



# Wastewater Treatment Project

Treated for a cleaner future

## CRD Wastewater Treatment Project

### Monthly Report

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Reporting Period: August 2018

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## 1 Executive Summary

### 1.1 Introduction

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

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

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

The WWTP Project Component is continuing with Harbour Resource Partners (“HRP” as the Design-Build Contractor for the McLoughlin Point WWTP) progressing in August engineering of the WWTP and outfall; and site work at McLoughlin Point including continuing: installation of the foundation piles, concrete pours for the tsunami and planter walls, and installation of underground piping; and starting concrete pours for the building base slabs.

The RTF Project Component is continuing with Hartland Resource Management Group (“HRMG” as the Design-Build-Finance-Operate-Maintain Contractor for the RTF) progressing planning and permitting, design engineering activities, and vendor selection. Construction activities over the reporting period included drilling, rock blasting, excavating and backfilling.

The Conveyance System is anticipated to be delivered through eight construction contracts: two design-build contracts and six design-bid-build contracts.

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

- Clover Point Pump Station: Kenaidan Contracting Limited (“Kenaidan”, as the Design-Build Contractor) progressed planning, design and construction activities over the reporting period, including: completing the civil/structural early works and issued for construction (IFC) package and submitting a public realm improvements package to the City of Victoria; and progressed construction activities including: continuing to drill, install, tension and proof test tie-backs, remove excess fills from site to accommodate the drilling of the tie-backs and installed wood lagging for the soldier pile wall.
- Macaulay Point Pump Station and Forcemain: Kenaidan Contracting Ltd. (“Kenaidan” as the Design-Build Contractor) progressed planning, design and construction activities over the reporting period, including providing the 90% hazard and operability (HAZOP) report and completed demolition of the existing workshop, formed and placed concrete and commenced framing of the temporary bin room and placed concrete for the new duct bank across View Point Road.

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

- Clover Forcemain: The Project Team completed the evaluation and proposals received in response to the RFP for selection of a construction contractor and identified a preferred proponent.
  - Residual Solids Conveyance Line (“RSCL”): Residual Solids Pipes (RSCL 100): Parsons (as the Design Consultant) completed the final (Request for Proposal ready) design deliverable. The request for proposal closed and the Project Team evaluated the proposals; and
  - Residual Solids Pump Stations (RSCL 200): Parsons (as the Design Consultant) held a design workshop and progressed development of the 90% design deliverable. The Project Team issued the RFQ to pre-qualify contractors for construction of the Residual Solids Pump Stations.
- Arbutus Attenuation Tank (“ART”): Kerr Wood Leidal (as the Design Consultant) progressed the final (tender ready) design deliverable as well as certain pre-requisites for the building permit, including the tree survey and re-vegetation plan and the Environmental Management Plan.

## 1.2 Dashboard

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

Changes were made to the dashboard during the reporting period as follows:

- Safety: one recordable safety incident was reported at the Clover Point site during the reporting period. Corrective action has been identified and implemented to ensure the key performance indicator is met; and
- Cost: cost pressures experienced on multiple Conveyance procurements as a result of inflation in the Vancouver Island construction market has resulted in budget pressures. Corrective action has been identified and implemented, however further action is anticipated to be required to maintain the Control Budget.

Table 1- Executive Summary Dashboard

Key Performance Indicators		Project Overall	WWTP	RTF	Conveyance System	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.					One recordable incident occurred at the Clover Point site over the reporting period. Corrective action has been identified and implemented. Site inspections are ongoing.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction					No environmental issues.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.					No regulatory issues.
Stakeholders	Continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders.					Engagement activities were ongoing in the reporting period. Significant efforts were made to provide accurate and timely information to stakeholders.
Schedule	Deliver the Project by December 31, 2020.					No schedule issues.
Cost	Deliver the Project within the Control Budget (\$765 million).					Project expenditures within Control Budget but cost pressures experienced on multiple Conveyance procurements as a result of inflation in the Vancouver Island construction market. Corrective action has been identified and is being implemented (see Section 2.7 for details), but further action is anticipated to be required to maintain the Control Budget.

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

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

## 2 Wastewater Treatment Project Progress

### 2.1 Safety

Safety information for the reporting period and cumulative for the Project from January 1, 2017 is summarized in Table 2. The total recordable incident frequency (TRIF) for the period from January 1, 2018 inclusive of Project Contractors and Project Management Office (PMO) staff was one.

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

With ongoing construction activities on the Project these inspections continued and site inspections were performed weekly with the relevant prime contractor and CRD representative. Office and site orientations were delivered as required. Over the reporting period four incidents occurred: A report only and a first aid incident occurred at the RTF site; a first aid incident occurred at Clover Point Pump Station; and the Project's first recordable incident occurred at Macaulay Point Pump Station.

On August 2, 2018 a report only incident occurred at the RTF site. A loaded 30 tonne articulated rock truck was being backed into the designated dumping area at the stockpile at the south east corner of the site. During the backing up process the driver checked the vehicle's mirrors to ensure that a flat surface was being maintained to keep the load balanced. He began to dump the load of rock and the box of the truck began to tip. The driver immediately tried to retract the box, however it had already spilled its load of rocks as the truck was designed to provide safety for the operator and for the machine so that in soft ground conditions if the box is off balance it will not tip the cab over with it.

Corrective actions with respect to the incident were taken. The root cause of the incident was threefold:

- poor layout of the stockpile;
- operator error in attempting to dump when conditions were not proper to do so; and
- possible equipment failure.

The truck was immediately tagged "out of service" prior to inspection for any damage. A rubber pad on the #2 axel was replaced allowing the truck to return to service. Although the driver recognized that the conditions were not ideal to dump the contents of the box, this had not been reported to the supervisor. Therefore the driver underwent further safety training on the unloading of materials and recognizing site conditions along with appropriate reporting requirements. The stockpile layout for dumping material was redesigned to ensure trucks have a larger level area to use when backing up and unloading material.

On August 8, 2018 a first aid incident occurred at the Macaulay Point site. A ten foot high scaffold system was erected by a subcontractor to Kenaidan. This scaffold was used to access and secure cables located at ceiling height to allow for the shutdown and relocation of a transformer. The scaffolding was erected with handrails placed on all four sides to enclose the working deck of the scaffold system. Later in the day the handrails on the scaffolding were removed due to limited space around existing piping that was restricting access to complete the work. A worker on the scaffolding securing the cables lost his balance and fell backwards off the scaffolding. The worker

fell approximately 2.4 meters from the working deck. The worker reported to the site supervisor with lower back and leg pain. As a precautionary measure the injured worker was sent to a physician for an additional assessment in which no further treatment was required. The worker resumed regular duties the following day.

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

- scaffold system was tagged “out of service” and dismantled the day after the incident;
- work area was cordoned off to keep unauthorized personnel out of area due to overhead hazards and limited work area;
- Chinook Scaffolding was contracted to erect proper scaffolding in task areas as well as any modifications to be performed to facilitate work;
- scaffolding inspection checklists were provided to workers to complete prior to working from any scaffolding systems;
- safe work practice review taken with workers on scaffolding and fall protection;
- field level risk assessment card review training on how to identify all hazards associated with task and control measures that will be put into place to reduce or eliminate hazards;
- rigging, slinging and hoisting procedures were reviewed with workers;
- prime contractor and subcontractor supervisor reviewed inspection procedures, incident reporting, worker competency and regulatory requirements for scaffolding; and
- a safety notice was distributed to CRD and prime contractors with regards to the incident and outlined corrective actions taken to prevent recurrence on any project sites.

On August 10, 2018 a first aid incident occurred involving a mechanic subcontractor performing maintenance work to a water truck at the RTF site. The mechanic was tightening a loose bolt with a wrench and the wrench slipped from his grasp causing him to pinch his finger against a solid surface. The mechanic reported the incident to onsite first aid. A function test was performed on the finger and it was determined that no further first aid was needed and the mechanic returned to work.

A corrective action was taken with respect to the incident. As the cause of the incident was improper use of a tool, a review of the procedure followed and an instruction to perform this task in a slower, more controlled motion was given.

On August 27, 2018 a recordable medical aid incident occurred at the Clover Point site. Two subcontractor workers were moving a timber to install as lagging on the soldier pile wall. The worker at ground level (the “groundsman”) was pushing one end of a ten foot long timber up to his coworker that was positioned at a higher elevation on the opposite side of the wall in order to guide it into position. When the groundsman lifted up the timber to slide it onto existing lagging, a board directly beneath the timber slipped from the existing wall and pinched the groundsman’s left index finger. The worker received a crush injury to his finger which split the skin open. Both workers reported the incident to the onsite supervisor. It was determined that the finger would require medical attention and the worker was taken to the hospital for treatment. X-rays of the finger were taken that showed a hairline fracture and stitches were needed to close the open wound. The worker returned to the subcontractor head office to participate in their modified duty program. The worker is not required to have additional treatment for his finger injury. A review of lifting and placing procedures was also undertaken.

Corrective actions were taken with respect to the incident. The timber that slipped had not been properly secured. Every fourth timber is now secured in the pile wall using lag bolts to prevent any timbers from being able to move. Additionally, the crew is to backfill lagging as soon as

possible to avoid further movement of boards and also to ensure all nails installed in the timber lagging are tight up against the steel beams.

Key safety activities conducted during August included:

- review document submissions from prime contractors;
- review of site specific safety plans and high risk tasks;
- CRD prime contractor orientation for new supervisor (Kenaidan);
- WTP Safety Manager and/or Construction Manager conducted regular site inspections at all active Project work sites and daily inspections and Macaulay and Clover Point;
- monthly office/site inspections with prime contractors and CRD Corporate at all active sites;
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager;
- weekly project update meetings with HRP;
- traffic management plan reviews for Clover Point Pump Station (HRP);
- incident reporting review with prime contractors at active work locations;
- participated in WorkSafeBC tour with prime contractor and Hartland CRD representatives at the RTF project site; and
- organized prime contractor monthly safety meetings with CRD.

Table 2 – WTP Safety Information

	Reporting Period (August 2018)	Project Total to-Date (from January 1, 2017)
<b>Person Hours</b>		
PMO	4,913	70,427
Project Contractor	15,459	234,995
Total Person Hours	20,372	305,421
<b>Total Number Of Employees</b>		
PMO	36	
Project Contractors working on Project sites	101	
Total Number Of Employees	137	
<b>Incident Statistics</b>		
Near Miss Reports	0	8
High Potential Near Miss Reports	0	2
Report Only	1	3
First Aid	2	4
Medical Aid	0	0
Medical Aid (Modified Duty)	1	1
Lost Time	0	0
Total Recordable Incidents	1	1
	<b>2018 Frequency (from January 1, 2018)</b>	<b>Project Frequency (from January 1, 2017)</b>
First Aid Frequency		2.6
Medical Aid Frequency		0.6
Lost Time Frequency		0
Total Recordable Incident Rate		0.6

## 2.2 Environment and Regulatory Management

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

### 2.2.1 Environment

Environmental work in August progressed as planned.

Key environmental management activities completed in August included:

- HRMG (as the Design-Build-Finance-Operate-Maintain Contractor for the RTF) continued with soil tests in support of soil disposal documentation requirements. Test results indicate that there may be some heavy metal contamination, however, additional testing is required to validate results. CRD, HRMG and Stantec are working to prepare a plan to characterize soils at the RTF site and appropriately manage any contaminated material while mitigating costs associated with disposal of any contaminated material; and
- HRP (as the Design-Build Contractor for the McLoughlin Point WWTP), Stantec and the CRD continued advancing the MWR Registration. The focus of that work is on updating the Marine Environmental Impact Study (EIS) to address BC Ministry of Environment and Climate Change Strategy (ENV) comments that arose from their review.

### 2.2.2 Regulatory Management

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

Key permitting activities for August include:

- HRMG and CRD met to review HRMG's draft Information Requirements Table (IRT) and to discuss planning of HRMG's Operational Certificate application. The IRT forms the basis of the Operational Certificate application; and
- HRP and CRD met with Fisheries and Oceans Canada (DFO) to receive an update on DFO's review of the application for a Fisheries Act Authorization for 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.

Table 3 has been updated since the Project's July 2018 Monthly Report as follows:

- The status of the following permits have been updated:
  - McLoughlin Point Outfall: Removed Notice from the Director to Construct under section 40(b) of the MWR as it was received in the last reporting period.
  - McLoughlin Point WWTP: Changed Township of Esquimalt Building Permit (Phase 2) to received.

- Macaulay Point Pump Station: Added details about phased Township of Esquimalt Building Permit approach and changed Township of Esquimalt Building Permit (Phase 1) to Received.

Table 3 - Key Permits Status

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

### 2.3 First Nations

First Nations communication and engagement was ongoing over the reporting period.

In August, the PMO, CRD First Nations Relations Division and the Songhees and Esquimalt Liaisons continued meeting and advancing work in areas of shared interest. This included planning of an archaeological training day for members of the Esquimalt and Songhees communities. This training will be used to identify members of the communities who are interested in participating in cultural monitoring of construction activities in registered archaeological sites and in areas of high archaeological potential.

Following the death of Chief Andy Thomas, Esquimalt Nation has been exploring different leadership models – potentially transitioning to an Elected Chief rather than a Hereditary Chief. As part of this exploration, Esquimalt Nation has undergone a change of leadership, with Esquimalt Nation Council taking a more active role. The Environmental, First Nations and Regulatory Manager met with the new leadership at Esquimalt Nation to discuss the changes.

### 2.4 Stakeholder Engagement

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

#### **Construction Communications**

##### Construction Notices and Updates:

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

- Construction of the new Macaulay Point Pump Station & Forcemain (August 3, 2018) (Appendix A); and
- Macaulay Point Pump Station: Temporary Power Transfer (August 14, 2018) (Appendix B).

The August 3, 2018 construction notice was also posted as signage at the Macaulay Point Pump Station and Forcemain site. It provides an overview of what to expect during construction, work hours, traffic impacts and a rendering of the finished pump station and map of the forcemain route.

#### **Project Website**

Throughout the month of August, the Project website, wastewaterproject.ca, was updated with information about the Project. Two construction notices were posted and the Project's photo gallery was updated with a photo of the concrete pour at the McLoughlin Point WWTP site.

**Community Meetings**

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

- City of Victoria Mayor;
- City of Victoria staff;
- James Bay Neighbourhood Association; and
- Township of Esquimalt Liaison Committee.

In addition, the Project Team provided representatives from the Province of British Columbia’s Ministry of Municipal Affairs and Housing with a tour of the Residuals Treatment Facility construction site.

**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 – August 2018*

Inquiry Source	Contacts for August
Information phone line inquiries	9
Email inquiries responded to	6

Key themes of the public inquiries were as follows:

- request for information about lighting on the cycle path along the Clover Foremain;
- feedback about the truck route in Esquimalt;
- inquiries about wastewater treatment processing;
- inquiries about the Residual Solids Conveyance Line design and route; and
- general inquiries about project work.

**2.5 Resolutions from Other Governments**

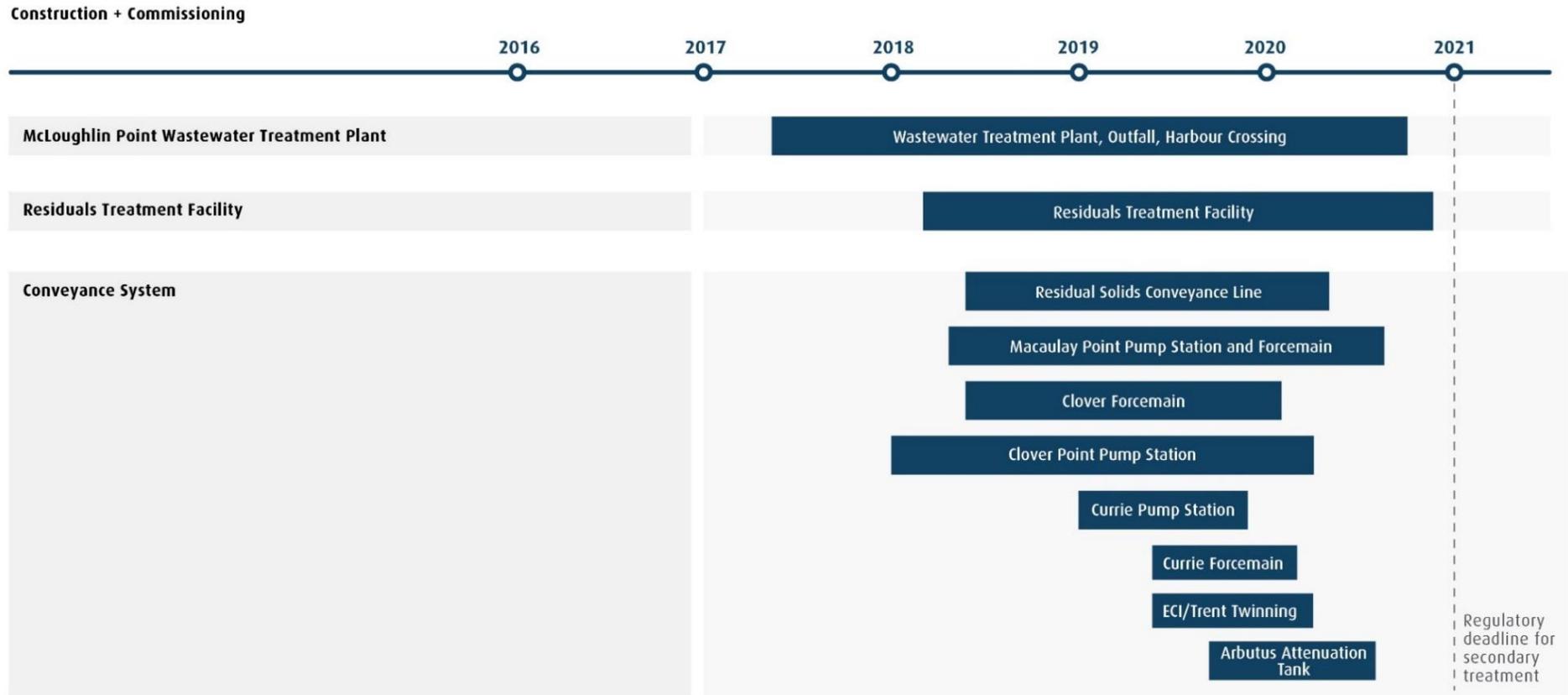
There were no resolutions related to the Project passed by other Governments during the reporting period.

**2.6 Schedule**

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

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

Figure 1-High-Level Project Schedule<sup>1</sup>



*\*Schedule subject to updates as project planning progresses.*

<sup>1</sup> The schedule remains subject to optimization.

### 2.6.1 30 and 60 day lookahead

#### **Key activities and milestones for the next 30 days (September) are:**

##### **Safety**

- review prime contractor safety program for Clover Forcemain site;
- new prime contractor CRD safety orientation;
- monthly risk register WTP meeting;
- review of any site specific safety plans or high risk tasks;
- document reviews as required;
- set up office warden training for new designate;
- set up monthly safety meeting for all prime contractor safety personnel on the WTP;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites;
- develop monthly summary for CRD Corporate Safety Manager in regards to Project activities;
- monthly office/site inspections with contractors and CRD Corporate at all active sites;
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager;
- periodic blasting safety/silica exposure plan reviews at RTF site;
- incident reporting review with prime contractors at active work locations (if applicable) and;
- send out safety notice(s) in the event of an incident to CRD and prime contractors (if applicable).

##### **Environment and Regulatory Management**

- HRMG and CRD to meet with ENV to discuss terms of reference for HRMG Operational Certificate application; and
- HRP, Stantec and the CRD to continue advancing the MWR Registration.

##### **First Nations**

- continue advancing the planning of archaeological soils relocation to Clover Point Park;
- PMO to make a presentation to Songhees Chief and Council; and
- Project Board Chair to meet with Chiefs of the W̱SÁNEĆ Nations.

##### **Stakeholder Engagement**

- ongoing construction communications with stakeholders;
- community information meeting to provide a project update on the Clover Forcemain;
- develop and post information sheets on the Clover Forcemain and Clover Point Pump Station;
- notification of blasting for the Macaulay Point Pump Station and Forcemain;
- planning and preparations for a community meeting on the RSCL; and
- ongoing community liaison meetings.

##### **Cost Management and Forecast**

- prepare cost reports;
- monitor schedule;
- prepare for Q3 financial close and interim audit; and

- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

## **Construction**

### **McLoughlin Point**

- commence installation of underground utilities and drains at operations and maintenance area;
- commence concrete wall pours in tertiary area;
- install underground process piping in primary and secondary areas;
- continue with tsunami and planter walls; and
- continue surface runoff/groundwater treatment and discharge.

### **Clover Point Pump Station**

- complete installation of tie-backs;
- excavate to pump room elevation;
- commence excavation of new storm/sanitary wet well; and
- commence forming and rebar for pump room and wet well base slabs.

### **Macaulay Point Pump Station**

- install conveyors to temporary bin room;
- complete temporary bin room;
- excavation of building footprint to bedrock; and
- commence drilling and blasting.

### **Residuals Treatment Facility**

- excavation, drilling and blasting;
- crushing of blast rock and haul to stockpile; and
- commence excavating for the storm water system and potable and fire water lines in area 1.

## **Engineering**

### **McLoughlin Point WWTP:**

- construction package 4 yard pipe: issued for construction (IFC) design deliverable;
- construction package 5 process building slabs: issued for construction (IFC) design deliverable; and
- construction package 6 operations and maintenance (O&M) slabs: issued for construction (IFC) design deliverable.

### **Residuals Treatment Facility:**

- early works package 1 site access road: 100% and issued for construction (IFC) design deliverables;
- early works package 2 digester area foundation: 100% and issued for construction (IFC) design deliverables;
- early works package 3 municipal receiving solids structural: 100% and issued for construction (IFC) design;

- early works package 4 residuals handling foundation: 100% and issued for construction (IFC) design;
- early works package 5 water pump house and water tank foundation: 100% and issued for construction (IFC) design;
- early works package 6 admin building foundation: 100% and IFC design; and
- overall design: 60% design deliverable.

Clover Point Pump Station:

- incorporate comments to civil/structural final design review; and
- submit revised 90% hazard and operability (HAZOP) report.

Macaulay Point Pump Station:

- submit revised early works 1 design submission for demolition and temporary works; and
- submit final (100%) early works 2 design submission for excavation and foundation.

Clover Forcemain:

- complete and issue IFC submission.

Residuals Solids Conveyance Line:

- RSCL100: Residual Solids Pipes: finalize issued for construction (IFC) design deliverable and receive required municipal approvals; and
- RSCL200: Residual Solids Pumps: progress 90% design deliverable.

Arbutus Attenuation Tank:

- progress final (100%) design deliverable; and
- complete submission to District of Saanich for building permit.

**Procurement**

Clover Forcemain:

- negotiate and execute contract with preferred proponent.

Residuals Solids Conveyance Line:

- RSCL100: Residual Solids Pipes:
  - negotiate contract as per RFP RSCL-100 with proponent; and
  - review all works plans after contract execution.
- RSCL200: Residual Solids Pumps:
  - received and evaluate RFQ responses and selected pre-qualified proponents.

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

**Safety**

- review of any site specific safety plans or high risk tasks;
- document reviews as required;
- attend CRD joint occupational health and safety meeting;
- WTP Safety Manager and/or Construction Manager will conduct regular site inspections at all active Project work sites;
- develop monthly project summary for CRD Corporate Safety Manager regarding Project activities;

- monthly office/site inspections with contractors and CRD Corporate at all active sites;
- monthly communication meeting with WTP Safety Manager and CRD Corporate Safety Manager;
- periodic blasting safety/silica exposure plan reviews at RTF site; and
- incident reporting review with prime contractors at active work locations (if applicable).

### **Environment and Regulatory Management**

- CRD and KWL (as design consultant for the Arbutus Attenuation Tank) to submit an application for Notice from the Director to Construct under Section 40 (b) of the MWR; and
- Parsons (as design consultant for the RSCL) to prepare BC Water Sustainability Act applications for in-stream work associated with RSCL construction.

### **First Nations**

- Millennia (as the Project's archaeological advisor) to begin archaeological pre-construction digs along Clover Forcemain route with the aid of the Clover Forcemain contractor; and
- PMO and WTP liaisons to continue meeting and advancing issues of overlapping interest.

### **Stakeholder Engagement**

- ongoing construction communications with stakeholders;
- planning for future Project update content;
- planning and preparations for a community meeting on the RSCL; and
- ongoing community liaison meetings.

### **Cost Management and Forecast**

- prepare cost reports;
- monitor schedule;
- prepare for Q3 financial close and interim audit; and
- submit funding claims to Infrastructure Canada (under the Building Canada Fund and Green Infrastructure Fund).

### **Construction**

#### McLoughlin Point

- continue construction of tsunami and planter walls;
- commence interior walls in the biological aerated filter (BAF) areas;
- construction of base slab at odour control area;
- complete tertiary concrete wall pours; and
- continue surface runoff/groundwater treatment and discharge.

#### Clover Point Pump Station

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

### Macaulay Point Pump Station

- drill and blast; and
- remove blast rock to elevation -4.0m.

### Residuals Treatment Facility

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

### Clover Forcemain

- mobilization and initial survey of site;
- initial traffic management plan, health and safety plan and environmental protection plan;
- pre-construction archaeological digs in area 7; and
- pre-construction soil testing part 1.

## **Engineering**

- McLoughlin Point WWTP: issued for construction (IFC) design for the overall WWTP deliverable
- Residuals Treatment Facility: review early works packages and progress 90% design;
- Clover Point Pump Station: submit final (100%) design deliverable for the overall CPS;
- Macaulay Point Pump Station: submit final (100%) design deliverable;
- Residuals Solids Conveyance Line:
  - RSCL100: Residual Solids Pipes: finalize issued for construction (IFC) design deliverable; and
  - RSCL200: Residual Solids Pumps: submit final (100%) design deliverable.
- Arbutus Attenuation Tank: progress final (100%) design deliverable.

### Residuals Solids Conveyance Line:

- RSCL100: Residual Solids Pipes: finalize contractor work plans.
- RSCL200: Residual Solids Pumps:
  - issue request for proposal (RFP) to pre-qualify construction contractors;
  - respond to inquiries from proponents, as needed; and
  - issue request for proposal (RFP) to pre-qualified proponents.

## 2.7 Cost Management and Forecast

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

We have adjusted the status of the cost key performance indicator from yellow to orange. Orange indicates that the KPI is at risk unless corrective action is taken. Project expenditures are within the Control Budget but cost pressures continue to be significant on the conveyance components of the Project. In July and August the Project Team received proposals for the Clover Forcemain and the Residual Solids Conveyance Line, respectively. The Project Team held competitive procurements for each of these components of the Project and was successful in engaging qualified experienced contractors that submitted proposals under competitive conditions. However, the proposal prices received were greater than estimated as a result of cost escalation due to inflationary pressures in the Victoria area construction market and material supply.

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

### 2.7.1 Commitments

Commitments were made over the reporting period in furtherance of delivering the Project. The commitments made during the reporting period resulted in an increase in committed costs of \$1.8 million primarily associated with contract change orders and consultant/advisor contracts.

### 2.7.2 Expenses and invoicing

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

### 2.7.3 Contingency and Program Reserves

There were no contingency or program reserve draws over the reporting period. The contingency and program reserve balance is summarized in Table 5. The remaining contingency and program reserve is anticipated to be sufficient to deliver the Project within the Control Budget.

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

WTP Contingency and Program Reserve Draws and Reallocations	Draw Date	\$ Amount
<b>Contingency and Program Reserve balance as at August 1, 2018</b>		<b>\$ 69,068,378</b>
Total Contingency and Program Reserve Draws over the Reporting Period		\$ -
<b>Contingency and Program Reserve balance as at August 31, 2018</b>		<b>\$ 69,068,378</b>

### 2.7.4 Project Funding

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

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

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

The status of funding claims is summarised in Table 6. Note that the timing for the provision of the Government of British Columbia and Government of Canada’s funding differs by funding source. The Project Team will submit claims to the funding partners in accordance with the relevant funding agreements. In accordance with the funding agreements, funding from the P3 Canada Fund and Government of British Columbia cannot be claimed until the relevant Project components are substantially complete, which is scheduled to occur in 2020.

*Table 6 – Grant Funding Status*

Funding Source	Maximum Contribution	Funding Received in the Reporting Period	Funding Received to Date
Government of Canada (Building Canada Fund)	\$120M		\$23.2M
Government of Canada (Green Infrastructure Fund)	\$50M	\$5.8M	\$5.8M
Government of Canada (P3 Canada Fund)	\$41M		
Government of British Columbia	\$248M		
<b>TOTAL</b>	<b>\$459M</b>	<b>\$5.8M</b>	<b>\$29.0M</b>

### 2.8 Key Risks and Issues

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

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

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



Table 7- Project Active Risks Summary

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
<b>Project</b>				
Misalignment between First Nations' interests and the implementation of the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with First Nations interfacing with, or interested in, the Project.	First Nations engagement activities remained ongoing over the reporting period (see section 2.3 for further details).	M	No change
Divergent interests between multiple parties and governance bodies whose co-operation is required to successfully deliver the Project.	The assessed risk level reflects the Project Team's priority of establishing strong and effective relationships with municipal, provincial and federal government departments.	The Project Team continued engagement with municipal, provincial and federal government departments throughout the reporting period.	M	No change
Misalignment between Project objectives/scope and stakeholder expectations.	The assessed risk level reflects the Project Team's priority of establishing strong and effective community stakeholder engagement.	Community engagement activities were ongoing over the reporting period (see section 2.4 for further details).	M	No change
Lack of integration between Project Components.	Planning challenges and system integration between the WWTP, RTF and Conveyance System components of the Project results in schedule delays and/or additional Project costs.	Physical and schedule interfaces are clearly delineated in all construction contracts along with the requirement for commissioning and control plans.  The Project Team is using a single Owner's engineer (Stantec) to develop the indicative design for all critical project components with significant interfaces.	M	No change

Risk Event	Description of Risk Event	Risk mitigation activities undertaken or planned in the reporting period	Assessed risk level (based on likelihood and potential impact)	Trend in risk level from previous reporting period
Senior government funds issue delayed.	The assessed risk level reflects the Project Team’s priority of ensuring Project funding commitments are honoured.	Responsibility for meeting funding commitments have been assigned and are being monitored.	M	No change
Downstream works delays.	Delay from conveyance projects delay delivery of wastewater to WWTP.	Schedule has sufficient time allowance to ensure conveyance elements complete prior to requirement. Contractor agreements will include terms that require the contractor to recover schedule delays and/or allow for CRD acceleration.	M	No change
Downstream works delays.	Delay of the delivery of residual solids to the RTF.	Contract with HRP (as the Design-Build Contractor for the McLoughlin Point WWTP) includes terms that require the contractor to recover schedule delays and/or allow for CRD acceleration. Liquidated damages for late delivery in HRP contract.	M	No change
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

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



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



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

## 2.9 Status (Engineering, Procurement and Construction)

### 2.9.1 Wastewater Treatment Plant (WWTP)

The WWTP Project Component is continuing with Harbour Resource Partners (“HRP” as the Design-Build Contractor for the McLoughlin Point WWTP) progressing in August engineering of the WWTP and outfall; and site work at McLoughlin Point including continuing installation of the foundation piles, continuing concrete pours for the tsunami and planter walls and continued installation of underground piping.

#### **Engineering**

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

- construction package 2 deep foundations: 100% and issued for construction (IFC) design deliverables for the McLoughlin Point WWTP;
- construction package 5 process building slabs: 100% design deliverable for the McLoughlin Point WWTP;
- construction package 6 operations and maintenance (O&M) slabs: 100% design deliverable for the McLoughlin Point WWTP;
- construction package 7 tertiary area foundation and walls: complete issued for construction (IFC) design for the McLoughlin Point WWTP;
- overall design: 100% design deliverable for the McLoughlin Point WWTP; and
- detailed design report for the outfall: issued for construction (IFC) design deliverable of the McLoughlin Point WWTP.

#### **Construction**

##### McLoughlin Point

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

- continued construction of tsunami and planter walls;
- mobilized additional crew trailers and double stacked them;
- expanded area “A” parking lot to accommodate additional office trailers;
- completed erection of concrete placing boom for use on operations and maintenance (O&M) building;
- installed floor drains, rebar and grounding grid in tertiary slab;
- placed 610 cubic meters of concrete in first tertiary slab pour and 490 cubic meters in the second slab pour;
- prefabricated formwork for odour control slab and tertiary wall pours;
- prepared the area at the end of Victoria View Road for micro tunnel boring machine (MTBM) crane pad; and
- continued surface runoff/groundwater treatment and discharge.



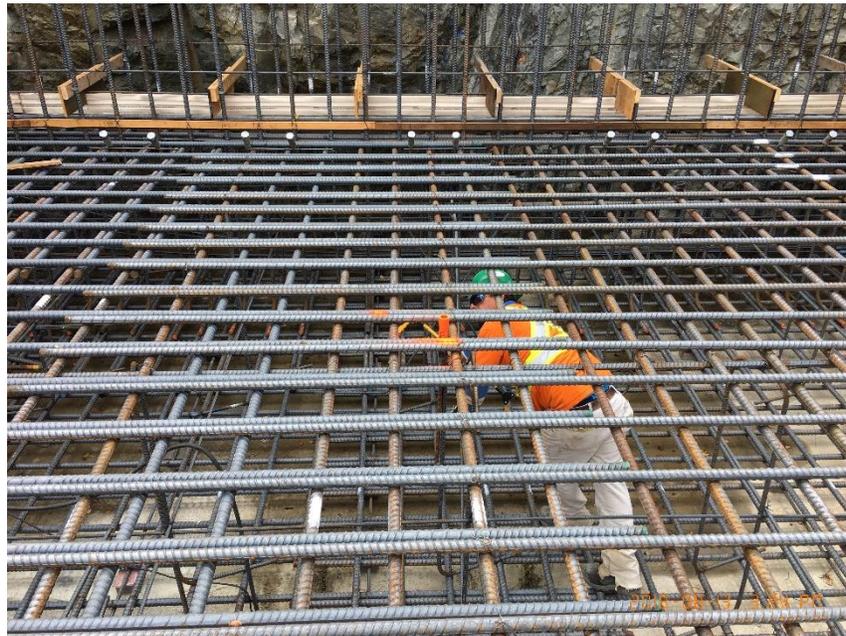
Figure 2 – Rebar dowels in the tertiary area.



Figure 3- Erecting concrete placing boom for operations and maintenance (O&M) area.



*Figure 4 – Setting floor drains in the tertiary slab.*



*Figure 5 – Cleaning up in tertiary area prior to placing concrete.*



*Figure 6 – Placing concrete in the tertiary slab.*



*Figure 7 – Wet curing of concrete slab.*

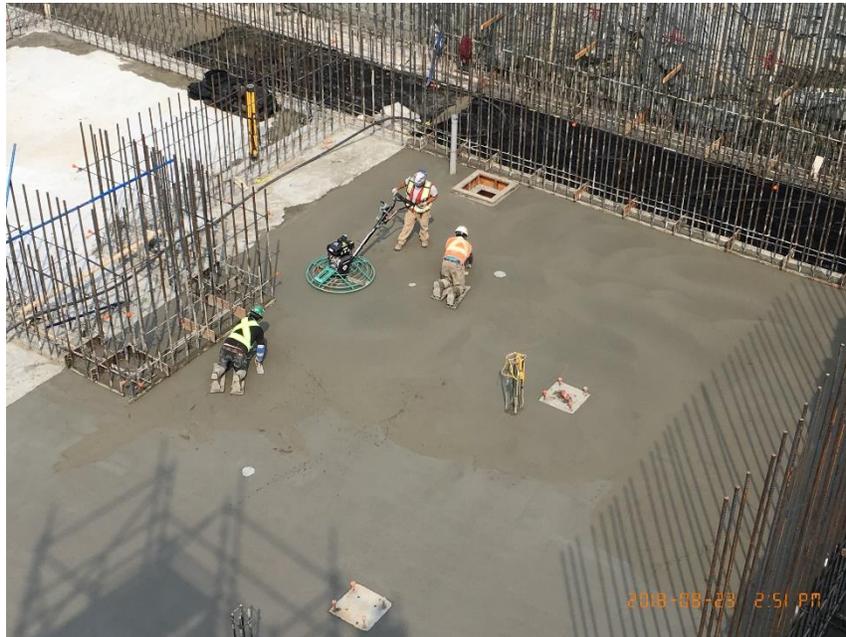


Figure 8 – Finishing concrete in the tertiary slab.

## 2.9.2 Residuals Treatment Facility (RTF)

The RTF Project Component is continuing with Hartland Resource Management Group (“HRMG” as the Design-Build-Finance-Operate-Maintain Contractor for the RTF) progressing planning and permitting, design engineering activities, and vendor selection. Construction activities over the reporting period included drilling, rock blasting, excavation and backfilling.

### **Engineering**

HRMG progressed planning and design activities in August, including:

- submitted the 60% design submission;
- prepared and submitted various project plans and submittals;
- progressed with vendor selection;
- finalized independent certifier contract;
- worked with BC Hydro to confirm power requirements to the site; and
- worked with District of Saanich and MOE on permitting requirements.

### **Construction**

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

- drilling, rock blasting and excavation (blasting shut down mid-August due to extreme wildfire danger);
- hauling aggregate, placed in 300mm lifts and compact at digester #1 area;
- mobilised new crusher to site and crushed aggregate and stockpiled;
- excavated, loaded and hauled contaminated material to the Hartland Landfill site; and
- excavated upper Hartland access road and stockpile material for future use.



*Figure 9 – Rock crushing plant in operation.*



*Figure 10 – Spreading and compacting aggregate at digester #1 location.*



Figure 11 – Excavator with hoe-pack compacting placed aggregate material in valleys and depressions in bedrock.



Figure 12 – Loading and hauling contaminated material to Hartland Landfill.

### 2.9.3 Conveyance System

#### Clover Point Pump Station

Kenaidan Contracting Limited (“Kenaidan”, as the Design-Build Contractor) progressed planning, design and construction activities over the reporting period, as follows:

#### **Engineering**

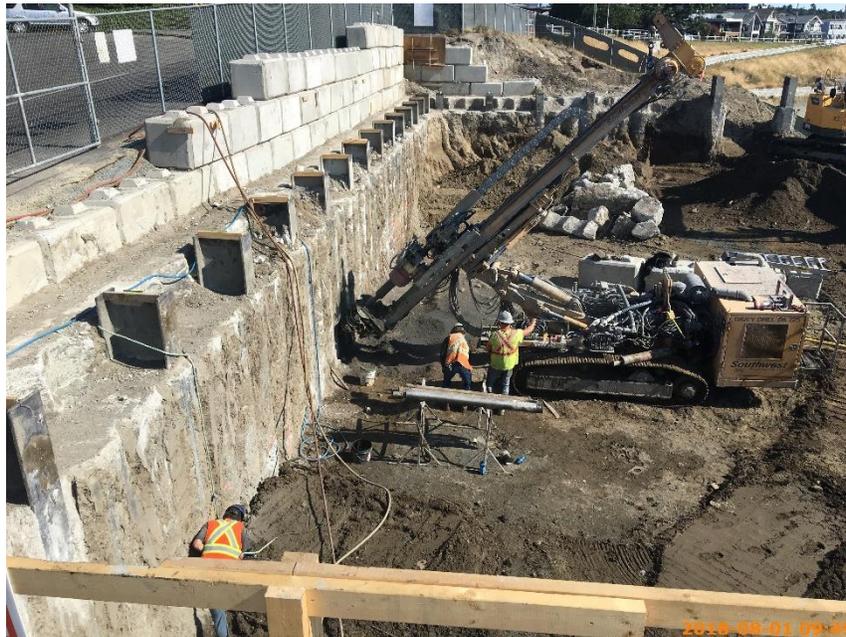
Kenaidan completed the following engineering activities:

- civil/structural early works 100% and issued for construction (IFC) package submitted for review; and
- public realm improvements package: submission for City of Victoria.

#### **Construction**

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

- continued to drill, install, tension and proof test tie-backs;
- removing excess fills from site to accommodate the drilling of the tie-backs; and
- installed wood lagging for the soldier pile wall.



*Figure 13 – Southwest drilling tie-backs.*

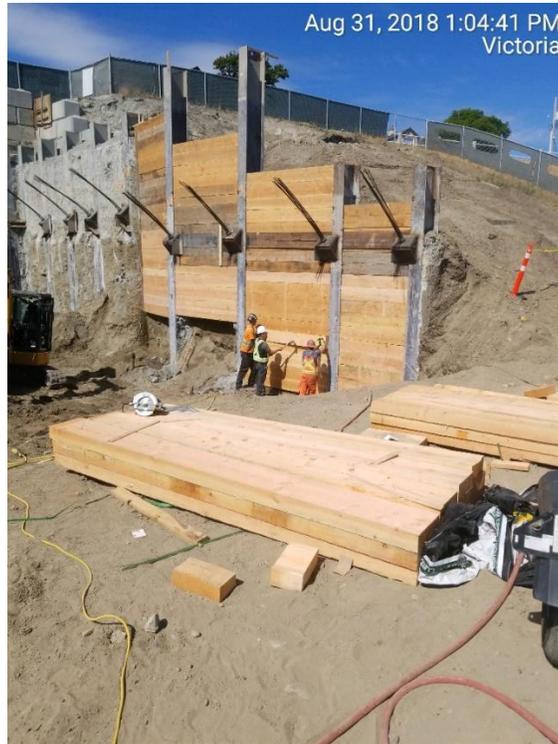


Figure 14 – Installing wood lagging between piles at gridline 8.



Figure 15 – Grinding concrete flush with king piles.



Figure 16 – Excavating down to lower level of tie-backs and hauling material offsite.

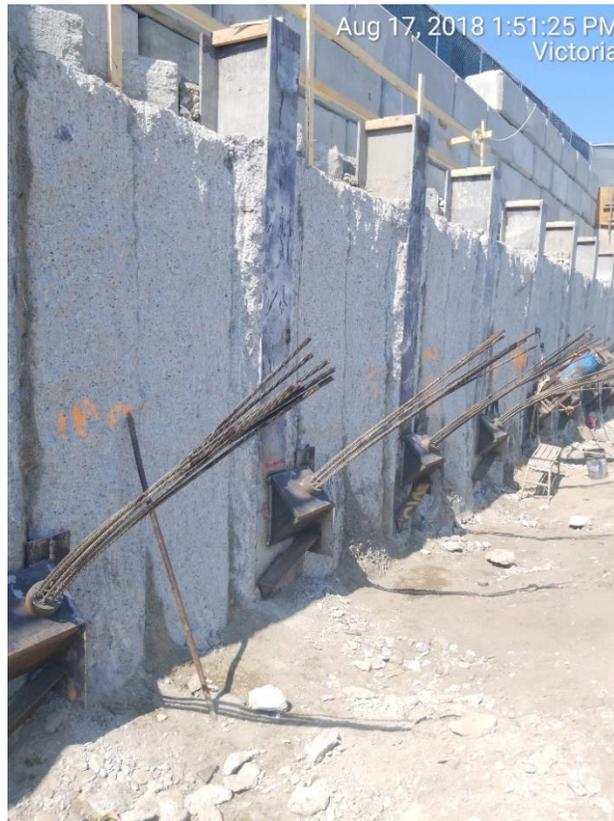


Figure 17 – Tension and proof testing tie-backs.

### Macaulay Point Pump Station and Forcemain

Kenaidan Contracting Ltd. (“Kenaidan” as the Design-Build Contractor) progressed planning, design and construction activities over the reporting period, as follows:

#### **Engineering**

Kenaidan (as the Design-Build Contractor) completed the following engineering activities: 90% hazard and operability (HAZOP) report provided.

#### **Construction**

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

- completed demolition of workshop, laboratory and exterior concrete walls in phase 1A and 1B demo and sort and dispose of demolished material;
- disconnected, relocated and re-connected the transformer and E-house;
- formed and placed concrete for base slab for the temporary bin room;
- commenced framing of the temporary bin room; and
- placed concrete for the new duct bank across View Point Road.



*Figure 18 – Hoisting E-house and moving to new location.*



*Figure 19 – Placing concrete in duct bank under View Point Road.*



*Figure 20 – Commence framing of temporary bin room.*

Clover Forcemain (CFM)

The CFM contract was executed on September 10, 2018 between the CRD and Windley Contracting Ltd. Issued for construction (IFC) drawings and specifications were included in the contract. Construction activities are expected to begin in October 2018.

Residuals Solids Conveyance Line (RSCL)

Parsons (as the Engineer of Record) progressed and/or completed the following engineering activities:

- package no. 1 residual solids pipes: issued for construction (IFC) design issued; and
- package no. 2 residual solids pump stations: develop 90% design.

## Appendix A – Construction Notice – Macaulay Point Pump Station – August 3, 2018



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

### Construction Notice

## Construction of the new Macaulay Point Pump Station & Forcemain

The new Macaulay Point Pump Station and Forcemain is being built as part of the Wastewater Treatment Project. The existing pump station will be demolished and a new pump station will be constructed to convey wastewater from Colwood, Langford, View Royal, Esquimalt, Saanich and Victoria to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment. The new Macaulay Point Pump Station will continue to provide bypass pumping to the existing outfall during heavy storm events. The forcemain is the pipe that will connect the Macaulay Point Pump Station to the McLoughlin Point Wastewater Treatment Plant.

The design of the new pump station reflects its location on the waterfront, improving the visual impact of the building and creating greenspace for the community to enjoy. The pump station will have many sustainable features such as a green roof and rain garden.

#### What to Expect

- Demolition of the existing pump station workshop and laboratory building.
- Excavation and blasting for the new pump station.
- Construction of the below-grade concrete structure.
- Construction of the above-grade wood structure.
- Excavation and installation of the forcemain and utility relocations along the following roads: Vaughan, Anson, Bewdley and Peters.

#### Work Hours

- 7:00 a.m. to 7:00 p.m. Monday to Friday
- 9:00 a.m. to 5:00 p.m. Saturday
- No work is planned for Sundays or holidays, except on limited occasions.

#### Traffic Impacts

- Traffic impacts are expected to be minimal as the majority of the work will be conducted on the existing Macaulay Point Pump Station site.
- There will be localized single-lane traffic during forcemain construction.
- Truck traffic will follow the Traffic Management Plan approved by the Township of Esquimalt.
- The waterfront trail will remain open during construction and operations.

Construction is anticipated to be complete in summer 2020.

#### About the Wastewater Treatment Project

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

For more information, please visit [wastewaterproject.ca](http://wastewaterproject.ca)

To learn more about the Wastewater Treatment Project, or to sign up for construction updates, please visit [wastewaterproject.ca](http://wastewaterproject.ca). To contact the project, please email [wastewater@crd.bc.ca](mailto:wastewater@crd.bc.ca) or call 1.844.815.6132.



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

### Construction Notice



To learn more about the Wastewater Treatment Project, or to sign up for construction updates, please visit [wastewaterproject.ca](http://wastewaterproject.ca). To contact the project, please email [wastewater@crd.bc.ca](mailto:wastewater@crd.bc.ca) or call 1.844.815.6132.

**Appendix B – Construction Notice – Temporary Power Transfer – August 14, 2018****Wastewater  
Treatment Project**  
Treated for a cleaner future**Construction Notice**

August 14, 2018

**Macaulay Point Pump Station: Temporary Power Transfer**

Temporary utility and power relocations will be completed for the Macaulay Point Pump Station on August 16-17, 2018. This work is coordinated as part of the Macaulay Point Pump Station upgrades. These utilities will allow the ongoing operation of the existing facility while the new pump station is under construction. To facilitate this work, the existing pump station will need to be powered by an external generator.

Construction of the new Macaulay Point Pump Station and Forcemain is being built as part of the Wastewater Treatment Project. The upgraded pump station and forcemain will convey wastewater directly to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment and will continue to provide bypass pumping to the existing outfall during heavy storm events.

**What to Expect**

- A temporary generator will be used to allow the existing facility to operate and permit uninterrupted sewage flow while the new utilities are being installed.
- This generator will continue to operate through the night on August 16, returning to utility power prior to the end of the working day on August 17.

**Work Hours**

- Construction is not expected to extend beyond the work hours of 7:00 a.m. to 7:00 p.m., however the generator will continue to operate through the night.

**Traffic Impacts**

- No traffic disruptions are anticipated as part of this work.

**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 and is being built so we comply with federal regulations by the end of 2020.

For more information, please visit [wastewaterproject.ca](http://wastewaterproject.ca).

To learn more about the Wastewater Treatment Project, or to sign up for construction updates, please visit [wastewaterproject.ca](http://wastewaterproject.ca). To contact the project, please email [wastewater@crd.bc.ca](mailto:wastewater@crd.bc.ca) or call 1.844.815.6132.



**Appendix C – Monthly August Cost Report**

ASSET MANAGEMENT COST REPORT as at August 31, 2018														
Project Component	Control Budget	Allocated Budget	COST EXPENDED					COMMITMENTS			FORECAST		VARIANCE	
			Expended to July 31, 2018	Expended over reporting period (August 2018)	Expended to August 31, 2018	Expended to August 31, 2018 as a % of Budget	Remaining (Unexpended) Budget at August 31, 2018	Total Commitment at August 31, 2018	Unexpended Commitment at August 31, 2018	Uncommitted Budget at August 31, 2018	Forecast to Complete	Forecast at Completion	Variance at Completion \$	Variance at Completion as a % of Budget
McLoughlin Point Wastewater Treatment Plant <sup>A</sup>	378.0	375.6	124.1	0.7	124.9	33%	250.7	341.3	216.3	34.3	250.7	375.6	-	0%
Residuals Treatment Facility <sup>A</sup>	195.0	176.3	14.9	0.2	15.1	9%	161.2	150.0	134.9	26.3	161.2	176.3	-	0%
Conveyance System <sup>A</sup>	192.0	213.1	39.0	1.4	40.4	19%	172.7	106.1	65.8	107.0	172.7	213.1	-	0%
<b>Total Costs</b>	<b>765.0</b>	<b>765.0</b>	<b>178.0</b>	<b>2.3</b>	<b>180.4</b>	<b>24%</b>	<b>584.6</b>	<b>597.4</b>	<b>417.0</b>	<b>167.6</b>	<b>584.6</b>	<b>765.0</b>	<b>-</b>	<b>0%</b>

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