



Wastewater Treatment Project

Treated for a cleaner future

CRD Wastewater Treatment Project

Governance Transition Report

Report Date: May 17, 2021

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1 Executive Summary

1.1 Wastewater Treatment Project

The Capital Regional District planned, procured and constructed the Wastewater Treatment Project (the “Project”) in order to meet the provincial and federal regulations for the core area’s wastewater by December 31, 2020.

On May 25, 2016 the Regional Board of the CRD (the “CRD Board”) established the Wastewater Treatment Project Board (the “Project Board”) under Bylaw 4109 (the “CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016”) for the purposes of administering the Project. The CRD Board adopted by resolution terms of reference (“Terms of Reference”) for the Project Board for the purposes of establishing principles governing the WTP. The Terms of Reference are attached as Schedule “A” to the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016.

On May 25, 2016 the CRD Board also delegated certain of its powers, duties and functions to the Project Board under Bylaw 4110 (the “CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016”).

In accordance with the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016 the Project Board appointed a Project Director to oversee all aspects of the Project. In accordance with the Terms of Reference, the Project Director was responsible for leading a Project team to plan, procure, and implement the WTP.

The Project Board also appointed a Deputy Project Director. The Project Director and Deputy Project Director were delegated authority in accordance with Bylaw 4186 (the “CRD Delegation Bylaw No. 1, 2017”), which delegates to the CRD’s officers and employees the authority to acquire and purchase goods and services on behalf of the CRD, subject to the CRD’s purchasing policies and procedures, and signing authority limitations.

Under these two delegations of authority, the Project Board and Project Team entered into agreements and made commitments in order to achieve the purposes for which the Project Board was established.

The Project Board have fulfilled their role and function as defined in the Terms of Reference, and the term of the Project Board and Project Team concludes on May 24, 2021. The Project Team have fulfilled the vast majority of the commitments, but some remain to be fulfilled after the Project Board’s term, in many cases as a result of the commitments’ recurring or deferred nature (for example administering construction contracts warranty periods that extend beyond the Project Board’s term, or receipt of close-out documentation).

1.2 Objective of this Governance Transition Report

The objective of this Governance Transition Report is to facilitate a comprehensive Project close-out and successful transition by providing a summary of the following:

- Identifying the source of the various commitments made, and for each outlining the commitments that remain to be fulfilled beyond the Project Board’s term;

- Summarising the funds committed in the Project's budget to complete the activities remaining to close-out the construction contracts and the obligations remaining to be fulfilled in the Project's funding, First Nation and land access agreements; and
- Outlining the location and organisation of Project documentation.

More detailed supporting documentation is available in the Project files, and in every case the source agreement should always be referred to for the definitive obligation: this report summarises the status of Project commitments and activities as of May 2021, for convenience as a reference only.

Note that another document (the Project Completion Report) has been written to mark the completion of the Wastewater Treatment Project, and includes:

- an assessment of the Project's performance against the goals established by the CRD Board and the key performance indicators approved by the Project Board;
- the identification of variances from the baseline plans prepared by the Project Board and/or Project Team, in terms of the Project's scope, schedule and cost;
- the identification of Project successes and challenges; and
- an outline of the Project-related commitments and activities that extend beyond May 2021.

2 Project Commitments: Source and Summary Status

This report section outlines the Project-related commitments and activities that extend beyond May 2021, and is organised in the following five categories:

- i) Activities related to closing-out the Project's construction contracts;
- ii) Obligations remaining to be fulfilled in the Project's funding, First Nation and land access agreements;
- iii) Committed funds for the resources required to oversee the completion of the remaining obligations and close-out the construction contracts; and
- iv) Operating and maintenance obligations related to the infrastructure built by the Project; and
- v) A summary of the status of First Nations artwork and signage that either has or is to be installed.

Appendix A summarises the sources of the Project commitments, which can be categorised as:

- Construction contracts;
- Funding agreements;
- First Nation agreements; and
- Land access agreements.

The Project budget includes committed funds (as outlined in this report) to complete the activities remaining to close-out the construction contracts and the obligations remaining to be fulfilled in the Project's funding, First Nation and land access agreements.

In addition, the Project budget includes an appropriate amount of contingency, based on the Project Team's assessment of the: status of each component; the risks associated with the remaining work and the outstanding obligations; and the funds and resources committed to complete these. In summary, the Project budget includes contingency as follows:

- \$1 million for the McLoughlin Point Wastewater Treatment Plant, to cover the potential incentive payment to HRP, that is payable after the completion of the performance period (which concludes on January 12, 2023), and will be payable at an amount (of up to \$1 million) to be determined based on performance against milestones over the two year performance period; and
- no contingency is anticipated to be required for the Residuals Treatment Facility component, as the remaining construction-period risks are allocated to HRMG in the Project Agreement, as amended by the Service Commencement Agreement;
- \$1.74M for the conveyance component, which is anticipated to be more than sufficient given the nature of the remaining commitments and activities; and
- no contingency is anticipated to be required for the Project Management Office as the resource commitments to support close-out activities allow for the conveyance contractors' schedules to slip, and should be sufficient provided all contracts achieve total completion by year end.

2.1 Construction Contracts

The Project Team entered into a number of design and construction contracts in order to build the Project, as summarized in Table 1.

Table 1 – Contracting Strategy, Design Consultant and Construction Contractor

Project Component	Contract	Contracting Strategy	Design Consultant	Construction Contractor
McLoughlin Point WWTP	McLoughlin Point Wastewater Treatment Plant	Design Build Finance	Harbour Resource Partners (Graham Infrastructure and AECOM Canada)	
Residuals Treatment Facility	Residuals Treatment Facility	Design Build Finance Operate Maintain	Hartland Resource Management Group (Synagro Capital, Maple Reinders PPP Ltd., Bird Construction Inc.)	
Conveyance System	Clover Point Pump Station	Design Build	Kenaidan Contracting Ltd.	
	Macaulay Point Pump Station & Forcemain	Design Build	Kenaidan Contracting Ltd.	
	Clover Forcemain	Design Bid Build	Kerr Wood Leidal	Windley Contracting Ltd.
	Residual Solids Conveyance Line	Design Bid Build	Parsons	Don Mann Excavating Ltd.
	Residual Solids Pump Stations	Design Bid Build	Parsons	Knappett Projects Inc.
	Arbutus Attenuation Tank	Design Bid Build	Kerr Wood Leidal	NAC Constructors Ltd.
	Trent Forcemain	Design Bid Build	Stantec	Jacob Bros Construction

As of May 2021, the vast majority of construction has been completed: the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with some minor construction activities remaining. The works remaining under each construction contract are summarised in Table 2, and the Project budget includes committed funds (as outlined in Table 2) to complete the remaining works and close-out the construction contracts.

The CRD are now operating the infrastructure built under each contract, with the exception of:

- the Arbutus Attenuation Tank, which is expected to be operational in June 2021; and
- the Residuals Treatment Facility, which has been delivered through a design-build-finance-operate maintain contract, pursuant to which the Hartland Resource Management Group are responsible for operating and maintaining the facility until the end of 2040.

Table 2 – Summary of Works Remaining on the Project's Construction Contracts at May 2021

Project Component	Summary of Works Remaining at May 2021	Project Personnel Available after May 2021 to Provide Continuity	Last Monthly Invoice processed and included in Expended Project Budget (see note 1)	Amount included within Project Budget Forecast to Complete: Covers Completed (but not yet invoiced) and Remaining Works (see note 2)
McLoughlin Point Wastewater Treatment Plant	- Providing advice and guidance to optimize plant performance over the remainder of the two-year performance period (to January 12, 2023); - Complete warm weather odour test; and - DFO authorization reporting.	- Project Manager, Wastewater Treatment Plant; - Owner's engineer: Stantec	April 2021	\$2.22M (to cover performance period commitments)
Residuals Treatment Facility	- Complete activities required to achieve Completion, primarily being: - Residual effluent line modifications; and - Address residual effluent quality (including demonstrating compliance to the CRD's satisfaction for the purposes of the second 15-day acceptance test); - Complete change orders related to: - Modifications at ring road connector; - Changes to biosolids loadout chute; - Down payment of sprung structure lease; - Minor deficiency items; and - Record drawing submission.	- Project Manager, Residuals Treatment Facility; - Owner's engineer: Stantec	March 2021	\$127M (to cover capital cost) \$0.25M (to cover completion of change orders)
Macaulay Point Pump Station and Forcemain	- Landscaping; - Minor deficiency items; and - Record drawing submission.	- Project Manager, Clover & Macaulay Point Pump Stations; - Owner's engineer: Stantec	March 2021	\$0.34M
Clover Point Pump Station	- Generator ventilation rectification; - Inlet channel debris removal (see note 3); - Final acceptance testing (note that final acceptance testing has had to be deferred until after the inlet channel debris removal is completed);	- Project Manager, Clover & Macaulay Point Pump Stations; - Owner's engineer: Stantec	March 2021	\$1.19M

Project Component	Summary of Works Remaining at May 2021	Project Personnel Available after May 2021 to Provide Continuity	Last Monthly Invoice processed and included in Expended Project Budget (see note 1)	Amount included within Project Budget Forecast to Complete: Covers Completed (but not yet invoiced) and Remaining Works (see note 2)
	- Completion of landscaping (this will complete the public realm improvements and is expected to be complete at the end of Q2, 2021) - Minor deficiency items; and - Record drawing submission.			
Clover Forcemain	- Landscaping; and - Quarterly post-construction stability surveys over the warranty period	- Project Manager, Clover & Macaulay Point Pump Stations; - Project Manager, Deputy Conveyance Manager - Design consultant: KWL	November 2020	\$0.16M
Residual Solids Conveyance Line	- Minor restoration on the BC Hydro access road to be completed once BC Hydro has completed the pole relocation (gate, tree replacement, final road surface); and - Peers Creek survey; and - DND roadway tie-in	- Project Manager, Clover & Macaulay Point Pump Stations; - Project Manager, Deputy Conveyance Manager - Design consultant: Parsons - Owner's engineer: Stantec	March 2021	\$0.03M
Residual Solids Pump Stations	- Removal of low floats and upgrade programming; - Supply and installation of automated valve actuators; - Landscaping; - Minor deficiency items; and - Record drawing submission	- Project Manager, Clover & Macaulay Point Pump Stations; - Project Manager, Deputy Conveyance Manager - Design consultant: Parsons	March 2021	\$0.43M
Trent Forcemain	- Restoration; - Minor deficiency items; and - Record drawing submission	Project Manager, Clover & Macaulay Point Pump Stations;	March 2021	\$1.58M

Project Component	Summary of Works Remaining at May 2021	Project Personnel Available after May 2021 to Provide Continuity	Last Monthly Invoice processed and included in Expended Project Budget (see note 1)	Amount included within Project Budget Forecast to Complete: Covers Completed (but not yet invoiced) and Remaining Works (see note 2)
		- Project Manager, Deputy Conveyance Manager - Owner's engineer: Stantec		
Arbutus Attenuation Tank	- Final commissioning activities; - Site grading and landscaping; - Minor deficiency items; and - Record drawing submission	- Project Manager, Clover & Macaulay Point Pump Stations; - Project Manager, Deputy Conveyance Manager - Design consultant: KWL	April 2021	\$1.71M
Conveyance Subtotal				\$5.44M
Total				\$134.91M

Notes to Table 2:

1. This is the last monthly invoice that was received and processed before the cut-off for the April 2021 cost period: invoices received to this date are captured in the Project budget in the column 'Expended to April 30, 2021'.
2. This is within the amount included in the Project budget in the column 'Forecast to Complete': it covers work completed but not yet invoiced (i.e. work conducted after the last monthly invoice shown in the previous column) as well as the forecast cost of the work remaining.
Note that for some Project components the amount in the 'Forecast to Complete' column in the Project budget differs from that shown in the table above, as it also includes committed funds to fulfil the outstanding obligations in the Project's First Nation and land access agreements.
3. This activity was not part of the original scope of the Project, and is required as a result of the pre-existing condition of the inlet channel (resulting from the build-up of debris over decades of use), and can only be completed in low flow conditions. The need to complete inlet channel debris removal has pushed out the schedule for the completion of some other scope elements of the contract.

2.1.1 Construction Contract Claims

The Project Team has negotiated and either rejected or settled construction claims as they have arisen, and none are outstanding as of May 2021. Table 3 summarises information regarding Project contractors that have formally released the CRD from claims for any events or circumstances up to the date shown.

Table 3 – Contractors Releasing CRD from Claims up to the Date Shown

Contract	Contracting Strategy	Date of Release
McLoughlin Point Wastewater Treatment Plant	Design Build Finance	January 12, 2021 (Acceptance Date: date responsibility for operating transitioned to CRD)
Residuals Treatment Facility	Design Build Finance Operate Maintain	March 29, 2021
Clover Point Pump Station	Design Build	March 31, 2021
Macaulay Point Pump Station & Forcemain	Design Build	March 31, 2021
Clover Forcemain	Design Bid Build	N/A (not required, all claims were settled or rejected over the course of construction)
Residual Solids Conveyance Line	Design Bid Build	N/A (not required, all claims were settled or rejected over the course of construction)
Residual Solids Pump Stations	Design Bid Build	N/A (not required, all claims were settled or rejected over the course of construction)
Arbutus Attenuation Tank	Design Bid Build	April 30, 2021
Trent Forcemain	Design Bid Build	May 6, 2021

2.1.1 Third-Party Insurance Claims

The Project has dealt with a number of third party claims over the course of construction. Third party claims are generally submitted through the wastewater e-mail address or come to the Project Team's attention through a municipality, and all claims that are submitted are reviewed by the Project Team to determine who is the appropriate Project contractor to forward the claim to. The Project contractor coordinates with their insurance company to evaluate the claim and determine the next steps. In many cases an adjuster will visit the third party claimant and inspect the areas of concern, following which they provide a response to the claimant. In some cases the claimant is directed to make a claim under their own insurance policy.

The CRD's only obligation with respect to any third-party insurance claims (whether they are yet to be resolved or yet to be submitted) is to direct them to the relevant Project contractor. The Project Team have endeavoured to ensure appropriate follow-up and communication.

2.1.2 BC Hydro

The Project required a number of BC Hydro infrastructure adjustments and improvements to be made, some of which were organised and paid for directly by the Project Team, with the remainder included within the scope of the relevant Project contractor's construction contract.

All BC Hydro infrastructure adjustment and improvements required for the Project (whether arranged directly by the Project Team or through the Project's contractors) have been completed, with the only exception being the relocation of one hydro pole within DND property at Work Point which is anticipated to be completed by BC Hydro before the end of Q3 2021. BC

Hydro are coordinating this work with DND, and the CRD has no further obligations related to BC Hydro's work.

BC Hydro have been fully-paid for the infrastructure adjustment and improvements arranged directly by the Project Team. The spreadsheet at the following link provides references to documents that outline the scopes of work and invoices for that work:

[BC Hydro Final Cost Report](#)

2.2 Obligations Remaining to be Fulfilled in the Project's Funding, First Nation and Land Access Agreements

In addition to the Project's nine construction contracts, approximately 20 funding, First Nation and land access agreements were entered into in order to deliver the Project (refer to Appendix A for a list of the agreements). There are a relatively small number of obligations remaining to be fulfilled in the Project's funding, First Nation and land access agreements, as summarised in the following subsections.

The Project budget includes committed funds to fulfil the outstanding obligations, as summarised in Table 4.

Note that many of the agreements contain:

- 'passive' obligations – for example the funding agreements include the requirement to maintain records for a certain number of years, and make them available upon request; and/or
- 'funding' obligations – for example the Esquimalt agreements include commitments for the CRD to fund amenity improvements subject to the Township advancing planning and approvals by certain dates, and the Project has committed funds to cover these obligations, as summarised in Table 4.

Table 4: Committed Project Funding for Obligations Remaining to be fulfilled in the Project's First Nation and Land Access Agreements

Agreement	Project Funding Covers	Project Funding	Location of Committed Funding
Transport Canada Licence: McLoughlin Point Harbour Crossing (see note 1)	Anticipated annual fee for 20 year term	\$0.02M	CP.100.751.100.155
Transport Canada Licence: McLoughlin Point Outfall (see note 1)	Anticipated annual fee for 20 year term	\$0.12M	CP.100.751.100.156
Township of Esquimalt Host Community Impact 5-Year Agreement	Lyall Street Enhancements	\$0.95M	CP.100.831.100.130
Township of Esquimalt Host Community Impact 5-Year Agreement	Remaining payments to fulfil public art and historical interpretive signage commitments	\$0.02M	CP.100.831.100.136
Township of Esquimalt Community Impact Mitigation Operating Agreement	Community Impact Fee (\$55k + CPI est. 2%) 25 years	\$1.73M	CP.100.831.600.605
Fisheries Act Authorization for the McLoughlin Point Outfall	Fulfillment of the remaining obligations	\$0.06M	CP.100.881.100.115
City of Victoria Licence of Occupation: Clover Point Pump Station	Commitment: one-time payment of \$75,000 for the maintenance of the public washrooms	\$0.08M	CP.330.805.100.150
Business Case commitment to Colwood Reserves	Fund reserve	\$2.00M	CP.800.000.600.606
WSANEC Leadership Council Memorandum of Understanding	Commitment - \$16k per month for 2021- Fund operating reserve Dec 2020	\$0.13M	CP.800.000.600.609
District of Saanich RSCL Infrastructure Access Agreement	Fulfilment of outstanding obligations	\$1.76M	CP.800.000.830.010
TOTAL		\$6.79M	

Notes to Table 4:

1. *These licences are in the process of being finalised by CRD's Corporate Services (real estate) Department: they could not have been entered into sooner as they require as-built information in order to be finalised. The licences will be required for the operating period of the assets: the Project is funding the annual fee for the first term (of 20 years), and upon expiry the CRD will need to renew both licences.*

2.2.1 Funding Agreements

The federal and provincial governments assisted the Capital Regional District in funding the Project. Project documentation regarding funding agreements can be found here:

[Funding Agreements](#)

Table 5 summarises the status of the funding agreements related to the Project, and detailed supporting documentation is available in the Project files. In addition, CRD finance staff seconded to the Project Team are familiar with the status of the funding agreements.

The Project's budget includes \$1.5M for the financing costs estimated to be incurred after May 2021. This estimate of financing costs was provided by the CRD's finance department, and covers differences in the timing between the receipt of funds (from senior governments and requisitions from the core area municipalities) and the Project's expenditures.

Table 5 – Summary of Status of Project's Funding Agreements at May 2021

Funding Partner	Agreement	Funds Outstanding	Status
Infrastructure Canada	Building Canada Fund	-	All funding received
Infrastructure Canada	Green Infrastructure Fund	\$5M	All documentation submitted and under Infrastructure Canada's review; awaiting release of \$5M holdback
Infrastructure Canada	P3 Canada Fund	\$41M	Discussions ongoing with Infrastructure Canada to ensure eligibility for maximum amount
Province of BC	Contribution Agreement	\$62M	All documentation submitted and under the Province's review; awaiting payment of final tranche of funding (\$62M)
Federation of Canadian Municipalities	GMF 16576	\$3M	Documentation compiled for signature and then to be sent to MFA once the grant audit is completed and submitted to CRD by KPMG.
Federation of Canadian Municipalities	GMF 15822	\$0.2M	All documentation submitted; awaiting payment
Federation of Canadian Municipalities	GMF 16342	\$0.2M	All documentation submitted; awaiting payment

2.2.2 First Nation Agreements

The CRD entered into three agreements with First Nations related to the Project, as follows:

- Esquimalt First Nation Support Agreement;
- Songhees First Nation Support Agreement; and
- WSANEC Leadership Council Memorandum of Understanding;

In summary:

- All of the CRD's obligations under the Esquimalt and Songhees First Nation Support Agreements have been fulfilled, and close-out letters from the Esquimalt and Songhees First Nations confirming this have been received.
- The only First Nation agreement with outstanding obligations is the WSANEC Leadership Council Memorandum of Understanding: the Project budget has committed funding to cover the remaining capacity funding, and the remainder of the outstanding obligations are not specific to the Project (they are broader to the CRD).

The CRD's First Nations Relations Department have supported and coordinated with the Project Team throughout Project delivery, and the fulfilled and outstanding obligations in the First Nation agreements were reviewed and transferred to the CRD's First Nations Relations Department in a meeting on March 12, 2021.

2.2.3 Land Access Agreements

The CRD entered into multiple land access agreements related to the Project. The following sub-sections summarise the status of the land access agreements as at May 2021.

2.2.3.1 Township of Esquimalt

The CRD entered into three agreements with the Township of Esquimalt related to the Project, as follows:

- Host Community Impact 5-Year Agreement;
- Community Impact Mitigation and Operating Agreement; and
- Amenity Reserve Fund Administration Agreement.

The Project Team are of the opinion that all of the commitments under the three agreements have been met, and the CAO of the Township of Esquimalt is preparing to take a close-out letter to Council confirming this.

Some of the obligations have been fulfilled by the Project committing funds, which are to be drawn upon subject to the passing of time (e.g. the community impact fee defined in the Community Impact Mitigation Operating Agreement) or the Township advancing planning and approvals (e.g. the Lyall Street Enhancements in the Host Community Impact 5-Year Agreement).

Documentation regarding the fulfilled and outstanding obligations can be found in the relevant governance transition summary, and in addition the CAO of the CRD and/or finance staff seconded to the Team have been included in correspondence regarding the funded obligations.

There is also an ongoing obligation to participate in the Esquimalt Liaison Committee: see section 3.3.1 of this report.

See also section 3.4 of this report for information regarding the Technical Working Group the Project Team established with the Township of Esquimalt.

2.2.3.2 City of Victoria

The City of Victoria granted two licences to the CRD related to the Project, as follows:

- Dallas Road Licence of Occupation; and
- Clover Point Pump Station Licence of Occupation.

The majority of obligations within both licences have been fulfilled, with a limited number of CRD responsibilities remaining, primarily related to the submission of documentation and the City's sign-off on landscaping.

Documentation regarding the fulfilled and outstanding obligations can be found in the relevant governance transition summary, and in addition Project Team members remaining with the CRD past May 2021 (being: the Project Manager, Clover & Macaulay Point Pump Stations; and the Project Manager, Deputy Conveyance Manager) are familiar with the status of the Licences of Occupation.

See also section 3.4 of this report for information regarding the Technical Working Group the Project Team established with the City of Victoria.

2.2.3.3 District of Saanich

The CRD entered into an agreement with the District of Saanich related to the Project, as follows: District of Saanich RSCL Infrastructure Access Agreement.

A number of obligations within the agreement have been fulfilled. The Project Team have committed funds for a financial proposal that is currently under the District of Saanich's review: the Project Team have proposed this as an alternative means to fulfil the majority of the outstanding obligations. If the District of Saanich agree to this approach the majority of obligations within the agreement will have been fulfilled, and a limited number of CRD responsibilities will remain, primarily related to the Peers Creek culvert replacement.

Documentation regarding the fulfilled and outstanding obligations can be found in the relevant governance transition summary, and in addition the CAO of the CRD is familiar with the rationale behind the financial proposal offered to the District of Saanich to fulfil the outstanding obligations.

One of the CRD's infrastructure improvements obligations under the Agreement was to replace culverts at Peers Creek. Parsons (under a contract with the CRD) designed two replacement (larger diameter) culverts and new headwalls, and Don Mann (under a contract with the CRD) constructed the improvements under the supervision of Stantec (under a contract with the CRD). Current Environmental were engaged by Parsons during the design, and the Project Team have subsequently engaged them directly to review concerns raised by nearby residents. Stantec are currently in the process of finalizing the completion report related to this improvement, for submission to the District of Saanich.

See also section 3.4 of this report for information regarding the Technical Working Group the Project Team established with the District of Saanich.

2.2.3.4 Greater Victoria Harbour Authority

The CRD entered into two agreements with the Greater Victoria Harbour Authority related to the Project, as follows:

- Compensation Agreement; and
- Right to Enter Agreement.

All of the CRD's obligations under the Greater Victoria Harbour Authority Agreements have been fulfilled, and close-out documentation from the Authority confirming this has been received.

2.2.3.5 Other Land Access Agreements

The CRD entered into three other land access agreements with third parties related to the Project, as follows:

- DND Licence Agreement for Access to Federal Real Property;
- Rock Bay Lease Agreement; and
- MOTI

All of the CRD's obligations under these agreements have been fulfilled, and close-out documentation from the relevant counterpart confirming this has been received.

2.3 Committed Funds for the Resources Required to Oversee the Completion of the Remaining Obligations and Close-Out the Construction Contracts

The Project Team have identified the resources (both Project Team staff and Project consultants) with the knowledge and expertise required to support the delivery of the remaining works, and the outstanding commitments, and the Project budget includes committed funds for the required resources, as follows:

- Project staff transitioning to CRD: see Table 6, which outlines project management, document control and finance staff resources that the Project budget will fund post May 2021;
- Project consultants: see Table 7, which outlines \$1.96M of funds that will be committed, primarily for design consultants (KWL and Parsons) and the Project's owner's engineer (Stantec), to support Project close-out activities; and
- The remainder of the CRD finance department allocation for the current year (approximately \$91k).

These resource commitments are based on the close-out activities forecast to be required post May 2021, and a conservative forecast of when those activities will be complete: Table 8 includes the actual or forecast dates for substantial and total completion for each of the Project's construction contracts, but the resource commitments in Tables 6 and 7 (and the Project's budget) allow for these schedules to slip, and should be sufficient provided that all contracts achieve total completion by year end.

Table 6: Committed Project Funding for Project Staff Transitioning to CRD to Support Project Close-Out Activities Post May 2021

Project Role	CRD Role	Transition	Project Funding Role Until
Project Manager, Wastewater Treatment Plant	Manager, Core Area Wastewater Treatment and Conveyance Operations	Phased over 2019-2020	July 4, 2021
Project Manager, Clover Point Pump Station and Macaulay Point Pump Station and Forcemain	Engineer, Integrated Water Services	May 25, 2021	December 31, 2021
Project Controls Manager	Continuation of Project Role	May 25, 2021	August 30, 2021
Project Manager, Residuals Treatment Facility	Continuation of Project Role	May 25, 2021	July 31, 2021
Project Manager, Deputy Conveyance Manager	Continuation of Project Role	May 25, 2021	July 31, 2021
Financial Analyst	Continuation of Project Role	May 25, 2021	August 1, 2021
Document Controller	Document Controller	June 1, 2021	December 31, 2021

Table 7: Committed Project Funding for Project Consultants to Support Project Close-Out Activities Post April 2021

Consultant	Scope Post April 2021	Scope Anticipated to Conclude	Last Monthly Invoice processed and included in Expended Project Budget (see note 1)	Amount included in Project Budget Forecast to Complete: Covers Completed (but not yet invoiced) and Remaining Works (see note 2)
Stantec	Owner's engineer, supporting the close-out of the following contracts: • McLoughlin Point Wastewater Treatment Plant; • Residuals Treatment Facility; • Macaulay Point Pump Station and Forcemain; • Clover Point Pump Station; and • Trent Forcemain	October 31, 2021	April 2021	\$646k
KWL	Design consultant, supporting the close-out of the following contract: Clover Forcemain	October 31, 2021	March 2021	\$67k
KWL	Design consultant, supporting the close-out of the following contract: Arbutus Attenuation Tank.	October 31, 2021	March 2021	\$490k
Parsons	Design consultant, supporting the close-out of the following contracts: • Residual Solids Conveyance Line; and • Residual Solids Pump Stations.	October 31, 2021	January 2021	\$504k
Mike McCoy	Operations expert, supporting primarily the operations team at the Wastewater Treatment Plant, but also available to assist with the operation of the conveyance components	August 30, 2021	April 2021	\$168k
Stantec	Conclusion of Asset Management Consulting Services for CRD's Integrated Water Services Department	CRD's Finance Department are managing the scope	Dec 2020	\$41k
EMA	Conclusion of Operational Readiness Review	CRD's Integrated Water Services Department are managing the scope	April 2021	\$46k
TOTAL FORECAST COMMITTED PROJECT FUNDING FOR PROJECT CONSULTANTS TO SUPPORT PROJECT CLOSE-OUT ACTIVITIES POST APRIL 2021				\$1.96M

Notes to Table 7:

1. This is the last monthly invoice that was received and processed before the cut-off for the April 2021 cost period: invoices received to this date are captured in the Project budget in the column 'Expended to April 30, 2021'.
2. This is the amount included in the Project budget in the column 'Forecast to Complete': it covers work completed but not yet invoiced (i.e. work conducted after the last monthly invoice shown in the previous column) as well as the forecast cost of the work remaining

Table 8 – Project Construction Contracts: Actual or Forecast Substantial and Total Completion

Project Component	Substantial Completion	Total Completion
McLoughlin Point Wastewater Treatment Plant (see note 1)	October 2020	January 12, 2021
Residuals Treatment Facility (see note 1)	March 4, 2021	June 30, 2021
Macaulay Point Pump Station and Forcemain	June 24, 2021	July 26, 2021
Clover Point Pump Station (see note 2)	October 26, 2021	November 19, 2021
Clover Forcemain	August 27, 2020	May 31, 2021
Residual Solids Conveyance Line	April 30, 2021	May 31, 2021
Residual Solids Pump Stations	May 15, 2021	July 15, 2021
Trent Forcemain	July 09, 2021	July 30, 2021
Arbutus Attenuation Tank	July 30, 2021	September 3, 2021

Notes to Table 8:

1. *This table includes the actual or forecast dates for substantial and total completion for each of the Project's construction contracts, but the resource commitments in Tables 6 and 7 (and the Project's budget) allow for these schedules to slip, and should be sufficient provided that all contracts achieve total completion by year end.*
2. *The concepts of substantial and total completion don't strictly apply to these contracts, instead the dates included are proxies, based on:*
 - a. *substantial completion: ready for intended use; and*
 - b. *total completion: Independent Certifier confirms acceptance testing complete*
3. *The requirement to complete inlet channel debris removal at Clover Point Pump Station was not part of the original scope of the contract: it is required as a result of the pre-existing condition of the inlet channel (resulting from the build-up of debris over decades of use), and can only be completed in low flow conditions. The need to complete inlet channel debris removal has pushed out the schedule for the completion of some other scope elements of the contract.*

2.4 Operation and Maintenance of Infrastructure Built by the Project

2.4.1 Responsibility for Operations and Maintenance of Project Components

The CRD's Integrated Water Services department are responsible for operating and maintaining all of the Project components other than the Residuals Treatment Facility (see section 7.3.3) upon completion of their commissioning period, and this transfer has occurred for all components other than the Arbutus Attenuation Tank, for which the transfer is forecast to occur in June 2021.

This responsibility includes:

- managing the contractual warranties for each of the Project components;
- administering the two-year performance period for the McLoughlin Point Wastewater Treatment Plant, as outlined below.

The McLoughlin Point Wastewater Treatment Plant contract includes a two-year performance period, from the acceptance date (January 2021). Over the performance period the CRD will

operate and maintain the McLoughlin Point Wastewater Treatment Plant, and Harbour Resource Partners are responsible for:

- monitoring operations;
- consulting with and providing advice to the CRD and the CRD's plant manager with respect to the operation of the Facility;
- assisting with environmental and regulatory compliance;
- preparing and updating the operations manual and operations and maintenance plans;
- assisting with the evaluation of the performance of the Project and the implementation of plans to achieve continued compliance with the process performance guarantees;
- assisting with the development and implementation of plans that will minimize use of power, chemicals, water and labour; and
- responding to warranty claims.

There are physically interfacing works and screened, dewatered wastewater is required to be delivered in order for the performance period to operate as intended. Responsibility for these interfaces is retained by the CRD: it was the Project Team's responsibility to manage the interfaces during construction and commissioning, and upon the acceptance date (January 2021), the CRD's Integrated Water Services department assumed responsibility for the operation of the McLoughlin Point Wastewater Treatment Plant and the management of the interfaces.

2.4.2 Contract Administration of Residuals Treatment Facility Project Agreement

The Residuals Treatment Facility was procured through a design-build-finance-operate-maintain contract under which Hartland Resource Management Group have the responsibility to design, build, partially-finance, operate and maintain the facility to meet the performance specification and contract requirements over the term of the contract.

The Residuals Treatment Facility has been constructed and is close to completing commissioning, and the Hartland Resource Management Group will be responsible for operating and maintaining the facility over the next 20 years. The Project's committed budget includes the net present value of the capital cost of the Residuals Treatment Facility.

There are physically-interfacing works and residual solids required to be delivered and biosolids required to be transported in order for the contract to operate as intended. The CRD's Parks and Environmental Services Department are responsible for managing these interfaces and administering the contract over the 20 year operating and maintenance period.

2.4.3 Environmental Management and Permits

To the extent allowed by the Project schedule, the Project Team assigned responsibility for obtaining permits to the relevant Project contractor, in order to avoid the Project Team inadvertently constraining the relevant contractor's execution flexibility. The contractor's knowledge of construction means, methods and schedule also put them in the best position to assess which of their activities required a permit and what the permit application should contain.

The notable exception to the above approach was registration under the Municipal Wastewater Regulation, which the Project Team coordinated with the support of: members of the CRD's Parks and Environmental Services and Integrated Water Services Departments; Project consultants (predominantly Stantec and KWL) and Project contractors (predominantly HRP and Kenaidan).

The CRD's Parks and Environmental Services Department and/or Integrated Water Services department (as applicable) are responsible for:

- environmental monitoring and/or mitigation activities related to the operation and maintenance of Project components, and
- compliance and reporting pursuant to the:
 - o Municipal Wastewater Regulation registration;
 - o Federal Wastewater System Effluent Regulations, including the transitional authorizations; and
 - o Fisheries Act Authorization for the McLoughlin Point Outfall: HRP obtained this Authorization and were responsible for fulfilling the planning, construction and year 1 monitoring obligations of this Authorization; the CRD's Integrated Water Services Department are responsible for fulfilling the remaining obligations.

Other than the obligations outlined above, the CRD do not have any obligations related to permits obtained during the planning, construction or commissioning phase of the Project.

Note the Operational Certificate for the Residuals Treatment Facility is in CRD's name, but HRMG are responsible for maintaining and complying with it, including fulfilling all ongoing monitoring and reporting obligations.

Project documentation regarding regulatory approvals and permits can be found here: [Regulatory approvals, licenses and permits](#)

2.4.4 Responsibility for Operations and Maintenance of Project Amenities

In furtherance of the Project's goal to deliver a solution that adds value to the surrounding community and enhances the liveability of neighborhoods, the Project either funded or funded and delivered a number of amenities and/or infrastructure improvements. These amenities and infrastructure improvements have been transferred to the benefitting municipality to operate and maintain, as outlined in Table 9 below, with the exception of the public realm improvements at Clover Point (which are covered in section 2.1 and are anticipated to be completed and handed over at the end of Q2, 2021). With the exception of the completion of the public realm improvements at Clover Point, the CRD's outstanding responsibilities are limited to coordinating the relevant contractor's response to any warranty claims.

Table 9 – Summary of Project Amenities Constructed by Project Contractors for which Operating and Maintenance Responsibility have been Transferred to a Third Party

Party Responsible for Operating and Maintaining Asset	Asset	Project Contractor Responsible for Construction and Warranty
City of Victoria	Cycle Path along Dallas Road	Windley
City of Victoria	Public Realm Improvements at Clover Point	Kenaidan
District of Saanich	Hartland Water System Improvements	Knappett

2.5 Signage and First Nations Artwork

In furtherance of the Project's goal to 'deliver a solution that adds value to the surrounding community and enhances the liveability of neighborhoods', and in some cases in fulfilment of commitments in the Host Community Impact 5-Year Agreement with the Township of Esquimalt (regarding public art and historical interpretive signage), the Project has arranged for the production of signage and First Nations Artwork as outlined in Table 10. Installation has either occurred or is scheduled to occur in the near future.

Project documentation regarding First Nations artwork and signage can be found here:

[Project Signage and First Nations Artwork](#)

Table 10 – Summary of Status of First Nations Artwork and Signage at May 2021

Artwork	Intended Installation Location	Status of Artwork	Artist	Status of contract with Artist/Signmaker	Installation to be Completed by	Anticipated Date of Installation
Peace Pole	Macaulay Point	Stored in Songhees Carving Shed	Ake Lianga and Bradley Dick	N/A (artwork organized through and paid for by the Pacific Peoples' Partnership: contact April Ingham, Executive Director)	Kenaidan	By end of May, 2021
Salish Art Metal Sculpture	Macaulay Point	Installed	Darlene Gait	Fully paid	Kenaidan	Already installed
Chief's Chair	Macaulay Point	Installed	Dylan Thomas	Final payment to be made upon delivery	Kenaidan	Already installed
Interpretive Signs (two)	Clover Point and Macaulay Point	Under fabrication	Urban Sign	Final payment to be made upon delivery	Kenaidan	By end of June, 2021
Interpretive Signs (five)	McLoughlin Point	Under fabrication	Urban Sign	Final payment to be made upon delivery	CRD's Integrated Water Services Department	By end of June, 2021
Seawolf shroud	Clover Point	Installed at Clover Point	Clarence Dick	Fully paid	Kenaidan	Already installed

3 Project Communications and Engagement

The Project Team, with the input and review of the CRD's Senior Manager of Corporate Communications, developed the Wastewater Treatment Project's Communications and Engagement 2020 Outlook (the 2020 Outlook). This document was developed to supplement the Project's Communications and Engagement Plan by highlighting communications and engagement opportunities and context specific to the final year of construction, and the transition of the Project from construction through commissioning and into the operating phase. The Communications and Engagement 2020 Outlook was approved by the Project Board in May 2020, and implemented by the Project Team.

In accordance with the 2020 Outlook, over the course of the final year of construction on the Project, the responsibility for communications and engagement transitioned from the Project Team to relevant CRD Departments, generally upon the Project entering the operating phase. This responsibility included: responding to public questions; providing stakeholder information; participating in the Esquimalt Liaison Committee; and responding to media enquiries.

3.1 Project Telephone Line and E-mail Address

The Project's dedicated 24/7 telephone line was closed in March 2021 (when the majority of the remaining construction was constrained to contained sites), and responsibility for monitoring the wastewater e-mail address was transferred to communications staff in the CRD's Integrated Water Services Department at the end of March 2021.

A tracking log of all public correspondence received through the below two channels can be found at the following link [Public correspondence log](#)

- E-mails received through the Project Board (cawtpb@crd.bc.ca) and Project e-mail address (wastewater@crd.bc.ca), up to March 2021; and
- Calls received through the Project's dedicated 24/7 telephone line.

3.2 Media Inquiries

The CRD's Senior Manager of Corporate Communications was the point of contact for media throughout Project delivery, with responsibility for coordinating with the Project Team to manage media inquiries related to the Project. After May 2021 it is anticipated that the CRD's Senior Manager of Corporate Communications will continue to be responsible for managing media inquiries with the support of the CRD's Parks and Environmental Services and/or Integrated Water Services Department representatives, as applicable to the inquiry.

3.3 Community Committees

The Project Team met and communicated with various community associations either regularly and/or when requested to update residents in areas where construction was taking place. None of these updates were intended to continue past the commissioning phase, with the exception of the Esquimalt Liaison Committee for which responsibility was transferred to the CRD's Integrated Water Services Department upon the McLoughlin Point Wastewater Treatment Plant becoming operational, as outlined below.

3.3.1 Esquimalt Liaison Committee

In accordance with the Community Impact Mitigation and Operating Agreement with the Township of Esquimalt, the Esquimalt Liaison Committee was established in May 2017 to provide a forum for the discussion of issues related to the construction and operation of the Wastewater Treatment Plant and the Macaulay Point Pump Station and Forcemain, including traffic management plans.

The committee includes representatives from the Township of Esquimalt, West Bay Residents Association, Lyall Street Action Committee, Macaulay Elementary School Parent Advisory Committee, Department of National Defence, and the CRD.

During Project construction, representatives from the McLoughlin Point Wastewater Treatment Plant contractor Harbour Resource Partners, the Macaulay Point Pump Station and Forcemain contractor Kenaidan Contracting Ltd. and the Residual Solids Conveyance Line contractor Don Mann Excavating also attended as appropriate.

The Esquimalt Liaison Committee met monthly during the construction phase and the agreement requires meetings continue at least twice annually while the McLoughlin Point Wastewater Treatment Plant is in operation. The Committee discussed an intent to review the meeting schedule once the McLoughlin Point Wastewater Treatment Plant was operational.

The Project Team attended the Esquimalt Liaison Committee meetings until the plant become operational, and responsibility for attending the meetings and representing the CRD has transitioned to the CRD's Integrated Water Services Department.

The Terms of Reference for the Esquimalt Liaison Committee can be found here: [Esquimalt Liaison Committee Terms of Reference](#)

Information related to the Esquimalt Liaison Committee meetings attended by Project Team members can be found here: [Esquimalt Liaison Committee Documents](#)

3.3.2 City of Victoria Neighbourhood / Community Associations

There are three neighbourhoods in close proximity to Project construction in Victoria. The Project Team communicated and met with the James Bay Neighbourhood Association, the Fairfield Gonzales Community Association and Victoria West Community Association as needed. Engagement with these neighbourhood and community associations was focused on construction progress and mitigation measures.

The Project Team established a committee with representatives of the James Bay Neighbourhood Association (JBNA) to provide a forum for the discussion of issues relating to

mitigation of construction impacts of the Wastewater Treatment Project on the community. Monthly updates were provided to the committee by email and meetings were held approximately quarterly. With the vast majority of construction along Dallas Road complete (and only some restoration and landscaping remaining) the Project Team has concluded the JBNA-specific meetings and updates.

Information related to the JBNA meetings attended by Project Team members can be found here: [JBNA documents](#)

3.3.3 Saanich / Electoral District A / Willis Point

The Project Team met with the Saanich Community Association Network (SCAN) and engaged with SCAN and other community or neighbourhood associations in close proximity to Project construction in Saanich, including the Willis Point Community Association and Mount Work Coalition.

Early in Project planning the Project Team discussed establishing a Saanich community liaison committee but Saanich community representatives stated their preference was to receive Project updates through email for distribution to their members.

Parks and Environmental Services representatives have generally been included in recent e-mail correspondence with Saanich community association representatives, in order to enable a continuity as the Residuals Treatment Facility transitions from the commissioning to operating phase.

3.4 Local Government Technical Engagement: Staff Working Groups

Complementing the ongoing engagement with elected officials, local government technical engagement was established with the three primary core area municipalities most directly affected by construction: Victoria, Esquimalt, and Saanich. The Technical Engagement Program with each primary municipality ensured there was regular contact with the Wastewater Treatment Project Team and key municipal staff. It provided a forum to ensure accurate technical information was available to municipal staff as Project planning and construction proceeded, and to ensure technical issues were raised, discussed and addressed and, where possible, to coordinate municipal works with Project construction.

The technical engagement process was managed by the Project Team. The Wastewater Treatment Project provided information to local government staff, and received input and feedback from staff. In some cases, the Project Team sought specific input about technical issues to further Project design and development, or to inform construction.

Terms of Reference were developed for each committee, and included:

- Local government staff participants – these generally included a senior engineer, senior planner, and other staff recommended by each municipality;
- The Project Team appointed a representative for each municipality and contractor representatives also attended meetings where appropriate; and
- Meeting frequency varied but was generally a minimum of quarterly during construction, with the option for either party to request additional meetings.

Documentation relevant to each technical working group, including meeting minutes, can be found here:

- [Township of Esquimalt Technical Working Group;](#)
- [City of Victoria Technical Working Group;](#) and
- [District of Saanich Technical Working Group.](#)

4 Project Documentation

All documents and records related to the Wastewater Treatment Project have been organized in accordance with the CRD Records Classification System (RCS). All Project records fall under the 5220 index, for which the CRD's retention policy is as follows:

- Time in office is SO "Superseded or Obsolete" when the project is completed;
- Time in Storage is 7 years; and
- Final State is SR "Selective Retention" as all minor or trivial projects will be destroyed and all other projects will be permanently retained.

4.1 Software Packages

Two software packages have been used for the Project's document management: SharePoint and Prolog Enterprise. These are both document management and collaboration software packages used to assist in the management of the documents. SharePoint has been used mainly for sharing Project documents between Project Team members, while Prolog has been used by Project Team members, Project consultants and Project contractors for Project collaboration.

4.1.1 SharePoint

The SharePoint database has been structured with folders for each of the project components (for files specific to that Project component), and for the project management office (for files applicable to more than one Project component).

The main folders are:

- CP100 Wastewater Treatment Plant;
- CP210 Residuals Treatment Facility;
- CP300 Conveyance System:
 - o CP310 Macaulay Point Pump Station and Forcemain;
 - o CP320 Craigflower Pump Station;
 - o CP330 Clover Point Pump Station;
 - o CP350 Arbutus Attenuation Tank;
 - o CP360 Clover Forcemain;
 - o CP370 Trent Forcemain;
 - o CP380 Residual Solids Conveyance Line;
 - o CP385 Residual Solids Pump Stations & Bridge Crossings & Hartland Water System Improvement – Design;
- CP400 BC Hydro; and
- CP900 Project Management Office (PMO).

Within each main folder, libraries have been created as required for different categories of project documentation, in accordance with the CRD's Records Classification System.

- CP100 Wastewater Treatment Plant;
 - o 0110 Administration;

- o 0220 General Correspondence;
- o 0640 Reports, Studies & Statistics;
- o 3000 Land Administration;
- o 3060 Development Permits;
- o 4500 Licenses & Permits;
- o 5220 Contracts;
- o 5220 Correspondence;
- o 5220 Procurement.

- CP210 Residuals Treatment Facility;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

- CP300 Conveyance System;
 - o CP310 Macaulay Point Pump Station and Forcemain;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 3060 Development Permits;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

 - o CP320 Craigflower Pump Station;
 - o 5220 Contracts;

 - o CP330 Clover Point Pump Station;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement;
 - o 5220 Zoning.

- o CP350 Arbutus Attenuation Tank;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

- o CP360 Clover Forcemain;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

- o CP370 Trent Forcemain;
 - o 0110 Administration;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

- o CP380 Residual Solids Conveyance Line;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;
 - o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.

- o CP385 Residual Solids Pump Stations & Bridge Crossings & Hartland Water System Improvement – Design;
 - o 0110 Administration;
 - o 0400 Cooperation & Liaison;
 - o 0640 Reports, Studies & Statistics;
 - o 4500 Licenses & Permits;

- o 5220 Contracts;
 - o 5220 Correspondence;
 - o 5220 Procurement.
- CP400 BC Hydro;
 - o 5220 Contracts;
 - o 5220 Correspondence.
- CP900 Project Management Office (PMO)
 - o 0110 Administration; (Doc Control documentation, Governance Transition Plan Files, Templates)
 - o 0220 General Correspondence; (Correspondence with Local/Provincial/Federal Government and Stakeholders)
 - o 0340 Policies, Procedures & Manuals; (User guide for Prolog, SharePoint, CAD Standards)
 - o 0360 Committees & Commissions OPEN; (Agenda's, Minutes from Open Project Board Meetings)
 - o 0360 Committees & Commissions CLOSED; (Agenda's, Minutes from Closed Project Board Meetings)
 - o 0400 Cooperation & Liaison; (Working group and liaison committee documents)
 - o 0550 CRD Board; (Info sent to CRD Board in 2016: pre Project Team)
 - o 0550 CRD Board CLOSED; (Info sent to Closed CRD Board in 2016: pre Project Team)
 - o 0640 Reports, Studies & Statistics;
 - o 1475 Communications; (Communications Team files)
 - o 1615 Accounting General (EX. RPT); (Expense Claims- Employees and Board Members)
 - o 1880 Finance (Open);
 - o 1880 Finance (Secure); (Finance Documents)
 - o 2320 Contracts and Agreements; (Funding, Commitment, Art and Signage, Data use agreements and documentation)
 - o 2360 Easements & Rights of Way; (McCloughlin Point SRW)
 - o 2640 Health and Safety; (Health and Safety Manager Documentation)
 - o 3000 Land Administration;
 - o 4500 Licenses & Permits;
 - o 4500 E.F.R; (Environmental and First Nations Relation Documentation)
 - o 5220 Contracts;
 - o 5220 Procurement;
 - o 5220 Project Charter;
 - o 5220 Project Controls;
 - o 5220 PMP- Including subsidiary Plans;
 - o 5220 Projects; (WTP Project Monthly/Quarterly Reports);
 - o 5220 Quality Management; (Quality Manager Documentation).

Project files have been stored within these libraries.

4.1.2 Prolog

Prolog has been structured with modules for each of the Project's major design and construction Project contracts (for files specific to a Project contract), and for the project management office (for files applicable to more than one Project contract).

The main modules are:

- CP100 Wastewater Treatment Plant;
- CP210 Residuals Treatment Facility;
- CP.230D Hartland Water System Improvement – Design;
- CP310 Macaulay Pump Station and Forcemain;
- CP320 Craigflower Pump Station;
- CP330 Clover Point Pump Station;
- CP350 Arbutus Attenuation Tank;
- CP350D Arbutus Attenuation Tank – Design;
- CP360 Clover Forcemain;
- CP360D Clover Forcemain – Design;
- CP370 Trent Forcemain;
- CP370D Trent Forcemain – Design;
- CP380 Residual Solids Conveyance Line;
- CP380D Residual Solids Conveyance Line, Pump Stations & Bridge Crossings- Design;
- CP385 Residual Solids Pump Stations & Bridge Crossings / Hartland Water System Improvement;
- CP400 BC Hydro; and
- CP900 Project Management Office.

Sub-sections include but are not limited to:

- Cost Control:
 - o Contract Management;
 - o Budget Management;
 - o Contracts;
 - o Potential Change Orders;
 - o Change Orders;
 - o Contract Invoices.
- Document Control:
 - o Correspondence;
 - o Drawings and Specs;
 - o Submittal Packages;
 - o Submittal Registers;
 - o Requests For Information;

- o Meeting Minutes;
- o Project Files.
- Field Administration:
 - o Daily Reports;
 - o Inspections & Tests.

Project files and/or data have been stored within these sub-sections.

4.2 Project Hardcopies

Through a series of meetings held over the course of Project delivery with representatives from the CRD's Integrated Water Services Department and CRD's Information Services Manager, it was decided that hard copies of key Project deliverables will be located as summarised in Table 11. At May 2021, the majority of these hard copies are still to be finalised by Project contractors and submitted to the CRD.

Table 11 – Hard Copy Locations of key Project Deliverables

Component/Asset	Storage Location	Hard Copies		
		O&M Manual	Record Drawings	Project Binder
CP100 Wastewater Treatment Plant	WasteWater Treatment Plant library	1	1	
	CRD Storage Facility (Access Storage)	1	1	
CP210 Residuals Treatment Facility (RTF)	WasteWater Treatment Plant library	1	1	
	CRD Storage Facility (Access Storage)	1	1	
CP310 Macaulay Pump Station and Forcemain	WasteWater Treatment Plant library	1	1	1
	CRD Storage Facility (Access Storage)	1	1	1
	Macaulay Pump Station	1	1	
CP330 Clover Point Pump Station	WasteWater Treatment Plant library	1	1	1
	CRD Storage Facility (Access Storage)	1	1	1
	Clover Point Pump Station	1	1	
CP385 Residual Solids Pump Stations & Bridge Crossings CP385 Hartland Water System Improvement (HWSI)	WasteWater Treatment Plant library	1	1	1
	CRD Storage Facility (Access Storage)	1	1	1
	Pump Station #2	1	1	
	Pump Station #3	1	1	
	Pump Station #4	1	1	
	Hartland Water Booster Station	1	1	
CP360 Clover Forcemain	WasteWater Treatment Plant library	1	1	1
CP370 Trent Forcemain				
CP380 Residual Solids Conveyance Line	CRD Storage Facility (Access Storage)	1	1	1
CP350 Arbutus Attenuation Tank	WasteWater Treatment Plant library	1	1	1
	CRD Storage Facility (Access Storage)	1	1	1
	Arbutus Attenuation Tank	1	1	

4.2.1 Infolinx

Infolinx is a web-based software system that the CRD uses to track the location of all CRD corporate records and print labels for filing folders. All physical copies of Project records stored in Access Storage (the CRD's storage facility for physical copies of documentation) will have Infolinx labels for ease of tracking the location of the documentation.

4.3 Project Risk Registers

Project and Project component risk registers for the Project were used to aid in the identification and management of Project-phase risks (i.e. those related to planning, construction or commissioning). The risk registers also captured a small number of operating period risks, but were not intended to be comprehensive with respect to operating period risks.

The following four risk registers were updated over the course of the Project:

- Project (to capture risks that impacted more than one Project component);
- McLoughlin Point Wastewater Treatment Plant;
- Residuals Treatment Facility; and
- Conveyance System.

All four risk registers were updated monthly, and changes were reported to the Project Board.

The status of the risk registers as at April 20, 2021 are as follows:

- In the Project risk register: the only Project-phase (as opposed to operating period) risk remaining open is: senior government funds issue delayed. The Project Team are currently completing the documentation required to apply for the remaining government funding;
- In the McLoughlin Point Wastewater Treatment Plant risk register: no Project-phase risks remained open (the only risks remaining open are operating period risks);
- In the Residuals Treatment Facility risk register: no Project-phase risks remained open (the only risks remaining open are operating period risks);
- In the conveyance risk register: a small number of Project-phase risks remain open, and contingency (of \$1.74 million) has been included in the Project budget to cover:
 - o the inlet channel debris removal at Clover Point Pump Station; and
 - o the risks associated with the work remaining on the conveyance component, which is anticipated to be more than sufficient given the nature of the remaining works.

5 Knowledge Transfer

Project knowledge transfer has been achieved through:

- The support and integration of the CRD throughout the planning, design, procurement and construction of the Project – including through the secondment of CRD resources, and CRD resource review of Project submittals;
- Handover meetings between Project Team members and CRD staff;
- The use of a common SCADA system integrator (QCA), who is now familiar with all of the pre-existing and new components of the core area's SCADA system;
- The commitment of Project funds to allow for the continued involvement of the Project's owner's engineer (Stantec);
- The continuity of personnel through the transfer of resources from the Project Team to CRD positions; and
- The retention of Project records.

Appendix A - Source of Project Commitments

Construction Contracts:

- Arbutus Attenuation Tank;
- Clover Forcemain;
- Clover Point Pump Station;
- Macaulay Point Pump Station and Forcemain;
- McLoughlin Point Wastewater Treatment Plant;
- Residual Solids Forcemain and Centrate Return Line;
- Residual Solids Pump Stations and Bridge Crossings;
- Residuals Treatment Facility; and
- Trent Forcemain.

Funding Agreements:

- Infrastructure Canada:
 - o Building Canada Fund;
 - o Green Infrastructure Fund; and
 - o P3 Canada Fund;
- Province of BC; and
- Federation of Canadian Municipalities:
 - o GMF 16576;
 - o GMF 15822; and
 - o GMF 16342.

First Nation Agreements:

- Esquimalt First Nation Support Agreement;
- Songhees First Nation Support Agreement; and
- WSANEC Leadership Council Memorandum of Understanding.

Land Access Agreements:

- Transport Canada Licences:
 - o McLoughlin Point Harbour Crossing;
 - o McLoughlin Point Outfall;
- Township of Esquimalt Amenity Agreements:
 - o Host Community Impact 5-Year Agreement;
 - o Community Impact Mitigation and Operating Agreement; and
 - o Amenity Reserve Fund Administration Agreement;
- City of Victoria Licences of Occupation:
 - o Dallas Road; and
 - o Clover Point Pump Station;
- Greater Victoria Harbour Authority (GVHA) Agreements:

- o Compensation Agreement; and
 - o Right to Enter Agreement.
- DND Licence Agreement for Access to Federal Real Property;
- Minister of Transportation and Infrastructure RSCL Highway Crossing Agreement;
- District of Saanich Residuals Conveyance System and Infrastructure Improvements Design, Construction, Access Agreement; and
- Rock Bay Lease Agreement.