



**Wastewater
Treatment Project**

Treated for a cleaner future

CRD Wastewater Treatment Project

Monthly Report

Reporting Period: November 2017

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1 Executive Summary

1.1 Introduction

This monthly report covers the reporting period for November 2017 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. The WWTP Project Component is continuing with Harbour Resource Partners (“HRP”) progressing: engineering of the WWTP and outfall; drilling of the harbour crossing from Ogden Point, with the pilot hole completed over the reporting period; and site work including commencing concrete pours for the tsunami and planter walls of the WWTP at McLoughlin Point.

The RTF Project Component is in the procurement phase. The Request for Proposals (“RFP”) is progressing as planned with the Project Team completing the evaluation of submissions.

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 (as the Design-Build Contractor) progressed the design of the Clover Point Pump Station; and
 - a 30% Design Workshop was held with Kenaidan, the Project Team, City of Victoria staff and Lekwungen representatives, to present the Design Proposals for the Clover Point Pump Station building exterior and the Public Realm Improvements.
- Macaulay Point Pump Station and Forcemain: the three proponents shortlisted under the RFP continued development of their proposals and participated in a second round of collaborative meetings with the Project Team.

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





















- Clover Forcemain:
 - a report outlining the results of the geotechnical investigations to-date and the geotechnical assessment of the alignment was posted on the Project website in November. The report noted that the KWL team (as Design Consultant for the Clover Forcemain) concluded that with refinement of the indicative design, the Dallas road alignment is suitable for construction of the Clover Forcemain from a geotechnical perspective and that the forcemain can be constructed and operated without an adverse effect on the Dallas Road Bluffs and James Bay Seawall; and





- a 30% Design Workshop was held with KWL, City of Victoria staff and Lekwungen representatives, to present the Design Proposals for the the Clover Forcemain alignment and the Cycle Track alignment along Dallas Road.
- Residual Solids Conveyance Line:
 - the indicative design was reviewed in a workshop with CRD, Stantec (Owner's Engineer) and Parsons (Design Consultant for the Residual Solids Conveyance Line).
 - the alignment was presented to the public at a series of community information open houses in Saanich, Esquimalt and Victoria.

1.2 Dashboard





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

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 four community information open houses held in Saanich, Esquimalt and 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).
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* 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.

Daily 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 weekly with an HRP and CRD representative. Office and site orientations were delivered as required.

Other safety activities conducted over the reporting period included:

- the WTP Safety Manager and CRD corporate safety representatives performed a monthly site inspection with HRP safety representatives at Ogden Point and McLoughlin Point with a focus on proper personal protective equipment for tasks and rigging inspections. No additional safety actions were required as a result of the inspection; and
- the Safety Manager updated inspections, investigations, safety notice and safety metrics.

Table 2 – WTP Safety Information

	Reporting Period (November 2017)	Project Total to-Date (from January 1, 2017)
Person Hours		
PMO	4,093	29,575
Project Contractor	12,596	79,395
Total Person Hours	16,689	108,970
Number Of Employees		
PMO	27	
Project Contractors working on Project site	70	
Total Number Of Employees	97	
Number Of Occurrences		
Near Miss Reports	0	2
High Potential near Miss Reports	0	1
Report Only	0	2
First Aid	0	1
Medical Aid	0	0
Medical Aid (Modified Duty)	0	0
Lost Time	0	0
Total Recordable Incidents	0	0
Frequency Rates		
First Aid Frequency	0	0
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 November progressed as planned, with management of contaminated soils at McLoughlin Point ongoing. The main areas of focus included: preparation of the Municipal Wastewater Regulation (“MWR”) Registration package and the updated Marine Environmental Impact Study (EIS); completion of studies in support of a *Fisheries Act*

Authorization and scoping of additional environmental studies along the Clover Forcemain and Residual Solids Conveyance Line.

On November 6, 2017 HRP reported a hydraulic fluid leak from a hydro-vac truck at Ogden Point. After containing the leak and repairing the truck, a second hydro-vac truck was brought in to remove any potentially contaminated soils. Soil samples from the area were sent for laboratory testing and confirmed that no soils contaminated with hydraulic fluid remained at the site.

Key activities completed in November included:

- HRP continued characterizing and delineating contaminated soils at the McLoughlin Point site and on adjacent DND property. On November 8th, HRP's environmental consultant submitted an Annual Status Update letter to the BC Ministry of Environment (MoE) providing an update on investigations and remediation activities at McLoughlin Point. This was a requirement of the 2014 Approval in Principle that the MoE issued to the CRD;
- HRP completed marine baseline studies in proximity to the McLoughlin outfall. The studies were completed to support an application to Fisheries and Oceans Canada (DFO) for a *Fisheries Act* Authorization;
- the Project Team defined a scope of work for Parsons (as Design Consultant) to complete a terrestrial EIS for the Residual Solids Conveyance Line, that will be used to support the MWR Registration package, as well as being used to develop mitigation measures for construction; and
- CRD and Stantec developed a scope of work for Kerr Wood Leidel to complete an Environmental Assessment Report for the Clover Forcemain, that will be used to develop mitigation measures for construction.

2.2.2 Regulatory Management

In November, 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 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.

The Project Team, Stantec and HRP progressed construction-related regulatory applications and were engaged in planning for future regulatory submissions. Key permitting activities for November included:

- HRP began preparing applications to Transport Canada and MoE to allow the discharge of treated excavation water to Victoria Harbour;
- the CRD met with Kenaidan to discuss the application deliverables for a Notice from the Director to Construct under Section 40 (b) of the MWR application to begin construction at the Clover Point Pump Station;
- the CRD, Stantec and HRP continued to advance the MWR Registration application. Bi-weekly meetings with the Ministry of Environment and Climate Change Strategy to share information and resolve potential issues continued; and
- HRP continued to work on an application for a *Fisheries Act* Authorization. The Authorization is required for McLoughlin outfall 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.

One update has been made to Table 3 from that presented in the October 2017 Monthly report: the anticipated date for the McLoughlin Point WWTP Notice from the Director to Construct under Section 40 (b) of the MWR was updated to 'obtained' to reflect the receipt of the notice.

Table 3 - Key Permits Status

Permit / Licence	Anticipated Date	Status	Responsible Party
<i>McLoughlin Point WWTP</i>			
Rezoning within the Township of Esquimalt	Obtained	Complete	CRD
Township of Esquimalt Development Permit	Obtained	Complete	HRP/CRD
Township of Esquimalt Development Permit Amendment	Q4 2017	On track	HRP
Township of Esquimalt Phased Building Permits <ul style="list-style-type: none"> Phase 1: Early Works 	Obtained	Complete	HRP
Township of Esquimalt Phased Building Permits <ul style="list-style-type: none"> Future phases to be determined with Township of Esquimalt 	TBD	TBD	HRP
Department of National Defence Licence (facility siting, works access and laydown, including for Macaulay Point)	Obtained	Complete	CRD
Municipal Wastewater Regulation ("MWR") Registration	Q4 2018	On track	CRD
Notice from the Director to Construct under Section 40 (b) of the MWR	Obtained	Complete	HRP
<i>McLoughlin Point Harbour Crossing</i>			
Greater Victoria Harbour Authority Licence (works access)	Obtained	Complete	CRD
Transport Canada Licence (works access)	Obtained	Complete	HRP
Transport Canada Facility Alteration Permits (horizontal directional drilling and installation of the casing and pipe)	Obtained	Complete	HRP
Transport Canada lease	Following completion of construction	On track	HRP
<i>McLoughlin Point Outfall</i>			
Fisheries and Oceans Canada (DFO) <i>Fisheries Act</i> Authorization	Q2 2018	On Track	HRP

Permit / Licence	Anticipated Date	Status	Responsible Party
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	DB Contractor
<i>Clover Forcemain</i>			
City of Victoria Licence (works access)	Obtained	Complete	CRD
<i>Clover Point Pump Station</i>			
Rezoning within the City of Victoria	Obtained	Complete	CRD
City of Victoria Licence (facility siting)	Obtained	Complete	CRD
<i>ECI/Trent Twinning</i>			
City of Victoria Licence (works access)	Q1 2019	On track	Design Consultant
<i>Arbutus Attenuation Tank</i>			
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	Design Consultant
<i>Residuals Treatment Facility</i>			
Operational Certificate	Prior to start of RTF operations	On track	RTF Project Co
District of Saanich Development Permits	Q2 2018	On track	RTF Project Co

2.3 First Nations

First Nations communication and engagement was ongoing over the period.

The Songhees Nation Liaison and Esquimalt Nation Liaison continued coordination activities with their respective Nations, including meeting with their leadership to identify potential candidates for employment on the Project. Additionally, both First Nation Liaisons assisted the Project Team in disseminating Project related notices to their communities.

The Songhees Nation Liaison attended the 30% design workshop for the Clover Forcemain and Clover Point Pump Station. The purpose of her attendance was to provide input on the final design of the exterior of the pump station and the Public Realm Improvements.

Members of the Songhees Nation assisted Millennia with their archaeological investigations at Clover Point. The investigations were in support of the Archaeological Impact Assessment and a Site Alteration Permit to disturb a Registered Archaeological Site in proximity to the pump station location.

2.4 Stakeholder Engagement

As outlined in the Project's Communications and Engagement Plan, a key goal of engagement activities is 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.

In furtherance of these goals the Project Team held four community information open houses in November in Saanich, Victoria and Esquimalt. The purpose of the community information open houses was to provide members of the public with an update on the project, with a focus on those project components that will begin construction in 2018. The open houses were formatted as drop-in sessions to provide flexibility for busy schedules: members of the public could attend at any time during the meeting times to review updated project information, find out about upcoming construction activities, meet project team members, and ask questions about the project. Presentation boards were displayed in the room perimeter with Project Team members available to answer questions. The presentation boards were also posted to the Project website for any members of the public that were unable to attend one of the four community information open houses.

The four community information open houses were held in the municipalities of Saanich, Esquimalt and Victoria:

- November 15, 2017, 5 – 8 p.m.: St. Joseph the Worker Parish Hall, Saanich
- November 18, 2017, 10 a.m. – 1 p.m.: Prospect Lake Community Hall, Saanich
- November 22, 2017, 5 – 8 p.m.: Royal Canadian Legion, Esquimalt Branch
- November 27, 2017, 5 – 8 p.m.: Victoria Conference Centre

The community information open houses provided updates on the following project components: McLoughlin Point Wastewater Treatment Plant, cross-harbour undersea pipe, Clover Forcemain, Clover Point Pump Station, Macaulay Point Pump Station, Residual Solids Conveyance Line, and the Residuals Treatment Facility.

The community information open houses were attended by 214 residents.

The open houses were publicized through a variety of communication methods, including:

- advertising in the Peninsula News, Saanich News, Victoria News, and the Times Colonist;
- social media through the CRD twitter feed;
- listed in Project Update #4, which was mailed to 58,800 residents in Victoria, Esquimalt and Saanich;
- posted on the Wastewater Treatment Project website; and
- emailed to stakeholders and residents who signed up for project updates.

Construction Communications

Construction Notices

A construction notice (attached as Appendix A) was issued to stakeholders outlining geotechnical work in Victoria along the Clover Forcemain route and around the Clover Point Pump Station.

Construction Notifications

Four blasting schedule notifications for the McLoughlin Point Wastewater Treatment Plant were posted to the website to ensure the public was aware of what to expect in the upcoming week. An example of one of these blasting schedules is attached as Appendix B.

Project Update

Project Update #4 (attached as Appendix C) was distributed during the reporting period. This update included notification details regarding the four community information open houses, and also featured information items such as a map showing the Project Components; a description of key wastewater treatment terms; an engagement summary overview; and a list of ways for the community to be informed about the Wastewater Treatment Project.

The Project Update was distributed to 58,800 residents, posted on the Project website, and emailed to stakeholders and residents. It was also delivered to four community centres for display for interested members of the public and hand-delivered to all Mayors and Councillors in Victoria, Esquimalt and Saanich.

Information Sheets

In November, one information sheet (attached as Appendix D) was developed regarding the Residual Solids Conveyance Line. The information sheet was posted to the website and emailed to stakeholders in Saanich.

Media Releases

An Information Bulletin was issued regarding the selection of the Clover Point Pump Station Contractor. The Clover Point Pump Station Contractor Selection Information Bulletin is attached as Appendix E.

Project Website

Throughout the month of November, the Project website, wastewaterproject.ca, was updated with information on the Project, including with the information sheets and notifications summarized herein, as well as updates to the “Community Questions” page, which provides stakeholders with answers to commonly-asked questions.

Community Meetings

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

- City of Victoria staff;
- Community Information Open Houses in Saanich, Esquimalt and Victoria;
- District of Saanich Technical Working Group;
- Greater Victoria Harbour Authority;
- James Bay Neighbourhood Association (site tours of McLoughlin Point and Ogden Point);
- Township of Esquimalt Liaison Committee; and
- Township of Esquimalt Technical Working Group.

Public Inquiries

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

Table 4- Project Inquiries

Inquiry Source	Contacts for November
Information phone line inquiries	15
Email inquiries responded to	14

Key themes of the public inquiries are as follows:

- construction and impacts of the Residuals Treatment Facility;
- route of the Residual Solids Conveyance Line;
- construction noise concerns;
- Clover Point Pump Station and Forcemain geotechnical inquiries;
- concerns about property damage;
- requests for information meetings;
- employment, supplier and contractor interest; and
- requests to be added to email update list.

2.5 Resolutions from Other Governments

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

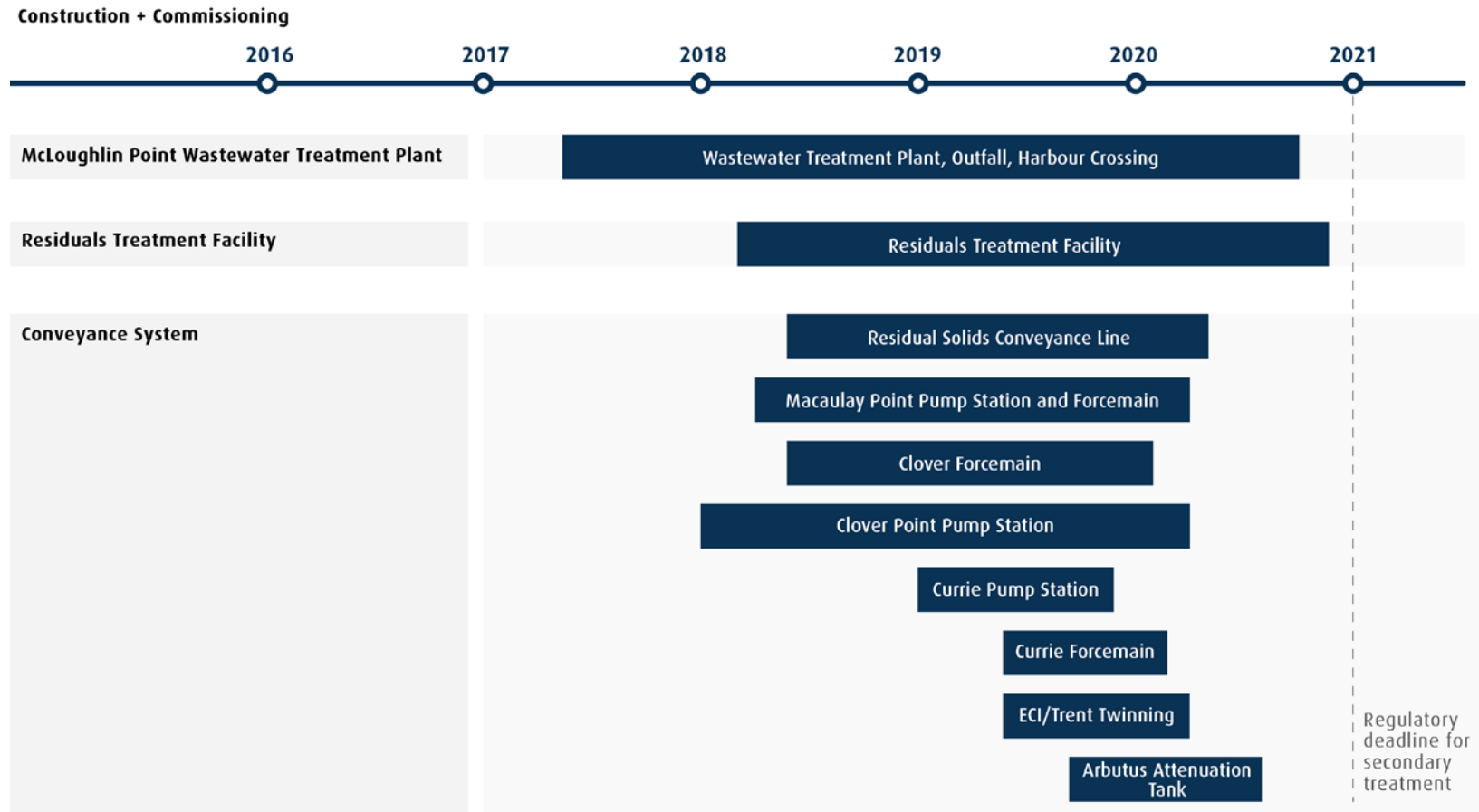
2.6 Schedule

Overall the Project's scheduled activities progressed as planned during November. 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*



* Schedule subject to updates as project planning progresses.

¹ This schedule is unchanged from that shown in the October Monthly 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 (December) are:

Safety

- the WTP Safety Manager will provide office safety orientations to any new Project Team staff;
- WTP Safety Manager and/or Construction Manager will conduct daily site inspections at all active Project work sites;
- Project Team review of incident reports: these reviews will be ongoing for the duration of the Project. As incident reports are submitted by Project contractors they will be reviewed to ensure that measures are put in place to prevent a recurrence. Depending on the type of incident notices may be sent to other Project contractors to advise them of the incident and the preventative measures taken;
- participation in Joint Occupational Health and Safety Committee meeting;
- participation in bi-weekly CRD safety meetings;
- review of Kenaidan's and Thurber Engineering's Traffic Control and Site Specific Safety Plans for site mobilization and Geotechnical Surveys; and
- Fire Warden training.

Environment and Regulatory Management

- Project Team to continue preparing application for MWR Registration, with submission to the Ministry of Environment anticipated in Q4, 2018;
- HRP to continue preparing *Fisheries Act* Authorization application, with submission to DFO anticipated Q1, 2018;
- Kenaidan to continue preparing a request for a Notice from a Director to allow construction to begin at Clover Point, with submission to the Ministry of Environment anticipated in January, 2018; and
- Millennia to prepare Site Alteration Permit applications for project components with the potential to impact Registered Archaeological Sites. These are scheduled for submission in January, 2018.

First Nations

- First Nations members will be in the field, supporting Millennia archeologists as they complete ongoing archaeological investigations and monitor geotechnical drilling investigations;
- the CRD is planning a tour of the Hartland Landfill for WSÁNEĆ Leadership Committee; and
- the Esquimalt and Songhees Nation Liaisons will continue working with the CRD to finalise an archeology protocol in Q1, 2018.

Stakeholder Engagement

- presentation to Victoria City 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;
 - results of the geotechnical assessment of the Clover Forcemain;

- alignment of the Clover Forcemain; and
 - alignment and design of the cycle track (connecting Clover Point to Dock Street) associated with the Clover Forcemain;
- engagement with Niagara Street residents regarding the Niagara Street pipe pull;
- notifications for upcoming January community meetings with the James Bay Neighbourhood Association and the Fairfield Gonzales Community Association; and
- notifications of blasting schedule for the McLoughlin Point Wastewater Treatment Plant.

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;
- receive the Victoria Harbour Crossing pipe and send it to Jewel Holdings Ltd. in Maple Ridge for internal lining;
- finalize temporary power plan with BC Hydro; 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;
- continue detailed excavation;
- complete BC Hydro duct bank installation along Victoria View Road;
- remove contaminated material as required; and
- continue surface runoff/groundwater treatment and discharge.

Engineering

- complete review of HRP's foundation system design;
- begin review of HRP 50% design submittal;
- continue progressing Residual Solids Conveyance Line preliminary design and 30% design stage submission;
- commence detailed design of the Residual Solids Conveyance Line for the section in the vicinity of the Mackenzie Interchange;
- continue design development for the Clover Forcemain; and

Procurement

- evaluate proposals received in response to the Macaulay Point Pump Station and Forcemain RFP; and
- notify and the preferred proponent for the RTF and work with them to complete all tasks required to achieve financial close.

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

Safety

- site inspections with CRD Corporate Safety Manager of HRP's and Kenaidan's sites; and
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager.

Environment and Regulatory Management

- HRP to submit permit applications to Transport Canada and MoE to allow the discharge of treated excavation water to Victoria Harbour;
- Kenaidan to submit request for Notice from a Director to the Ministry of Environment and Climate Change Strategy for Clover Point Pump Station; and
- HRP to continue preparing an updated Marine EIS for submission at the end of Q1 2018.

First Nations

- the CRD will contact First Nations in order to provide a project update and advance notification of the potential for referrals and consultation by senior levels of government on permit applications.

Stakeholder Engagement

- presentation of the 50% design to obtain feedback for incorporation into the final design:
 - James Bay Neighbourhood Association – Project Team to present the design and alignment of the cycle track and alignment of the Clover Forcemain;
 - Fairfield Gonzales Community Association – Project Team to present the design and alignment of the cycle track and alignment of the Clover Forcemain, as well as the design for the exterior of the Clover Point Pump Station building and the public realm improvements.
- update “Community Questions” on the project website;
- ongoing community liaison meetings; and
- planning for future Project Update content.

Cost Management and Forecast

- assign WBS codes to new contracts;
- prepare cost reports;
- 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 reaming process for Victoria Harbour Crossing.

McLoughlin Point

- continue construction of tsunami and planter walls;
- begin foundation system; and
- continue outfall shaft blasting and stabilize outfall shaft walls.

Engineering

- complete review of HRP 50% design submittal;
- continue development of detailed design for the Clover Forcemain; and
- continue development of detailed design for the Residual Solids Conveyance Line.

Procurement

- award contract for the design-build of the Macaulay Point Pump Station and Forcemain; and
- work with the RTF preferred proponent to complete all tasks required for achieving financial close.

2.7 Cost Management and Forecast

The monthly cost report for November 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 Q3 2017 Quarterly Report as a result of two risks that materialised over the July - September 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.

In order to address these 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 \$28.5 million. The significant commitments made in the reporting period were:

- Kenaiden – Clover Point Pump Station Design-Build Contract;
- Parsons – Design Consultant Services for the Residual Solids Conveyance Line; and
- KWL – Design Consultant Services for the Clover Forcemain.

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 Oct. 31, 2017		\$5,732,558
McLoughlin Point Site Remediation: excavation and disposal of contaminated soil (metals and chlorides) from the Ogden Point site	Nov-17	\$65,949
WWTP Total Draw		\$65,949
		\$0
RTF Total Draw		\$0
		\$0
Conveyance Total Draw		\$0
		\$0
PMO Total Draw		\$0
		\$0
BC Hydro Total Draw		\$0
		\$0
WTP Program Reserve Draw		\$0
Total Contingency and Program Reserve Draw as at Nov. 30, 2017		\$5,798,507
Total Contingency and Program Reserve Remaining		\$63,519,544

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 risk levels have remained unchanged from the previous reporting period, with the exception of the increased risk of cost escalation (inflation) causing Conveyance works contracts' amounts to be higher than budgeted. This risk was reported in the July - September reporting period as having materialised for the Clover Point Pump Station but the risk level was increased over this reporting period for the conveyance component as a whole. As outlined in Table 7 and section 2.7, mitigative action has been identified: 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.

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

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 four community information open houses held in Saanich, Esquimalt and 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
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
McLoughlin Point Wastewater Treatment Plant				
Unexpected contaminated soil conditions during excavation	Site has more contaminated soils than initial assessment.	CRD and HRP 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

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	Increased from M to H in consideration of the high cost escalation (inflation) Conveyance works contract amounts.
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

2.9 Status (Engineering, Procurement and Construction)

2.9.1 Wastewater Treatment Plant (WWTP)

The WWTP Project Component continued scheduled activities with Harbour Resource Partners (“HRP”) progressing: engineering of the WWTP and outfall; drilling of the harbour crossing from Ogden Point, with the pilot hole completed over the reporting period; and site work including commencing concrete pours for the tsunami and planter walls of the WWTP at McLoughlin Point.

Engineering

HRP progressed multiple design and detailed planning in November, including:

- continued development of the 50% Detailed Design Report including completion of 50% HAZOP (hazard and operability) workshop and completion of constructability review;
- continued planning for the pipe pull on Niagara Street; and
- continued coordination with BC Hydro and the City of Victoria regarding utility relocation requirements for the pipe pull on Niagara Street.

Construction

Photographs of construction progress at McLoughlin Point are shown in Figures 2 – 6. Key construction activities in progress or completed by HRP in November were as follows:

McLoughlin Point

- set-up horizontal directional drilling (HDD) operations on McLoughlin side of the harbour (Figure 2);
- commenced tsunami wall and planter wall construction (Figures 3,4, and 6);
- crushing of blast rock for use as structural fill and backfill;
- blasting at southwest corner of site for outfall shaft;
- excavation and removal of contaminated material from site and disposal at an accredited facility;
- installation of BC Hydro duct bank along Victoria View Road;
- slope stabilization and protection of completed excavations;
- groundwater treatment for hydrocarbon contamination and discharge; and
- erosion and sediment control monitoring to protect environment from runoff.

Ogden Point

- completed drilling of the HDD pilot hole (Figure 5); and
- commenced HDD reaming with a 34” diameter reamer.



Figure 2 – Setting up HDD drill on McLoughlin side



Figure 3- Drilling rebar dowel holes planter wall



Figure 4 – Rebar installed in planter wall form

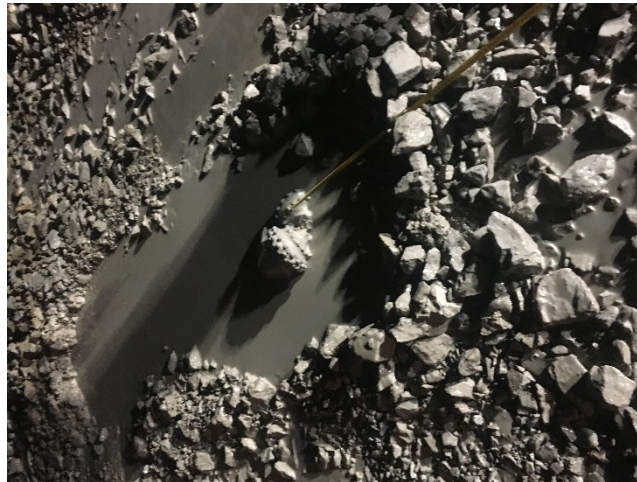


Figure 5 – Pilot hole break through on McLoughlin side



Figure 6 – Install forms for tsunami wall levelling pad

2.9.2 RTF

The RTF Project Component is in the procurement phase. The RFP is progressing as planned with the Project Team completing the evaluation of submissions.

2.9.3 Conveyance System

Engineering

Kenaidan (as the Design-Build Contractor) progressed the design of the Clover Point Pump Station. A 30% Design Workshop was held with Kenaidan, the Project Team, City of Victoria staff and Lekwungen representatives, to present the Design Proposals for the Clover Point Pump Station building exterior and the Public Realm Improvements.

KWL (as Design Consultant for the Arbutus Attenuation Tank) progressed the incorporation of code updates into the design for the Arbutus Attenuation Tank.

Related to the Clover Forcemain:

- a report outlining the results of the geotechnical investigations to-date and the geotechnical assessment of the alignment was posted on the Project website in November. The report noted that the KWL team (as Design Consultant for the Clover Forcemain) concluded that with refinement of the indicative design, the Dallas road alignment is suitable for construction of the Clover Forcemain from a geotechnical perspective and that the forcemain can be constructed and operated without an adverse effect on the Dallas Road Bluffs and James Bay Seawall.
- a 30% Design Workshop was held with KWL, City of Victoria staff and Lekwungen representatives, to present the Design Proposals for the the Clover Forcemain alignment and the Cycle Track alignment along Dallas Road.
- the corridor for the Clover Forcemain along Dallas Road was presented to the public at a series of community information open houses in Saanich, Esquimalt and Victoria.
- KWL continued preliminary design for the Clover Forcemain, with consideration of input received at the community information open houses.
- a meeting was held with the Greater Victoria Harbour Authority to coordinate construction on their property at Ogden Point.

The indicative design for the Residual Solids Conveyance Line was reviewed in a workshop with CRD, Stantec (Owner's Engineer) and Parsons (Design Consultant for the Residual Solids Conveyance Line). The alignment of the Residual Solids Conveyance Line was presented to the public at a series of community information open houses in Saanich, Esquimalt and Victoria. Parsons continued development of the preliminary design, with consideration of input received at the indicative design workshop and the community information open houses. Meetings were held with the Ministry of Transportation and Infrastructure, to coordinate construction with the Mackenzie Interchange project.

Procurement

The three proponents shortlisted under the RFP for the Macaulay Point Pump Station and Forcemain continued development of their proposals and participated in a second round of collaborative meetings with the Project Team.

**Appendix A: Clover Forcemain and Clover Point Pump Station – Geotechnical Work:
November 27, 2017****Wastewater
Treatment Project**
Treated for a cleaner future**Construction Notice**

November 27, 2017

Clover Forcemain: Geotechnical Work

The Wastewater Treatment Project (WTP) includes construction of a pipe which will transport wastewater from the expanded 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 WTP is conducting further geotechnical investigations to inform the final design and alignment of the Clover Forcemain. A truck mounted drilling rig will be used to create approximately four boreholes located at the following locations along Dallas Road: between Douglas Street and Paddon Ave; at Cook Street; and the James Bay seawall. There will be some noise associated with the drilling work. Preparation work will begin on November 30. Drilling of the four boreholes is anticipated to take four days during the week of December 4, followed by two days of seismic testing the week of December 11.

Construction of Clover Forcemain is anticipated to begin in spring 2018. A key focus of the Project will be to ensure people have as much information as possible in advance so they can plan for construction activities. More information will be available in spring 2018, including traffic management and construction plans.

Hours of work

- Weekdays from 8 a.m. to 5 p.m.

Traffic Impacts

- Traffic control areas will be delineated by cones and signs and controlled by flaggers.
- Some of the boreholes will require temporary parking stall closures along Dallas Road.
- Traffic control will be provided for utility locates, drilling and seismic testing.

Background

The alignment of the Clover Forcemain was developed in collaboration with City of Victoria planning staff and considered protection of the bluffs, location of mature trees, sensitive vegetation, potential erosion, and traffic impacts. Geotechnical investigations have confirmed the Dallas Road alignment and further geotechnical assessment is required to finalize the alignment within the Dallas Road right-of-way.

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****Clover Point Pump Station: Geotechnical Work**

The Clover Point Pump Station will be upgraded and expanded as part of the Wastewater Treatment Project. Construction of the Clover Point Pump Station expansion will begin in early 2018 and take approximately two years to complete.

The CRD recently selected Kenaidan Contracting Ltd, through a competitive selection process, to construct the Clover Point Pump Station expansion.

The contractor will conduct a geotechnical investigation to inform the design of the Clover Point Pump Station, which will include drilling boreholes at the pump station. This work is anticipated to begin the week of December 4th and will take approximately three days to complete, depending on the weather. A truck mounted drilling rig will be used to create approximately three boreholes located near the upper parking lot of Clover Point. There will be some noise associated with the drilling work which will comply with the City of Victoria construction bylaws. The estimated duration for drilling each borehole is approximately 2-3 hours.

Hours of work

- Weekdays from 7 a.m. to 5 p.m.

Traffic Impacts

- There will be no impact to traffic flow on Dallas Road
- The Clover Point upper parking lot will be closed to vehicles during this time.
- Temporary signage will be installed to advise drivers, pedestrians and cyclists of changes to traffic patterns and parking.

Background

The Clover Point Pump Station was built in the 1970s and is owned and operated by the CRD. The current pump station pumps wastewater 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 Clover Point outfall during storm events.

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. 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 be designed with state-of-the-art odour control systems; the current level of odour from the pump station will not be exceeded and there will be no discernible odour in the community. Noise from the expanded pump station will not exceed the current level of noise from the existing pump station. The scope of work also includes a number of public realm improvements, such as public washrooms, pedestrian and bicycle paths, bicycle facilities, a public plaza, street furniture and road intersection improvements.

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 November 20th 2017


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

Construction Notice

November 20, 2017

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 November 20*:

Monday, November 20	4-6 blasts per day
Tuesday, November 21	4-6 blasts per day
Wednesday, November 22	4-6 blasts per day
Thursday, November 23	4-6 blasts per day
Friday, November 24	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: Project Update #4 – November 2017



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

Project Update #4
 November 2017

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 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.

Upcoming Community Information Open Houses in November

Construction is underway on the McLoughlin Point Wastewater Treatment Plant and cross-harbour undersea pipe. Construction of the following project components will begin in 2018:

- Clover Forcemain
- Clover Point Pump Station
- Macaulay Point Pump Station
- Residual Solids Conveyance Line
- Residuals Treatment Facility

The Wastewater Treatment Project team will hold a series of open houses in November in Saanich, Esquimalt and Victoria to provide an update on these project components. The open houses are a drop-in format to provide flexibility for busy schedules. Come by any time during the meeting times to review updated project information, find out about upcoming construction activities and timing in your area, meet project team members, and ask questions about the project.

SAANICH

Wednesday, November 15, 5 – 8 p.m.

St. Joseph the Worker Parish Hall
 753 Burnside Road West

Saturday, November 18, 10 a.m. – 1 p.m.

Prospect Lake Community Hall
 5358 Sparton Road

ESQUIMALT

Wednesday, November 22, 5 – 8 p.m.

Royal Canadian Legion, Esquimalt Branch
 622 Admirals Road

VICTORIA

Monday, November 27, 5 – 8 p.m.

Victoria Conference Centre
 720 Douglas Street

WILLIS POINT

Meeting details are being confirmed; please check wastewaterproject.ca for updates.

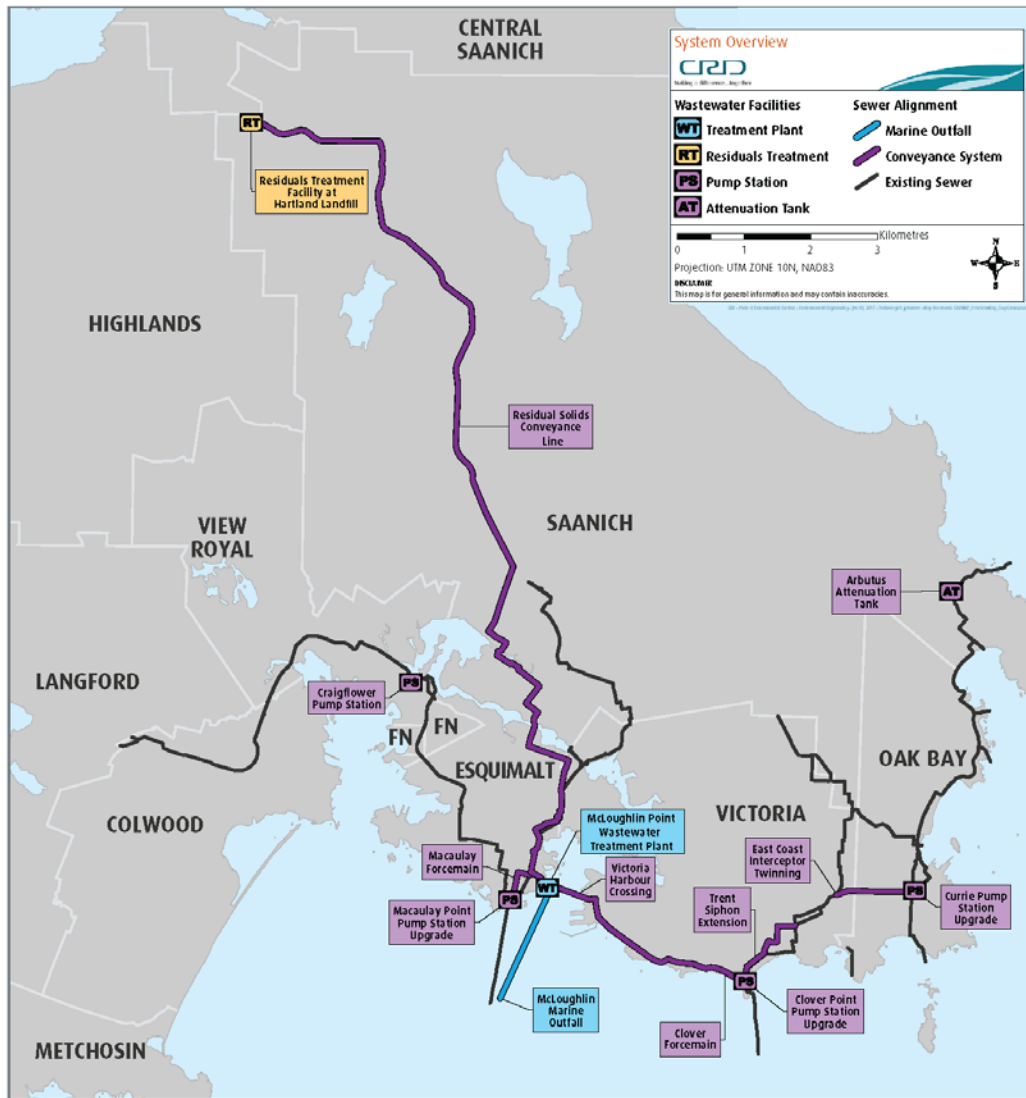


Artist rendering of the McLoughlin Point Wastewater Treatment Plant



Wastewater Treatment Project
Treated for a cleaner future

Project Update #4
November 2017



Map of Wastewater Treatment Project components


**Wastewater
Treatment Project**
Treated for a cleaner future
Project Update #4
 November 2017


Excavation at McLoughlin Point is underway as crews prepare the site for the construction of the new McLoughlin Point Wastewater Treatment Plant.

Talking about Treatment

The Wastewater Treatment Project includes three main elements, which in combination will provide tertiary treatment to the core area's wastewater.

McLOUGHLIN POINT WASTEWATER TREATMENT PLANT

Located at McLoughlin Point, the wastewater treatment plant will provide tertiary treatment to the core area's wastewater.

RESIDUALS TREATMENT FACILITY

Residual solids from the wastewater treatment plant will be piped to Hartland Landfill, where they will be turned into what are known as Class A biosolids, a high quality by-product treated such that it is safe for further use.

CONVEYANCE SYSTEM

The conveyance system refers to the "pumps and pipes" of the Wastewater Treatment Project. This system will carry wastewater from across the core area to the treatment plant, and carry residual solids from the wastewater treatment plant to the Residuals Treatment Facility.

Residual Solids Conveyance Line

The Residual Solids Conveyance Line (RSCL) is one of the components of the Wastewater Treatment Project. It includes two pipes and four or five pumping stations. The first pipe will transport residual solids from the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility. The second pipe will return the liquid removed from the residual solids to the wastewater treatment plant for further treatment.

It is anticipated that the design for the RSCL will be finalized in spring 2018, and construction will begin in summer 2018. For information on the RSCL, including a map, please visit wastewaterproject.ca.

What is a forcemain?

A forcemain is a pipe through which liquids (water or wastewater) are moved under pressure.

Are there other types of pipes?

Gravity lines are used where the elevation allows gravity alone to transport the water or wastewater.

What is a pump station?

Pump stations are used to move wastewater from a lower to a higher elevation. Wastewater is fed into and held in a wet well inside the pump station. When it reaches a certain level, the pump lifts the wastewater through a pipe system, then it travels through a forcemain.


**Wastewater
Treatment Project**
Treated for a cleaner future
Project Update #4
 November 2017

What is the difference between the Wastewater Treatment Project and the Integrated Resource Management (IRM) Planning Process?

The Wastewater Treatment Project includes a Residuals Treatment Facility, which will produce Class A biosolids. The beneficial reuse of those biosolids will be determined by an entirely separate planning process which is being run by the Integrated Resource Management Advisory Committee of the CRD Board. This IRM process is still in the planning stage and the CRD is committed to engaging with the Province, First Nations and the public as more information becomes available. In contrast, the Wastewater Treatment Project is now in the implementation stage as it must be completed by December 31, 2020 to meet provincial and federal regulations for the treatment of the core area's wastewater.



3 WAYS TO KEEP INFORMED ABOUT THE WASTEWATER TREATMENT PROJECT

PROJECT WEBSITE wastewaterproject.ca.

It is regularly updated with new information, including construction bulletins, media releases, and reports. A "Community Questions" section on the website provides answers to commonly-asked project questions and is frequently updated.

24-7 PROJECT INFORMATION LINE **1.844.815.6132**

Residents can call to receive information or report a concern.

EMAIL ADDRESS wastewater@crd.bc.ca.

Submit inquiries or let us know you are interested in being on a distribution list to receive construction notices.

Wastewater Treatment Project Community Engagement Summary

OCTOBER 2016 – SEPTEMBER 2017

46

meetings with municipalities
(Mayors, Councils, and staff)

23

meetings with
community associations
and community events

289

responses to email inquiries

24

meetings with funding agencies
(federal government, P3 Canada,
Infrastructure Canada, provincial
government)

15

meetings with stakeholders (such as
the Department of National Defence,
Tourism Victoria and Greater Victoria
Harbour Authority)

74

responses to phone inquiries

For More Information

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

24-7 Project Information Line: 1.844.815.6132

Appendix D: Residual Solids Conveyance Line Information Sheet (November 2017)


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

Information Sheet

Residual Solids Conveyance Line

The Residual Solids Conveyance Line is part of the Wastewater Treatment Project. It includes two pipes along with four or five pumping stations. The two pipes will connect the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility at Hartland Landfill and will be installed in a common trench where possible. Though the design is not complete it is anticipated that a common trench will be used along the majority of the route.

The first pipe will be 200mm wide and 18.5km long, and will transport residual solids from the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility for treatment. The second pipe will be 350mm wide and 11.5km long, and will return the liquid removed from the residual solids during the treatment process to the Marigold Pump Station, from where it will be returned to the McLoughlin Point Wastewater Treatment Plant through the existing conveyance system.

Background

In 2014, alignment options were developed based on technical, environmental, social and economic considerations. The options were evaluated by the CRD, with input from the District of Saanich and Township of Esquimalt, and a preferred alignment was selected.

The evaluation of the alignment has since been reviewed and validated by the Wastewater Treatment Project team in consultation with the municipalities of Saanich, Esquimalt and Victoria.

Favourable considerations for the route include:

- shortest of all alignments
- power available at pump station locations
- good maintenance access
- no impact on wildlife habitat
- lowest capital, operating and maintenance costs

The Wastewater Treatment Project team is working with the municipalities of Saanich, Esquimalt, and Victoria to ensure technical issues related to the alignment are addressed and, where possible, to coordinate municipal works with construction of the Residual Solids Conveyance Line.

It is anticipated that the design will be finalized in spring 2018. The construction schedule will begin in summer 2018, and is expected to take approximately two years to complete.

Public Information Open Houses

The Project Team will hold four community information open houses in November to share the alignment for the Residual Solids Conveyance Line and the anticipated location of pump stations.

While the route is close to final, it is still subject to input from communities and feedback we receive during the November meetings will be considered, along with other technical and financial considerations, in finalizing the design.

For details on the community information open houses please visit: wastewaterproject.ca

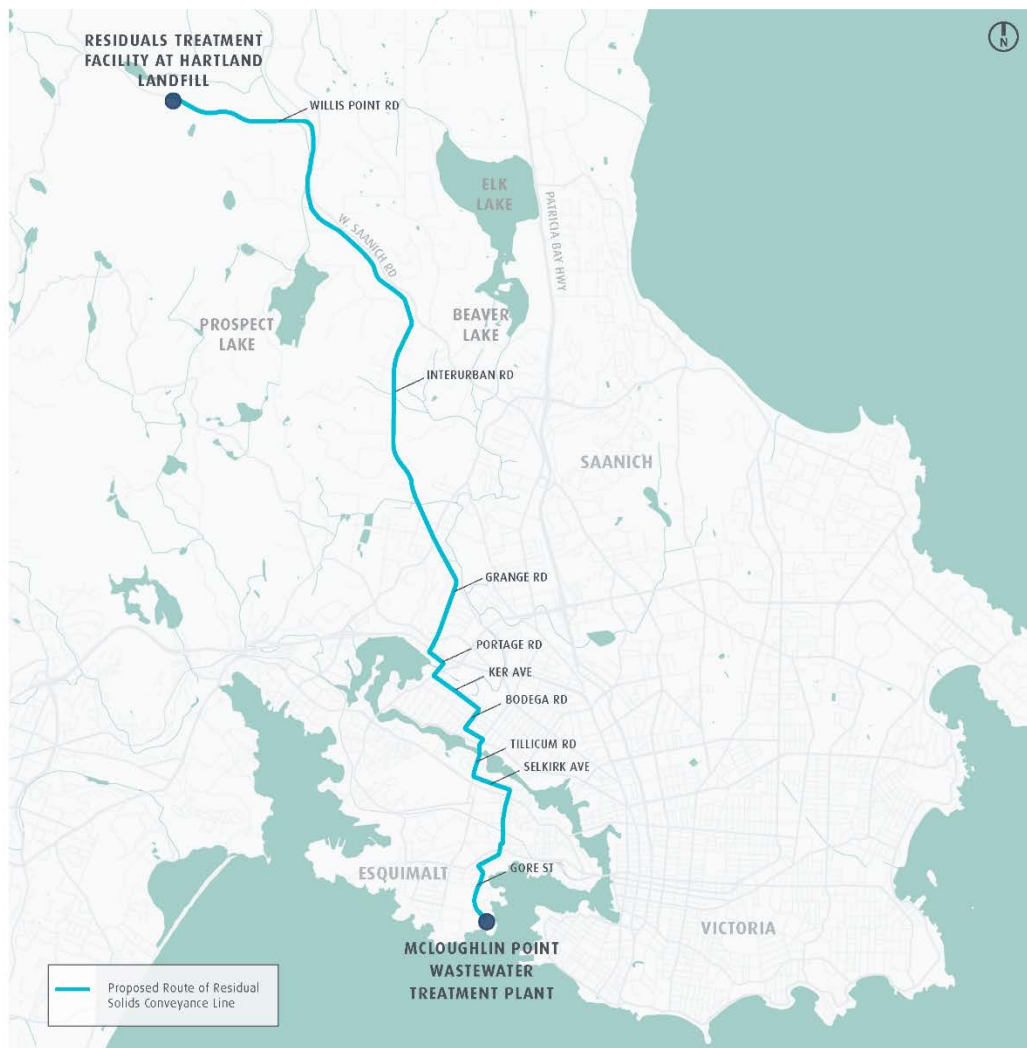
About the Wastewater Treatment Project

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.



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

Information Sheet



For More Information

Website: wastewaterproject.ca

Email: wastewater@crd.bc.ca

24-7 Project Information Line: 1.844.815.6132

Appendix E: Clover Point Pump Station Contractor Selected: November 22, 2017



**Wastewater
Treatment Project**

Information Bulletin

For Immediate Release

November 22, 2017

Clover Point Pump Station Contractor Selected

Victoria, BC– The contractor for the Clover Point Pump Station has been selected and is Kenaidan Contracting Ltd. The Clover Point Pump Station expansion and upgrade is being constructed as part of the Wastewater Treatment Project, and is a \$25 million contract to design, build and expand the current pump station.

Kenaidan Contracting Ltd (Kenaidan) was selected by the Capital Regional District (CRD) through a competitive selection process. Kenaidan has more than 30 years of experience building, modernizing, and expanding waterworks facilities within Southern Ontario and British Columbia.

Construction on the Clover Point Pump Station is anticipated to begin in early 2018 and will be complete in mid-2020. The contractor is expected to begin some pre-construction activities, such as geotechnical and topographical investigations in December 2017, and it is anticipated the contractor will be preparing the laydown area and mobilizing site trailers in early 2018.

The Clover Point Pump Station was built in the 1970s and is owned and operated by the CRD. The current pump station pumps wastewater directly into the ocean. The expanded pump station will pump wastewater to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment during normal flows and provide bypass pumping to the existing Clover Point outfall during storm events.

The Clover Point Pump Station expansion will be primarily underground and below the grade of the adjacent section of Dallas Road. The expanded facility will be constructed out of materials that will allow it to blend with the existing facility and surrounding area. It will also include upgraded odour and noise control features, such that there is no discernible odour or noise to residents. The scope of work also includes a number of public realm improvements, such as public washrooms, pedestrian and bicycle paths, bicycle facilities, a public plaza, street furniture and road intersection improvements.

The Wastewater Treatment Project is being funded by the Government of Canada, the Government of British Columbia and the CRD.

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 Project will be built so we comply with federal regulations by the end of 2020, and consists of the McLoughlin Point Wastewater Treatment Plant, the Residuals Treatment Facility at Hartland Landfill, and the conveyance system that will carry wastewater from across the core area to the McLoughlin Point Wastewater Treatment Plant, and residual solids to the Residuals Treatment Facility.

-30-

For media inquiries, please contact:

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



Appendix F: Monthly Cost Report

ASSET MANAGEMENT COST REPORT as at November 30, 2017														
Project Component	COST EXPENDED							COMMITMENTS			FORECAST		VARIANCE	
	Control Budget	Allocated Budget	Expended to October 31, 2017	Expended over reporting period (November 2017)	Expended to November 30, 2017	Expended to November 30, 2017 as a % of Budget	Remaining (Unexpended) Budget at November 30, 2017	Total Commitment at November 30, 2017	Unexpended Commitment at November 30, 2017	Uncommitted Budget at November 30, 2017	Forecast to Complete	Forecast at Completion	Variance at Completion \$	Variance at Completion as a % of Budget
McLoughlin Point Wastewater Treatment Plant ^A	378	378	67	4.0	71	19%	306	337	266	40	306	378	-	0%
Residuals Treatment Facility ^A	195	195	12	0.2	12	6%	183	18	6	177	183	195	-	0%
Conveyance System ^A	192	192	27	0.9	28	14%	165	65	37	127	165	192	-	0%
Total Costs	765	765	106	5	111	15%	654	420	309	345	654	765	-	0%

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