised over the July - September 2017 reporting period:

- contaminated materials at McLoughlin Point; and
- proposal price greater than budget for Clover Point Pump Station, expected to be on account of cost escalation due to inflationary pressures in the Victoria area construction market.

Inflationary pressures were confirmed through the receipt of proposals for the Macaulay Point Pump Station and Forcemain. A contingency draw was made in the reporting period related to the Macaulay Point Pump Station Design-Build Contract, for which the proposal price was greater than budget. This is expected to be on account of inflationary pressures in the Victoria area construction market as well as the inclusion of elements that exceeded the minimum requirements (as specified in the procurement) and are of value to the CRD considering whole lifecycle costs.

In order to address these cost pressures the Project team in concert with Stantec are reviewing the scope and construction cost estimates for the remainder of the contracts and identifying opportunities where savings could be realized. With this corrective action our confidence level is still high that we will be able to deliver the project within the Control Budget.

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 \$42 million. The most significant commitment made in the reporting period was associated with the award of the Macaulay Point Pump Station and Forcemain 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 WWTP construction activities and PMO-related costs.

2.7.3 Contingency and Program Reserves

The contingency and program reserve draws over the reporting period are itemised in Table 5. The remaining contingency and program reserve is anticipated to be sufficient to deliver the Project within the Control Budget.

Table 5 - Actual Contingency and Program Reserve Draw-Down Table

WTP Contingency and Program Reserve Draw	Draw Date	\$ Amount
Total Contingency and Program Reserve Draw as at Dec 31, 2017		\$ 6,356,454
WWTP Total Draw		\$ 0
RTF Total Draw		\$0
Macaulay Point Pump Station Design-Build Contract – proposal price greater than budget on account of: cost escalation due to inflationary pressures in the Victoria area construction market; and the inclusion of elements that exceed the minimum requirements (as specified in the procurement) and are of value to the CRD considering whole lifecycle costs.		\$ 5,618,000
Conveyance Total Draw		
PMO Total Draw		\$0
BC Hydro Total Draw		\$0
WTP Program Reserve Draw		\$0
Total Contingency and Program Reserve Draw as at Jan 31, 2018		\$ 11,974,454
Total Contingency and Program Reserve Remaining		\$ 57,343,597

2.7.5 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 Wastewater Treatment Plant;
- up to \$50 million through the Green Infrastructure Fund towards the conveyance system project; and
- up to \$41 million towards the Residuals Treatment Facility 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)	\$120,000,000	-	-
Government of Canada (Green Infrastructure Fund)	\$50,000,000	-	-
Government of Canada (P3 Canada Fund)	\$41,000,000	-	-
Government of British Columbia	\$248,000,000	-	-
TOTAL	\$459,000,000	-	-

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.

The following addition to the risk register was made during the reporting period:

- Change in Law was added with an assessed risk level of medium in consideration of the possibility that a change in provincial or federal law could impact the scope, cost or schedule of the Project

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				
First Nations engagement	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 on-going over the reporting period with community meetings held in Victoria.	M	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 have been assigned and are being monitored.	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
Downstream works delays	Delay from conveyance projects delay delivery of wastewater to WWTP and/or delivery of residual solids to RTF	Schedule has sufficient time allowance to ensure conveyance elements complete prior to requirement. Contractor agreement will include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration.	M	No change to risk level, management increased this period
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
Upstream works delays	RTF not constructed and operating within contractual time frame. This will impact the commissioning / in-service of McLoughlin WWTP.	Schedule allowance to ensure conveyance elements complete prior to requirement. Contract with Project Co will include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration. Investigate interim dewatering and disposal alternative to mitigate the costs of having and disposing of liquid sludge from the WWTP.	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
Provincial or Federal government/agency permit requirements not met	Project Component required Provincial or Federal permit conditions are not met by Project contractors resulting in delays or work stoppage.	The Project Team maintain a centralized permit compliance register to monitor and manage Project permit condition compliance by Project contractors. Meetings held with Federal and Provincial agencies to fully understand and meet requirements in a timely fashion.	M	No change
Public directly contacting contractors at sites	Direct contact between the public and contractors could expose both parties to worksite hazards and potential injuries.	Communications and engagement plan, 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	Risk added this period

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
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
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 Residual Solids Conveyance Line. This geotechnical information has been provided to procurement participants.	M	No change to risk level

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
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 to risk level
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 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.	H	No change to risk level

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (WWTP)

The WWTP Project Component continued scheduled activities with HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) progressing: engineering of the WWTP and outfall; drilling of the harbour crossing from Ogden Point, with the 34" and 42" reaming passes progressing over the reporting period; and site work including commencing erection of the south tower crane and continuing concrete pours for the tsunami and planter walls of the WWTP at McLoughlin Point.

Engineering

HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) progressed planning and design activities in January, including:

- completed 50% design review workshops and provided responses to the Project Team's comments;
- continued design of foundation piles and submitted a 20% design deliverable to the Project Team for preliminary comment; and
- continued coordination with BC Hydro and the City of Victoria regarding utility relocation requirements for the Harbour Crossing pipe pull on Niagara Street.

Construction

Photographs of construction progress at McLoughlin Point are shown in Figures 2 – 7. Key construction activities in progress or completed by HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) in January were as follows:

McLoughlin Point

- continue tsunami wall and planter wall construction (Figures 2 and 3);
- crushing of blast rock for use as structural fill and backfill;
- blasting at southwest corner of site for outfall shaft (Figure 4);
- excavation and removal of contaminated material from site;
- slope stabilization and protection of completed excavations (Figure 5);
- commence erection of south tower crane (Figures 6 and 7);
- groundwater treatment for hydrocarbon contamination and discharge; and
- erosion and sediment control monitoring to protect environment from runoff.

Ogden Point

- progressed the 42" reaming pass to 749 meters;
- re-commenced the 34" reaming pass from 742 meters; and
- Victoria Harbour Crossing pipe delivered to Jewel Coatings for internal lining.



Figure 2 – Forming of tsunami wall foundation



Figure 3- Forming and rebar for tsunami wall



Figure 4 – Drilling for blast in outfall area



Figure 5 – Slope stabilization



Figure 6 – Placing cabin on tower section



Figure 7 – Transporting jib section for erection

2.9.2 RTF

The RTF Project Component was in the procurement phase during the reporting period. The Project Team and Hartland Resource Management Group (the preferred proponent) continued working toward Financial Close, including a value engineering exercise. Financial Close is expected to be achieved in early February 2018.

2.9.3 Conveyance System

Engineering

Kenaidan (as the Design-Build Contractor for the Clover Point Pump Station) progressed the design of the Clover Point Pump Station, and submitted their 50% design report and drawings for CRD review, and the 50% Design Workshop was held.

KWL (as the Design Consultant for the Clover Forcemain) progressed the design of the Clover Forcemain and submitted their 50% design report and drawings for CRD review. The CRD and KWL (as the Design Consultant for the Clover Forcemain) worked with City of Victoria staff to address concerns raised by Victoria council related to the Cycle Path alignment and its impacts to parking along the Dallas Road corridor.

Parsons (as the Design Consultant for the Residual Solids Conveyance Line) progressed the preliminary design for the Residual Solids Conveyance Line, and submitted 100% design drawings for approximately 500m of forcemain in the immediate vicinity of the McKenzie Interchange Project, currently under construction by the Ministry of Transportation and Infrastructure (MOTI). The CRD project team is negotiating an Agreement with MOTI to allow MOTI's contractor construct the CRD's forcemain along Portage Road and casing pipes under the Trans-Canada Highway during the interchange construction. This will minimize disruptions to the surrounding community, and avoid CRD constructing the forcemain in newly paved roads.

Procurement

Kenaidan was awarded the Design-Build contract for the Macaulay Point Pump Station and Forcemain. Kenaidan (as the Design-Build Contractor for the Macaulay Point Pump Station) submitted the Development Permit Application to the Township of Esquimalt for the pump station.

Requests for Qualifications (RFQ's) are in development for the following design-bid-build construction contracts:

- Clover Forcemain; and
- Residual Solids Conveyance Line.

A Request for Proposals is being prepared for soliciting design services for the ECI/Trent Twinning, Currie Pump Station and Currie Forcemain.

Construction

Photographs of construction progress at Clover Point Pump Station are shown in Figures 8 and 9. Key construction activities in progress or completed by Kenaidan (as the Design-Build Contractor for the Clover Point Pump Station) in January were as follows:

Clover Point Pump Station

- daylight existing duct bank from pb-2 to existing pump station; and
- install fence posts at the pump station site compound.



Figure 8 – Daylighting existing duct bank at Clover Point



Figure 9 – Installing fence post at Clover Point pump station site compound

Appendix A: January 22, 2018 - Construction Notice – Clover Point Pump Station



**Wastewater
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Construction Notice

January 22, 2018

Clover Point Pump Station: Preliminary Early Works

The Clover Point Pump Station will be upgraded and expanded as part of the Wastewater Treatment Project. The current pump station pumps sewage directly into the ocean. The expanded pump station will pump wastewater to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment and provide bypass pumping to the existing outfall during storm events.

The contractor for this part of the Project, Kenaidan Contracting Ltd., will begin to construct a laydown area at Clover Point, southwest of the current pump station. They will also begin fencing the pump station for the expansion to the adjacent areas. The work includes:

Starting Week of January 22

- Commence installation of temporary chain link construction fencing and screening around the perimeter of the work area.
- Locate and connect to existing utilities within the work area.
- Construction of temporary laydown area:
 - Geotextile cloth will be installed to protect the area.
 - Installation of site office trailers and facilities.
 - Install temporary power feed to laydown area.
 - Earthworks equipment will be used to supply and install clean gravel to construct the laydown area.

Location

- The laydown area will be constructed to the south of Dallas Road and to the west of Clover Point Road. The laydown area will be returned to its pre-construction state upon completion of the project.

Work Hours

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

Traffic Impacts

- No street closures will be required; however, there may be traffic control flagging at times.
- Truck traffic bringing equipment and materials to the site.
- The shoreline walkway will remain open throughout construction.

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.



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

Construction Notice

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 First Nations and will be complete by the end of 2020.

Kenaidan Contracting Ltd. is the contractor selected by the CRD to design, build and expand the current Clover Point Pump Station. Construction on the expanded Clover Point Pump Station will begin in early 2018 and will be complete in mid-2020. The laydown area is anticipated to be used for the duration of the construction period and will be returned to its current, pre-construction state after the work is complete.

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: Blasting Schedule - Week commencing January 29th, 2018



January 15, 2018

McLoughlin Point: Blasting Schedule

Site preparation for the McLoughlin Point Wastewater Treatment Plant is underway. The contractor, Harbour Resource Partners, will conduct controlled blasting and excavation as a part of this work.

Blasting Schedule for the week of January 15*:

Monday, January 15	No blasting
Tuesday, January 16	4-6 blasts per day
Wednesday, January 17	4-6 blasts per day
Thursday, January 18	4-6 blasts per day
Friday, January 19	4-6 blasts per day

*Blasting Schedule is subject to change.

Blasting Procedure

- Each blast will last less than 60 seconds.
- All blasts will be covered with 5,000 pound blast mats. 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

Blasting Hours: Monday to Friday, 8:00 a.m. to 4:30 p.m.

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 First 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.

Harbour Resource Partners is the contractor selected by the CRD to build the McLoughlin Point Wastewater Treatment Plant, cross-harbour undersea pipe, and marine outfall for treated wastewater at McLoughlin Point.

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: Clover Point Pump Station and Clover Forcemain Information Sheet

Clover Point Pump Station and Clover Forcemain

The Clover Point Pump Station will be upgraded and expanded as part of the Wastewater Treatment Project. The current pump station pumps sewage directly into the ocean. The expanded pump station will pump wastewater to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment and provide bypass pumping to the existing outfall during storm events.

The Clover Forcemain is the pipe that will transport wastewater from the Clover Point Pump Station to the McLoughlin Point Wastewater Treatment Plant. Construction of the Clover Point Pump Station expansion and Clover Forcemain will begin in early 2018 and be complete in early 2020. There will be public realm improvements as part of this component of the project. The City of Victoria defined the scope and design guidelines for these public realm improvements.

PROJECT DESCRIPTION

The Clover Point Pump Station expansion will be below the grade of the adjacent section of Dallas Road. Similar materials to those on the current pump station will be used to blend the expanded facility with the existing facility and surrounding area. The expansion will increase the internal pump station area from approximately 500m² to approximately 1500m². As part of the pump station expansion, the existing split rock wall facing the waterfront will be extended to enable access to the pump station and maintain the seaside walkway.

The pump station will have state-of-the-art odour control systems so there will be no discernible odour in the community. Noise will not exceed the current level of noise from the existing pump station.



Conceptual image.

Clover Point Public Realm Improvements

- Public plaza accessible to pedestrians and cyclists, to replace the existing parking lot above the pump station
- Street furniture and bicycle facilities (e.g. benches, bike racks, a bike rack for bicycle maintenance and repair, and a drinking fountain) on the plaza
- Bike node (pathway intersection for bike and pedestrian traffic)
- Interpretive signage and wayfinding signs at the public plaza
- Two replanted grassed open spaces to the west and east of the public plaza
- One public washroom with two gender neutral, universally-accessible stalls
- Clover Point Road and Dallas Road intersection improvements
- New connecting walkway and bike path across Clover Point Road to the Dallas Road/Ross Bay Seawalk
- Pedestrian path from Dallas Road alongside Clover Point Road and connecting to the existing Clover Point path

(Continued on next page)



- Dallas Road Public Realm Improvements**
- Cycle track extending from Dock Street at the Ogden Point breakwater to Clover Point
 - Gathering/dismount area for the cycle track incorporated on the west side of Clover Point Road at Dallas Road
 - Site furnishings (bike rack and a bench at a minimum of six locations at key intersections)
 - Barrier fencing between dog off-leash areas
 - Wayfinding signage
 - One-time payment for the construction of additional capital improvements by the City of Victoria

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.

Next Steps: Design Finalization

Public Input:

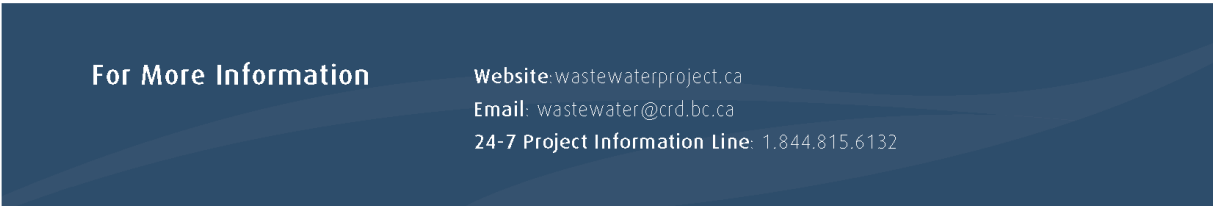
- Presentation to James Bay Neighbourhood Association (on the design and alignment of the cycle track and alignment of the Clover Forcemain) at 50% design finalization
- Presentation to Fairfield Gonzales Community Association (on the design for the exterior of the Clover Point Pump Station and the public realm improvements, as well as the design and alignment of the cycle track and alignment of the Clover Forcemain) at 50% design finalization

City of Victoria Input:

- 3 Design Workshops between CRD and City of Victoria regarding pump station exterior and public realm improvements (at 30%, 50% and 90% design finalization)
- Presentation to the City Council at a public meeting at 50% design finalization
- Final design of the exterior of the pump station, public realm improvements, conveyance pipeline alignment subject to City of Victoria approval in accordance with the criteria set out in the licences

First Nation Engagement:

- Representatives from the Songhees and Esquimalt Nations are participating in the final design of the pump station exterior and public realm improvements



For More Information

Website: wastewaterproject.ca
 Email: wastewater@crd.bc.ca
 24-7 Project Information Line: 1.844.815.6132

Appendix D: James Bay Meeting Invitation: January 10, 2018

**Wastewater Treatment Project**
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WASTEWATER TREATMENT PROJECT

James Bay Meeting: Clover Forcemain and Cycle Track on Dallas Road

Wednesday, January 10, 2018

You're invited to find out more and provide input on the alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way and the design and alignment of the cycle track along Dallas Road.

JAMES BAY NEIGHBOURHOOD ASSOCIATION MEETING

January 10, 2018, 7:00pm
James Bay New Horizons,
234 Menzies Street

The Wastewater Treatment Project team will provide information and seek your input for incorporation into the final design on the following:

- Design and alignment of the cycle track along Dallas Road

- Alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way



Alignment of the Clover Forcemain within Dallas Road right-of-way

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.

As part of the Project, the Clover Point Pump Station will be upgraded and expanded. A new pipe, the Clover Forcemain, will transport wastewater from the Clover Point Pump Station to Ogden Point, where it will connect to the cross-harbour undersea pipe to the McLoughlin Point Wastewater Treatment Plant.

Information to be presented at the meeting and an online feedback form will be available online on January 10, 2018.

For more information about the Wastewater Treatment Project, please visit wastewaterproject.ca, e-mail wastewater@crd.bc.ca or call **1.844.815.6132**.

Appendix E: Fairfield Gonzales Meeting Invitation: January 11, 2018

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

WASTEWATER TREATMENT PROJECT

Fairfield Gonzales Meeting: Clover Point Pump Station, Clover Forcemain and Cycle Track on Dallas Road

Thursday, January 11, 2018

You're invited to find out more and provide input on the design of the public realm improvements, the design of the exterior of the Clover Point Pump Station, the alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way and the design and alignment of the cycle track along Dallas Road.

FAIRFIELD GONZALES COMMUNITY MEETING
January 11, 2018, 7:30pm
Cook Street Village Activity Centre,
Auditorium, 380 Cook Street

The Wastewater Treatment Project team will provide information and seek your input for incorporation into the final design on the following:

- Alignment of the Clover Forcemain (pipe) within the Dallas Road right-of-way
- Design and alignment of the cycle track along Dallas Road
- Design for the exterior of the Clover Point Pump Station building
- Design of the public realm improvements



Alignment of the Clover Forcemain within Dallas Road right of way

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.

As part of the Project, the Clover Point Pump Station will be upgraded and expanded. A new pipe, the Clover Forcemain, will transport wastewater from the Clover Point Pump Station to Ogden Point, where it will connect to the cross-harbour undersea pipe to the McLoughlin Point Wastewater Treatment Plant.

Information to be presented at the meeting and an online feedback form will be available online on January 10, 2018.

For more information about the Wastewater Treatment Project, please visit wastewaterproject.ca, e-mail wastewater@crd.bc.ca or call **1.844.815.6132**.

Appendix F: Resolutions From Other Government

Wastewater Treatment Project T: 250.360.3002
510-1675 Douglas Street F: 250.360.3071
Victoria, BC, V8W 2G5 www.wastewaterproject.c



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

February 9, 2018

Core Area Liquid Waste Management Committee
625 Fisgard Street
Victoria, BC V8W 1R7

Attention: Director Helps, Chair, Core Area Liquid Waste Management Committee
lhelps@crd.bc.ca

Dear Core Area Liquid Waste Management Committee,

RE: Integrated Resource Management: Implications for the Core Area Wastewater Treatment Project

The Core Area Wastewater Treatment Project Board (Project Board) has been advised that the Capital Regional District (CRD) Board passed the following motions at its meeting on January 10, 2018:

3 – 18-022 Integrated Resource Management – Next Steps

Recommendation:

That the Environmental Services Committee recommend to the Capital Regional District (CRD) Board:

That the CRD modify the Integrated Resource Management (IRM) work plan by:

1. Concluding the current IRM procurement process.
2. Issuing a Request for Proposals for the beneficial use of dried Class A biosolids produced by the Residuals Treatment Facility as a stand-alone procurement, according to the CRD's restriction of land application of any product using CRD biosolids as a feedstock.
3. Pursuing an in-region or near in-region organics, (kitchen scraps, yard and garden) processing facility by initiating a new procurement process.
4. Informing the Project Board of the new direction and requesting that any Core Area Wastewater Treatment project implications be included in the upcoming update report to the Core Area Liquid Waste Management Committee in February.
5. Submitting a revised project plan for the beneficial use of biosolids and the IRM initiative to the province.

The Project Board discussed motion 4 at its January 25, 2018 meeting, and requested that I respond to the Core Area Liquid Waste Management Committee (CALWMC) through a letter



**Core Area Liquid Waste Management Committee (CALWMC) - January 31, 2018
Integrated Resource Management: Implications for the Core Area Wastewater Treatment Project** **2**

confirming that there are no implications of the new direction to the Core Area Wastewater Treatment Project.

Furthermore, I am pleased to report that the procurement of the Residuals Treatment Facility was successfully concluded on February 6, 2018, with the execution of a long-term agreement with Hartland Resource Management Group, a consortium of experienced firms. The execution of the agreement means that Class A Biosolids will be available for beneficial uses; and consequently supports the CRD's commencement of a procurement for the beneficial use of Class A Biosolids.

The Core Area Wastewater Treatment Project Team continues its comprehensive collaboration with CRD personnel and, specifically continues to provide information regarding the Residuals Treatment Facility in support of CRD planning and procurement efforts.

Sincerely,



Donald Fairbairn
Chair, Core Area Wastewater Treatment Project Board
CRD Wastewater Treatment Project

cc: CRD Executive Office





Appendix G: Monthly Cost Report

ASSET MANAGEMENT COST REPORT as at January 31, 2018														
Project Component	Control Budget	Allocated Budget	COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
			Expended to December 31, 2017	Expended over reporting period (January 2018)	Expended to January 31, 2018	Expended to January 31, 2018 as a % of Budget	Remaining (Unexpended) Budget at January 31, 2018	Total Commitment at January 31, 2018	Unexpended Commitment at January 31, 2018	Uncommitted Budget at January 31, 2018	Forecast to Complete	Forecast at Completion	Variance at Completion \$	Variance at Completion as a % of Budget
McLaughlin Point Wastewater Treatment Plant ^A	378.0	377.8	77.8	5.4	83.0	22%	294.8	338.3	255.3	89.3	294.8	377.8	-	0%
Residuals Treatment Facility ^A	185.0	185.1	12.3	0.3	12.6	6%	102.5	21.6	8.0	173.5	102.5	185.1	-	0%
Conveyance System ^A	102.0	102.3	28.5	1.6	30.1	16%	162.2	103.8	73.5	88.9	162.2	102.3	-	0%
Total Costs	765.0	765.0	118.4	7.3	126.7	16%	638.3	463.6	337.8	301.7	639.3	766.0	-	0%

^A - Including PMO and common costs
¹ Values presented in \$millions, results in minor rounding differences
^{**} Cost report presents approved expenditures