Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

Notice of Meeting and Meeting Agenda
Capital Regional District Board

Wednesday, October 13, 2021 | **1:10 PM** | **6th Floor Boardroom, 625 Fisgard Street, Victoria, BC**

The Capital Regional District strives to be a place where inclusion is paramount and all people are treated with dignity. We pledge to make our meetings a place where all feel welcome and respected.

1. TERRITORIAL ACKNOWLEDGEMENT

2. APPROVAL OF THE AGENDA

3. ADOPTION OF MINUTES

3.1. 21-729 Minutes of the September 8, 2021 Capital Regional District Board Meeting

Recommendation: That the minutes of the Capital Regional District Board meeting of September 8, 2021 be adopted as circulated.

Attachments: Minutes: September 8, 2021

4. REPORT OF THE CHAIR

5. PRESENTATIONS/DELEGATIONS

Due to limited seating capacity, this meeting will be held by Live Webcast without the public present.

5.1. Presentations

5.2. Delegations

5.2.1. 21-787 Delegation - Beatrice Gentili-Hittos; Representing Greater Victoria Acting Together: Re: Agenda Item 8.4.: Updated Capital Regional District Climate Action Strategy

6. CONSENT AGENDA

6.1. 21-773 Core Area Inflow & Infiltration Program - 2021 Summary

Recommendation: That the Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That this report be received for information.
(NWA)

Attachments: Staff Report: Core Area Inflow & Infiltration Program - 2021 Summary
Appendix A: Map Summarizing I&I in the CRD's Core Area
Appendix B: Table Comparing Measured Flows to Alloc. Flows in Bylaw 4304
Appendix C: Ex. Monthly Sewer Reports Dist. to Core Area Munis & FN

6.2. 21-783 Core Area Wastewater Treatment Project Closeout

Recommendation: The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That Core Area Wastewater Treatment Project Closeout Report be received for information.
(NWA)

Attachments: Staff Report: Core Area Wastewater Treatment Project Closeout
Appendix A: CRD WTP Project Completion Report
Appendix B: CRD WTP Governance Transition Report
Appendix C: Project Cost Report

6.3. 21-693 Appointment of Officers

Recommendation: That the Electoral Areas Committee recommends to the Capital Regional District Board:
That for the purpose of Section 233 of the Local Government Act and Section 28(3) of the Offence Act and in accordance with Capital Regional District Bylaw No. 2681, Mark Groulx be appointed as Chief Bylaw Officer.
(NWA)

Attachments: Staff Report: Appointment of Officers

6.4. 21-601 Solid Waste Management Plan - Implementation Update

Recommendation: The Environmental Services Committee recommends to the Capital Regional District Board:
That this report be received for information.
(NWA)

Attachments: Staff Report: SWMP Implementation Update
Appendix A: SWMP Short-Term Implementation Framework

6.5. 21-688 Capital Region Energy Retrofit - Business Case

Recommendation: The Environmental Services Committee recommends to the Capital Regional District Board:
That the Capital Region Energy Retrofit - Business Case be received for information and that implementation be considered as part of the Climate Action 2022 Service Planning Process.
(NWA)

Attachments: Staff Report: Capital Region Energy Retrofit - Business Case

Appendix A: CRD Residential Energy Retrofit Program - Business Case Report

6.6. 21-672 Ecological Asset Management Plan

Recommendation: That the First Nations Relations Committee recommends to the Capital Regional District Board:
That staff proceed with ongoing, existing projects and activities that identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names.

[At the September 22, 2021 First Nations Relations Committee meeting, the following motion arising carried:]

That the First Nations Relations Committee recommends that the Capital Regional District Board refer the following recommendation to the next strategic planning check-in:
That the Capital Regional District Board amend the description of Priority 3a-4 in the 2019-2022 Strategic Plan, so that it reads as follows:
Initiate ecological asset management planning that includes natural infrastructure, First Nations guiding principles, First Nations language & place names, historical uses & invasive species management.
(NWA)

Attachments: Staff Report: Ecological Asset Management Plan

Appendix A: Jul. 6, 2016 NoM: Refinement of CRD's Asset Mgmt App.

Appendix B: Nov. 23, 2016 Staff Report: Natural Asset Management

Appendix C: Mar. 6, 2019 Staff Report: Corp. Asset Mgt Policy & Strat.

6.7. 21-724 Establishing Best Practices for CRD Meetings

Recommendation: [At the October 6, 2021 Governance Committee meeting, the recommendation was amended with the addition of recommendation item 2:]
The Governance Committee recommends to the Capital Regional District Board:
1. That staff report back to the Governance Committee with best practice guidelines for meetings of the Capital Regional District Boards, Committees and Commissions in accordance with the direction set out in this report.
2. That the issue of rescind and reconsider be examined by staff and included in the information moving forward.
(NWA)

Attachments: Staff Report: Best Practices for CRD Meetings

Appendix A: Staff Report from Feb. 3, 2021 (incl. Bylaw 3828 - Consolidated)

6.8. 21-708 Regional Housing First Program: Project Update, Third Quarter 2021

Recommendation: The Hospitals and Housing Committee recommends to the Capital Regional District Board:
That the Regional Housing First Program: Project Update, Third Quarter 2021 report be received for information.
(NWA)

Attachments: Staff Report: RHFP Project Update, Third Quarter 2021

Appendix A: RHFP Project Summary, October 6, 2021

6.9. 21-610 Development Permit with Variance for Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132 - 6301 Quail Peak Place

Recommendation: The Land Use Committee recommends to the CRD Board:
That Development Permit with Variance DV000078 for Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132, to authorize construction of a single-family dwelling within a Riparian and Sensitive Ecosystem Development Permit Area, and to vary Juan de Fuca Land Use Bylaw No. 2040, as follows:
1. Part 2, Section 9.09(a) to reduce the front yard requirement from 7.5 m to 5.5 m;
2. Part 2, Section 9.09(b) to reduce the side yard requirement from 6 m to 2.5 m; and
3. Part 3, Section 6.0(3) to permit parking to be located within the required front yard be approved.
(NWP - Voting Block A: JDF EA, Colwood, Langford (Blackwell), Metchosin, Sooke)

Attachments: Staff Report

Appendix A: Subject Property Map

Appendix B: Development Permit Areas Map

Appendix C: Site Plan with Requested Variances

Appendix D: Building Elevation Drawings

Appendix E: Development Permit Guidelines

Appendix F Permit DV000078

6.10. 21-649 Development Permit with Variance for Section 4, Renfrew District, Except Those Parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011

Recommendation: The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000081 for Section 4, Renfrew District, except those parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011 to authorize the subdivision of land designated as Steep Slope, Riparian, and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement from 10% to 1.5% for proposed Lot 1, 5% for proposed Lot 2, 1.1% for proposed Lot 5, 6.2% for proposed Lot 6, 0.9% for proposed Lot 7, 2.5% for proposed Lot 8, 0.5% for proposed Lot 11, and 0.7% for proposed Lot 12, as shown on the Tentative Plan of Subdivision, prepared by J.E. Anderson, dated August 23, 2021, be approved.
(NWP - Voting Block A: JDF EA, Colwood, Langford (Blackwell), Metchosin, Sooke)

Attachments: Staff Report

Appendix A: Subject Property Map

Appendix B: Subdivision Site Limit Map

Appendix C: Tentative Plan of Subdivision with Requested Frontage Variances

Appendix D: Development Permit Guidelines

Appendix E: Permit DV000081

6.11. 21-630 Radio Communication and Broadcasting Antenna Systems Application for District Lot 175, Renfrew District - Cedar Coast Road

Recommendation: The Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:
That a statement of concurrence be provided to Rogers Communications for the proposed 57 m radio communication and broadcasting antenna system on District Lot 175, Renfrew District.
(NWP - Voting Block A: JDF EA, Colwood, Langford (Blackwell), Metchosin, Sooke)

Attachments: Staff Report

Appendix A: Subject Property Map

Appendix B: Development Proposal

Appendix C: Evaluation Criteria

6.12. 21-678 Regional Trails Widening and Lighting Project

Recommendation: The Regional Parks Committee recommends to the Capital Regional District Board: That staff be directed to actively develop partnerships and pursue grant funding opportunities, including submission to the federal Active Transportation Fund, to support implementation of the separated use pathway design with lighting. (NWA)

Attachments:
- Staff Report: Regional Trails Widening and Lighting Project
- Appendix A: Regional Trails Widening Study Area - Map
- Appendix B: Separated Use Pathway Design
- Appendix C: Implementation Priorities
- Appendix D: Public Engagement Report

7. ADMINISTRATION REPORTS

7.1. 21-667 CAO Quarterly Progress Report No. 3 - 2021

Recommendation: That the CAO Quarterly Progress Report No. 3 - 2021 be received for information.

Attachments:
- Staff Report: CAO Quarterly Progress Report No. 3 - 2021
- Appendix A: Photographs of Corporate Activities and Initiatives
- Appendix B: Board Priorities Dashboard Progress Q3, 2021
- Appendix C: Board Priorities Dashboard - Summary of Completed Actions
- Appendix D: Corporate Climate Change Initiatives
- Appendix E: Advocacy Dashboard Q3, 2021
- Appendix F: Operating Variance Report Q2, 2021
- Appendix G: Capital Variance Report Q2, 2021
- Appendix H: Human Resources Trends and Corporate Safety Q2, 2021

7.2. 21-758 Outcomes from Board Meeting (September 8, 2021) on Region-Wide Participation in the Arts and Culture Support Service

Recommendation: 1. That staff take no further action to draft amendments, including removal of the exit clause, to the establishing bylaw of the Arts and Culture Support Service, Bylaw No. 2884.
2. That the CRD Board Chair send a letter to non-participating jurisdictions, outlining the benefits of joining the Arts and Culture Support Service and associated costs, and encouraging non-participating jurisdictions to join the existing service voluntarily. (NWA)

Attachments:
- Staff Report: Arts & Culture Support Service Full Regional Participation

7.3. 21-759 Outcomes from Board Meeting (September 8, 2021) on a New Regional Performing Arts Facilities Service

Recommendation: 1. That staff take no further action related to Bylaw No. 4445 nor to its proposed approval process as outlined in the recommendations brought to Board on September 8, 2021.
2. That the CRD Board Chair send a letter to all CRD jurisdictions, outlining the benefits of joining the Royal Theatre Service and McPherson Playhouse Service, along with associated costs, and encouraging non-participating jurisdictions to join these existing services voluntarily.
(NWA)

Attachments: Staff Report: Outcomes - Regional Performing Arts Facilities Service

8. REPORTS OF COMMITTEES

Electoral Areas Committee

8.1. 21-652 Bylaw No. 4455: Tax Exemption (Permissive) Bylaw, 2021

Recommendation: The Electoral Areas Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4455, "Tax Exemption (Permissive) Bylaw, 2021" be introduced and read a first, second and third time;
2. That Bylaw No. 4455 be adopted.
(WA, 2/3rds on adoption)

Attachments: Staff Report: Bylaw No. 4455 Permissive Tax Exemption 2021

Appendix A: Bylaw No. 4455 Tax Exemption (Permissive) Bylaw 2021

Appendix B: 2022 Permissive Tax Exemption Correspondence

Appendix C: BC Assessment Property Classifications

Appendix D: CRD Permissive Tax Exemption Application Process

8.2. 21-757 Expansion of Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Area (Bylaw No. 1951)

Recommendation: That The Electoral Areas Committee recommends to the Capital Regional District Board:
1. That the attached Certificate of Results of the petition to expand the service area boundary for the Willis Point Fire Protection, Emergency Response and Recreation Service be received;
2. That Bylaw No. 4458, "Willis Point Fire Protection, Emergency Response and Recreation Service Establishment Bylaw No. 1, 1991, Amendment Bylaw No. 5, 2021" be read a first, second, and third time; and
3. That Bylaw No. 4458 be referred to the Inspector of Municipalities for approval.
(NWA)

Attachments: Staff Report: Amendment to Bylaw No. 1951

Appendix A: Bylaw 4458

Appendix B: Certification of Petition

8.3. 21-761 Bylaw No. 4444, “Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021.

Recommendation: The Electoral Areas Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be introduced and read a first, second, and third time.
2. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be adopted.
(NWA, 2/3rds on adoption)

Attachments: Staff Report: SGI Community Economic Sustainability Commission Bylaw No. 4

Appendix A: Bylaw 4444

Environmental Services Committee

8.4. 21-701 Updated Capital Regional District Climate Action Strategy

Recommendation: That The Environmental Services Committee recommends to the Capital Regional District Board:
1. That the Capital Regional District Regional Climate Action Strategy be approved; and
2. That staff be directed to forward this report to municipal councils for information.
(WP- All)

Attachments: Staff Report: Updated Capital Regional District Climate Action Strategy

Appendix A: Taking Action on the Climate Emergency - Sept. 2021 Report

Appendix B: Taking Action on the Climate Emergency Presentation

9. BYLAWS

9.1. 21-782 Adoption of Bylaw 4411: “Saanich Peninsula Water Supply Water Works Facilities Loan Authorization Bylaw No. 1, 2021”

Recommendation: That Bylaw 4411, "Saanich Peninsula Water Supply Water Works Facilities Loan Authorization Bylaw No. 1, 2021" be adopted.
(WA)

Attachments: Bylaw No. 4411

10. NOTICE(S) OF MOTION

11. NEW BUSINESS

12. MOTION TO CLOSE THE MEETING

12.1. 21-746 Motion to Close the Meeting

Recommendation: 1. That the meeting be closed for Appointments in accordance with Section 90(1)(a) of the Community Charter. [3 items]
2. That the meeting be closed for Labour Relations under Section (90)(1)(c) of the Community Charter. [2 items]
3. That the meeting be closed for Land Acquisition in accordance with Section 90(1)(e) of the Community Charter. [1 item]
4. That such disclosures could reasonably be expected to harm the interests of the Regional District. [1 items]
5. That the meeting be closed for Legal Advice under Section 90 (1)(i) of the Community Charter. [1 item]

13. RISE AND REPORT

14. ADJOURNMENT

Votinq Key:
NWA - Non-weighted vote of all Directors
NWP - Non-weighted vote of participants (as listed)
WA - Weighted vote of all Directors
WP - Weighted vote of participants (as listed)

625 Fisgard St.,
Victoria, BC V8W 1R7

Capital Regional District

Meeting Minutes

Capital Regional District Board

Wednesday, September 8, 2021 **1:10 PM** **6th Floor Boardroom**
625 Fisgard Street
Victoria, BC

PRESENT:
C. Plant (Chair), R. Mersereau (Vice-Chair)(EP), D. Blackwell, P. Brent (for D. Howe), S. Brice, B. Desjardins (EP), H. Gartshore (for G. Orr), F. Haynes, L. Helps, M. Hicks, G. Holman, B. Isitt, J. Loveday, R. Martin, C. McNeil-Smith, K. Murdoch (EP), J. Ranns, D. Screech, L. Seaton, M. Tait, N. Taylor, K. Williams (EP), R. Windsor, G. Young

Staff: R. Lapham, Chief Administrative Officer; N. Chan, Chief Financial Officer; L. Hutcheson, General Manager, Parks and Environmental Services; K. Lorette, General Manager, Planning and Protective Services; K. Morley, General Manager, Corporate Services; T. Robbins, General Manager, Integrated Water Services; C. Gilpin, Manager Arts and Culture; M. Lagoa, Deputy Corporate Officer; S. Orr, Senior Committee Clerk (Recorder)

EP - Electronic Participation

Regrets: D. Howe, G. Orr

The meeting was called to order at 1:15 pm

EP - Electronic Participation

1. TERRITORIAL ACKNOWLEDGEMENT

A Territorial Acknowledgement was provided in the preceding meeting.

2. APPROVAL OF THE AGENDA

MOVED by Director Loveday, SECONDED by Director Brice,
That the agenda be amended as follows:
- One (1) additional delegation be permitted to speak.
- Christopher Devlin be permitted to speak in place of Franz Lehrbass.
CARRIED

3. ADOPTION OF MINUTES

3.1. 21-577 Minutes of the July 14, 2021 Capital Regional District Board Meeting

MOVED by Director Taylor, SECONDED by Director Helps,
That the minutes of the Capital Regional District Board meeting of July 14, 2021 be adopted as circulated.
CARRIED

4. REPORT OF THE CHAIR

It is hard to believe that fall is just around the corner. I hope you were able to get some rest and rejuvenation this summer because we are going to be busy as we begin to review the significant amount of work proposed by staff to finalize the delivery of our strategic priorities and CRD Corporate Plan. We set an ambitious agenda when we began our term as Board. Over the last three years we have made great progress advancing our priorities, delivering change and improvements to life in the CRD even during a pandemic, and we are now going to see what it will take to get us to the finish line during the final year of this Board's term. Over the next six weeks, as part of our committee work, we will be receiving and reviewing Community Need Summary Reports. These reports will outline our core service levels, planned new initiatives, and performance metrics for the coming year. Once approved, these reports will form the basis of the 2022- 2026 Financial Plan. Finally, at the Committee of the Whole and Board meetings on October 27, we will come together for the final milestone of the service planning process and receive the 2022 provisional budget recommendations for consideration. We have a lot to do in order to move this forward. I want to thank you for your dedication to this upcoming task as we work to achieve the goals we set out when we began our term as Board.

5. PRESENTATIONS/DELEGATIONS

5.1. Presentations

There were no presentations.

5.2. Delegations

5.2.1. 21-666 Delegation - Christopher Devlin; Representing Royal and McPherson Theatres Society: Re: Agenda Item 8.7.: Proposed Performing Arts Facilities Service: Establishing Bylaw No. 4445 and Service Plan

C. Devlin spoke to Item 8.7.

5.2.2. 21-664 Delegation - Doug Jarvis; Representing ProArt Alliance of Greater Victoria: Re: Agenda Item 8.1.: Outcomes of Board Initiative 12a-1 to Explore Partnerships to Support 100% Participation in the CRD Arts Function

D. Jarvis spoke to Item 8.1.

5.2.3. **21-707** Delegation - Chris Creighton-Kelly; Representing Primary Colours: Re: Agenda Item 8.1.: Outcomes of Board Initiative 12a-1 to Explore Partnerships to Support 100% Participation in the CRD Arts Function

C. Creighton-Kelly spoke to Item 8.1.

6. CONSENT AGENDA

The following items were removed from the Consent Agenda:

- Item 6.8. to be considered under Reports of Committees as Item 8.8.
- Item 6.13. to be considered under Reports of Committees as Item 8.9.
- Item 6.15. to be considered under Reports of Committees as Item 8.10.

MOVED by Director Tait, SECONDED by Director Blackwell,
That consent agenda items 6.1. through 6.7., 6.9. through 6.12., 6.14. and 6.16. be approved.
CARRIED

6.1. 21-198 Core Area Wastewater System Commissioning and Operations Update and Construction Completion Status Report

That this report be received for information.
CARRIED

6.2. 21-613 Community Works Fund Program Overview

That the Community Works Fund Program Overview be received for information.
CARRIED

6.3. 21-618 Canada Community Revitalization Fund - Motion of Support

That the Board authorize staff to submit an application for grant funding ($599,940) for the Revitalization of Centennial Park in Ganges Village project through the Canada Community Revitalization Fund; and that the Board supports the project and commits to its share ($200,000) of the project.
CARRIED

6.4. 21-653 Bylaw 4441: Contribution Service Establishment for the Pender Islands Health Care Centre - Amendment to Bylaw 4441 Synopsis

That the revised synopsis of Bylaw No. 4441, attached as Appendix B, be approved for advertising purposes.
CARRIED

6.5. 21-593 Millstream Meadows Remediation Project Update

That this staff report be received for information.
CARRIED

6.6. 21-561 Recycling Regulation Policy Intentions Paper - Feedback and Next Steps

That this report be received for information.
CARRIED

6.7. 21-612 Capital Regional District External Grants Update

That the Capital Regional District External Grants Update be received for information.
CARRIED

6.9. 21-514 Development Permit with Variance for Lot 3, Sections 45-A and 46-A, Highland District, Plan 22641 - 6606 Mark Lane

That Development Permit with Variance DV000077, for Lot 3, Sections 45-A and 46-A, Highland District, Plan 22641, to authorize construction in a Steep Slope

Development Permit Area, and to vary the Comprehensive Community Plan for Willis Point, Bylaw No. 3027, Schedule B, Part III, Section 22(2)(d)(i) by reducing the front setback from 6 m to 1.3 m for construction of a carport be approved.
CARRIED

6.10. 21-524 Development Permit with Variance for Lot 1, District Lot 155, Renfrew District, Plan 18813, Except that Part in Plans 31230 and VIP59413 - 6402, 6410, and 6340 Cerantes Road

That Development Permit with Variance DV000079, for Lot 1, District Lot 155, Renfrew District, Plan 18813, Except that Part in Plans 31230 and VIP59413, to authorize a two lot subdivision and the construction of a garage within a Shoreline Protection Development Permit Area, and to vary the Comprehensive Community Development Plan for Port Renfrew, Bylaw No. 3109 as follows:
a) Part IV, Section 22(2)(f) be varied by increasing the maximum height of an accessory building from 4.8 m to 6.9 m in accordance with the Garage Design Drawings; and
b) Part IV, Section 22(2)(g)(iii) be varied by reducing the exterior side setback requirement from 4.6 m (4.1 m) to 0.9 m for the siting of the existing deck in accordance with the Dwelling and Deck Site Plan;
be approved.
CARRIED

6.11. 21-525 Development Permit with Variance for Lot A, Section 7, Otter District, Plan VIP75055 - 8709 West Coast Road

1) That Development Permit with Variance DV000080, for Lot A, Section 7, Otter District, Plan VIP75055, to authorize construction of a seawall and a single-family dwelling in a Marine Shoreline Development Permit Area, and to vary the Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Schedule A, as follows:
a) Part 1, Section 2.0 by varying the definition of height as it applies to the proposed building to mean the average vertical distance from finished grade at the outermost corners of the building to the mean level of the highest roof plan between the eaves and the ridge of a sloping roof;
b) Part 2, Section 13A.11(b) to allow that the elevation of the lot may be increased in accordance with the Building Design Drawings and Geotechnical Reports; and
c) Part 2, Section 13A.13(a) to reduce the front yard setback from 4.5 m to 2.3 m in accordance with the Site Plan;
be approved.
2) That a restrictive covenant be registered on the title of the lands securing the geotechnical reports for 8709 West Coast Road, certified by Scott Currie, P. Eng., dated March 23, 2021, and June 14, 2021, and saving the CRD harmless in accordance with Section 219 of the Land Title Act and Section 56 of the Community Charter.
CARRIED

6.12. 21-538 Radio Communication and Broadcasting Antenna Systems Application for Section 42, Otter District - 2540 Aythree Way

That a statement of concurrence be provided to Rogers Communications for the proposed 45 m radio communication and broadcasting antenna system on Section 42, Otter District Except That Part Lying 50 feet on Each Side of the Centre Line of the Right of Way Shown on Plan 121 RW and Except That Part in Plan EPP63580.

CARRIED

6.14. 21-546 Regional Growth Strategy Consistency - Seagirt Improvement District Takeover

That the Proposed Seagirt Improvement District Conversion staff report and attachments to the July 6, 2021 Juan de Fuca Water Distribution Commission be reviewed as it relates to Bylaw No. 4017, "Capital Regional District Regional Growth Strategy Bylaw No.1, 2016" and be deemed consistent with the 2018 Regional Growth Strategy Bylaw No. 4017.
CARRIED

6.16. 21-636 2021 Committee and External Membership Appointments - Update #5

That the Board receive for information the updated 2021 Appointments to Board and Committees as attached.
CARRIED

7. ADMINISTRATION REPORTS

7.1. 21-638 Alternative Approval Process Results & Adoption for Bylaw 4379 - JDF Water Distribution Service Loan Authorization

K. Morley spoke to Item 7.1.

MOVED by Director Hicks, SECONDED by Director Blackwell,
1. That the attached Certificate of Results of Alternative Approval Process for Bylaw No. 4379 (Appendix B) be received.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
2. That Bylaw No. 4379, "Juan de Fuca Water Distribution Facilities Loan Authorization Bylaw No. 5, 2020" be adopted.
CARRIED

7.2. 21-639 Alternative Approval Process Results & Adoption for Bylaw 4382 - Regional Water Supply Service Loan Authorization

K. Morley spoke to Item 7.2.

MOVED by Director Hicks, SECONDED by Director Blackwell,
1. That the attached Certificate of Results of Alternative Approval Process for Bylaw No. 4382 (Appendix B) be received.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
2. That Bylaw No. 4382, "Regional Water Supply Water Works Facilities Loan Authorization Bylaw No. 5, 2020" be adopted.
CARRIED

8. REPORTS OF COMMITTEES

Arts Commission

8.1. 21-598 Outcomes of Board Initiative 12a-1 to Explore Partnerships to Support 100% Participation in the CRD Arts Function

N. Chan spoke to Item 8.1.

Discussion ensued regarding:
- Alternative Approval Process
- Exit clause
- Regional support
- Arts and culture
- Property tax assessments
- Referendum process

MOVED by Director Loveday, SECONDED by Director Haynes,
A. Original Staff Recommendation to Arts Commission
That the Outcomes of Board Initiative 12a-1 to Explore Partnerships to Support 100% Participation in the CRD Arts Function report be received for information.
CARRIED

MOVED by Director Loveday, SECONDED by Director Haynes,
B. Motions Arising from Arts Commission
1. That staff be directed to prepare amendments to the establishing bylaw to gain full regional participation in the Arts and Culture Support Service, with non-participating electoral areas and municipalities added as Group 2 Participating Areas.
CARRIED
Opposed: Blackwell, Brent, Desjardins, Hicks, Holman, Ranns, Seaton, Tait, Williams, Windsor, Young

MOVED by Director Loveday, SECONDED by Director Haynes,
2. That the Board proceed by way of a regional alternative approval process.
DEFEATED
Opposed: Blackwell, Brent, Brice, Desjardins, Gartshore, Hicks, Holman, Martin, Murdoch, Ranns, Seaton, Tait, Williams, Windsor, Young

MOVED by Director Loveday, SECONDED by Director Haynes,
3. That staff include a report with the removal of the 2-year exit clause and include additional service requisition scenarios that reflect 30% participation for new members and a general increase to the service budget.
CARRIED
Opposed: Blackwell, Brent, Desjardins, Hicks, Holman, Ranns, Seaton, Tait, Williams, Windsor, Young

Director Windsor left the meeting at 3:00 pm.

The Capital Regional District Board recessed at 3:00 pm.

The Capital Regional District Board reconvened at 3:04 pm.

Core Area Liquid Waste Management Committee

8.2. 21-562 Residuals Treatment Facility - Bylaw No. 4414 - Other Municipal Solids

Tipping Fees and Charges Bylaw No. 1, 2021

MOVED by Director Blackwell, SECONDED by Director Screech,
1. That CRD Bylaw No. 4414, "Other Municipal Solids Tipping Fees and Charges Bylaw No. 1, 2021", be introduced and read a first, second, and third time.
CARRIED

MOVED by Director Blackwell, SECONDED by Director Screech,
2. That CRD Bylaw No. 4414 be adopted.
CARRIED

Electoral Areas Committee

8.3. 21-631 Motion with Notice: Electoral Areas Exclusion from New Regional Arts Facility Service (Director Holman)

This Item was defeated at the Electoral Areas Committee meeting held September 8, 2021 and not moved by the Capital Regional District Board.

Juan de Fuca Land Use Committee

8.4. 21-615 Public Hearing Report on Bylaw No. 4381, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 149, 2020"

MOVED by Director Hicks, SECONDED by Director Mersereau,
a) That the minutes that form the Report of the Public Hearing for Bylaw No. 4381, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 149, 2020", which are certified as a fair and accurate summary of the representations that were made at the public hearing held on August 10, 2021, for Bylaw No. 4381, be received.
CARRIED

MOVED by Director Hicks, SECONDED by Director Mersereau,
b) That Bylaw No. 4381 be read a third time.
CARRIED

MOVED by Director Hicks, SECONDED by Director Mersereau,
c) That adoption of Bylaw No. 4381 be withheld pending:
i) Confirmation that a Contaminated Site Release has been issued by the Province;
ii) Confirmation that a commercial access permit has been issued by the Province;
iii) Registration of a covenant on title pursuant to Section 219 of the Land Title Act in favour of the CRD requiring that a fire suppression sprinkler system be installed in all buildings and structures; and
iv) Confirmation that any outstanding building permits for existing buildings are addressed to the satisfaction of the CRD Chief Building Inspector.
CARRIED

8.5. 21-619 Public Hearing Report on Bylaw No. 4407, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 150, 2021"

MOVED by Director Hicks, SECONDED by Director Blackwell,
a) That the minutes that form the Report of the Public Hearing for Bylaw No.

4407, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 150, 2021", which are certified as a fair and accurate summary of the representations that were made at the public hearing held on August 10, 2021, for Bylaw No. 4407, be received.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
b) That Bylaw No. 4407 be read a third time.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
c) That adoption of Bylaw No. 4407 be withheld pending:
i. Removal of the Notice on Title and confirmation that any outstanding building permits for existing buildings are addressed to the satisfaction of the CRD Chief Building Inspector; and
ii. Approval of an access permit to the subject property by the Ministry of Transportation & Infrastructure.
CARRIED

MOVED by Director Helps, SECONDED by Director Young,
That agenda item 8.9. be moved to be considered as agenda item 8.6.a.
CARRIED

8.6.a. 21-545 Regional Growth Strategy Consistency - Outdoor Recreation Definition Amendment

Discussion ensued regarding:
- Definition of outdoor recreation
- Zoning

MOVED by Director Hicks, SECONDED by Director McNeil-Smith,
That proposed Bylaw No. 4412, "Land Use Bylaw for the Rural Resources Lands, Bylaw No. 1, 2009, Amendment Bylaw No. 8, 2021" be reviewed as it relates to Bylaw No. 4017, "Capital Regional District Regional Growth Strategy Bylaw No.1, 2016" and be deemed consistent with the 2018 Regional Growth Strategy Bylaw No. 4017.
CARRIED

8.6. 21-534 Outdoor Recreation Bylaw Amendments

MOVED by Director Hicks, SECONDED by Director Blackwell,
1. That the referral of proposed Bylaw No. 4412, "Land Use Bylaw for the Rural Resources Lands, Bylaw No. 1, 2009, Amendment Bylaw No. 8, 2021" and proposed Bylaw No. 4413, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 151, 2021" directed by the Juan de Fuca Land Use Committee to the Shirley/Jordan River Advisory Planning Commission, CRD departments, T'Sou-ke First Nation and Pacheedaht First Nation be approved and the comments received.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
2. That proposed Bylaw No. 4412, "Land Use Bylaw for the Rural Resources Lands, Bylaw No. 1, 2009, Amendment Bylaw No. 8, 2021" be introduced and read a first time and read a second time.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
3. That proposed Bylaw No. 4413, "Juan de Fuca Land Use Bylaw, 1992, Amendment Bylaw No. 151, 2021" be introduced and read a first time and read a second time.
CARRIED

MOVED by Director Hicks, SECONDED by Director Blackwell,
4. That in accordance with the provisions of section 469 of the Local Government Act, the Director for the Juan de Fuca Electoral Area, or Alternate Director, be delegated authority to hold a Public Hearing with respect to Bylaw No. 4412 and Bylaw No. 4413.
CARRIED

Performing Arts Facilities Select Committee

8.7. 21-614 Proposed Performing Arts Facilities Service: Establishing Bylaw No. 4445 and Service Plan

N. Chan spoke to Item 8.7.

Discussion ensued regarding:
- Funding
- Location of facilities
- Cost of service
- Alternative Approval Process and alternatives
- Sub-regional service

MOVED by Director Screech, SECONDED by Director Loveday,
1. That Bylaw No. 4445, "Regional Performing Arts Facilities Service Establishing Bylaw No. 1, 2021", be read a first, second, and third time.
2. That staff canvas participants of the Royal Theatre and McPherson Playhouse services to gauge interest in participation in the regional service to be established by Bylaw No. 4445.
3. That if service participants of the Royal Theatre and McPherson Playhouse services informally consent to creation of the service to be established by Bylaw No. 4445, staff are directed to forward Bylaw No. 4445 to the Inspector of Municipalities for review and approval.
4. That staff be directed to initiate a region-wide Alternate Approval Process (AAP) in accordance with Sections 342(4) and 345 of the Local Government Act to meet the legislated requirement for elector approval of Bylaw No. 4445.

MOVED by Director Helps, SECONDED by Director Loveday,
That the meeting be extended past the 3 hour scheduled time.
CARRIED

Director Haynes left the meeting at 4:24 pm.

Motion Arising
MOVED by Director Murdoch, SECONDED by Alternate Director Gartshore,
That the Performing Arts Facilities Service Plan (Appendix B) be referred to the Performing Arts Facilities Select Committee to clarify the anticipated

scope of services, particularly those related to the included size and type of performing arts facilities to be included and scope of performing arts operational grants the new service will consider.
DEFEATED
Opposed: Brent, Brice, Hicks, Holman, Isitt, Loveday, McNeil-Smith, Mersereau, Plant, Screech, Tait, Taylor, Williams

MOVED by Director Holman, SECONDED by Alternate Director Brent,
That Item 4 of the main motion be replaced with the following wording:
That staff be directed to initiate a municipal consent on behalf process.

The Chair ruled the amendment out of order.

Director Holman challenged the Chair.
The Chair called for a vote on whether the Chair shall be sustained.
CARRIED
OPPOSED: Holman, Martin, Mersereau

The question was called on the main motion as divided.

1. That Bylaw No. 4445, "Regional Performing Arts Facilities Service Establishing Bylaw No. 1, 2021", be read a first, second, and third time.
CARRIED
Opposed: Blackwell, Desjardins, Hicks, Holman, Ranns, Seaton, Tait, Williams, Young

2. That staff canvas participants of the Royal Theatre and McPherson Playhouse services to gauge interest in participation in the regional service to be established by Bylaw No. 4445.
CARRIED
Opposed: Blackwell, Hicks, Ranns, Seaton, Tait

3. That if service participants of the Royal Theatre and McPherson Playhouse services informally consent to creation of the service to be established by Bylaw No. 4445, staff are directed to forward Bylaw No. 4445 to the Inspector of Municipalities for review and approval.
CARRIED
Opposed: Blackwell, Hicks, Holman, Ranns, Seaton, Tait, Williams, Young

4. That staff be directed to initiate a region-wide Alternate Approval Process (AAP) in accordance with Sections 342(4) and 345 of the Local Government Act to meet the legislated requirement for elector approval of Bylaw No. 4445.
DEFEATED
Opposed: Blackwell, Brice, Desjardins, Hicks, Holman, Martin, Murdoch, Ranns, Seaton, Tait, Williams, Young

Director McNeil-Smith left the meeting at 4:30 pm.

8.8. 21-607 Reaching Home Update

Director Isitt declared a personal conflict and recused himself from the

meeting room at 4:26 pm.

MOVED by Director Helps, SECONDED by Director Tait,
That the Reaching Home Update report be received for information.
CARRIED

Director Isitt returned to the meeting room at 4:27 pm.

8.10. 21-544 Regional Growth Strategy Consistency - Port Renfrew Water Supply Area Extension

Discussion ensued regarding:
- Water supply source, storage and capacity
- Climate change impact on water levels

MOVED by Director McNeil-Smith, SECONDED by Director Hicks,
That proposed Bylaw No. 4442, "Port Renfrew Water Supply Local Service Establishment Bylaw No. 1, 1989, Amendment Bylaw No. 5, 2021" be reviewed as it relates to Bylaw No. 4017, "Capital Regional District Regional Growth Strategy Bylaw No.1, 2016" and be deemed consistent with the 2018 Regional Growth Strategy Bylaw No. 4017.
CARRIED

9. BYLAWS

9.1. 21-623 Bylaw No. 4416 - "Animal Control Service Establishing Bylaw, 2021"

MOVED by Director Hicks, SECONDED by Director Holman,
That Bylaw No. 4416 "Animal Control Service Establishing Bylaw, 2021" be adopted.
CARRIED

9.2. 21-624 Bylaw No. 4417 - "Livestock Injury Compensation Service (Juan de Fuca) Bylaw No. 1, 2021"

MOVED by Director Hicks, SECONDED by Director Alternate Director Brent,
That Bylaw No. 4417 "Livestock Injury Compensation Service (Juan de Fuca) Bylaw No. 1, 2021" be adopted
CARRIED

9.3. 21-625 Bylaw No. 4418 - "Livestock Injury Compensation Service (Salt Spring Island) Bylaw No. 1, 2021"

MOVED by Director Hicks, SECONDED by Director Holman,
That Bylaw No. 4418 "Livestock Injury Compensation Service (Salt Spring Island) Bylaw No. 1, 2021" be adopted.
CARRIED

9.4. 21-626 Bylaw No. 4419 - "Livestock Injury Compensation Service (Southern Gulf Islands) Bylaw No. 1, 2021"

MOVED by Alternate Director Brent, SECONDED by Director Holman,
That Bylaw No. 4419 "Livestock Injury Compensation Service (Southern Gulf Islands) Bylaw No. 1, 2021" be adopted.

CARRIED

9.5. 21-627 Bylaw No. 4264 - “Animal Regulation and Impounding Bylaw No. 1, 1986, Amendment Bylaw No. 11, 2021”

MOVED by Director Holman, SECONDED by Alternate Director Brent,
That Bylaw No. 4264 "Animal Regulation and Impounding Bylaw No. 1, 1986, Amendment Bylaw No. 11, 2021" be adopted.
CARRIED

10. NOTICE(S) OF MOTION

There were no notice(s) of motion.

11. NEW BUSINESS

There was no new business.

12. MOTION TO CLOSE THE MEETING

12.1. 21-637 Motion to Close the Meeting

MOVED by Director Blackwell, SECONDED by Director Helps,
That the meeting be closed for appointments in accordance with Section 90(1)(a) of the Community Charter.
CARRIED

MOVED by Director Blackwell, SECONDED by Director Helps,
That the meeting be closed for land acquisition in accordance with Section 90(1)(e) of the Community Charter.
CARRIED

MOVED by Director Blackwell, SECONDED by Director Helps,
That the meeting be closed that such disclosures could reasonably be expected to harm the interests of the Regional District.
CARRIED

The Capital Regional District Board moved to the closed session at 5:00 pm.

13. RISE AND REPORT

The Capital Regional District rose from it's closed session at 5:14 pm and reported on the following items:

In accordance with Bylaw No. 4288, that the following persons be appointed to the Juan de Fuca Board of Variance:
For a term expiring September 30, 2024: Paul Clarkston, Brad Fitchett, Axel Joosting

In accordance with Bylaw No. 3133, that the following person be appointed to the Skana Water Service Committee:
For a term expiring June 30, 2023: Warren Korol

14. ADJOURNMENT

MOVED by Director Helps, SECONDED by Director Loveday,
That the September 8, 2021 Capital Regional District Board meeting be adjourned at 5:14 pm.
CARRIED

_____

CHAIR

CERTIFIED CORRECT:

_____

CORPORATE OFFICER

Making a difference...together

EFE 21-42

REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Core Area Inflow & Infiltration Program – 2021 Summary**

ISSUE

To present a summary of activities and accomplishments of the Core Area Inflow & Infiltration (I&I) Program for the period of 2020 to mid-2021, including infrastructure work carried out by the participating municipalities, and efforts related to private property I&I.

BACKGROUND

The Core Area Liquid Waste Management Plan (CALWMP) sets out goals and commitments for the municipalities, First Nations and Capital Regional District (CRD) to manage I&I through the Core Area I&I Management Plan. Each year, the Core Area I&I Program documents progress toward meeting these commitments in an annual report that is distributed to each of the core area municipalities and First Nations. This staff report summarizes the highlights of that report, the full report, titled Core Area I&I Program 2021 Report, can be found through this site:

https://www.crd.bc.ca/about/document-library/documents/plans-reports/wastewater-stormwater/2021-reports

Overviews of municipal I&I actions, along with specific actions from this reporting period, are as follows:

- Colwood diligently inspects its new underground infrastructure to manage and prevent I&I. In 2020, Colwood started to update its Sewer Master Plan and its Sanitary Sewer Model (in progress). As part of the work, sewer flow data loggers were installed at several pump stations including three of Colwood's municipal pump stations and Department of National Defense's Belmont pump station. Colwood camera-inspected approximately 7,500 metres of sewer mains in 2020.

- Esquimalt completed an extensive infrastructure investigation between 2004 and 2016, including the relining of approximately half of its sanitary sewer system. In 2020 to mid-2021, Esquimalt completed a detailed I&I report that includes a 10-year plan for addressing I&I concerns within the township to get below 4xADWF (average dry weather flow). The action items will be combined with other sewer related projects such as those derived from sewer modeling and camera inspections. Esquimalt also carried out a number of sewer repairs and worked with CRD Source Control to determine possible cross connections into the Gorge Waterway (ongoing).

- Langford has a rapidly expanding new sewer system. Langford diligently inspects new connections and is incentivized to monitor and repair the sewer system to preserve sewer capacity for future growth. Since mid-2020, Langford has camera-inspected 2,305 metres of sewer mains and inspected 45 manholes for I&I. It also rehabilitated 27 sewer inspection chambers.

- Oak Bay is working on the Uplands combined sewer separation project. In 2020 to mid-2021, Oak Bay completed a 5-year program to camera-inspect its sanitary sewers, contracted a consultant to build a sanitary sewer model for the municipality (in progress), rehabilitated or replaced 3.66 km of sewer mains, fixed 14 cross-connections and initiated a number of specific infrastructure projects and studies.

- Saanich continues its sewer maintenance and repair program, including camera inspections, sewer relining, smoke testing and flow monitoring. In 2020/2021, Saanich relined or replaced 3,914 metres of sanitary sewer, 125 laterals and 2 manholes. It also completed 5 spot repairs. Saanich camera-inspected 5,656 metres of sewer main. It smoke tested 2,935 metres of the Brett pump station catchment and repaired 7 found cross-connections. During this reporting period, Saanich developed programs and procedures related to smoke testing, and the inspection and replacement of “no-corrode” sewer pipe, and updated its sanitary sewer model. Saanich is currently updating its sewer master plan.

- Victoria continues to manage its sewer repair and replacement work in its sewer master plan. In 2020/2021, Victoria contracted a consultant to complete a comprehensive I&I reduction plan for the municipality. Victoria installed, repaired or replaced 2,852 metres of sewer mains, 167 laterals, 4 manholes and 17 inspection chambers. It also camera-inspected 24,900 metres of sanitary sewer mains, 887 laterals, 650 manholes and added 2 high accuracy flow meters to its monitoring network. A highlight was securing a federal grant to upgrade some of its sewer, storm drain and water main infrastructure over the next 9 years to address challenges related to natural hazards (e.g., earthquakes, climate change).

- View Royal continued its programs related to sewer maintenance and repairs, camera inspections, sewer flushing and flow monitoring. In 2020/2021, View Royal camera-inspected 1,429 metres of sewer pipe. View Royal upgraded the Thetis Cove pump station, which included the addition of a flow meter. View Royal also found and fixed an abandoned sewer main that was contributing I&I to View Royal sewer system.

- Esquimalt Nation hired a consultant to inspect their sewer system and provide recommendations in 2018. Since then, the Nation followed up by removing / capping unused laterals, grouting a leaky manhole and completed a mainline repair. They also renewed/upgraded their pump station.

- Songhees Nation does routine sewer maintenance and repairs as needed. In 2015, the Nation hired a consultant to investigate their sewer system for I&I sources and to provide detailed designs for remediation. The work is ready for tender and awaiting funding from Indigenous Services Canada.

Through the Core Area I&I Program, the CRD continues to work with its municipal and First Nations partners on I&I related management and reduction efforts. This includes regional flow monitoring, standardizing I&I approaches, preparing management plans and annual reports, education programs and private property I&I initiatives. This also involves coordination with municipalities and national organizations that are dealing with similar issues. Key actions completed in 2020/2021 include:

- Updating I&I rates for the core area. Appendix A contains a map summarizing these rates.
- Comparing measured flows to the sewer flow allocations in Bylaw 4304 (Appendix B).
- Working with the CRD's Integrated Water Services Department; vetted sewer flow data and produced monthly municipal sewer reports for each of the core area participant areas - each area gets its own custom report. The key audience for the reports are municipal engineering staff and First Nation's administration. The reports quantify monthly sewer flows and compare it to previous years. They also quantify I&I rates, overflows, and periodically compare the flows to the CRD sewer allocations. The reports are distributed quarterly and started in January 2020. Appendix C contains an example of these reports.
- Working on the 5-year update to the I&I Management Plan. (The last version was submitted to the Province in April 2017).
- Finalizing a project documenting the flow data accuracy from core area municipal pump stations.
- Completing a study looking at downspout disconnection programs and best practices from around Canada.

The work accomplished by all participants will continue to support the regional effort to control and reduce municipal I&I flow rates; however, continued and focused work is still needed to meet the CALWMP commitment of reducing wet weather flows below four times average dry weather flow at the Clover Point and McLoughlin Point wastewater treatment plants by 2030. Municipalities that contribute to Clover Point with older sewers, and inherently higher I&I, will need to allocate additional resources and accelerate efforts to meet their respective I&I reduction targets.

ALTERNATIVES

Alternative 1

That the Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That this report be received for information.

Alternative 2

That staff report back to the committee with further information.

IMPLICATIONS

Environmental & Climate Implications

The work documented in the report supports CALWMP commitments related to reducing overflows, which will have a positive impact on local creeks, beaches and ecosystems.

Intergovernmental Implications

As a condition of the Ministry of Environment& Climate Change Strategy's (ENV) conditional approval of Amendment 12 to the CALWMP, the CRD was required to submit an amendment to the commitments pertaining to management of I&I and sanitary sewer overflows for ENV approval by December 31, 2021. Staff have advised ENV that updating the CALWMP I&I and sanitary overflow commitments will be delayed, pending:

1. Operation of all new core area wastewater treatment and conveyance infrastructure during two wet-weather seasons to confirm modelled predictions for sanitary flows, I&I and overflows.
2. Submission of updated detailed municipal I&I management plans, currently anticipated for Q2 2022.

In addition to the above, the CRD is currently preparing to update the CALWMP, which will also require an amendment process approved by ENV. The CRD's current planning process anticipates the update to be prepared for submission in 2023, and staff expect to include the above amendment at that time.

Social Implications

Reduced I&I and overflows will reduce the number of beach closures and impacts on the natural environment. Public education and outreach programs for residents and businesses raise awareness of the issues and provide greater understanding of how everyone can contribute to I&I reduction.

Financial Implications

The CRD engages with core area municipalities and First Nations to identify and reduce the amount of rain and ground water that enters the sanitary sewer system. The core budget for this program is $425,000.

Municipal infrastructure repair initiatives are funded by the respective municipality. Monitoring, reporting, strategy and leadership are facilitated by the CRD I&I program.

CONCLUSION

This staff report summarizes the I&I related activities and accomplishments of Core Area I&I Program, participating municipalities and First Nations for 2020 to mid-2021. While much work has been done to date, modelling indicates that municipalities contributing to Clover Point, with older sewer catchments, need to enhance their efforts on I&I reduction to meet the commitment

in the CALWMP to prevent overflows for less than 5-year rainfall events by 2030. The annual report will be forwarded to the core area municipal engineers for use in their I&I reduction programs.

RECOMMENDATION

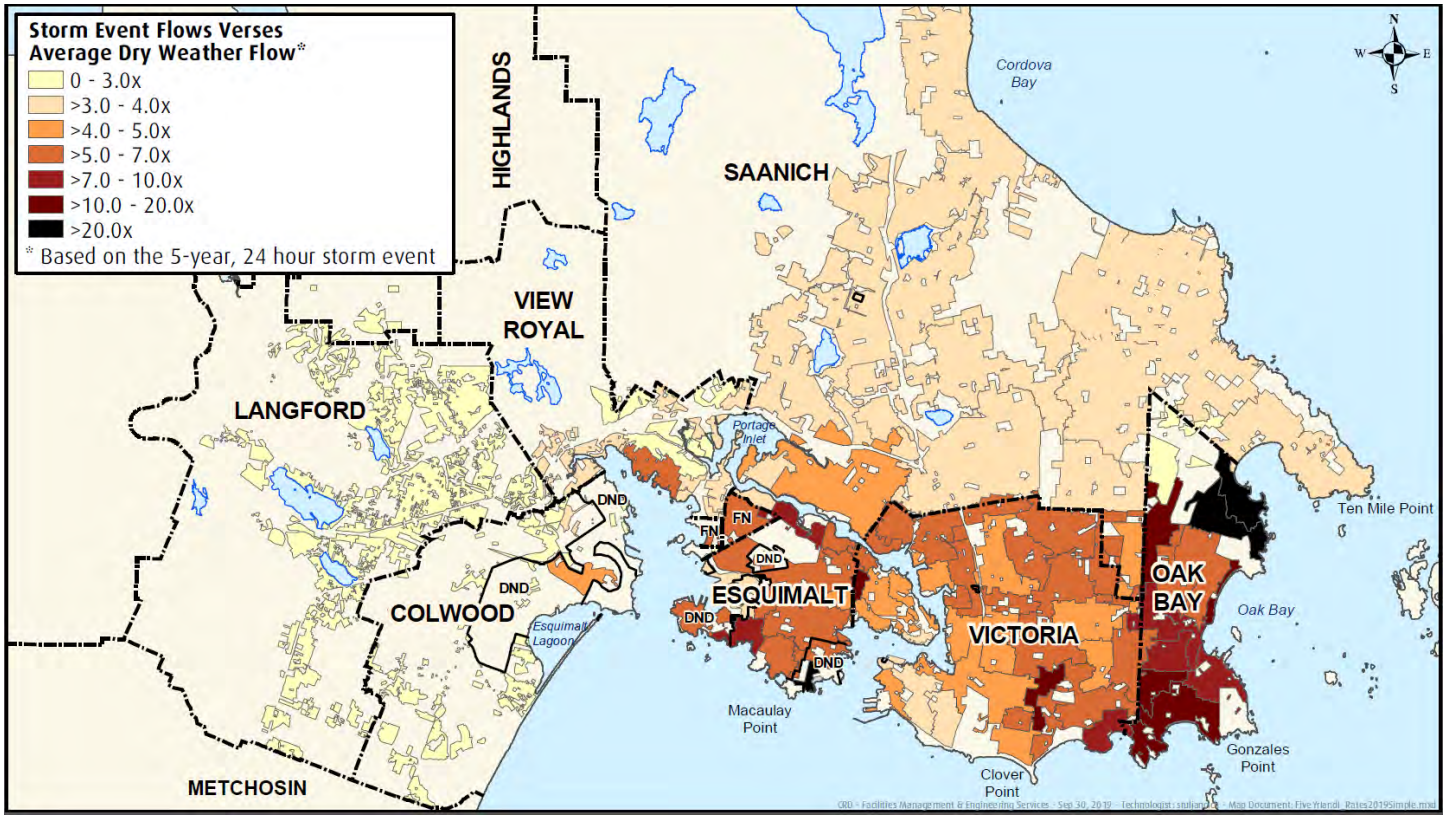
That the Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That this report be received for information.

Submitted by:	Stephen May, P.Eng., Senior Manager, Facilities Management & Engineering Services
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Map Summarizing Inflow & Infiltration in the Capital Regional District's Core Area
Appendix B: Table Comparing Measured Flows to Allocated Flows in Bylaw 4304
Appendix C: Example of the Monthly Sewer Reports Distributed to the Core Area Municipalities and First Nations

Inflow & Infiltration Rates Map for the Capital Regional District Core Area (2021)



Measured Flows vs Allocated Flows from Bylaw 4304

Allocation Point	Allocated Average Dry Weather Flow (ML/day)	Measured Average Dry Weather Flow (Jun + Jul + Aug, 2020)		Allocated Peak Daily Flow (ML/day)	Peak 24-Hour Flow for a 5-Year Storm	
		ML/day	% of Allocated Capacity		ML/day	% of Allocated Capacity
COLWOOD						
Total (Parson's minus Meaford)	**4.70**	**2.92**	**62%**	**18.8**	**8.20**	**44%**
ESQUIMALT						
Esquimalt Panhandle	0.12	0.10	87%	0.48	0.46	96%
Lang Cove Pump Station	1.28	0.63	49%	5.12	2.93	57%
Dockyard	1.01	0.48	48%	4.04	3.89	96%
Kinver	0.44	0.25	56%	1.76	2.25	128%
Pooley Place *(Flows are based on a correlation with an adjacent catchment. Catchment is not suitable for metering due to small size and multiple connections to the CRD system.)*	0.06	0.04	67%	0.24	0.21	87%
Devonshire	1.85	1.56	84%	7.40	10.00	135%
Wilson	0.37	0.25	69%	1.48	1.29	87%
Head	1.68	1.30	78%	6.72	6.75	100%
Anson	0.24	0.02	7%	0.97	0.63	65%
Total	**7.09**	**4.63**	**65%**	**28.36**	**28.40**	**100%**
LANGFORD						
Total *(Meaford)*	**14.12**	**7.48**	**53%**	**56.48**	**11.71**	**21%**
OAK BAY						
Windsor	2.92	1.30	45%	11.68	18.01	154%
Humber *(combined sewers)*	0.60	0.42	71%	2.40	4.29	177%
Rutland *(combined sewers)*	0.37	0.31	83%	1.48	5.92	400%
Currie Net *(Flows won't be suitable for comparing to the bylaw allocations until the treatment plant conveyance system upgrades are complete in late 2021.)*	0.97	2.04	211%	3.88	n/a	>125%
Currie Lift Station	1.62	1.35	83%	6.48	12.43	192%
Harling Point Pump Station	0.20	0.09	46%	0.79	2.00	255%
Total *(Flows won't be suitable for comparing to the bylaw allocations until the treatment plant conveyance system upgrades are complete in late 2021.)*	**6.62**	**5.51**	**83%**	26.48	**n/a**	**>175%**

Allocation Point	Allocated Average Dry Weather Flow (ML/day)	Measured Average Dry Weather Flow (Jun + Jul + Aug, 2020)		Allocated Peak Daily Flow (ML/day)	Peak 24-Hour Flow for a 5-Year Storm	
		ML/day	% of Allocated Capacity		ML/day	% of Allocated Capacity
SAANICH						
Marigold PS	13.19	9.89	75%	52.76	34.50	65%
City Boundary	5.88	2.71	46%	23.52	10.50	45%
Harriet	3.27	2.06	63%	13.08	9.36	72%
Townley	0.61	0.39	63%	2.44	2.07	85%
Haultain	0.57	0.18	31%	2.27	1.21	53%
Arbutus	7.08	5.93	84%	28.31	20.95	74%
Haro	0.79	0.18	23%	3.17	0.95	30%
Penrhyn Lift Station	0.93	0.79	85%	3.73	2.74	74%
Total	**32.89**	**22.12**	**67%**	**131.56**	**82.29**	**63%**
VICTORIA						
Cecelia	3.14	2.31	74%	12.57	11.70	93%
Chapman & Gorge *(Flows are based on a correlation with an adjacent catchment. Plans are in place to install a meter)*	0.35	0.99	281%	1.40	4.98	356%
Selkirk *(Flows are based on a correlation with an adjacent catchment. Plans are in place to install a meter)*	0.28	0.10	36%	1.11	0.39	35%
Langford - Vic West	0.19	0.10	51%	0.77	1.18	154%
Hereward	1.91	1.84	96%	7.65	7.20	94%
Sea Terrace *(The flume surcharges during large storms. Because of this, the Peak 24hr flows are based on a correlation with an adjacent catchment. Options are being explored to address this issue.)*	0.33	0.17	52%	1.32	1.50	114%
Trent Net	7.33	5.32	73%	29.32	40.8	139%
Hollywood	0.54	0.66	121%	2.16	7.00	323%
Olive	23.06	17.13	74%	92.24	57.87	63%
Clover Net *(The catchment is not suitable for metering due to small size and multiple connections to the CRD system. As a result, the flows are based on a calculation.)*	1.50	1.92	128%	6.01	7.68	128%
Total	**38.30**	**28.52**	74%	153.19	**140.31**	**92%**

Allocation Point	Allocated Average Dry Weather Flow (ML/day)	Measured Average Dry Weather Flow (Jun + Jul + Aug, 2020)		Allocated Peak Daily Flow (ML/day)	Peak 24-Hour Flow for a 5-Year Storm	
		ML/day	% of Allocated Capacity		ML/day	% of Allocated Capacity
VIEW ROYAL						
Craigflower Pump Station	3.54	1.92	54%	14.16	7.10	50%
Shoreline Trunk	0.14	0.12	85%	0.55	0.50	91%
Total	**3.54**	**2.04**	**58%**	**14.16**	**7.1**	**50%**
ESQUIMALT NATION						
Esquimalt Nation *(Flows are calculated. Plans are in place to install a meter)*	**0.07**	**0.06**	**79%**	**0.28**	**0.35**	**126%**
SONGHEES NATION						
Songhees Nation	0.59	0.48	81%	2.36	3.08	131%
Maplebank	0.010	0.005	50%	0.04	0.005	13%
Total	**0.63**	**0.48**	**77%**	**2.52**	**3.09**	**122%**

CRD IWS
Core Area Wastewater System

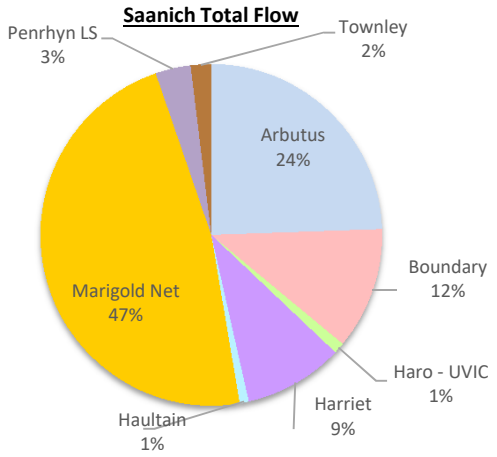
Monthly Wastewater Flow Report for Saanich - November 2020

Disclaimer: The data used in this report is considered preliminary. It may be further corrected in the annual cost requisition report.

1. Monthly Wastewater Flow Data: Nov 2020

This data summarizes the volume of flow measured from catchments contributing to Saanich's total flow (map on page 3).

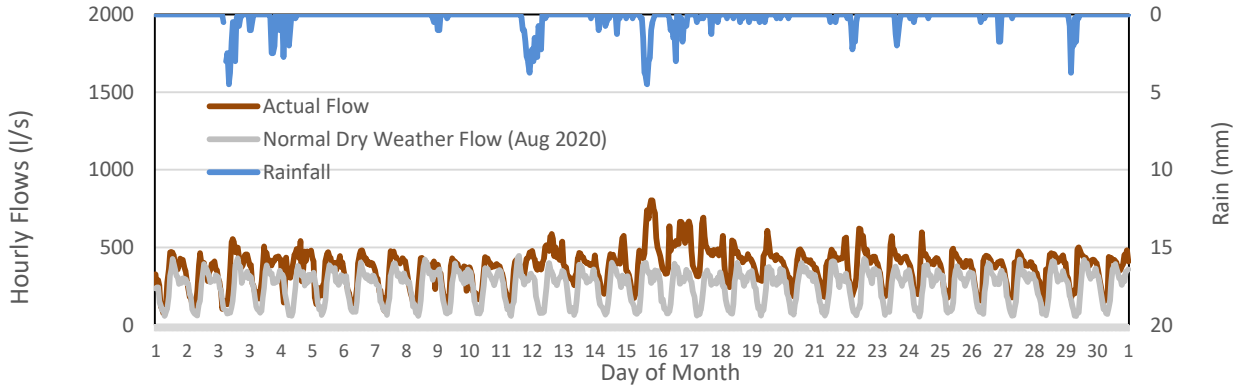
Flow Meter Name	Total Monthly Flow	
	m^3	%
Arbutus	235,905	24%
Boundary	111,578	12%
Haro - UVIC	10,113	1%
Harriet	90,688	9%
Haultain	8,351	1%
Marigold Net	457,052	47%
Marigold PS	*511,005*	
(Minus Hartland Leachate)	*- 53,953*	
Penrhyn LS	32,241	3%
Townley	18,717	2%
Monthly Flow	**964,645**	**100%**



SAANICH FLOW = Marigold Net + Boundary + Harriet + Townley + Haultain + Arbutus + Haro + Penrhyn

2. Saanich Hourly Sewer Flows Nov 2020

This graph shows actual flow (brown) and rainfall (blue), per day, for the month and compares it to normal dry weather flow (grey).



3. Key Wastewater Flow Stats: Nov 2020

Metric	Flow (m^3) [1]
Total Monthly Flow	964,645
Average Daily Flow	32,155
Minimum Daily Flow	25,752
Peak 24hr Flow (PWWF) [2]	47,453
Peak 1hr Flow [3]	69,441
Average Dry Weather Flow (ADWF)[4]	22,118
Estimated Daily Domestic Flow [5]	16,608

[1] Excludes overflows that may have occurred (overflow volumes are not measured).

[2] Calculated as maximum rolling 24 hr flow for the month.

[3] Expressed as 24 hour flow (peak 1 hr flow x 24).

[4] Average daily flow from most recent Jun 1 to Aug 31 data. Includes groundwater infiltration over that period.

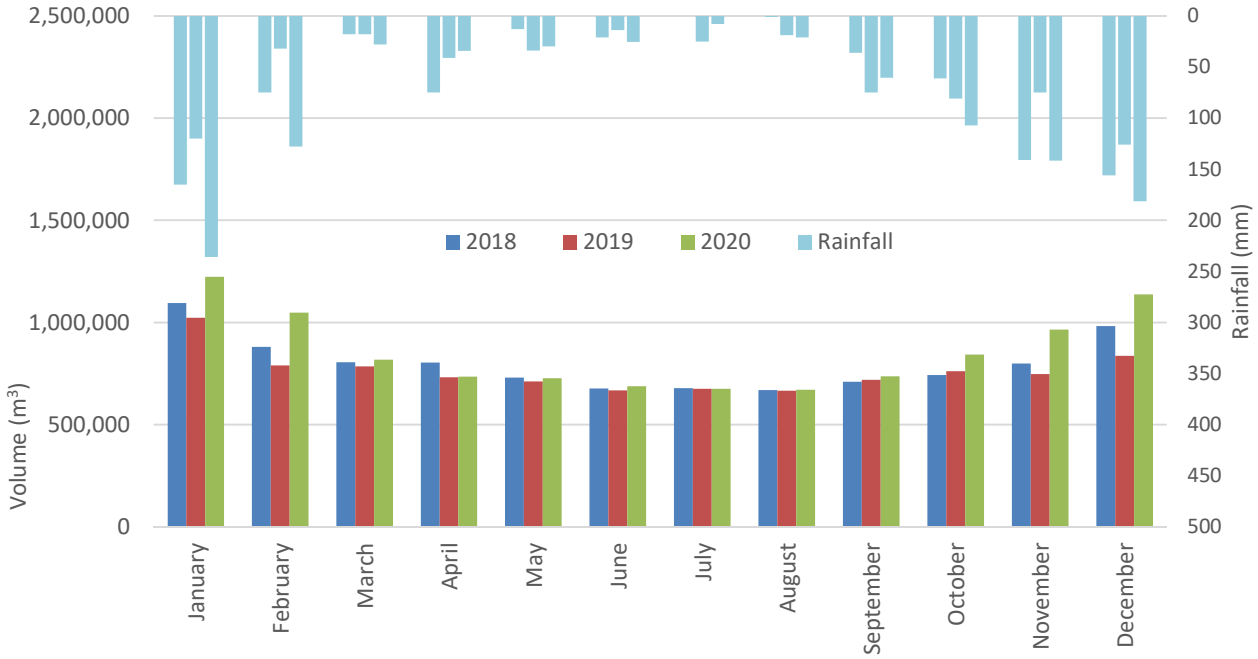
[5] Calculated as ADWF minus summer groundwater (70% of minimum hourly flow x 24 hours).

Overflows (monitored by CRD): Nov 2020

Location	Date
Finnerty Outfall	None

4. Monthly Wastewater Flow: Historical vs. Current

This graph shows the total Saanich flow for each month and compares it with previous years.



5. Inflow & Infiltration Flow Summary: Nov 2020

Key I&I Metrics	Value [1]
Total Monthly Flow (m^3)	964,645
Estimated Domestic Flow for Month (m^3) [2]	498,244
I&I Volume for Month (m^3) [3]	466,401
I&I Volume for Month (% total flow)	48%
Peak 24hr Flow (PWWF) [4]	2.1 x ADWF
Peak 1hr Flow [5]	3.1 x ADWF

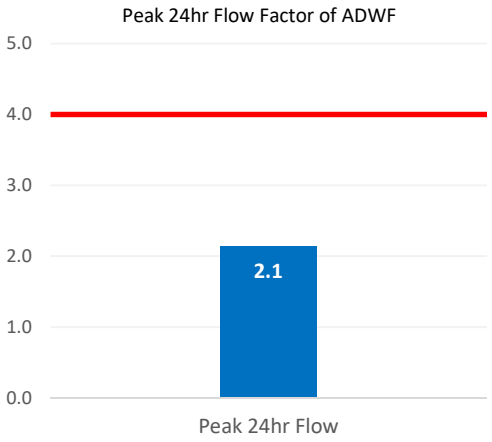
[1] Excludes overflow volume

[2] Determined by (Est. Daily Domestic flow from section 3.) x (number of days per month)

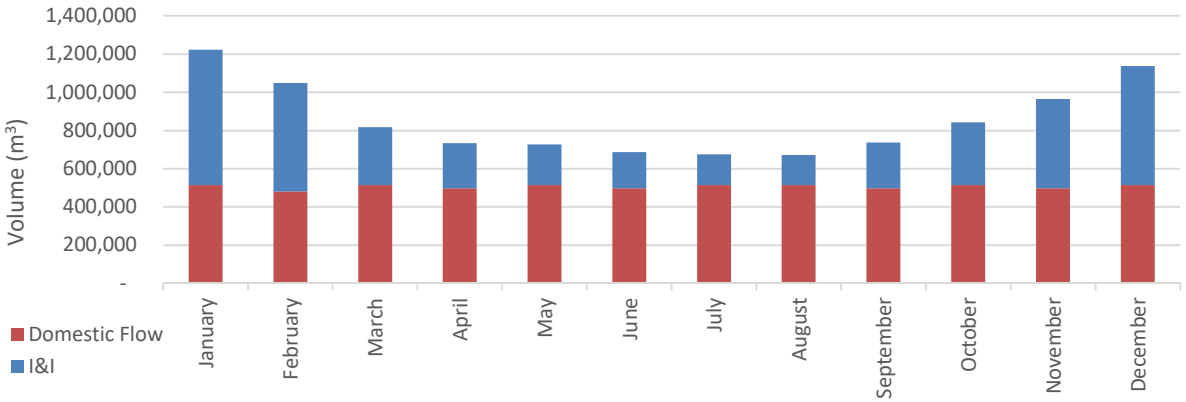
[3] Determined by subtracting Estimated Domestic Flow from Total Monthly Flow

[4] Determined by dividing Peak 24hr Flow from section 3. by ADWF

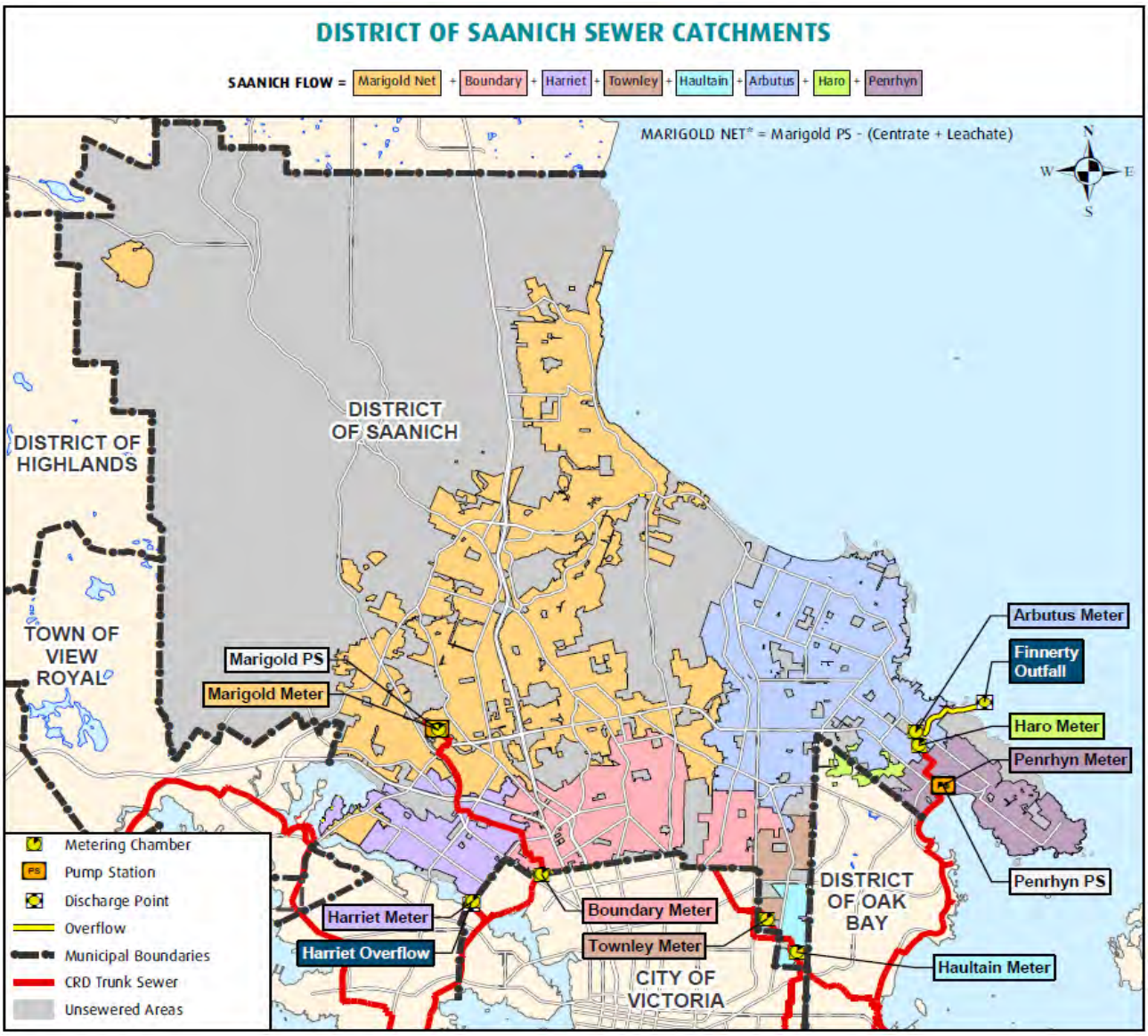
[5] Determined by dividing Peak 1hr Flow from section 3. by ADWF



6. Monthly Flows: I&I and Domestic Flow (2020)



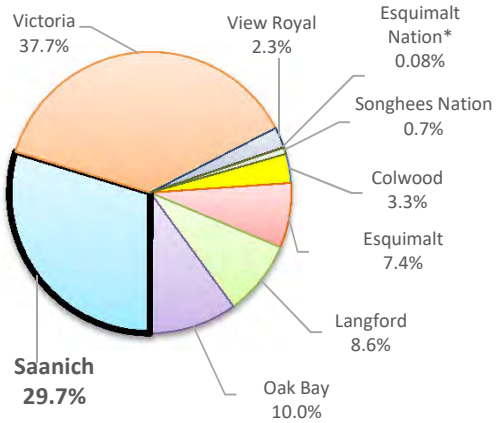
Disclaimer: The data used in the monthly wastewater flow report may be further corrected in the annual cost requisition report.



7. Regional Flow Data: Nov 2020

Participant Area	Total Monthly Flow	
	m^3	%
Colwood	108,796	3.3%
Esquimalt	241,596	7.4%
Langford	280,509	8.6%
Oak Bay	326,535	10.0%
Saanich	**964,645**	**29.7%**
Victoria	1,224,481	37.7%
View Royal	75,982	2.3%
Esquimalt Nation*	2,725	0.08%
Songhees Nation	23,902	0.7%
Total	**3,249,171**	**100.0%**

*Flows are calculated based on engineering estimates



Disclaimer: The data used in the monthly wastewater flow report may be further corrected in the annual cost requisition report.

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IWS 21-02

REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Core Area Wastewater Treatment Project Closeout**

ISSUE SUMMARY

To provide the Core Area Liquid Waste Management Committee (CALWMC) with the Core Area Wastewater Treatment Project closeout summary.

BACKGROUND

In May 2021, the Capital Regional District (CRD) Board received the *CRD Wastewater Treatment Project - Project Completion Report* (Appendix A – Completion Report) and the *CRD Wastewater Treatment Project Governance Transition Report* (Appendix B – Transition Report). The reports presented an outline of the Project-related commitments and activities that were to extend beyond May as well as committed funds associated with fulfilling the remaining items.

In July 2021, the CALWMC received a report that provided an update on the wastewater system commissioning, operation, and construction completion status. The construction across all of the Project components is now substantially complete. Although staff will continue to work with the various contractors and consultants to address final construction deficiencies and deliverables, these will be relatively minor in scope and not material in value.

Given the status of the Project, staff have determined that this is an appropriate time to close out the Project budget at the end of 2021.

Project Budget Summary

The Business Case established the Control Budget of $765 million. In May 2019 the CRD Board approved an increase in the Project's budget by $10 million to $775 million.

Table 8 in the Completion Report summarized the comparison of total forecast cost against the allocated control budget. The total forecast cost to completion in May 2021 was $766.7 million, leaving $8.3 million in Program Reserve for a total of $775 million. The total forecast cost to final completion is now $768.7 million as the forecast cost to completion for third party commitments is now $10.5 million, reducing the Program Reserve to $6.3 million to remain within the $775 million budget. Appendix C provides a more detailed Project Cost Report as of September 30, 2021 with cost forecast to final completion. Staff will transfer the Program Reserve from the project to the service's operating reserve to fund potential Project liabilities that arise on a go forward basis.

With regard to the third party commitments, the Transition Report referenced the committed project funding for obligations remaining to be fulfilled in the Project's Land Access Agreements and Agreements with First Nations, including Transport Canada, Township of Esquimalt, City of Victoria, City of Colwood, District of Saanich and WSANEC Leadership Council. It is anticipated that the agreement payments will be negotiated and issued by year end, or where necessary, project funds will be held in reserve for on-going payments.

Table 5 in the Transition Report summarized the status of the Project's funding agreements at May 2021 including agreements with the Federal Government, the Province of BC, and the Federation of Canadian Municipalities (FCM) Green Municipal Fund grant/loan program. During the months of June and July, the CRD received the final $5 million holdback of federal funding from the Green Infrastructure Fund. The CRD also received the $20 million loan from FCM, and the additional $2.75 million in grant funding. Cumulatively, the CRD has received $358.8 million of the estimated $462.3 million in eligible grant revenue. The remaining (up to) $103.5 million is expected to be received by the end of the year.

ALTERNATIVES

Alternative 1
The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That Core Area Wastewater Treatment Project Closeout Report be received for information.

Alternative
The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That the Core Area Wastewater Treatment Project Closeout Report be referred back to staff for additional information.

IMPLICATIONS

Any Project liabilities that drive a financial impact that cannot be accommodated with the Program Reserve will be brought to the Committee for consideration. Likewise, in the event there is a grant funding shortfall that cannot be accommodated with the Program Reserve will also be brought to Committee for consideration.

CONCLUSION

Construction across all of the Project components is now substantially complete. Given the status of the Project, staff have determined the end of 2021 is an appropriate time to closeout the Project budget. The total forecast cost to final completion is $768.7 million as the forecast cost to completion for third party commitments is now $10.5 million, reducing the Program Reserve to $6.3 million to remain within the $775 million budget. Cumulatively, the CRD has received $358.8 million of the estimated total of $462.3 million in eligible grant revenue. The remaining (up to) $103.5 million is expected to be received by the end of the year.

RECOMMENDATION

The Core Area Liquid Waste Management Committee recommends to the Capital Regional District Board:
That Core Area Wastewater Treatment Project Closeout Report be received for information.

Submitted by:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: CRD WTP Project Completion Report
Appendix B: CRD WTP Governance Transition Report
Appendix C: Project Cost Report

APPENDIX A

CRD Wastewater Treatment Project

Project Completion Report

Reporting Period: May 2016 to May 2021

APPENDIX A

TABLE OF CONTENTS

1 Executive Summary 5

1.1 Wastewater Treatment Project 5

1.2 Project Performance 5

1.2.1 Achievement of Project Goals 5

1.2.2 Key Performance Indicators at Project Completion 6

1.3 Purpose of this Project Completion Report 9

2 Project Context 10

2.1 Project Need 10

2.2 First Nations 10

3 Project Delivery 12

3.1 Governance 12

3.1.1 CRD Board 12

3.1.1.1 Project Vision and Goals 12

3.1.2 Project Board 13

3.1.2.1 Final Report and Business Case 13

3.1.3 Project Director 14

3.2 Project Delivery Strategy 15

3.2.1 Project Team 15

3.2.2 Prime Contractors 16

3.2.3 CRD Integration and Support 17

3.2.4 Project Reporting 19

4 Project Scope 21

4.1 McLoughlin Point Wastewater Treatment Plant 21

4.1.1 McLoughlin Point Wastewater Treatment Plant: Variance in Delivered Scope Compared to the Business Case 23

4.2 Residuals Treatment Facility 24

4.2.1 Residuals Treatment Facility: Variance in Delivered Scope Compared to the Business Case 26

4.3 Conveyance System 27

4.3.1 Clover Point Pump Station 27

4.3.1.1 Clover Point Pump Station: Variance in Delivered Scope Compared to the Business Case 29

4.3.2 Clover Forcemain 29

4.3.2.1 Clover Forcemain: Variance in Delivered Scope Compared to the Business Case 31

4.3.3 Macaulay Point Pump Station and Forcemain 31

4.3.3.1 Macaulay Point Pump Station: Variance in Delivered Scope Compared to the Business Case 33

4.3.4 Craigflower Pump Station 33

4.3.4.1 Craigflower Pump Station: Variance in Delivered Scope Compared to the Business Case 35

4.3.5 Residual Solids Conveyance Line.....35

4.3.5.1 Residual Solids Conveyance Line: Variance in Delivered Scope Compared to the Business Case 37

4.3.6 Arbutus Attenuation Tank.....37

4.3.6.1 Arbutus Attenuation Tank: Variance in Delivered Scope Compared to the Business Case 38

4.3.7 Trent Forcemain 38

4.3.7.1 Trent Forcemain: Variance in Delivered Scope Compared to the Business Case.....39

4.4 Business Case: Scope Delivered Independently 41

5 Project Performance Assessment.....42

5.1 Achievement of Project Goals 42

5.1.1 Meet or exceed federal regulations for secondary treatment by December 31, 2020 42

5.1.2 Minimize costs to residents and businesses (lifecycle costs) and provide value for money .42

5.1.3 Optimize opportunities for resource recovery and greenhouse gas reduction.....45

5.1.4 Deliver a solution that adds value to the surrounding community and enhances the livability of neighborhoods.....46

5.1.4.1 Township of Esquimalt.....47

5.1.4.2 City of Victoria 47

5.1.4.3 District of Saanich 47

5.1.4.4 Songhees and Esquimalt Nations.....48

5.1.4.5 Greater Victoria Harbour Authority 48

5.1.4.6 Department of National Defence.....48

5.2 Key Performance Indicators Dashboard 48

5.2.1 Safety 50

5.2.2 Environment.....51

5.2.3 Regulatory Requirements.....54

5.2.4 Stakeholders.....55

5.2.4.1 First Nations 55

5.2.4.2 Communications and Engagement Plan 56

5.2.5 Schedule 59
5.2.6 Cost 61
5.2.6.1 Project Cost Comparison 62
6 Project Successes and Challenges 65
6.1 Safety 65
6.2 Schedule: Project Delivery to meet the Regulatory Deadline 65
6.3 Delivering a Major Infrastructure Project in an Urban Setting 66
6.4 Cost 67
6.5 Interfaces between Project Components 68
6.6 Construction Challenges 69
6.7 Integration of the Project Components into the Existing Core Area Wastewater System 69
6.8 Establishment of Project Office 70
7 Project Handover 71
7.1 Close-out of the Project's Construction Contracts 71
7.2 Obligations Remaining to be Fulfilled in the Project's Funding, First Nation and Land Access Agreements 72
7.3 Operation and Maintenance of Infrastructure Built by the Project 72
7.3.1 Responsibility for Operations and Maintenance of Project Components 72
7.3.1.1 Operational Readiness Review 73
7.3.2 Contract Administration of Residuals Treatment Facility Project Agreement 73
7.3.3 Permits 74
7.3.4 Responsibility for Operations and Maintenance of Project Amenities 74
7.4 Knowledge Transfer 74
Appendix A – Guiding and Key Supporting Documents 75
Appendix B – Project Cost Report at April 30, 2021 77
Appendix C – Funding, First Nation and Land Access Agreements 78

1 Executive Summary

1.1 Wastewater Treatment Project

The Wastewater Treatment Project (the Project) provides tertiary treatment of wastewater from the core area municipalities of Victoria, Esquimalt, Saanich, Oak Bay, View Royal, Langford and Colwood, and the Esquimalt and Songhees Nations.

The Wastewater Treatment Project was built to meet the provincial and federal regulations for treatment by December 31, 2020. The Project consists of three main components:

- McLoughlin Point Wastewater Treatment Plant: located at McLoughlin Point in Esquimalt, the treatment plant provides tertiary treatment to the core area's wastewater.
- Residuals Treatment Facility: residual solids from the wastewater treatment plant are piped to a Residuals Treatment Facility at Hartland Landfill, where they are turned into what are known as Class A biosolids. These biosolids are a high-quality byproduct treated such that it is safe for further use.
- Conveyance System: the conveyance system refers to the 'pumps and pipes' of the Wastewater Treatment Project. This system carries wastewater from across the core area to the treatment plant, and residual solids to the Residuals Treatment Facility at Hartland Landfill, and also includes an attenuation tank that temporarily stores wastewater flows during high volume storm events to reduce the number of sewer overflows.

The Capital Regional District (the CRD) planned, procured and constructed the Wastewater Treatment Project over the period from May 2016 to May 2021, with some obligations remaining to be fulfilled beyond that date, as summarised in Section 7 of this report. The federal and provincial governments assisted the Capital Regional District in funding the project.

1.2 Project Performance

1.2.1 Achievement of Project Goals

The CRD Board established the following four goals for the Wastewater Treatment Project:

- Meet or exceed federal regulations for secondary treatment by December 31, 2020.
- Minimize costs to residents and businesses (lifecycle costs) and provide value for money.
- Optimize opportunities for resource recovery and greenhouse gas reduction.
- Deliver a solution that adds value to the surrounding community and enhances the liveability of neighbourhoods.

The Wastewater Treatment Project met all four of these goals.

The McLoughlin Point Wastewater Treatment Plant met and exceeded federal regulations when it commenced treating the Core Area’s wastewater to a tertiary level before December 31, 2020. Lifecycle costs were considered at every stage of Project planning and delivery in order to minimize the costs to residents and businesses, and provide value for money. By way of example:

- Starting at the planning stage, a cost effective Project scope and configuration were selected and funding agreements were executed with senior levels of government for a significant portion (60%) of the Project's total cost;
- During the procurement stage competitive selection processes were used to ensure competitive pricing was received for the construction of the Project, and the lifecycle costs of the Project's facilities were evaluated as part of those procurements;
- Lifecycle costs were also considered during design development; and
- Proactive risk management was undertaken at every stage of Project delivery.

Environmental considerations were part of every major decision for the Project, with the result that:

- residual solids produced by the McLoughlin Point Wastewater Treatment Plant are processed into Class A biosolids at the Residuals Treatment Facility: this is the highest quality product allowing for the broadest range of beneficial uses; and
- the design of each of the new major Project facilities (being the McLoughlin Point Wastewater Treatment Plant, the Residuals Treatment Facility and the Macaulay and Craigflower Pump Stations) incorporated Leadership in Energy and Environmental Design (LEED) principles.

To enhance the livability of neighbourhoods, the Wastewater Treatment Project worked with the surrounding communities to identify amenities and/or infrastructure improvements that were either funded by the Project, or funded and delivered by the Project. In addition and in order to minimize the impact of the Project on host communities, all Project components include advanced odour treatment such that there will be no discernible odour by residents.

Section 5.1 of this report provides more detail regarding how each of the Project's goals were achieved.

1.2.2 Key Performance Indicators at Project Completion

The realization of the Project's vision and goals was monitored against the key performance indicators approved by the Project Board. The Project Director reported performance against these key performance indicators to the Project Board on a monthly basis, and their status at Project Completion has been assessed to be as shown in Table 1.

Safety was the Project's top priority: safety of the public, construction workers and CRD staff, including those responsible for delivery of the Project and for its ongoing operation and maintenance. 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) with zero fatalities and a safety-first culture maintained within the CRD and all Project Contractors.

Schedule was a critical Project driver, specifically the need to meet or exceed federal regulations for secondary treatment by December 31, 2020. As already noted, the McLoughlin Point Wastewater Treatment Plant met and exceeded federal regulations when it commenced treating the Core Area's wastewater to a tertiary level before December 31, 2020, and, through the addition of the Project components to the core area wastewater system, the system can be operated in compliance with provincial and federal wastewater regulations.

Cost was an important consideration throughout Project planning and delivery. While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur

in the last quarter of 2021, it is forecast that the total Project cost will be approximately $766.7M, which is within the approved budget of $775M. The total Project cost is therefore forecast to exceed the Project's Control Budget (of $765M) by 0.2%, but be well within the budget subsequently-approved by the CRD Board (of $775M).

Over the period of Project delivery, budget pressures included inflation in the cost of labour and materials and design changes from stakeholder input. Considering the constraints of the Project's schedule (which necessarily required an ambitious schedule in order to meet the federal regulations for treatment of wastewater by December 31, 2020) and the onset and continuation of a global health pandemic over the final year of the Project's construction schedule, delivering the Project within 0.2% of the Project's original budget is a significant achievement.

APPENDIX A

Table 1 – Status of Key Performance Indicators at Project Completion

Key Performance Indicator			Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.		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), there have been zero fatalities and the TRIF was 1.5. While this exceeds the Project's ambitious target of no more than 1, it was less than half the industry average: WorkSafe BC records the TRIF for various industries, and for 2018 (the most recent year for which information has been published) the TRIF for heavy construction was 3.2.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.		The Project met all legislated environmental requirements and, through the design of the various components optimized opportunities for resource recovery and greenhouse gas reduction. Over the course of construction there were a relatively small number of environmental incidents: they were all diligently-managed, appropriately-reported and mitigated as required, with the result that there weren't any long-term impacts. An unexpectedly-significant environmental benefit of the Project included the remediation of McLoughlin Point.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.		Through the addition of the Project components to the core area wastewater system, the system can be operated in compliance with provincial and federal wastewater regulations.
Stakeholders	Continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders.		Significant efforts were made to engage with and provide accurate and timely information to stakeholders throughout the delivery of the Project. Through these efforts and the achievement of the Project's goals, positive relationships were built and maintained with First Nations, local governments, communities, and other stakeholders.
Schedule	Deliver the Project by December 31, 2020.		The Project completed the majority of construction by December 31, 2020, and achieved its schedule-related goal, which was to meet or exceed federal regulations for secondary treatment of wastewater by December 31, 2020. All aspects of the Project that were required to meet the regulatory requirements were delivered by December 31, 2020. As of May 2021, commissioning of the Residuals Treatment Facility is ongoing and is anticipated to be complete in June 2021, and the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with some minor construction activities remaining.
Cost	Deliver the Project within the Control Budget ($765 million).		While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur in the last quarter of 2021, it is forecast that the total Project cost will be approximately $766.7M, which is within the approved budget of $775M. The total Project cost is therefore forecast to exceed the Project's Control Budget (of $765M) by 0.2%, but be well within the budget subsequently-approved by the CRD Board (of $775M).

APPENDIX A

* 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
	Significant adverse effect of KPI not being met
	KPI not met but outcome managed
	KPI achieved

Section 5.2 of this report provides more detail regarding Project delivery with respect to the Project's key performance indicators.

1.3 Purpose of this Project Completion Report

The purpose of this Project Completion Report is to mark the completion of the Wastewater Treatment Project by:

- assessing the Project's performance against the goals established by the CRD Board (see section 5.1) and the key performance indicators approved by the Project Board (see section 5.2);
- identifying variances from the baseline plans prepared by the Project Board and/or Project Team, in terms of the Project's scope (see section 4), schedule (see section 5.2.5) and cost (see section 5.2.6);
- identifying Project successes and challenges (see section 6); and
- outlining the Project-related commitments and activities that extend beyond May 2021 (see section 7).

Note that another document (the Governance Transition Report) provides more details regarding the project closure activities that have been completed to-date, and the Project-related commitments that extend beyond May 2021.

2 Project Context

2.1 Project Need

The Capital Regional District (CRD) was incorporated in 1966 to provide regional decision-making on issues that transcend municipal boundaries and to enable effective service delivery to residents regionally, sub-regionally and locally. Today, the CRD is the regional government for 13 municipalities and three electoral areas on southern Vancouver Island and the Gulf Islands, serving more than 425,000 people.

The Core Area of the CRD includes seven municipalities and two First Nations within the CRD with a total land area of approximately 215 km^2. The Core Area communities are the Cities of Victoria, Langford, and Colwood, the Districts of Oak Bay and Saanich, the Township of Esquimalt, the Town of View Royal, and the Songhees and Esquimalt Nations. One of the services that the CRD provides for the Core Area is the regional sewage system, which serves a population of approximately 320,000 (as estimated in 2019) in the Core Area.

Until 2020, all wastewater from the Core Area was conveyed to preliminary treatment facilities at Clover Point in Victoria and Macaulay Point in Esquimalt, where it was screened prior to marine discharge. Preliminary treatment was provided by 6 mm fine screening to remove rocks and solids, plastic, and floatable materials. The removed materials were trucked to, and disposed of, at the Hartland Landfill. No other treatment occurred prior to the wastewater being discharged into the marine environment from one of two outfalls, located at Clover Point and Macaulay Point. The CRD was the last major coastal community in North America discharging untreated sewage into the marine environment.

Provincial Municipal Wastewater Regulations (“MWR”) under the Environmental Management Act came into effect in 2012 to, “protect public health and the environment”. The Municipal Wastewater Regulations prescribes the minimum standards of municipal wastewater quality for marine water, fresh water, or ground discharge.

Federal Wastewater System Effluent Regulations (“WSER”) under the Fisheries Act also prescribe effluent quality performance standards. WSER's objective is to decrease the level of deleterious and harmful substances discharged through wastewater effluent. Facilities discharging effluent quality not equivalent to or better than the secondary treatment performance standards are required to be upgraded. Facilities considered high risk, such as those at Macaulay Point and Clover Point were required to be upgraded by December 31, 2020, in accordance with the deadline set out in the transitional authorizations for those facilities.

Failure to comply with the WSER and the MWR could have resulted in regulatory enforcement action in the form of prosecution, fines, imprisonment, and other remedial penalties.

2.2 First Nations

The Core Area, and therefore the Project components, lie within or near the traditional territories of 16 First Nations.

The First Nations most closely associated with the Wastewater Treatment Project are the Esquimalt and Songhees. Their communities are located in the Core Area within close proximity to the McLoughlin Point Wastewater Treatment Plant and other Project components. The

APPENDIX A

Esquimalt and Songhees First Nations are participants in the Core Area Liquid Wastewater Service and the CRD is currently establishing updated service agreements with the Nations.

There are four First Nations with communities near the Core Area, but outside the Core Area wastewater system. They are the Tsawout, Tseycum, Tsartlip, and Pauquachin (the W̱SÁNEĆ Nations). The Residuals Treatment Facility and parts of the Conveyance System are located within their traditional territories.

Additionally, there are ten other First Nations with Treaty rights in the general vicinity of the Core Area, which are primarily fishing rights in the Strait of Juan de Fuca. These Nations are the Scia'new (Beecher Bay), Stz'uminus, Halalt, Penelakut Tribe, T'Sou-ke, Lyackson, MÁLEXEŁ (Malahat), Lake Cowichan, Cowichan Tribes, and Nanoose First Nation (which is included because it is represented by a tribal association, the Te'mexw Treaty Association, which was formed by some of these Nations).

3 Project Delivery

3.1 Governance

3.1.1 CRD Board

The CRD is governed by a 24-member Board of Directors, composed of one or more elected official from each of the local governments within the CRD's boundaries.

In order to meet federal and provincial wastewater regulations, 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 Project. The Terms of Reference are attached as Schedule “A” to the CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016. The CRD Board asked the Project Board to review the wastewater treatment issues and, by September 2016, recommend to the CRD and senior levels of government a plan to comply with the law and to preserve senior government funding.

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”). Notwithstanding the delegation of authority from the CRD Board to the Project Board, the delegation bylaw included the requirement that approval from the CRD Board would be required for any alteration to the scope, schedule or budget of the Project that would result in the Project not meeting provincial and federal regulations governing the Project, exceeding approved funding for the Project, or increasing costs to taxpayers from those stated in the Business Case.

The CRD Board had previously established the CRD Core Area Liquid Waste Management Committee (“CALWMC”) to oversee and make recommendations to the CRD Board regarding the Core Area Liquid Waste Management Plan, and progress on the Project was reported to the CRD Board through the CALWMC.

3.1.1.1 Project Vision and Goals

The Project Board’s Terms of Reference (as established by the CRD Board) included the following vision for the Project:

- Deliver a sewage treatment and resource recovery system that is innovative, achievable and optimizes benefits - economic, social and environmental (including climate change mitigation) - for the long term.
- Approach the Project from the perspective that waste materials should be treated as resources and managed as such, with a long term objective to create a system that supports the principles of Integrated Resource Management (“IRM”).
- Give consideration to, and reflect, public input received with an objective of being responsive to community values and concerns.

The Terms of Reference included the following goals to support achieving the vision:

- Meet or exceed federal regulations for secondary treatment by December 31, 2020.

- Minimize costs to residents and businesses (lifecycle costs) and provide value for money.
- Optimize opportunities for resource recovery and greenhouse gas reduction.
- Deliver a solution that adds value to the surrounding community and enhances the liveability of neighbourhoods.

3.1.2 Project Board

In accordance with the bylaw that established it (the "CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016"), the Project Board consisted of seven members appointed by the CRD Board, one of whom was the Chief Administrative Officer of the CRD.

The Project Board's role and function as defined in the Terms of Reference was as follows:

- Be responsible for overall planning, Project management, site acquisition, expenditures, and liquid waste management planning for the purposes of the Project.
- Select a Project Director to oversee all aspects of the Project.
- Provide direction and guidance to the Project Director on Project matters, including the development of a decision making framework, business priorities, strategies and resource approval, and appropriate Project controls and reporting procedures.
- Manage the development of a comprehensive Business Case for submission to the federal and provincial governments to confirm funding to proceed to Project implementation.
- Appoint or confirm advisors including fairness advisor and conflict of interest adjudicator.
- Oversee Project scope, schedule and budget as the Project progresses through planning, procurement and implementation phases, with particular attention to risk identification and risk management.
- Work with the Project Director to resolve material issues that may arise over the course of the Project.
- Oversee Project communications, information and consultation activities.

3.1.2.1 Final Report and Business Case

Upon establishment, the Project Board heard delegations and presentations from the public, industry professionals, and a CRD Director. The Project Board Chair and Vice Chair also met with staff from the CRD and all of the Core Area municipalities, and with Esquimalt and Songhees Nations representatives.

The Project Board reviewed the previous technical work and extensive public commentary and developed a methodology to review and evaluate all options. This methodology included evaluation of a large number of options to identify a short list that best addressed the Project goals.

The Project Board developed detailed cost estimates for the short-listed options, ranked the short list using triple bottom line (economic, social and environmental) criteria, and identified the best option. This option was the basis of the final report of the Project Board with respect to its recommendation for the Project, dated September 7, 2016 (the "Final Report").

On September 14, 2016 the CRD Board received the Final Report and approved the business case attached as Appendix 1 (the "Business Case") to the Final Report. The Business Case defined the scope of the Project and established the control budget of $765 million (the "Control Budget").

Following the CRD Board's approval of the Business Case, the CRD submitted amendment number 11 ("Amendment 11") to the Core Area Liquid Waste Management Plan ("CALWMP") to the British Columbia Ministry of Environment. The CALWMP is a 25-year plan under the Environmental Management Act which outlines the CRD's wastewater management strategies, including wastewater treatment.

On September 30, 2016, the British Columbia Ministry of Environment provided conditional approval of Amendment 11 to the CALWMP, and on November 18, 2016 provided a revised conditional approval that superseded the September 30, 2016 approval. The November 18, 2016 conditional approval clarified: that primary treatment is to be guaranteed for Clover Point catchment flows of up to three times average dry weather flows[1]; and that a definitive plan providing a solution for the beneficial use of biosolids that does not incorporate multi-year storage of biosolids within a biocell was to be submitted to the British Columbia Ministry of Environment by June 30, 2019. The November 18, 2016 conditional approval further mandated that the CRD's solution for the beneficial use of biosolids meet the requirements for beneficial use specified in the Canadian Council of Ministers of the Environment 'Canada-Wide Approach for the Management of Wastewater Biosolids' (October 11, 2012).

The CRD therefore needed to develop a definitive plan for the beneficial use of the biosolids to be produced at the Residuals Treatment Facility, that met the requirements of the British Columbia Ministry of Environment's conditional approval.

Once the Project had concluded the procurement for the Residuals Treatment Facility, the nature of the biosolids to be beneficially-used was known. At that point the CRD undertook a process (separate to the Project and based on the nature of the biosolids to be produced by the Residuals Treatment Facility) with the participation of municipalities and First Nations, to review its regional waste management policy and develop a definitive plan for the beneficial use of biosolids and integrated resource management.

3.1.3 Project Director

In accordance with the CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016, in December 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 Project.

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.

[1] The average dry weather flow (ADWF) is the average daily flow during the dry weather season: the average dry weather season for the core area is from June 1 to August 31.

3.2 Project Delivery Strategy

3.2.1 Project Team

In accordance with the Terms of Reference, the Project Director assembled a Project team:

- to carry out the work of the Project on behalf of the Project Board; and
- that included the relevant expertise required for the Project, including financial, technical, estimating, communication and consultation, procurement and legal expertise.

The Terms of Reference noted that membership of the team was to reflect the requirements of the work at a particular time and may change over time. The Project Director established the Project Team based on the contracting strategies outlined in Table 2 (in the following sub-section). The composition of the Project Team is outlined in the Project Management Plan, and was supported by consultants as required to provide specialist expertise and balance the changing resource needs over the course of Project delivery.

The Project Team reported directly to the Project Director and Deputy Project Director and as part of their overall Project execution and delivery responsibilities had the following duties:

- Project execution and delivery;
- Stakeholder relations, communication management and reporting;
- Project controls, including document control, cost control, schedule, risk management and reporting;
- Financial management, primarily through integration with CRD's Finance Department, including for: cash flow management, payment processing, and financial controls;
- Managing scope and monitoring engineering and construction activities;
- Overseeing the Project contractors' safety, environmental and quality performance; and
- Integrating with CRD departments throughout the delivery of the Project.

The Project Director determined that it would be useful for the Project Team to refer to guidance documents as they delivered the Project, and to this end the following documents were prepared by the Project Team and approved by the Project Board:

- Project Charter: the Project Charter included the Project's goals (as defined by the CRD Board), and established the parameters and mandate for the Project Team to execute and deliver the Wastewater Treatment Project, including key performance indicators against which delivery of the Project could be assessed. The Project Charter was first approved by the Project Board on April 4, 2017, and was subsequently updated twice to account for progress made on delivering the Project, with each update approved by the Project Board (on April 27, 2018 and September 30, 2019).

- Project Management Plan: the Project Management Plan specified the project management objectives and approaches intended to be used to achieve the key performance indicators (as established in the Project Charter); and stated the key organizational roles and responsibilities anticipated to be required to provide effective management, administration and control of the Project. The Project Management Plan was approved by the Project Board on September 26, 2018.

- Risk Management Plan: the Project's Risk Management Plan included the risk management process, roles and responsibilities, management escalation hierarchy and requirements for risk meetings and reporting cycles, in order to direct and empower the Project Team to: develop and maintain a 'risk aware' culture; provide a comprehensive risk identification and control process; and to proactively forecast and report on risks. The Project's Risk Management Plan was approved by the Project Board on March 29, 2018.
- Communications and Engagement Plan: the Project's Communications and Engagement Plan defined the Project's communications and engagement goals, described the communications and engagement activities and described the roles and responsibilities of the Project's Communications and Engagement Team, which included CRD staff, consultants and representatives from the contractors for each component of the Project. The Project's Communications and Engagement Plan was first approved by the Project Board on April 4, 2017, and was subsequently updated twice to account for progress made on delivering the Project, with each update approved by the Project Board (on July 26, 2018 and July 25, 2019).

3.2.2 Prime Contractors

Given the risk profile, overall scale and diverse scope, the Project Board determined that the Project would be delivered through a number of contracts with a variety of contracting strategies, and in the Business Case outlined the rationale for: the McLoughlin Point Wastewater Treatment Plant to be delivered through a design-build-finance contract; the Residuals Treatment Facility to be delivered through a design-build-finance-operate-maintain contract; the Macaulay and Clover Point Pump Stations to be delivered through design-build contracts, and the remainder of the conveyance system to be delivered through design-bid-build contracts. The Project Team determined the packaging for the conveyance system, with consideration of: market capacity; the design, construction and commissioning schedule for each aspect of the conveyance system; and the interfaces between each Project component. The selected contracting and packaging strategy is outlined in Table 2.

The Project Team ran competitive selection processes to select a construction contractor for each Project component. The procurements were open for any interested party to participate in, were advertised on BC Bid (a website that allows public sector organizations to advertise opportunities for contracts for a wide range of goods and services), and followed CRD's purchasing policy as applicable to the procurement. The construction contractors selected through these processes are summarised in Table 2.

In order to manage scope and interface risks the Project Team used a single owner's engineer to develop the indicative design for all critical Project components with significant interfaces. The indicative design formed the basis for defining the key interfaces between Project components. Stantec were retained as the owner's engineer for the overall Project, as they had been engaged by the CRD during an earlier stage of Project development. In addition and as shown in Table 2, the Project Team retained a design consultant for each Project component delivered through a design-bid-build contract.

Table 2 – Contracting Strategy, Design Consultant and Construction Contractor

Project Component	Contract	Contracting Strategy	Design Consultant	Construction Contractor
McLoughlin Point Wastewater Treatment Plant	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.	
	Clover Forcemain	Design-bid-build	Kerr Wood Leidal	Windley Contracting Ltd.
	Macaulay Point Pump Station & Forcemain	Design-build	Kenaidan Contracting Ltd.	
	Craigflower Pump Station[2]	Design-bid-build	Associated Engineering	Jacob Bros Construction
	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

3.2.3 CRD Integration and Support

CRD integration and support was critical to the successful delivery of the Project. The Project Board and Project Team completed the tasks delegated to them with:

- ongoing co-ordination between the Project Team and the two CRD departments that have responsibilities for commissioned Project components, being:
  - the CRD's Integrated Water Services department, who are responsible for the operation and maintenance of all Project components (upon commissioning) other than the Residuals Treatment Facility; and
  - the CRD's Parks and Environmental Services department, who are responsible for: the CRD's Core Area Liquid Waste Management Plan; the environmental monitoring and regulatory compliance reporting for the core area wastewater system; and the administration of the Residuals Treatment Facility contract post May 2021; and

[2] The Craigflower Pump Station was delivered by the CRD between 2013 and 2015, before the Project Board were established.

- the support of many CRD departments, including Corporate Communications, First Nations Relations, Human Resources, Legislative and Corporate Services, and Finance and Technology.

The CRD integration and support occurred through various avenues, including the following:

- The Chief Administrative Officer's appointment as a member of the Project Board;
- Monthly executive leadership meetings attended by the Project Director, Deputy Project Director and the CRD's Chief Administrative Officer, Chief Financial Officer, and General Managers of Parks and Environmental Services and Integrated Water Services;
- Monthly project coordination meetings attended by Project Team members and members of relevant CRD departments, including Integrated Water Services, Parks and Environmental Services, First Nations Relations, and Properties;
- The participation in design review and hazard and operability workshops of members of the Integrated Water Services and Parks and Environmental Services departments;
- The review of contract submittals (e.g. operating plans) by members of the Integrated Water Services and Parks and Environmental Services departments; and
- Interaction between designated CRD and Project Team personnel responsible for ensuring integration on specific subjects, as outlined in Appendix 3 of the Project Management Plan.

Particular support and integration was provided by the following CRD individuals and departments:

- The CRD's Chief Financial Officer - both directly and through finance staff seconded to the Project Team and through information technology support - was responsible for:
    - ensuring compliance with local government financial reporting requirements;
    - coordinating with the Project Team's Finance Manager to efficiently structure Project cash flows and financing;
    - seeking the CRD Board's approval for the means by which the Project's cash flow and financing needs were met;
    - shaping the overall financing strategy of the Project; and
    - providing information technology support to the Project.
- The CRD's Senior Manager, Human Resources and Corporate Safety was responsible for all aspects of human resources, labour relations, organizational development, and occupational health and safety leadership, direction and support for the CRD. Specific to the Project:
    - all matters regarding employment were overseen by the CRD's Human Resources and Corporate Safety division, under the direction of the CRD's Senior Manager, Human Resources and Corporate Safety and the authority of the CRD's Chief Administrative Officer; and
    - the CRD's Manager, Corporate Occupational Health & Safety was responsible for supporting the Project Team's Safety Manager in the performance of their responsibilities by periodically reviewing the status of the Project's safety activities and initiatives.
- The CRD's Senior Manager, Corporate Communications was point of contact for media, responsible for coordinating with the Project Team to manage media inquiries

related to the Project. This included local, regional, provincial, national, and at times international, media.

- The Manager of CRD's First Nations Relations was responsible for:
  - the ongoing maintenance of CRD's government-to-government relationships with First Nations; and
  - coordinating with the Project Team on Project-related First Nations engagement.
- The CRD's Corporate Services Department:
  - provided professional advice and expertise related to legislative services, information services, risk and insurance management, real estate services; and
  - was responsible for administration of the Freedom of Information and Protection of Privacy Act;
- Representatives from CRD's Integrated Water Services department were engaged in the review of design and construction submittals and provided input regarding CRD standards and operations and maintenance considerations. Specific responsibilities included participating in design review and hazard and operability workshops, and reviewing and providing comments on relevant contract submittals (e.g. design reports, drawings and operating plans).
- Representatives from CRD's Parks and Environmental Services department were engaged in the:
  - review of applications for permits and authorizations that extend beyond the Project delivery period, including the registration of the McLoughlin Point Wastewater Treatment Plant under the Municipal Wastewater Regulations; and
  - review of specific design and construction submittals for the Residuals Treatment Facility. Specific responsibilities included: participating in design review workshops, and reviewing and providing comments on contract submittals (e.g. design reports, drawings, operating plans), with a focus on the interfaces between the operations of the Hartland Landfill and the Residuals Treatment Facility.

Each service that the CRD provides has its own budget and must be accounted for and reported on separately: the CRD Financial Plan consists of more than 200 individual service budgets, which fund delivery of regional, sub-regional and local services. In accordance with this, the Project's budget included annual payments to the CRD departments that supported the Project Board and Project Team.

3.2.4 Project Reporting

The reporting requirements for the Project were defined with consideration of the Project Board Terms of Reference, the approved senior government funding agreements and the financial and accounting reporting cycle of the CRD. The Project Board's Terms of Reference required the Project Board to provide the CRD Board with monthly progress reports and a comprehensive quarterly report on the Project.

Throughout the delivery of the Project, the Project Team prepared comprehensive monthly and quarterly reports which described the status of the Project, and specifically addressed the progress with respect to scope, budget, commitments, project expenditures, schedule and risk status. The reports included a dashboard and executive summary which highlighted material

changes in any of these areas, and summarised progress on the delivery of each Project component. These reports were presented to the Project Board in open reports, and subsequently to the Core Area Liquid Waste Management Committee and CRD Board

4 Project Scope

This section summarises the scope delivered by the Project, as well as any variances in the delivered scope compared to that defined in the Business Case.

In furtherance of the Project's goal to minimize costs to residents and businesses, the Project Team undertook value engineering and reviewed the scope of each Project component in advance of commencing detailed design and initiating a competitive selection process to procure a construction contract. In some cases this value engineering led to the delivered scope exceeding that defined in the Business Case, and in some cases to the delivered scope being reduced from that defined in the Business Case.

Project Board approval was sought for variances in scope from the Business Case: CRD Board approval was not required as none of the variances resulted in any of the effects listed in CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016 (being: the Project not meeting provincial and federal regulations governing the Project, exceeding approved funding for the Project, or increasing costs to taxpayers from those stated in the Business Case).

4.1 McLoughlin Point Wastewater Treatment Plant

The McLoughlin Point Wastewater Treatment Plant can treat up to 108 megalitres of wastewater per day to a tertiary level, and discharge treated effluent into the ocean through a new outfall approximately 2km from shore and 60m deep.

The primary treatment process is the physical separation of solids from wastewater. Secondary treatment uses a biological process that removes dissolved and suspended organic compounds. During tertiary treatment wastewater passes through a 5 micron fabric disc filter, removing many pharmaceutical, hormones, microplastics and other contaminants from the discharged effluent.

Located at McLoughlin Point in Esquimalt, the McLoughlin Point Wastewater Treatment Plant is situated at the entrance of Victoria Harbour. Its appearance respects the setting and incorporates the highest standards of design, materials and aesthetics. It has been built to minimize visual impacts from the water and includes a multi-level green roof, mature landscaping, an observation deck, and a multi-use education space.

The McLoughlin Point Wastewater Treatment Plant's Operations and Maintenance building is designed to Leadership in Energy and Environmental Design (LEED) Gold standard and over 80% (or 1,600 m^2) of its roof is planted to increase on-site habitat and provide storm water management. A heat recovery system has also been incorporated: prior to discharge to the ocean, the effluent passes through heat exchangers which remove heat from the wastewater and use it to heat the Operations and Maintenance building at the facility.

The McLoughlin Point Wastewater Treatment Plant includes state-of-the-art odour control and a 24-hour odour control monitoring system. All treatment processing tanks are covered which result in one of the highest levels of odour capture and treatment in the industry. The odour control systems reduce odour emissions to a level not detectable by humans at the property line. The odour control system includes back-up odour control equipment and back-up power generators, reducing the possibility of odour escaping the facility if there is an equipment failure.

APPENDIX A

The McLoughlin Point Wastewater Treatment Plant has been designed for post-disaster operation in accordance with the 2012 British Columbia Building Code. The Code stipulates that post-disaster facilities must be designed to withstand the size or magnitude of earthquake that could occur once in every 2,475 year which translates approximately to a magnitude 6.5 earthquake. This means the facility will remain operational after a major earthquake, as well as other natural disasters, such as tsunamis.

The McLoughlin Point Wastewater Treatment Plant was designed and built by Harbour Resource Partners, as the design-build contractor. Harbour Resource Partners is a consortium of AECOM Canada and Graham Infrastructure.

Photographs of the McLoughlin Point Wastewater Treatment Plant are shown in Figures 1 and 2.

Figure 1 – Looking west at the McLoughlin Point Wastewater Treatment Plant

Figure 2 – Looking east over the McLoughlin Point Wastewater Treatment Plant

4.1.1 McLoughlin Point Wastewater Treatment Plant: Variance in Delivered Scope Compared to the Business Case

The McLoughlin Point Wastewater Treatment Plant delivered by the Project exceeds the scope defined in the Business Case in two key respects: the capability to increase the capacity of the plant (from 108 megalitres of wastewater per day to 124 megalitres per day), enabling it to accommodate population growth beyond 2040; and the capability to include effluent disinfection.

The Business Case required the McLoughlin Point Wastewater Treatment Plant to have the capacity to effectively accommodate the future population growth, and this was achieved: based on wastewater flow projections, the Plant has sufficient capacity to treat the core area's wastewater and accommodate regional population growth to at least 2040. In addition to that capacity, and providing a lifecycle cost benefit to the CRD, the Plant has been designed and built such that the capacity could be increased to accommodate population growth beyond 2040.

The Business Case required the McLoughlin Point Wastewater Treatment Plant to provide tertiary treatment, which it does. Disinfection of the treated effluent is not necessary to meet the regulatory requirements, and was not required by the Business Case. The Marine Environmental Impact Study undertaken for the Project by qualified professionals found that, based on extensive flow monitoring, hydraulic modelling and dispersion modelling, there would be little to no benefit to installing disinfection at this time. However, the McLoughlin Point Wastewater Treatment Plant has been designed to allow disinfection to be added at a future date if required. Specifically, after tertiary treatment, the treated effluent flows through dedicated channels which are sized to allow for the placement of ultraviolet equipment with minimal interruption to the operation of the Wastewater Treatment Plant. This configuration

allows for disinfection to be added, if desired at a later date, at a lower cost than if it had not been considered during Project delivery.

4.2 Residuals Treatment Facility

The Residuals Treatment Facility receives residual solids produced by the McLoughlin Point Wastewater Treatment Plant and processes them into Class A biosolids, the highest quality product suitable for beneficial use.

At the Residuals Treatment Facility residual solids undergo an anaerobic digestion process in which microorganisms break down biodegradable material in the absence of oxygen and produce biogas. The residual solids are then dewatered and heated to a very high temperature creating Class A biosolids.

The biogas produced during the digestion process is collected and reused within the facility as fuel for the dryer. The operations and maintenance building was designed and constructed in accordance with Leadership in Energy and Environmental Design (LEED) principles, and the process buildings incorporate sustainable design initiatives such as long-lasting building materials and water and energy efficiency.

All treatment processes are completed within closed containers and odour control systems are in place to ensure that there will be no discernible odour to residents once the commissioning phase is complete and the facility is fully-operational.

The Residuals Treatment Facility is located within the footprint of the Hartland Landfill. Key benefits of the Hartland Landfill location include:

- locating the Residuals Treatment Facility next to the existing, active landfill and within the footprint of the landfill allows for future integration between the region's solid waste and liquid waste management plans;
- the land is owned by the CRD;
- the land is not part of the Agricultural Land Reserve, park or ecological land reserve; and
- distance from residential neighbours.

The Residuals Treatment Facility has been designed for post-disaster operation in accordance with the 2012 British Columbia Building Code. The Code stipulates that post-disaster facilities must be designed to withstand the size or magnitude of earthquake that could occur once in every 2,475 year which translates approximately to a magnitude 6.5 earthquake. This means the facility will remain operational after a major earthquake.

The Residuals Treatment Facility was designed and built, and will be operated and maintained for twenty years by Hartland Resource Management Group, as the design-build-finance-operate-maintain contractor. Hartland Resource Management Group are a consortium comprising Synagro Capital, Maple Reinders PPP Ltd., and Bird Construction Inc.

Photographs of the Residuals Treatment Facility are shown in Figures 3 and 4.

Figure 3 – Looking southwest toward the Residuals Treatment Facility

Figure 4 – Looking east toward the Residuals Treatment Facility

4.2.1 Residuals Treatment Facility: Variance in Delivered Scope Compared to the Business Case

The Residuals Treatment Facility delivered by the Project exceeded the scope defined in the Business Case in a key respect (namely the ability to process and receive residual solids from other municipalities in addition to those from the Mcloughlin Point Wastewater Treatment Plant), and incorporated one of the scope elements through alternative means (being interim storage).

In furtherance of the Project's goal to provide value for money, the Project included a capital investment that exceeded the scope defined in the Business Case. The Residuals Treatment Facility was required to treat residuals solids produced by the McLoughlin Point Wastewater Treatment Plant. The Residuals Treatment Facility has been designed and constructed with the receiving facilities to enable it to also treat up to 3,100 kg/day of other municipal residual solids, while the Residuals Treatment Facility has surplus capacity (i.e. while the actual flow from the McLoughlin Point McLoughlin Point Wastewater Treatment Plant is less than the 2040 expected flow). This capital investment provides the CRD with a cost sharing and/or recovery option, and municipalities outside of the Core Area with a means to convert residual solids into a product capable of beneficial use.

Regarding interim storage, the Business Case anticipated the need to store the class A biosolids produced by the Residuals Treatment Facility at Hartland Landfill on an interim basis pending the introduction of an integrated resource management solution for all waste streams. The interim storage was to be configured with the ability to recover leachate and biogas.

To this end, after the CRD Board approved the Business Case (on September 14, 2016) the CRD submitted Amendment No. 11 to the Core Area Liquid Waste Management Plan to the Ministry of Environment (on September 16, 2016), inclusive of a biocell to store product on an interim basis to allow time for a long-term beneficial use option to be designed and implemented. On September 30, 2016 the Ministry of Environment provided conditional approval of Amendment No. 11, and on November 18, 2016 clarified the conditional approval. One condition of the clarified approval was the requirement that the CRD develop a definitive plan for the beneficial use of biosolids that did not incorporate multi-year storage of biosolids within a biocell.

The conditional approval therefore reduced the scope of the interim storage from that envisioned in the Business Case. The Project delivered the reduced scope through the following means:

i) recovery (and use) of biogas within the Residuals Treatment Facility: biogas produced during the treatment process is utilized as an energy source, making the facility thermally self-sufficient; and
ii) the inclusion of storage within the Residuals Treatment Facility, so as to allow for a period of five continuous days at 2040 maximum load conditions without offtake of any biosolids.

The Project Board approved this variance in scope from the Business Case necessitated by the Ministry's conditional approval: CRD Board approval was not sought as the alteration to the scope did not result in any of the effects listed in CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016 (being: the Project not meeting provincial and federal regulations governing the Project, exceeding approved funding for the Project, or increasing costs to taxpayers from those stated in the Business Case).

4.3 Conveyance System

4.3.1 Clover Point Pump Station

The Clover Point Pump Station was upgraded and expanded as part of the Wastewater Treatment Project. The original pump station was built in the 1970s and pumped wastewater directly into the ocean. The expanded pump station pumps wastewater from Victoria, Saanich, and Oak Bay to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment, and provides bypass pumping to the existing outfall during storm events. Specifically, and in exceedance of the British Columbia Ministry of Environment's approval of Amendment 11 to the CALWMP (which required that primary treatment be guaranteed for Clover Point catchment flows of up to three times average dry weather flows[3]), the Clover Point Pump Station is capable of conveying four times the 2021 average dry weather flow of the Clover Point catchment to McLoughlin Point Wastewater Treatment Plant for treatment, and will convey storm flows in excess of that amount out of the Clover Point outfall.

In addition to pumping wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment and providing bypass pumping during storm events, the Clover Point Pump Station functions as one of two headworks for the McLoughlin Point Wastewater Treatment Plant: all wastewater conveyed to the pump station is screened to remove stones, paper, cloth, plastics and other debris, and then passes through a grit removal system. The grit and screenings are compacted and trucked to the Hartland landfill.

The Clover Point Pump Station is underground and below the grade of the adjacent section of Dallas Road. The expanded facility has been constructed out of materials that allow it to blend with the existing facility and surrounding area. The pump station now includes upgraded odour and noise control features, such that there will be no discernible odour or noise to residents.

The Clover Point Pump Station has been designed for post-disaster operation in accordance with the 2012 British Columbia Building Code. The Code stipulates that post-disaster facilities must be designed to withstand the size or magnitude of earthquake that could occur once in every 2,475 year which translates approximately to a magnitude 6.5 earthquake. This means the facility will remain operational after a major earthquake, as well as other natural disasters, such as tsunamis.

The Clover Point Pump Station was designed and built by Kenaidan Contracting Limited, as the Design-Build Contractor.

As part of their scope of work, Kenaidan were also responsible for the construction of a number of public amenities, such as public washrooms, pedestrian and bicycle paths, bicycle facilities, a public plaza, street furniture and road intersection improvements.

Photographs of construction progress at Clover Point are shown in Figures 5 and 6.

[3] The average dry weather flow (ADWF) is the average daily flow during the dry weather season: the average dry weather season for the core area is from June 1 to August 31.

APPENDIX A

Figure 5 – Looking west towards Clover Point Pump Station (construction in progress)

Figure 6 – Entrance to the expanded Clover Point Pump Station
(construction in progress: public amenities and landscaping still to be completed)

4.3.1.1 Clover Point Pump Station: Variance in Delivered Scope Compared to the Business Case

The upgrade and expansion of the Clover Point Pump Station delivered by the Project exceeds the scope defined in the Business Case, which required an expansion to the existing pump station and the replacement of the storm pump motors in the existing station. As a result of considering lifecycle costs, the Project replaced the entire storm pumping system (rather than simply the storm pump motors) and replaced the odour control system with an improved two-stage system.

4.3.2 Clover Forcemain

The Clover Forcemain conveys wastewater from the Clover Point Pump Station to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment. The Forcemain alignment is along Dallas Road from Clover Point to Ogden Point, where it connects to the Victoria cross-harbour undersea pipe. The pipe is 3.2km long and 1.2m in diameter.

The Clover Forcemain alignment was developed in collaboration with the City of Victoria and considered the protection of the Dallas Road bluffs, the location of mature trees and sensitive vegetation, and traffic impacts during construction.

The CRD constructed infrastructure improvements along the alignment of the Clover Forcemain to add value and enhance the livability of the surrounding neighbourhoods. This included a cycle path along the forcemain route, line painting, bike racks and plantings, four new crosswalks, pathway lighting, and a bike dismount area at the entrance to Clover Point.

The Clover Forcemain was constructed by Windley Contracting Ltd., as the Construction Contractor.

A photograph showing the cycle path constructed as part of the Clover Forcemain, and a map of the Clover Forcemain route, are shown in Figures 7 and 8, respectively.

APPENDIX A

Figure 7 – New cycle path amenity delivered with the construction of the Clover Forcemain

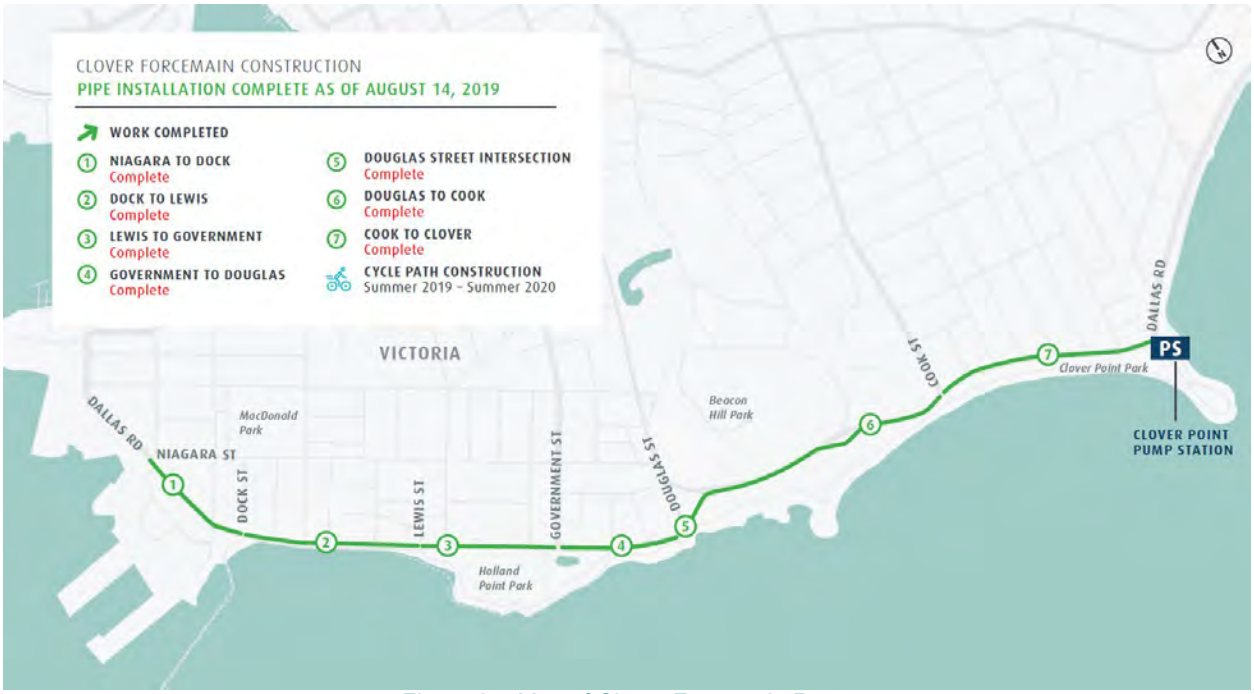

Figure 8 – Map of Clover Forcemain Route

4.3.2.1 Clover Forcemain: Variance in Delivered Scope Compared to the Business Case

The Clover Forcemain has been delivered as defined in the Business Case: there was no variance in the delivered scope compared to the Business Case.

4.3.3 Macaulay Point Pump Station and Forcemain

The new Macaulay Point Pump Station pumps wastewater from western core area municipalities and the Esquimalt and Songhees Nations to the McLoughlin Point Wastewater Treatment Plant for tertiary treatment. It was built to replace the original pump station that pumped wastewater directly into the ocean. The new Macaulay Point Pump Station will provide bypass pumping to the Macaulay Point outfall during heavy rainfall events. Specifically, the Macaulay Point Pump Station is capable of conveying six times the 2021 average dry weather flow[4] of the Macaulay Point catchment to McLoughlin Point Wastewater Treatment Plant for treatment, and will convey storm flows in excess of that amount out of the Macaulay Point outfall.

In addition to pumping wastewater to the McLoughlin Point Wastewater Treatment Plant for treatment and providing bypass pumping during storm events, the Macaulay Point Pump Station functions as one of two headworks for the McLoughlin Point Wastewater Treatment Plant: all wastewater conveyed to the pump station is screened to remove stones, paper, cloth, plastics and other debris. It is then put through a vortex grit removal system which uses centrifugal force to keep the organic material suspended while grit settles and is removed. The grit and screenings are compacted and trucked to the Hartland landfill.

The Macaulay Forcemain is a 1350mm diameter pipe that connects the Macaulay Point Pump Station to the McLoughlin Point Wastewater Treatment Plant.

The design of the pump station considers its location on the waterfront, greatly improving the visual impact of the building compared to the previous pump station, and creating a park-like amenity for the community to enjoy.

The new pump station is mostly below-grade with one storey above ground and a pitched roof that slopes towards the ocean. The design applies Leadership in Energy and Environmental Design (LEED) principles including a rain garden, native plants to reduce irrigation requirements, low-level lighting to minimize light pollution, and a green roof.

The Macaulay Point Pump Station has been designed for post-disaster operation in accordance with the 2012 British Columbia Building Code. The Code stipulates that post-disaster facilities must be designed to withstand the size or magnitude of earthquake that could occur once in every 2,475 year which translates approximately to a magnitude 6.5 earthquake. This means the facility will remain operational after a major earthquake, as well as other natural disasters, such as tsunamis.

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[4] The average dry weather flow (ADWF) is the average daily flow during the dry weather season: the average dry weather season for the core area is from June 1 to August 31.

Landscaping has been used to integrate the building with the surrounding area. The design maximizes vegetation opportunities and landscape functionality: it has transformed what was an almost entirely impermeable lot into an environmentally-rich, park-like setting with public amenities.

The Macaulay Point Pump Station and Forcemain was designed and built by Kenaidan Contracting Limited, as the Design-Build Contractor.

Photographs of the Macaulay Point Pump Station are shown in Figures 9 and 10.

Figure 9 − Macaulay Point Pump Station

Figure 10 – Looking north towards the Macaulay Point Pump Station (construction in progress, landscaping still to be completed)

4.3.3.1 Macaulay Point Pump Station: Variance in Delivered Scope Compared to the Business Case

The Macaulay Point Pump Station delivered by the Project exceeds the scope defined in the Business Case, which required upgrades including improvements to the existing building and landscaping. As a result of considering lifecycle costs, rather than simply upgrade the existing pump station the Project replaced the existing Macaulay Point Pump Station.

The original Macaulay Point Pump Station was built in 1972 and would have required significant upgrades to allow it to continue to be safely operated as well as a significant expansion to allow it to pump wastewater to the McLoughlin Point Wastewater Treatment Plant.

The Project Team ran a competitive selection process for the design and build of the upgrade and expansion required to the Macaulay Point Pump Station, and selected a proposal that entailed demolition of the existing pump station and replacing it with a new pump station. This solution provides improved operating efficiency, and therefore lower operating and maintenance costs: investing in a new pump station as part of the Project, rather than paying to upgrade and maintain the existing pump station, provides better overall value to the CRD.

4.3.4 Craigflower Pump Station

The Craigflower Pump Station was delivered by the CRD between 2013 and 2015, before the Project Board were established.

The Craigflower Pump Station directs wastewater from View Royal, Colwood, Langford and Esquimalt, as well as Songhees and Esquimalt First Nations, to the Macaulay Point Pump Station. It replaced a previous pump station that was built in 1971, in order to increase the capacity of the conveyance system and prevent wastewater overflows into Portage Inlet.

The design incorporated Leadership in Energy and Environmental Design (LEED) principles including a rain garden, native plants to reduce irrigation requirements, low-level lighting to minimize light pollution, and windows designed to allow daylight in to minimize indoor lighting requirements.

The Craigflower Pump Station was built for post-disaster operation in accordance with the 2012 British Columbia Building Code. The Code stipulates that post-disaster facilities must be designed to withstand the size or magnitude of earthquake that could occur once in every 2,475 year which translates approximately to a magnitude 6.5 earthquake. This means the facility will remain operational after a major earthquake.

The Craigflower Pump Station was constructed by Jacob Bros. Construction Inc., as the Construction Contractor.

A photograph of Craigflower Pump Station is shown in Figure 11.

Figure 11 − Craigflower Pump Station

4.3.4.1 Craigflower Pump Station: Variance in Delivered Scope Compared to the Business Case

The Craigflower Pump Station was delivered by the CRD before the development of the Business Case: there was therefore no variance in the delivered scope compared to the Business Case.

4.3.5 Residual Solids Conveyance Line

The Residual Solids Conveyance Line includes two pipes and three small pump stations, to connect the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility at Hartland Landfill.

The first pipe is 250mm in diameter and 19.3km long, and transports residual solids from the McLoughlin Point Wastewater Treatment Plant to the Residuals Treatment Facility for treatment. The second pipe is 300mm in diameter and 12.4km long, and returns the liquid removed from the residual solids during the treatment process at the Residuals Treatment Facility to the Marigold Pump Station. From there it is returned to the McLoughlin Point Wastewater Treatment Plant through the existing conveyance system.

The alignment was developed with the District of Saanich, Township of Esquimalt and City of Victoria based on technical, environmental, social, and economic considerations.

The three pump stations built along the route of the Residual Solids Conveyance Line pump the residual solids from the McLoughlin Point Wastewater Treatment Plant (which is at sealevel) to the higher elevation of the Residuals Treatment Facility. The pump stations are located within road rights of way. The locations of the pump stations were determined based on the grade of the route and flow rates, and accounted for community consultation.

The pump stations are designed with state-of-the-art odour control systems that contain and suppress odour so there is no discernible smell in the community. Landscaping features include a variety of trees, shrubs and ground coverings.

The Residual Solids Conveyance Line was constructed by:

- Don Mann Excavating Ltd., as the Construction Contractor for the Residual Solids Pipes; and
- Knappett Projects Inc., as the Construction Contractor for the Residual Solids Pump Stations.

A photograph of one of the Residual Solids Pump Stations (located along the Interurban Trail in Saanich) and a map of the Residual Solids Conveyance Line route are shown in Figures 12 and 13.

APPENDIX A

Figure 12 − Residual Solids Pump Station located along the Interurban Rail Trail in Saanich (Construction in progress, landscaping still to be completed)

Figure 13 – Map of Residual Solids Conveyance Line Route

4.3.5.1 Residual Solids Conveyance Line: Variance in Delivered Scope Compared to the Business Case

The delivered Residual Solids Conveyance Line exceeds the scope defined in the Business Case. The Project designed and built the return Residual Solids Conveyance Line with sufficient capacity to convey leachate from Hartland Landfill - as well as centrate from the Residuals Treatment Facility – to Marigold Pump Station, from where it will be conveyed to the McLoughlin Point Wastewater Treatment Plant through the CRD's existing conveyance system.

While this increased the capital cost to the Project it provided significant value to the CRD, as the new pipe has been designed in accordance with seismic criteria, and compared to utilising the existing leachate pipe it has the following advantages: advanced monitoring, increased capacity and reliability.

4.3.6 Arbutus Attenuation Tank

The Arbutus Attenuation Tank is a 5,000m^3 underground concrete tank that temporarily stores wastewater flows during high volume storm events in order to reduce the number of sewer overflows. High volume storm events usually occur in the winter and during these events excess wet weather flows in the eastern portion of the conveyance system will be diverted into the Arbutus Attenuation Tank. The Arbutus Attenuation Tank will function in a similar manner to the Marigold attenuation tank in the western portion of the conveyance system. Once the high storm flow has passed, the tank will empty back into the existing sewer system to direct wastewater to the Clover Point Pump Station and then onto the McLoughlin Point Wastewater Treatment Plant for tertiary treatment.

Once the tank is emptied, an automatic cleaning system will be activated to clean the floors, walls and columns of the tank. CRD staff will inspect the tank after each use to ensure it is cleaned and that all wastewater has drained back into the sewer system. The temporary storage of wastewater will reduce the number of overflows and resultant impacts along the coastline. The tank will be kept under negative air pressure to draw air within the tank directly into an activated carbon absorber system that will contain and suppress potential odours.

The Arbutus Attenuation Tank is located in Haro Woods and the site will be planted with vegetation appropriate for the local woodland setting.

The Arbutus Attenuation Tank was constructed by NAC Constructors Ltd., as the Construction Contractor. As at May 2021, some minor construction and commissioning activities are required to complete this Project component, and it is expected to be operational in June, 2021.

A photograph of the Arbutus Attenuation Tank is shown in Figure 14.

Figure 14 – Arbutus Attenuation Tank (Construction in progress)

4.3.6.1 Arbutus Attenuation Tank: Variance in Delivered Scope Compared to the Business Case

The Arbutus Attenuation Tank has been delivered as defined in the Business Case: there was no variance in the delivered scope compared to the Business Case.

4.3.7 Trent Forcemain

The section of Trent Forcemain delivered by the Project is an extension of the portion of forcemain constructed by the CRD in 2007 as part of the Trent Pump Station Project. The extension allows the Trent and Currie Pump Stations to operate at full design capacity: it increases the capacity of the eastern branch of the Capital Regional District's core area conveyance system (which collects wastewater from Saanich, Oak Bay, and Victoria, directing it to the Clover Point Pump Station), thereby reducing the number of wet weather overflows.

The Trent Forcemain is 2km of pipe installed from the intersection of Chandler Ave and St Charles Street to the Clover Point Pump Station. The Trent Forcemain consists of a section of 0.9m diameter pipe and a 1.5m diameter pipe.

The Trent Forcemain was constructed by Jacob Bros. Construction Inc., as the Construction Contractor.

A map of the Trent Forcemain route is shown in Figure 15.

Figure 15 – Map of Trent Forcemain Route

4.3.7.1 Trent Forcemain: Variance in Delivered Scope Compared to the Business Case

The Business Case anticipated the need for upgrades to the conveyance system consistent with previous plans, which included the following four components:

- Capacity expansion of the Currie Pump Station;
- Twinning of the Currie Forcemain;
- Twinning of the East Coast Interceptor; and
- Extension of the Trent Forcemain.

These four components are shown in Figure 16. The need for these components was identified in 2004, and they were designed to convey excess wet weather flows to Clover Point, where they could be discharged out of the long outfall, rather than through a number of shorter outfalls in Oak Bay.

APPENDIX A

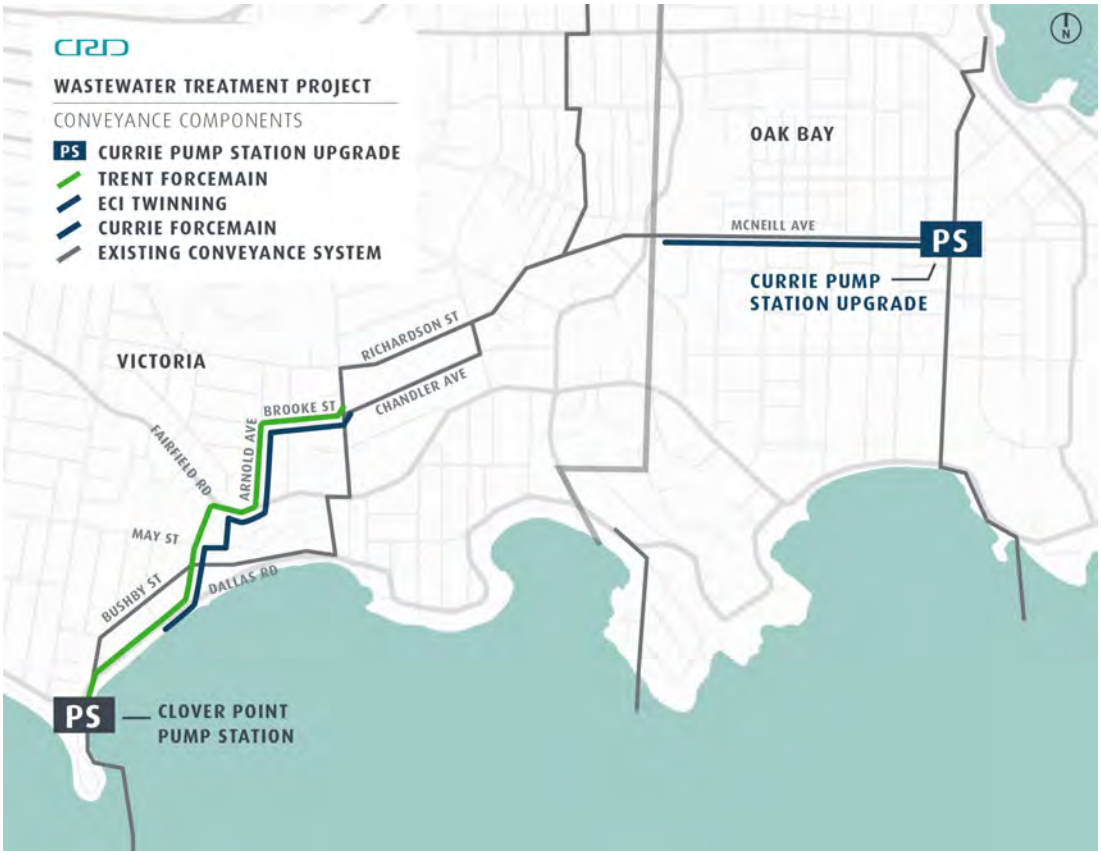

Figure 16 – Four Anticipated Components of the Conveyance Scope, as Identified in 2004

Over the last 15 years there were significant changes to factors influencing the need for these components including the availability of considerably more flow data that indicates a substantial reduction in water use per person. The Project therefore engaged the consulting engineering firm Kerr Wood Leidal to develop an updated model of the core area's wastewater system and assess the need for the components. This model will also be useful to the CRD outside of the Project as it will allow informed decisions to be made regarding capital investments required to meet future demands.

Based on extensive flow monitoring data and future wastewater flow estimates, KWL determined that only one of the remaining components (the extension of the Trent Forcemain) had any benefit and was required to meet federal and provincial regulations. Three components (capacity expansion of the Currie Pump Station, twinning of the Currie Forcemain, and twinning of the East Coast Interceptor) would not provide any benefit now, or in the future. Based on KWL's work, the Project Board approved refining the Project's scope to remove the three components that would provide no benefit to CRD residents.

The existing Currie Pump Station is still required to be operated for the core area wastewater system to function as intended, and as equipment reaches the end of its service life it will need to be rehabilitated or replaced. The CRD's Integrated Water Service Department is responsible for planning this work, and has included it in the current five-year capital plan for the core area wastewater system.

The Project Board approved this variance in scope from the Business Case: CRD Board approval was not sought as the alteration to the scope did not result in any of the effects listed

in CRD Core Area Wastewater Treatment Project Board Delegation Bylaw No. 1, 2016 (being: the Project not meeting provincial and federal regulations governing the Project, exceeding approved funding for the Project, or increasing costs to taxpayers from those stated in the Business Case).

4.4 Business Case: Scope Delivered Independently

The following items were included in the Business Case, however, either by jurisdiction or because of subsequent discussions, they were not within the scope of the Project or the Project Director's accountabilities:

- Advance studies for a wastewater treatment proposal in Colwood: provision for this was included in the Business Case but as a result of subsequent discussions between the CRD and Colwood a $2 million reserve has been established and funded by the Project's budget;
- Comprehensive planning and consultation process to develop a waste policy, including management of municipal solid and biosolid waste streams as part of an integrated resource management plan: this process is being led by the CRD outside of the Project; and
- The development of a multi-year capital plan to improve CRD sewage facilities to mitigate their impacts on host communities as part of the capital planning and project delivery progress. This process is being led by the CRD outside of the Project.

5 Project Performance Assessment

5.1 Achievement of Project Goals

As noted in Section 2.3, the Project Board's Terms of Reference included the following goals:

- Meet or exceed federal regulations for secondary treatment by December 31, 2020.
- Minimize costs to residents and businesses (lifecycle costs) and provide value for money.
- Optimize opportunities for resource recovery and greenhouse gas reduction.
- Deliver a solution that adds value to the surrounding community and enhances the liveability of neighbourhoods.

The Wastewater Treatment Project met all four of these goals, and the following sub-sections summarise the Project's performance against the goals.

5.1.1 Meet or exceed federal regulations for secondary treatment by December 31, 2020

The McLoughlin Point Wastewater Treatment Plant met and exceeded federal regulations when it commenced treating the Core Area's wastewater to a tertiary level before December 31, 2020.

Tertiary treatment is one of the highest levels of wastewater treatment available. For context:

- Two key regulated parameters for wastewater are total suspended solids (TSS) and carbonaceous 5-day biochemical oxygen demand (BOD_5);
- The Federal Wastewater Systems Effluent Regulations, which fall under the Fisheries Act, require the Core Area's wastewater to be treated such that the effluent discharged from the McLoughlin Point Wastewater Treatment Plant not exceed 25 mg/litre for those two key parameters (TSS and BOD_5); and
- The McLoughlin Point Wastewater Treatment Plant is capable of treating effluent such that those two key parameters (TSS and BOD_5) do not exceed, on average, 10 mg/litre.

Tertiary treatment was included in the Project as, during the development of the Business Case (which defined the scope of the Project), the Project Board concluded that there was a benefit to tertiary treatment for the following reason: the region places a high value on the environment and the public commentary suggested a widespread desire to do as much as is reasonably possible to treat the effluent, while recognizing cost implications.

The provision of tertiary treatment means that, in addition to treating the effluent such that it has lower TSS and BOD_5 than would be the case if the McLoughlin Point Wastewater Treatment Plant only met the federal regulatory requirements, more compounds of emerging concern, such as pharmaceuticals, hormones, microplastics and other contaminants are also removed from the effluent prior to discharge into the ocean.

5.1.2 Minimize costs to residents and businesses (lifecycle costs) and provide value for money

The Project met this goal through:

- identifying a cost effective Project scope and configuration;
- the capacity of the McLoughlin Point Wastewater Treatment Plant (which is sufficient to accommodate regional population growth) and its ability to: treat wastewater to a tertiary level, and add disinfection in the future if required;
- the execution of funding agreements for a significant portion (60%) of the Project's total cost;
- the use of competitive selection procurement processes for all construction contracts, to ensure competitive pricing was received, and the consideration of lifecycle costs in the evaluation of those procurements;
- the consideration of lifecycle costs during design development; and
- proactive risk management.

As part of the scoping of the Project, and as detailed in the Business Case, the Project Board evaluated a large number of options to identify a short list that best addressed the Project's goals. The Project Board developed detailed cost estimates for the short-listed options, ranked the short list using triple bottom line (economic, social and environmental) criteria, and identified the Project's scope and configuration as the best option to meet the Project goals and provide a sensible, cost-effective solution that was consistent with the views expressed by CRD residents.

Several design elements were included to allow the McLoughlin Point Wastewater Treatment Plant to meet the region's future capacity and treatment requirements more cost-effectively than if the Plant was to be retrofitted at a later date:

- Based on wastewater flow projections, the McLoughlin Point Wastewater Treatment Plant has been built with sufficient capacity to treat the core area's wastewater and accommodate regional population growth to at least 2040, and the Plant has been designed and built such that the capacity could be increased to accommodate population growth beyond 2040.

- The inclusion of tertiary treatment exceeds the current regulatory requirements. There are many compounds of emerging concern that are currently unregulated, but are being researched and may become regulated in the future. The provision of tertiary treatment at the McLoughlin Point Wastewater Treatment Plant means that it has the capability to meet more stringent regulations than exist today.

- The Plant has been built with the flexibility to add ultra-violet disinfection treatment to the process in the future if desired. While disinfection is not included in the Plant at this time (see section 4.1.1 for information regarding why there would be little to no benefit to installing disinfection at this time), building the Plant with the space for disinfection allows for it to be more cost-effectively added in the future if required.

After the CRD Board approved the Project's scope and configuration, funding agreements were executed with the federal and provincial governments, providing funding for 60% of the Project's budget. Table 3 summarises the total committed funding, and the funding received to-date. Note that the timing for the provision of Government of British Columbia and Government of Canada's funding differs by funding source. The Project Team have, and the CRD will continue to, submit claims to the funding partners in accordance with the relevant funding agreements. In accordance with the funding agreements, the remainder of the funding cannot be claimed until the Residuals Treatment Facility obtains service commencement.

Table 3 - Project Funding

Funding Source	Funding Received To-Date	Total Funding Committed
Government of Canada (Building Canada Fund)	$120M	$120M
Government of Canada (Green Infrastructure Fund)	$45M	$50M
Government of Canada (P3 Canada Fund)	-	$41M
Government of British Columbia	$186M	$248M
Federation of Canadian Municipalities	-	$0.3M
Total Federal and Provincial Funding	**$351M**	**$459.3M**

Competitive selection procurement processes were used for all construction contracts. These were advertised on BC Bid and open for participation by any interested party to ensure competitive pricing was received. In addition, lifecycle costs were factored into the evaluation of proposals received in response to competitive selectin processes. Some examples of factoring lifecycle costs into procurement evaluations include:

- Residuals Treatment Facility: the evaluation was based on the total cost to the CRD (inclusive of the estimated costs of transporting and beneficially-using the biosolids produced by the Residuals Treatment Facility) rather than just that portion to be funded by the Project (being the capital cost of constructing the facility).
- Replacement of the existing Macaulay Point Pump Station: the Project scope approved in the Business Case included an upgrade to the existing Macaulay Point Pump Station - to include a new building and alterations to the existing building. The original Macaulay Point Pump Station was built in 1972 and would have required significant upgrades to allow it to continue to be safely operated as well as a significant expansion to allow it to pump wastewater to the McLoughlin Point Wastewater Treatment Plant. The Project Team ran a competitive selection process for the design and build of the upgrade and expansion required to the Macaulay Point Pump Station, and selected a proposal that entailed demolition of the existing pump station and replacing it with a new pump station. This solution provides improved operating efficiency, and therefore lower operating and maintenance costs: investing in a new pump station as part of the Project, rather than paying to upgrade and maintain the existing pump station, provides better overall value to the CRD.
- Clover Point Pump Station: the evaluation accounted for the life cycle costs associated with the proponent's design solution, including the forecast cost of powering, operating, maintaining and replacing certain systems, equipment and portions of the pump station.

Throughout the design development and delivery of each Project component, lifecycle costs were factored into decisions. Some examples of lifecycle costs driving design decisions include:

- The replacement of the Macaulay inlet sewer: the original design was based on utilizing the existing inlet sewer to convey wastewater to the new pumping station. When the inlet sewer was exposed it was clear that corrosion had degraded the integrity of the pipe to the point where it could no longer be utilized. Options were

developed and evaluated on the basis of their construction cost and value to the CRD, and the replacement of the inlet sewer was selected as the option that minimized the lifecycle cost.

- Adding the capability to clean the Clover inlet channel: construction of the Clover Point Pump Station revealed substantive debris build-up in the inlet channel, from years of operations. Project funds have been committed to install infrastructure that will allow the CRD to clear debris from the inlet channel as needed.
- Capital investment at the Residuals Treatment Facility, to enable it to treat other municipal residual solids: while not part of the base scope of the Project (as defined in the Business Case), the inclusion of receiving facilities at the Residuals Treatment Facility provides value to the CRD as it allows the Residuals Treatment Facility to treat up to 3,100 kg/day of liquid and dewatered residual solids, while the Residuals Treatment Facility has surplus capacity (i.e. while the actual flow from the McLoughlin Point Wastewater Treatment Plant is less than the 2040 expected flow). This capital investment provides the CRD with a cost sharing and/or recovery option.
- Building the return Residual Solids Conveyance Line with sufficient capacity to convey leachate from Hartland Landfill - as well as centrate from the Residuals Treatment Facility – to Marigold Pump Station, from where it will be conveyed to the McLoughlin Point Wastewater Treatment Plant through the CRD's existing conveyance system: while this significantly-increased the capital cost borne by the Project it provided significant value to the CRD, as it allowed for: the existing line to be decommissioned, and provided a new line with increased capacity and lower maintenance costs.

Risk management on the Project involved the identification, analysis, oversight, management and monitoring of the Project risks. Project risks were reported monthly, and by proactively managing these risks the Project was able to address risks in a cost-effective way throughout the delivery of the Project. This was supported by the findings of Ernst and Young when they conducted an independent project execution review part-way through Project delivery (in April 2019), and reported:

- a strong risk-aware culture that was supported by well-defined processes and risk registers;
- the Project Team had put careful consideration into risk transfer when structuring contracts. Notable and leading industry practices around controlling mechanisms are in place, including incentive and penalty clauses; and
- Project reporting to be comprehensive and forward-looking, with commentary to provide the necessary context around key items.

5.1.3 Optimize opportunities for resource recovery and greenhouse gas reduction

The Project met this goal by:

- considering environmental implications when defining the Project's scope and configuration: the configuration of the Project was selected from a shortlist of options using a triple bottom line approach (economic, social and environmental). The

environmental aspect of this approach rated options based on the carbon footprint and potential for resource recovery; and

- constructing Project facilities with the following features:
  - the operations and maintenance building at the McLoughlin Point Wastewater Treatment Plant was built to the level of LEED (Leadership in Energy and Environmental Design) Gold, providing energy and water consumption reductions that exceed building code requirements. Some of the design features that contributed to the operations and maintenance building being built to the level of LEED Gold are:
    - the heat recovery system: prior to discharge to the ocean, the effluent passes through heat exchangers which remove heat from the wastewater and use it to heat water which is in turn circulated throughout the building to air handling units, and unit heaters, to heat the operations and maintenance building.
    - a green roof covering 80% of the operations and maintenance building (over 1,600 m^2) increases onsite habitat, provides stormwater management and contributes to reducing the heat island effect.
  - at the Residuals Treatment Facility:
    - the operations and maintenance building was designed and constructed in accordance with Leadership in Energy and Environmental Design (LEED) principles,
    - the process buildings incorporate sustainable design initiatives such as long-lasting building materials and water and energy efficiency
    - biogas produced during the treatment process is captured and utilized as an energy source, making the facility thermally self-sufficient.
  - the design of the Macaulay Point pump station incorporates LEED principles and sustainable design elements, such as:
    - rainwater run-off control using a rain garden and storm water management system;
    - the use of native plants to reduce irrigation requirements;
    - low-level lighting to minimize light pollution; and
    - green roof and increased open space.

5.1.4 Deliver a solution that adds value to the surrounding community and enhances the livability of neighborhoods

The Wastewater Treatment Project met this goal through working with the Township of Esquimalt, the City of Victoria, the District of Saanich, the Esquimalt and Songhees Nations, the Greater Victoria Harbour Authority and the Department of National Defence to identify amenities and/or infrastructure improvements that were either funded by the Project, or funded and delivered by the Project.

All Project components have also been designed to minimize their impacts on their host communities, including through the inclusion of advanced odour treatment such that there is no detectable odour by residents.

5.1.4.1 Township of Esquimalt

As part of the Host Community Impact 5-year Agreement the CRD has provided $17 million to the Township of Esquimalt, with:

- $7 million to be used for the improvement of waterfront parks;
- $5 million to be used for the improvement of public space within recreational facilities; and
- $5 million to be used for the construction, addition or improvement of emergency services and public safety facilities within the Township.

The delivered Project scope also considered the appearance of CRD wastewater facilities and the addition of neighbourhood amenities and public space improvements, including:

- Situated at the entrance of Victoria Harbour, the design of the McLoughlin Point Wastewater Treatment Plant respects the setting and incorporates the highest standards of design, materials and aesthetics. The design includes a multi-level green roof, mature landscaping, observation deck, and education space.
- The Macaulay Point Pump Station was designed to reflect its location on the waterfront and integrate it into the surrounding area. It transformed an almost entirely impermeable lot into an environmentally-rich, park-like setting with public amenities for the community to enjoy.

5.1.4.2 City of Victoria

Public space improvements were made by the Project as part of constructing the Clover Point Pump Station and the Clover Forcemain. Delivered improvements fully-funded by the Project included:

- At Clover Point: a public plaza, public washroom, bicycle facilities and drinking fountains; and
- Along the route of the Clover Forcemain: a multi-use path, benches, wayfinding signage, new sidewalks, and intersection improvements.

In addition to the above improvements that were fully-funded by the Project, the Project Team worked with the City of Victoria to incorporate streetscape improvements that were funded by the City and delivered by the Project's contractor more cost-effectively and with less construction impacts to residents than would otherwise have been possible.

5.1.4.3 District of Saanich

A land exchange was organized with the District of Saanich which added 2.8 hectares of land to Saanich's park inventory and secured the long-term preservation of the vast majority of Haro Woods. It also allowed the Arbutus Attenuation Tank to be installed on lands that were already partially cleared and previously disturbed. A blanket easement was also granted to the District of Saanich to allow for recreational use of the Arbutus Attenuation Tank site which will be planted with vegetation considering the local woodland setting following construction.

Funding will also be provided to the District of Saanich for infrastructure improvements including a new bike lane, sidewalk, and storm water management improvements along Arbutus road, next to the Arbutus Attenuation Tank, as well as providing traffic calming measures and pedestrian connectivity in neighbourhoods along the Residual Solids Conveyance Line.

As part of the work for the Residuals Treatment Facility, improvements were made to the level of water service to properties in the vicinity of the Hartland Landfill.

5.1.4.4 Songhees and Esquimalt Nations

Support agreements were signed with the Songhees and Esquimalt Nations, providing a number of benefits, including the provision of funding to assist in the upgrading and development of the Westbay Marine Village Marina and R.V. Park. The CRD also worked with the Songhees and Esquimalt Nations to procure Indigenous art for display outside the Macaulay Point Pump Station. Further context is provided in sections 2.2 and 5.2.4.1 of this report.

5.1.4.5 Greater Victoria Harbour Authority

After installing a portion of the Clover Forcemain within land owned by the Greater Victoria Harbour Authority (GVHA) and using a plot of GVHA's land as a temporary staging area for the Project, the Project worked with the GVHA to discuss how the land should be restored. After the GVHA reviewed and approved the restoration plan for this location the Project restored the land to a condition that met their needs, which included planting grass and installing a gravel parking lot.

5.1.4.6 Department of National Defence

Temporary laydown areas were put in place on several parcels of land owned by the Department of National Defence (DND). Restoration of this land was completed in consultation with DND staff and the Project implemented identified improvements including: the construction of a new fenced and lit storage yard; improvements to the fencing and grading at the community garden; planting of boulevard trees to provide shade to resident housing and improvements to staff parking areas near Macaulay Point.

5.2 Key Performance Indicators Dashboard

As established in the Project Charter, the realization of the Project's vision and goals was monitored against the Project's key performance indicators, and the Project Director reported performance against these key performance indicators to the Project Board on a monthly basis. The key performance indicators at Project Completion have been assessed to be as shown in Table 4, and as described in the following sub-sections of this report.

APPENDIX A

Table 4 – Status of Key Performance Indicators at Project Completion

Key Performance Indicators		Project Overall	Comments
Safety	Deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1*.		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), there have been zero fatalities and the TRIF was 1.5. While this exceeds the Project's ambitious target of no more than 1, it was less than half the industry average: WorkSafe BC records the TRIF for various industries, and for 2018 (the most recent year for which information has been published) the TRIF for heavy construction was 3.2. See section 5.2.1.
Environment	Protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.		The Project met all legislated environmental requirements and, through the design of the various components optimized opportunities for resource recovery and greenhouse gas reduction. Over the course of construction there were a relatively small number of environmental incidents: they were all diligently-managed, appropriately-reported and mitigated as required, with the result that there weren't any long-term impacts. An unexpectedly-significant environmental benefit of the Project included the remediation of McLoughlin Point. See section 5.2.2 for further information.
Regulatory Requirements	Deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.		Through the addition of the Project components to the core area wastewater system, the system can be operated in compliance with provincial and federal wastewater regulations. See section 5.2.3 for further information.
Stakeholders	Continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders.		Significant efforts were made to engage with and provide accurate and timely information to stakeholders throughout the delivery of the Project. Through these efforts and the achievement of the Project's goals, positive relationships were built and maintained with First Nations, local governments, communities, and other stakeholders. See section 5.2.4.
Schedule	Deliver the Project by December 31, 2020.		The Project completed the majority of construction by December 31, 2020, and achieved its schedule-related goal, which was to meet or exceed federal regulations for secondary treatment of wastewater by December 31, 2020. All aspects of the Project that were required to meet the regulatory requirements were delivered by December 31, 2020. As of May 2021, commissioning of the Residuals Treatment Facility is ongoing and is anticipated to be complete in June 2021, and the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with some minor construction activities remaining. See section 5.2.5 for further information.
Cost	Deliver the Project within the Control Budget ($765 million).		While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur in the last quarter of 2021, it is forecast that the total Project cost will be approximately $766.7M, which is within the approved budget of $775M. The total Project cost is therefore forecast to exceed the Project's Control Budget (of $765M) by 0.2%, but be well within the budget subsequently-approved by the CRD Board (of $775M). See Section 5.2.6 for further information.

* 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
	Significant adverse effect of KPI not being met
	KPI not met but outcome managed
	KPI achieved

5.2.1 Safety

Safety was the Project's top priority: safety of the public, construction workers and CRD staff, including those responsible for delivery of the Project and for its ongoing operation and maintenance.

The Project's safety key performance indicator was to deliver the Project safely with zero fatalities and a total recordable incident frequency (TRIF) of no more than 1. A TRIF of no more than 1 is an ambitious target that 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.

Safety information for the Project is summarised in Table 5 for the period up to May 2021, at which time the vast majority of construction was complete (the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with some minor construction activities remaining), there have been zero fatalities and the TRIF was 1.5. While this exceeds the Project's ambitious target of no more than 1, it was less than half the industry average: WorkSafe BC records the TRIF for various industries, and for 2018 (the most recent year for which information has been published) the TRIF for heavy construction was 3.2.

Table 5: Project Safety Information

	Project Total
	Person Hours (Sept 2016 – May 2021)
Project Management Office Hours	171,264
Project Contractor Hours	2,364,950
Total Person Hours	2,536,222
	Number of Incidents (Sept 2016 – May 2021)
Near Miss Reports	49
High Potential Near Miss Reports	7
Report Only	190
First Aid	69
Medical Aid	12
Medical Aid (Modified Duty)	2
Lost Time	5
Total Recordable Incidents	19
	Project Frequency (from January 1, 2017)
First Aid Frequency	5.4
Medical Aid Frequency	1.1
Lost time Frequency	0.4
Total Recordable Incident Frequency	1.5

The responsibility for safety on each of the Project sites was delegated to a prime contractor (being the contractor for that Project site) under section 118 of the Workers Compensation Act (British Columbia). Each prime contractor was required to designate a site safety representative and submit site safety management and traffic management plans for the Project Team's review prior to commencing construction.

The Project Team validated that each contractor met their safety requirements through a robust oversight and audit program. The Project Team continued to emphasise the importance of safety to every prime contractor, including through:

- mandating and participating in hazard and operability safety reviews during design progression;
- reviewing and commenting on design submittals considering safety impacts;
- reviewing and commenting on contractors' safety and traffic management plans;
- monitoring contractors' performance for conformance to their safety and traffic management plans; and
- reviewing the prime contractors' and their subcontractors' safety performance.

In addition, while the Project Team understood that, although the responsibility for safety on each Project site was delegated to a prime contractor, safety remains everybody's responsibility at all times, and maintained a strong safety-first culture throughout the delivery of the Project.

The Project Team believe that the ambitious TRIF target, focus on safety as the Project's top priority, and commitment to continuous improvement in safety management resulted in the Project being delivered more safely than would otherwise have been the case. The effectiveness of this focus was demonstrated by the independent review of the Project's safety management system, conducted by Allman Safety part-way through Project delivery in April 2019, which found that:

- There was strong and obvious commitment from senior management to remove or minimize risk in the workplace.
- The Safety Management System meets or exceeds industry health and safety standards and regulatory requirements.
- Prime contractor safety programs have improved under the direction of the project team to be complete and compliant.
- The communication strategy for safety improvement from contractors to the project team and from the project team to the contractors is both electronic and verbal and is effective in both directions.
- There is evidence that the organization has continuing strategies to reduce unsafe conditions.
- Leading and lagging indicators are reported and reviewed to focus attention on target areas.
- There has been continuous improvement in safety response by contractors, with still more room for improvement.

5.2.2 Environment

The Project's environment key performance indicator was to protect the environment by meeting all legislated environmental requirements and optimizing opportunities for resource recovery and greenhouse gas reduction.

The Project met this key performance indicator: see Section 5.1.3 for how the Project optimized opportunities for resource recovery and greenhouse gas reduction; the Project also protected the environment by meeting all legislated environmental requirements.

The Project Team's approach to environmental and regulatory management was multi-faceted and included activities during design, procurement and construction, including:

- Preparing Environmental Impact Studies, to inform the design and configuration of the Project in order to minimise environmental impacts at the outset, and to identify mitigation measures to reduce potential environmental impacts;
- Designing the Project to ensure the scope meets: legislative requirements, approval conditions, and incorporates Leadership in Energy and Environmental Design (LEED) or equivalent principles, as applicable;
- Retaining an archaeological advisor to provide advice and assistance with respect to archaeological management for the Project as a whole;
- Including robust environmental protection, monitoring and reporting requirements in construction contracts, including the requirement for each contractor to appoint a qualified professional to monitor the contractor's compliance with environmental laws, environmental aspects of applicable permits, archaeological protection, and contaminated soil management;
- Reviewing contractors' environmental management plans, environmental protection plans and regulatory approval plans – both upon initial submission and as construction progresses to ensure that the plans remain valid and are updated as warranted by, for example, the introduction of new work methods or regulatory requirements; and
- Auditing contractors' environmental performance, including through:
    - The review of any environmental incidents to confirm the accuracy and sufficiency of reporting, to discuss "lessons learned", and to go over how corrective actions are implemented;
    - conducting site tours and monitoring contractors' construction activities to confirm contractors are following their environmental protection plans; and
    - conducting periodic meetings with contractor's site and environmental representatives to review environmental performance.

This approach was effective in protecting the environment throughout the course of construction – which occurred at over 26 active work sites - as evidenced by the fact that there were a relatively small number of environmental incidents, and they were all diligently-managed, appropriately-reported and mitigated as required, with the result that there weren't any long-term impacts.

Most environmental incidents were minor in nature and did not result in any impacts on the environment. A typical example would be a low-volume release of hydraulic fluid as a result of equipment breakage, with the release being immediately contained.

Three environmental incidents occurred that were more significant and had the potential to have adverse effects, but the rapid implementation of appropriate mitigative action and oversight by environmental professionals avoided any significant long-term impacts:

- In November 2018, Vancouver Pile Driving, a subcontractor to Harbour Resource Partner (Harbour Resource Partners, the Design-Build Contractor for the McLoughlin

Point Wastewater Treatment Plant) towed a scow loaded with material dredged as part of the construction of the McLoughlin Point Wastewater Treatment Plant outfall to Bamberton in the Saanich Inlet. The scow was towed to Bamberton as the dredged material was previously identified as contaminated (from activities unrelated to the Project) and there is a suitable disposal site near Bamberton. The scow was tied up for the night and the following morning the starboard stern corner of the scow was observed to be listing heavily. Van Pile notified Harbour Resource Partners, the Coast Guard and Provincial Emergency Management Program. The Coast Guard arrived on site that morning and deployed containment booms around the scow. Van Pile initiated activities to right the scow and by the morning of November 16, 2018 the scow was floating safely and crews offloaded the remaining dredged material. The Coast Guard returned that morning and removed the containment booms. Coast Guard and Transport Canada investigations determined that no hydrocarbons were released to the environment during the incident, and Van Pile determined that no dredged material entered the water. Harbour Resource Partners' qualified environmental professionals took water samples on November 15 and 16, 2018 to assess potential effects on water quality. They determined that inside of the containment boom the incident resulted in Provincial Water Quality standards for turbidity and total suspended solids being exceeded for a period of less than 24 hours. Outside of the containment boom there were no water quality guideline exceedances. The Province determined that the incident was not reportable, and Harbour Resource Partners' qualified environmental professionals determined that there were no adverse environmental impacts from the incident.

- In August 2019, Knappett (the Construction Contractor for Residual Solids Pump Stations), was preparing to install the Residual Solids Conveyance Line under the Colquitz Creek and experienced challenges with dewatering and isolation of the work area, leading to sediment releases that resulted in short-term increases in turbidity. The sediment releases were reported to federal and provincial authorities and instream work was temporarily-suspended while the construction plan was revised. The water quality remained within BC Water Quality Guidelines, and due to the short duration of the turbidity increases, Knappett's qualified environmental professional determined it is unlikely that there were any adverse effects on fish or fish habitat. In September once the new plan was implemented, work resumed and a different isolation methodology was employed, allowing the Residual Solids Conveyance Line to be installed successfully. Prior to placement of spawning gravel and completion of backfilling, a large rain event resulted in the isolated work area being inundated. In response, Knappett removed the isolation dams, as they were no longer required to finish the work. The inundation and dam removal also led to sediment releases that created short-term turbidity increases, but again, water quality remained within BC Water Quality Guidelines, and due to the short duration of the turbidity increases, Knappett's qualified environmental professional determined it was unlikely that there were any adverse effects on fish or fish habitat The instream work was completed without further incident, and restoration and stream enhancement work conducted. This included placement of spawning gravel, removal of invasive plant species and planting of native riparian vegetation. The stream enhancement was successful, and Coho spawners have been observed using the installed spawning gravel.

- In October 2020, there was a release of residual solids at the Residuals Treatment Facility site. A temporary pipe failed during the commissioning process. Some of the

residual solids were contained on-site (within Hartland Landfill) but some travelled through a culvert and collected in a nearby low area in the CRD's Mount Work Regional Park. The release was reported to Emergency Management BC, in accordance with the Spill Reporting Regulation. Qualified environmental professionals assessed the affected area and provided oversight over remediation activities, including on the appropriate monitoring and testing protocols. It was determined that there was no surface flow to Durrance Lake but samples were taken as a precaution: microbiological indicators in the samples were present at consistent or slightly lower levels than prior to the incident, demonstrating that the release did not impact Durrance Lake.

The fundamental purpose of constructing the Project was to treat the core area's wastewater prior to its discharge into the marine environment, thereby reducing pollution in the Strait of Juan de Fuca and contributing to the overall health of aquatic ecosystems in the area.

In addition to the fundamental environmental benefit of constructing the Project, an unexpectedly-significant environmental benefit of the Project was the remediation of McLoughlin Point. The McLoughlin Point site was contaminated as a result of its previous use as an oil tank farm. As part of the Project a significant amount of contaminated materials were removed from the site (and disposed of in regulated landfills), and the site was remediated to meet the applicable standards set by the Environmental Management Act ("EMA") and the Contaminated Sites Regulation ("Regulation") - as documented by the Certificate of Compliance issued by the Province.

5.2.3 Regulatory Requirements

The Project's regulatory requirements key performance indicator was to deliver the Project such that the Core Area complies with provincial and federal wastewater regulations.

The Project met this key performance indicator: see Section 5.1.1 for how the Project exceeded federal wastewater regulations; the delivered Project also complies with provincial wastewater regulations, as demonstrated by the registration of the Project under the Municipal Wastewater Regulation.

For further context, the provincial regulations comprise two main elements:

- Effluent quality requirements for treated wastewater discharged out of McLoughlin Point outfall, which the Project enables the CRD to meet through the provision of tertiary treatment at the McLoughlin Point Wastewater Treatment Plant; and
- The circumstances under which untreated wastewater can be discharged out of the core area's other outfalls, which the Project enables the CRD to meet through the Project components that expand the existing conveyance capacity (namely the construction of the Trent Forcemain and Arbutus Attenuation Tank). For context, in addition to the McLoughlin Point outfall (a new, 2km-long outfall built as part of the Project), the core area wastewater system includes a number of outfalls and overflow locations that are utilised in wet weather events. The provincial regulation requires that an overflow must not occur during storm or snowmelt events with a return period of less than five years, other than, as allowed by the Core Area Liquid Waste Management Plan.

The addition of the Project components to the core area wastewater system means that, based on current wastewater flow projections:

- The McLoughlin Point Wastewater Treatment Plant has sufficient capacity to treat the core area's wastewater and accommodate regional population growth to at least 2040; and
- The conveyance system has sufficient capacity to meet and exceed the following Core Area Liquid Waste Management Plan (CALWMP) commitments past 2045:
    - all wet weather flows up to four times the average dry weather flow (4 x ADWF) from the Macaulay Point catchment will be conveyed to McLoughlin Point for treatment;
    - all wet weather flows up to 3 x ADWF from the Clover Point catchment will be conveyed to McLoughlin Point for treatment;
    - no overflows will occur for a wet weather event with less than a 100-year return period at any of the high sensitivity receiving waters along the East Coast (i.e. Broom Road or Bowker Creek); and
    - no overflows will occur for a wet weather event with less than a 5-year return period at any of the receiving waters along the East Coast (i.e. Finnerty and McMicking Points), with the exception of those associated with the combined sewer system.

Note that there will continue to be overflows at Humber and Rutland. These overflows occur as portions of the collection system in Oak Bay have combined sewer systems that carry both sanitary (municipal wastewater) and storm flows. The Project was not scoped to reduce these overflows: Amendment No. 12 to the CALWMP – which entails undertakings independent of the Project - is intended to address this.

5.2.4 Stakeholders

The Project's stakeholders key performance indicator was to continue to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders. Significant efforts were made to engage with and provide accurate and timely information to stakeholders throughout the delivery of the Project. Through these efforts, which are summarised in the following subsections, and the achievement of the Project's goals, positive relationships were built and maintained with First Nations, local governments, communities, and other stakeholders.

5.2.4.1 First Nations

As outlined in section 2.2 of this report, the Core Area lies within or near the traditional territories of 16 First Nations. The CRD has been engaged in consultations with First Nations relating to wastewater treatment since 2006, and in relation to the Project since 2014.

The First Nations most closely associated with the Project are the Esquimalt and Songhees, historically known as the "*Lekwungen"*. Their communities are located in the Core Area within several kilometres of the McLoughlin Point Wastewater Treatment Plant and other important components of the Project. The Esquimalt and Songhees support the goals of the Project and are participants in the Core Area wastewater system through service agreements. The Chiefs from each Nation are members of the Core Area Liquid Waste Management Committee. The Esquimalt and Songhees have leased land in the Victoria Harbour to the Project for use during construction. In recognition of their assistance in the planning and development of the wastewater system, and in recognition of their right to be consulted about the potential impacts of the Project on their Douglas Treaty rights, the CRD entered into support agreements with each of them. These agreements provide, amongst other things, for an Esquimalt Nation liaison

position and a Songhees Nation liaison position for the four year term of the Project. The liaison representatives have been assisting the CRD in its communications with the Esquimalt and Songhees communities, in the administration of protocols involving potential impacts on ancestral remains and their traditional lands, and in the discussion and management of other important Project-related issues.

There are four First Nations with communities near the Core Area, but outside the Core Area wastewater system. They are SȾÁUTW̱ (Tsawout), W̱SIḴEM (Tseycum), W̱JOŁEŁP (Tsartlip), and BOḰEĆEN (Pauquachin). These Nations are known as the W̱SÁNEĆ Nations, and the Residuals Treatment Facility and parts of the conveyance system are located on municipal roads or CRD lands within their traditional territories. The CRD and the W̱SÁNEĆ Leadership Council engaged in discussions about the construction and operation of Wastewater Treatment Project components in W̱SÁNEĆ Territory, and in December 2019 entered into a Memorandum of Understanding to provide capacity funding to allow this productive engagement to continue. In addition to providing capacity funding, the Memorandum of Understanding commits the CRD to move toward a negotiated agreement that considers the Project's presence within W̱SÁNEĆ territory, and engage in further discussions towards an agreement involving the broader relationship between CRD and the W̱SÁNEĆ Nations that takes into consideration CRD's operations within W̱SÁNEĆ territory and the recommendations of CRD's First Nations Task Force Final Report as adopted by the Board of the CRD.

There are ten other First Nations with Treaty rights in the general vicinity of the Core Area, which are primarily fishing rights in the Strait of Juan de Fuca. These Nations are the Scia'new (Beecher Bay), Stz'uminus, Halalt, Penelakut Tribe, T'Sou-ke, Lyackson, MÁLEXEŁ (Malahat), Lake Cowichan, Cowichan Tribes, and Nanoose First Nation (which is included because it is represented by a tribal association, the Te'mexw Treaty Association, which was formed by some of these Nations). The CRD concluded that the construction and operation of the Project, including the construction of outfall pipes, will not conflict with any of the Douglas Treaty rights of these Nations but, throughout the delivery of the Project, kept them informed of Project activities, especially as they relate to beneficial outcomes in the marine environment.

5.2.4.2 Communications and Engagement Plan

The key focus of the Project's communications and engagement activities were to keep residents and stakeholders informed of project plans, progress and construction information, and to receive and respond to questions and concerns raised by the community. Working in conjunction with CRD Corporate Communications, and utilising tools and developed relationships, the engagement and communications program included:

- Communications Planning, which involved developing plans and strategies in support of the Project;
- Community Relations, which involved building and maintaining positive relationships with Frist Nations, local governments, communities and other stakeholders, and keeping them informed through ongoing, two-way communications regarding the Project, and responding to inquiries in an effective and timely manner;
- Public Engagement, which involved gathering and receiving public input on certain aspects of the Project;
- Media Relations, which involved providing the media with progress reports and updates on the Project and responding to issues raised; and

- Construction Communications, which involved developing traffic management plans and a process to keep the public and stakeholders advised in a timely manner about matters relating to construction progress, schedules and impacts.

The Project Team prepared, implemented and annually updated a Project Communications and Engagement Plan. A variety of communications tools and engagement activities were utilized to support the implementation of the plan and ensure that information was easily accessible and distributed through a variety of methods. These included stakeholder meetings, Project website updates, social media posts, media updates for key Project milestones, construction notifications, door-to-door notifications, and a public inquiry program, among other methods.

The Project facilitated ongoing two-way community and stakeholder communications to ensure the public and stakeholders were well-informed; responded to inquiries; and ensured that Project managers were mindful of community interests and concerns. The communications and engagement team communicated with stakeholders, community groups, businesses and the public regarding Project schedules, progress, developments and construction information.

A liaison committee was set up for the Township of Esquimalt to provide a forum for the discussion of issues related to the construction and operation of the Wastewater Treatment Plant, the Macaulay Point Pump Station and Forcemain, and the Residual Solids Conveyance Line. 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, CRD, McLoughlin Point Wastewater Treatment Plant contractor Harbour Resource Partners, Macaulay Point Pump Station and Forcemain contractor Kenaidan Contracting Ltd. and Residual Solids Conveyance Line contractor Don Mann Excavating. This committee met monthly during construction and will continue to meet semiannually now that the McLoughlin Point Wastewater Treatment Plant is operating.

The Project Team met as necessary with three neighbourhood groups in Victoria that were in close proximity to Project Construction: the James Bay Neighbourhood Association, the Fairfield Gonzales Community Association, and the Victoria West Community Association. Engagement with these neighbourhood and community associations was focused on construction progress and disturbance mitigation measures.

The Project Team met with the Saanich Community Association Network (SCAN) and established a relationship with the Willis Point Community Association to provide updates on construction of the Residuals Treatment Facility at Hartland Landfill and the Residual Solids Conveyance Line.

In advance of commencing construction in a new area, community information open houses were a valuable communication tool to provide information about the different components of the Project to the public. Twenty open houses in Esquimalt, Victoria and Saanich were held for this purpose, as summarized in Table 6. Over 1,200 people attended these meetings, which were publicized widely through mailed notices to residents, email, newspaper advertisements, social media, and on the Project website.

APPENDIX A

Table 6 – Community Information Open Houses

Date	Community
January 11, 2017	Victoria - Fairfield Gonzales
January 11, 2017	Victoria - James Bay
January 12, 2017	Esquimalt
January 14, 2017	Esquimalt
January 18, 2017	Department of National Defence
April 5, 2017	Victoria - James Bay
April 12, 2017	Esquimalt
November 15, 2017	Saanich
November 18, 2017	Saanich
November 22, 2017	Esquimalt
November 27, 2017	Victoria
January 10, 2018	Victoria - James Bay (50%)
January 11, 2018	Victoria - Fairfield Gonzales (50%)
February 21, 2018	Niagara Street Information Meeting
February 24, 2018	Niagara Street Information Meeting
March 13, 2018	Esquimalt - Macaulay
September 25, 2018	Victoria – James Bay, Fairfield Gonzales
September 26, 2018	Victoria – James Bay, Fairfield Gonzales
November 27, 2018	Saanich
November 28, 2018	Saanich

Project updates were produced on a regular basis and at key Project milestones to provide information about the Project. This newsletter-style document highlights construction updates across various components of the Project. The updates were posted to the website, distributed to stakeholders, including MLAs, municipal Mayors and Councillors, and hand delivered to community centres.

In addition, 19 information sheets were developed to provide more details regarding the different Project elements. These information sheets were posted online, emailed to stakeholders and had hard copies distributed as appropriate.

To share specific and targeted information about upcoming construction impacts, 143 construction notices were developed. Each construction notice was hand delivered to residents near the work site, posted online and circulated to stakeholders via email as appropriate. Approximately 9,800 construction notices were hand delivered for this Project.

The Project communications and engagement team worked with the CRD's Senior Manager of Corporate Communications to brief journalists to ensure that local, regional, provincial, national and international media were informed about key Project milestones, and to provide information for timely media responses. The Deputy Project Director was the Project's spokesperson, and regularly spoke to media to provide Project updates.

An inquiry response program was established to track, record and provide accurate and timely responses to questions or concerns from the public and stakeholders. It comprised an email address (wastewater@crd.bc.ca) and a 24/7 Project information telephone line 1-844-815-6132. Since September 2016, the Project Team responded to 2,127 inquiries, as summarised in Table 7.

Table 7 – Project Inquiries

Inquiry Source	Contacts (September 2016 - May 2021)
Information phone line inquiries	1,221
Email inquiries responded to	906
Total inquiries responded to	**2,127**

5.2.5 Schedule

The Project's schedule key performance indicator was to deliver the Project by December 31, 2020. The Project completed the majority of construction by that date, and achieved its schedule-related goal, which was to meet or exceed federal regulations for secondary treatment of wastewater by December 31, 2020.

All aspects of the Project that were required to meet the regulatory requirements were delivered by December 31, 2020: in the third quarter of 2020, the Clover Point and Macaulay Point Pump Stations diverted the Core Area's wastewater, through the Clover and Macaulay Forcemains, respectively, to the McLoughlin Point Wastewater Treatment Plant, for tertiary treatment; and from the third quarter of 2020, the Residuals Solids Conveyance Line conveyed residual solids to the Residuals Treatment Facility.

The Residuals Treatment Facility commenced production of class A biosolids later than anticipated, in January 2021, and commissioning of the facility is ongoing and is anticipated to be complete in June 2021.

On the conveyance component of the Project, the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with some minor construction activities remaining. The Arbutus Attenuation Tank is being built to increase the capacity of the conveyance system and is expected to be operational in June 2021, and the remaining work on the Clover Point Pump Station is expected to be complete in fall 2021: it has been delayed by the need to remove debris from the inlet channel that has built-up over decades of use.

Figure 17 shows a comparison of the achieved Project schedule against that forecast in the Project Charter – which was a high-level schedule that was developed to be optimised and refined as the Project and planning progressed.

It was noted in the Project Charter that, in order to meet the federal regulations for treatment of the Core Area's wastewater by December 31, 2020, the Project schedule was ambitious. It was further noted that while the Project schedule was achievable there was no float.

Therefore, despite the Project schedule not including an allowance for a global heath pandemic (that impacted workforce availability, workforce productivity and equipment and material deliveries), the Project met the goal of meeting or exceeding federal regulations for secondary

treatment of wastewater by December 31, 2020, and completed the majority of construction by December 31, 2020.

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 section 7 of this report, and the Project budget includes committed funds to complete the remaining works and close-out the construction contracts.

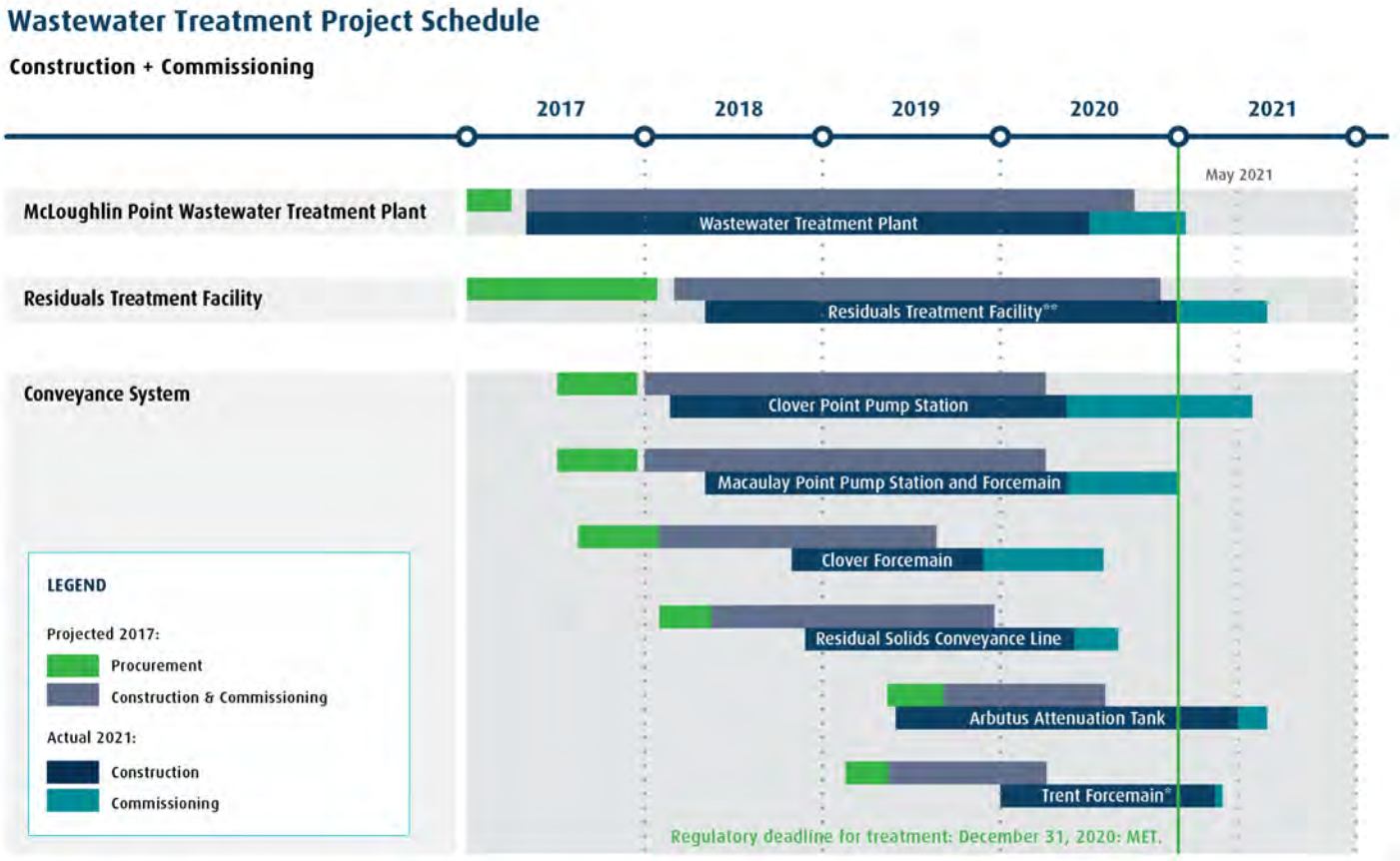

Figure 17 - Schedule comparison: March 2017 forecast to May 2021 actual

Notes to Figure 17:

** In 2019, the Wastewater Treatment Project's scope was refined to remove three components of the conveyance system (expanding the capacity of the Currie Pump Station, twinning the Currie Forcemain and twinning the East Coast Interceptor), as they would provide no benefit to the CRD's residents and businesses.*

*** The Residuals Treatment Facility commenced production of class A biosolids later than anticipated, in January 2021, and commissioning of the facility is ongoing and is anticipated to be complete in June 2021.*

**** The commissioning time period shown is the timeline for each Project contractor to complete their commissioning requirements. Upon each Project contractor completing their commissioning requirements, the responsibility for operating the component is transferred from the relevant Project contractor to the CRD's Integrated Water Services department, who are then responsible for managing the optimisation of the operation of each Project component and any resultant impacts on the operation of the other components of the core area wastewater system.*

5.2.6 Cost

The Business Case established the Control Budget of $765 million. The Project's cost key performance indicator was to deliver the Project within the Control Budget ($765 million). In May 2019 the CRD Board approved an increase in the Project's budget by $10M to $775M.

While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur in Q4 2021, it is forecast that the total Project cost will be approximately $766.7M, which is within the approved budget of $775M. The total Project cost is therefore forecast to exceed the Project's Control Budget (of $765M) by 0.2%, but be well within the budget subsequently-approved by the CRD Board (of $775M).

The total Project cost forecast of $766.7M includes:

- costs expended to-date to plan, procure, construct and commission the Project;
- the forecast cost 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
- an appropriate amount of contingency ($2.74M), 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.

The total Project cost forecast includes all Project costs, being those incurred in order to plan, procure, construct and commission the Project components. The Project budget does not include the costs to operate and maintain the Project components, which are included in CRD operating budgets. Operating and maintaining costs include (but are not limited to) the costs of: optimising the operation of the Project components after handover from the relevant Project contractor to the CRD's Integrated Water Services department; the cost of the transportation and use of biosolids produced by the Residuals Treatment Facility; the amount by which the operating period payments for the Residuals Treatment Facility exceed the net present value of the capital cost; and the cost of CRD's management of any required warranty work (the Project budget covers the cost of each Project component's warranty, but not the cost of CRD's oversight of warranty work).

Several factors resulted in the Project not meeting its cost KPI. The Project Team reported budget pressures through its monthly reports to the Project Board (and CRD Board) since September 2017, primarily as a result of inflation in the Vancouver Island construction market. Other factors that contributed to budget pressures include: design development to incorporate stakeholder input; geotechnical considerations including removal and disposal of a significant quantity of contaminated material; and schedule constraints associated with the requirement to provide wastewater treatment by the regulatory deadline of December 31, 2020.

In addition, since the onset of the global health pandemic, the Project Team reported cost impacts from the COVID-19 public health emergency. Impacts included labour availability and productivity (as a result of work modifications required to comply with provincial guidelines), and delays to the delivery of equipment and supplies.

Countering these budget pressures, Project risks were diligently and proactively managed, and there were significant cost savings in the Project's forecast financing costs. As outlined in

section 6.4, these resulted from the CRD's financing strategy, combined with low interest rates and early payment of a significant proportion of the Province's funding.

Attached as Appendix B to this report is a cost report for the Project, showing a detailed breakdown of the budget at April 30, 2021, including costs expended and the forecast funds and contingency required to complete the Project-related commitments and activities that extend beyond May 2021 (see section 7 of this report for further information on those commitments and activities).

5.2.6.1 Project Cost Comparison

Table 8 shows a comparison of total forecast cost compared to the allocated Control Budget approved by the Project Board on June 6, 2017, and Table 9 provides the main reasons for the differences. The allocated Control Budget was used as the basis for the Project Team's management of the budget and reporting, including to control costs, commitments, use of contingency and manage cash flow.

One component of the allocated Control Budget is the Project Management Office (PMO) budget, which was approved by the Project Board on January 10, 2017. At that time, KPMG carried out an exercise to review and benchmark the PMO budget against industry standards. KPMG found that industry standards were that the PMO budget of a project should make up between 5 and 13% of the total project cost, exclusive of engineering costs. KPMG considered the complexity of the Wastewater Treatment Project, and noted that the Project entailed: complex procurements with a number of different contract types (DBB, DBF and DBFOM); integration and commissioning of multiple components; and a significant number of internal and external stakeholders. Based on this assessment of complexity, and the fact that the Project's PMO budget, inclusive of engineering costs, was 10% of the total project cost, KPMG determined that the PMO Budget was well within industry standards.

Table 8 – Comparison of Total Forecast Cost against the Allocated Control Budget (all in $ millions)

Project Component	Control Budget Approved June 6, 2017	Total Forecast Cost[1]	Variance
McLoughlin Point Wastewater Treatment Plant	$331.4	$336.3	($4.9)
Residuals Treatment Facility	$159.4	$140.2	$19.2
Conveyance System	$158.2	$206.5	($48.3)
Project Management Office	$75.8	$72.5	$3.3
BC Hydro	$12.9	$2.7	$10.2
Third Party Commitments	$8.1	$8.5	($0.4)
Sub-Total	**$745.9**	**$766.7[2]**	**($20.8)**
Program Reserve	$19.2	$8.3	$10.9
Total	**$765.0**	**$775.0**	**($10.0)**

Notes to Table 8:

1. *Total forecast cost is the forecast cost at completion, and comprises:*

a. *$617.2M of costs expended at April 30, 2021, which includes invoices received and processed before the cut-off for the April 2021 cost period;*

b. *$157.8M of funds to cover:*

   i. *work completed but not yet invoiced (i.e. invoices for work already completed but not yet invoiced by the cut-off for the April 2021 cost period); and*

   ii. *the work required to complete the Project-related commitments and activities that extend beyond May 2021 (see section 7 of this report for further information on those commitments and activities); and*

c. *$2.74M of contingency to manage the risks associated with completing the Project-related commitments and activities that extend beyond May 2021, comprising:*

   i. *$1M to cover the potential performance 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*

   ii. *$1.74M for the conveyance component, which is anticipated to be more than sufficient given the nature of the remaining commitments and activities (see section 7 of this report for further information on those commitments and activities).*

2. *While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur in Q4 2021, it is forecast that the total Project cost will be approximately $766.7 M, which is within the approved budget of $775M.*

3. *A program reserve of $19.2 million was included in the Control Budget to manage risks impacting the entirety of the Project, or the interface between any of the Project components.*

   At April 30, 2021, $8.3 million remains in program reserve; this is in addition to $2.74M of contingency that is included within the total forecast cost of $766.7M, as outlined in note 1 to manage the risks associated with completing the Project-related commitments and activities that extend beyond May 2021.

Table 9 summarises the main reasons for the differences between the total forecast cost compared to the allocated Control Budget approved by the Project Board on June 6, 2017

Table 9 – Principal Factors causing Variances between the Total Forecast Cost and the Allocated Control Budget

Project Component	Variance ($ millions)	Principal Factors Driving Variance
McLoughlin Point Wastewater Treatment Plant	($4.9)	- Significantly greater contamination at site than forecast: see section 5.2.2 for further information - Cost impacts from the COVID-19 public health emergency: impacts included labour availability and productivity (as a result of work modifications required to comply with provincial guidelines). + Lower than forecast financing costs: see section 6.4 for further information
Residuals Treatment Facility	$19.2	+ Strong market response to procurement (opportunity big enough to attract qualified contractors from across North America) + Rescoping of storage area: see section 4.2.1 for further information
Conveyance System	($48.3)	- Inflation in the Vancouver Island construction market - Design development to incorporate stakeholder input + Value engineering combined with substantial reduction in water use per person reduced required scope: see section 4.3.7.1 - Cost impacts from the COVID-19 public health emergency: impacts included labour availability and productivity (as a result of work modifications required to comply with provincial guidelines). + Lower than forecast financing costs: see section 6.4 for further information
Project Management Office	$3.3	+ Efficient delivery
BC Hydro	$10.2	+ Efficient delivery
Third Party Commitments	($0.4)	- Commitments slightly greater than estimated
Program Reserve	$10.9	A program reserve of $19.2 million was included in the Control Budget to manage risks impacting the entirety of the Project, or the interface between any of the Project components. At April 30, 2021, $7.8 million remains in program reserve.
Total	$-	

6 Project Successes and Challenges

The most significant Project challenges, and actions that contributed to the successful management of them, are summarised in the following sections.

6.1 Safety

Maintaining safety as the Project's top priority was critical given the scope, scale and complexity of construction, and its performance in an urban environment during a period of time that included a global health pandemic.

Key to meeting this challenge was:

- All of the Project's Prime Contractor's continued commitment to safety as the number one priority on the Project;
- All of the Project's Prime Contractor's implementation of additional precautions during the global health pandemic to comply with provincial guidelines and protect their workers, CRD staff and the public;
- The Project Team's maintenance of a strong safety-first culture – beginning with the evaluation of contractors' safety performance, personnel and practices as part of all construction procurements, and progressing through chartering sessions to ensure new Project contractors understood the primary importance of safety, and a robust oversight and audit program that included regular site inspections, reviewing safety incidents with prime contractors to discuss lessons learned and how corrective actions are being implemented as a result of these reviews, and the sharing of trending observations or similar incidents between Project contractors;
- Comprehensive monthly reporting of safety incidents, including descriptions of the incident, the outcome and corrective actions – for all categories of safety incidents from near misses to recordable incidents; and
- Acknowledgement that safety is everyone's responsibility.

6.2 Schedule: Project Delivery to meet the Regulatory Deadline

As noted in the Project Charter, in order to meet the federal regulations for treatment of the Core Area's wastewater by December 31, 2020, the Project schedule was ambitious. To plan, procure, construct and commission the Project within five years - from the time the Project Board was appointed to the regulatory deadline for treatment – required:

- the co-operation of multiple parties and governance bodies; and
- procuring and constructing some components through multiple contracts in order to optimise the design, procurement, construction and commissioning schedule, which necessitated the Project Team expending a greater effort on contractor and interface management.

Key to meeting this challenge was:

- The CRD Board's delegation of authority to the Project Board, as this allowed for appropriate oversight and governance by a body with expertise in major project management and construction that could focus solely on delivery of the Project in order to achieve the goals established for it;

- The inclusion of the CRD's Chief Administrative Officer on the Project Board, as this facilitated CRD integration and support, and the identification and implementation of CRD policies and procedures relevant to the Project's delivery;
- The establishment of a Project Team with the relevant expertise required to deliver the Project;
- The full support of the CRD, and the integration of CRD departments in Project delivery, as this provided institutional knowledge and expertise that was critical to allowing the immediate commencement of, and expeditious progress to be made in, Project planning and delivery;
- The input and engagement of the Project's First Nations partners;
- The collaboration and cooperation of host municipalities, funding partners and regulatory authorities;
- Schedule mitigation by the Project's contractors;
- The engagement of community and neighbourhood associations which assisted in the identification of concerns and interest allowing the Project to respond or adjust plans as appropriate;
- The willingness of transit and other service providers to coordinate with our contractors to work around impacted areas while continuing to provide service to the community; and
- The patience of the CRD's residents, commuters, businesses and stakeholders, particularly those most impacted by the Project's construction and operations.

Also of significance in meeting the challenge was the Project Team's approach to schedule management, which included the following steps:

- the establishment of the master project schedule, which was the primary planning and coordination tool for schedule management;
- the development and maintenance of a permit register to identify and monitor the status of permits, approvals, authorizations, licences and agreements that may be required for the Project.
- the inclusion of relevant milestones, schedule incentives and acceleration clauses in each construction contract;
- the maintenance of the master project schedule through the review and incorporation of contractors' baseline and monthly updated schedules; and
- monitoring progress and taking action as required to manage the interfaces between the different Project contracts and meet the Project's key performance indicators.

6.3 Delivering a Major Infrastructure Project in an Urban Setting

The delivery of a major infrastructure project in an urban setting with construction in three different municipalities presented multiple challenges, including: design and construction complexity as a result of congested utility corridors and substantial road use; how to manage stakeholder impacts and build infrastructure to meet different municipal requirements.

The Project met these challenges through the establishment of individual technical working groups with all three host municipalities: this allowed for the collaboration and cooperation of host municipalities as components were designed, procured and constructed.

Section 5.2.4 outlines the significant efforts made to build and maintain positive relationships with First Nations, local governments, communities, and other stakeholders, and these undoubtedly contributed to addressing the challenges of building such significant infrastructure in an urban environment. A particular example of how the challenges were met is provided by the management of stakeholder impacts during the staging of the cross-harbour pipe.

For six weeks, Niagara Street, a small, residential street, was used to assemble a 940-metre pipe above ground before it was pulled into a cross-harbour undersea tunnel from Ogden Point to McLoughlin Point.

Beginning the first week of March 2018, 78 pipe sections were welded together and the pipe was moved into place on rollers on Niagara Street across eight city blocks from South Turner Street to St. Lawrence Street. Over three days, cranes and sidebooms lifted the pipe in the 100 block of Niagara Street where the pipe was threaded into the tunnel at Ogden Point and pulled from the McLoughlin Point side.

Managing the significant impacts that this work had on the neighbourhood involved comprehensive planning to coordinate with the contractor, local authorities and service providers; and extensive communications and engagement with local residents. Some of the community outreach included:

- A door-to-door survey which was conducted with Niagara Street residents to provide updated information and a resident needs assessment in December 2017;
- Two community meetings with residents to answer questions which were held on February 21 and February 24, 2018;
- A Help Tent that was located in the 200 block of Niagara Street and staffed by a Project representative to provide information and answer questions about the Project;
- The 24/7 phone line and project email address were provided to residents so that they could request information or report a concern; and
- A community BBQ was held on May 1, 2018 as a thank you to the residents for their patience.

As a result of the community outreach undertaken, and the patience and understanding of the community, the Project Team and Project contractor (Harbour Resource Partners) built positive relationships within the community, many of whom expressed an interest in witnessing a remarkable engineering feat.

6.4 Cost

The Project faced significant cost pressures as a result of several factors including inflation, greater than anticipated contamination, and the global health pandemic, as outlined in Section 5.2.6 of this report.

Key to meeting this challenge was:

- The ability to manage risk: risk management on the Project involved the identification, analysis, oversight, treatment and monitoring of the Project risks. The Project Leadership Team promoted a risk-aware culture whereby any person was encouraged to raise potential risks for consideration. The success of this approach was supported by the findings of Ernst and Young when they conducted an

independent project execution review part-way through Project delivery (in April 2019), and reported:

- A strong risk-aware culture that was supported by well-defined processes and risk registers;
- The Project Team had put careful consideration into risk transfer when structuring contracts. Notable and leading industry practices around controlling mechanisms are in place, including incentive and penalty clauses; and
- Project reporting to be comprehensive and forward-looking, with commentary to provide the necessary context around key items.

- Lower than forecast financing costs: due to the Project's funding sources and related conditions, there were differences in timing between incurring and recovering Project-related costs. As a result of these differences, the CRD's Finance Department needed to develop and implement a financing strategy to manage cashflow to meet the Project's financial commitments. The financing strategy implemented, combined with low interest rates and early payment of a significant proportion of the Province's funding resulted in significant cost savings in the Project's forecast financing costs, which helped to offset the budget pressures described in section 5.2.6 of this report.

6.5 Interfaces between Project Components

Managing the physical and schedule interfaces between the different components required to deliver the overall Wastewater Treatment Project was a challenge.

Key to meeting this challenge was:

- The inclusion of elements with critical interfaces into a single contract – where the resulting risk profile, type of work and size of the package, would still allow for sufficient market interest in the package such that competitive pricing would be received - for example:
  - the Macaulay Point Pump Station and Forcemain were procured together in a single contract; and
  - three elements (the McLoughlin Point Wastewater Treatment Plant, marine outfall and harbour crossing) were included in a contract to allow a single contractor to manage the physical and schedule interfaces between these components with critical interfaces
- The use of a single owner's engineer to develop the indicative design for all critical Project components with significant interfaces;
- The use of a single systems integrator to develop standards and implement an approach for computerised controls and communication; and
- Developing of a master project schedule that allowed for a logical sequence of commissioning activities, considering that construction of the Project would be achieved through multiple contracts and that each required the delivery of waste streams to achieve completion.

6.6 Construction Challenges

Construction challenges included: geotechnical considerations (especially protecting the integrity of the Dallas Road bluffs during the construction of the Clover Forcemain component of the Project); working in proximity to water; managing contaminated soils and utility conflicts; constructing on constrained sites (especially at McLoughlin Point); and building in areas with archaeological sites and the potential for archaeological finds.

Key to meeting these challenges were:

- Hiring experienced design consultants and construction contractors;
- Developing plans and procedures, both Project-wide and component-specific that mitigated potential adverse environmental impacts;
- Technical peer review of alternative solutions to complex challenges;
- Specific to the site constraints: developing indicative designs sufficiently during procurement processes to ensure designs were selected that were technically-feasible and could be constructed within the site constraints;
- Colloborating with First Nation partners; and
- Hiring archaeological advisors to provide advice and assistance with respect to archaeological management, including by:
    - preparing Archaeological Overview Assessments and Archaeological Impact Assessments;
    - planning for archaeological mitigation and data recovery;
    - preparing archaeological protocols and specifications for inclusion in construction contracts;
    - conducting archaeological awareness training for construction crews; and
    - undertaking archaeological monitoring with the support of First Nation partners.

6.7 Integration of the Project Components into the Existing Core Area Wastewater System

The integration of new Project components into an existing operating system presented several challenges.

These challenges were managed through the:

- Engagement of representatives from CRD's Integrated Water Services department in the review of design and construction submittals;
- Commitment and support of CRD operating staff , especially through the commissioning period;
- Inclusion in the construction contracts of requirements regarding the training that contractors had to provide to CRD operating staff;
- Project funding of the following initiatives as the CRD planned to integrate the Project components into the core area system:
    - Operational Readiness Review: a performance-based examination of facilities, equipment, personnel, procedures and management control systems for ensuring the Project assets can be operated safely and securely

in compliance with the applicable legislative and regulatory frameworks and in accordance with the policies and delegated responsibilities of the CRD.

- SCADA IT Network Design – Phase 1: starting with the existing network topologies and IP addresses, this study provided a high level design that accounted for the future mapping that would be required for the most intense deployment, in order to provide input on the Project sites now that considers the future goal of the CRD IT/SCADA Network, thereby reducing the need for modifications in the future.
- Asset Management Study: a study to develop a master list of assets with associated attributes that will be stored in Asset Accounting to meet financial processes and long-term capital planning needs for all the infrastructure related to the Core Area Wastewater Treatment Project and Service.

6.8 Establishment of Project Office

The establishment of a Project Team with the relevant expertise required to deliver the Project was key to meeting all of the Project goals, but it presented a potentially-significant challenge to find individuals with appropriate Project delivery experience that were both available and interested in committing to a Project in Victoria for a relatively short-term position.

The Project managed this challenge by recruiting key Project team members, and supplementing them with consultant support as required. For financial, engineering and administrative resources, the Project was aided in meeting this challenge by the ability to second some resources from the CRD, and also the potential for Project resources to apply for and transition to employment opportunities at the CRD.

The Project Board and Director were successful in attracting and retaining the core competencies required throughout delivery of the Project, and this strategy allowed for continuity through dedicated Project team members, while also providing a means to manage the natural variation in resource needs as the Project progressed, and gain access to specialist skill sets as required.

7 Project Handover

The Project Board have fulfilled their role and function as defined in the Terms of Reference, and the term of the Project Board concludes on May 24, 2021. This report section outlines the Project-related commitments and activities that extend beyond May 2021, and is organised in three 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; and
iii) Operating and maintenance obligations related to the infrastructure built by the Project.

This report section outlines Project-related commitments and activities that extend beyond May 2021 and that are transitioning from the Project to the CRD. In addition there are organizational/corporate leadership, administrative and support function responsibilities that the CRD will need to fulfill as a result of the addition of the Project components to the core area wastewater system.

7.1 Close-out of the Project's Construction Contracts

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 10, and the Project budget includes committed funds to complete the remaining works and close-out the construction contracts.

Table 10 – Summary of Works Remaining on the Project's Construction Contracts at May 2021

Project Component	Contract Type	Summary of Works Remaining at May 2021
McLoughlin Point Wastewater Treatment Plant	DBF	Providing advice and guidance to optimize plant performance over the remainder of the two-year performance period (to January 12, 2023) and complete warm weather odour test.
Residuals Treatment Facility	DBFOM	Complete activities required to achieve Completion; minor deficiency items and record drawing submission.
Macaulay Point Pump Station and Forcemain	DB	Landscaping, minor deficiency items and record drawing submission
Clover Point Pump Station	DB	Generator ventilation rectification; inlet channel debris removal; final acceptance testing; minor deficiency items and record drawing submission
Clover Forcemain	DBB	Quarterly post-construction stability surveys over the warranty period
Residual Solids Pump Stations	DBB	Removal of low floats and upgrade programming; landscaping, minor deficiency items and record drawing submission
Trent Forcemain	DBB	Restoration, minor deficiency items and record drawing submission
Arbutus Attenuation Tank	DBB	Final commissioning activities, site grading and landscaping, minor deficiency items and record drawing submission

The Project budget also includes committed funds for the resources required to oversee the completion of the remaining works and close-out the construction contracts. Specifically, the

Project budget includes committed funds for the following resources to support close-out post May 2021:

- Project staff transitioning to the CRD, including project management, document control and finance staff resources that the Project budget will fund post May 2021;
- Project consultants: funds have been committed 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 2021.

7.2 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 C 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. The Project budget includes committed funds to fulfil the outstanding obligations, and the Governance Transition Report details both the fulfilled and the outstanding commitments.

7.3 Operation and Maintenance of Infrastructure Built by the Project

7.3.1 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 the relevant Project contractor completing their commissioning requirements. 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 optimisation of the operation and maintenance of each Project component upon handover, and any resultant impacts on the operation of the other components of the core area wastewater system;
- 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, degritted 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.

As noted earlier in this report, the Project met it's regulatory requirements key performance indicator (to deliver the Project such that the Core Area complies with provincial and federal wastewater regulations). Specifically, the McLoughlin Point Wastewater Treatment Plant operated in compliance with the provincial and federal wastewater regulations over the three month period from the start of November 2020 to the end of January, 2021, and since April 18, 2021. In the interim period (between the start of February and mid-April, 2021), a number of operating challenges arose, resulting in the discharged effluent exceeding the permitted quality limits. The Plant has continuously treated wastewater since being commissioned, but over the interim period, the discharged effluent was closer in quality to that which would be produced from a secondary treatment plant than a tertiary.

Operating and equipment challenges of the nature experienced at the McLoughlin Point Wastewater Treatment Plant are not uncommon in the period of time immediately after handover of an operating facility from a contractor to an operator, as a period of fine-tuning and optimising operations is to be expected. The Plant is now in compliance with the regulations, and treating wastewater to a tertiary level.

7.3.1.1 Operational Readiness Review

The Project funded the engagement of independent experts to conduct an Operational Readiness Review. This review commenced prior to the transition of Project components from the commissioning phase to the operating phase, with the objective of seeking an independent review of the transition planning conducted and ensure:

- equipment, facilities, and systems were in a state of readiness to safely and securely conduct operations in accordance with the operating plans and performance objectives;
- management control programs were in place to ensure safe and secure operations could be sustained; and
- user/operating organization personnel were trained and qualified.

7.3.2 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: the CRD's operating budget will need to fund the amount by which the operating period payments for the Residuals Treatment Facility exceed the net present value of the capital cost.

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.

7.3.3 Permits

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 maintaining and complying with the terms of operating permits and the limited number of construction-related permits that have obligations that extend beyond the commissioning period.

7.3.4 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 neighbourhoods, the Project either funded or funded and delivered a number of amenities and/or infrastructure improvements (as outlined in Section 5.1.4). These amenities and infrastructure improvements have been transferred to the benefitting municipality to operate and maintain.

7.4 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;
- The continuity of personnel through the transfer of resources from the Project Team to CRD positions; and
- The retention of Project records.

Appendix A – Guiding and Key Supporting Documents

CRD Core Area Wastewater Treatment Project Board Bylaw No. 1, 2016

The CRD Core Area Wastewater Treatment Board Bylaw No. 1, 2016 established the Project Board for the purposes of administering the Project. Attached to the bylaw are the Project Board's Terms of Reference, which set out the role, responsibilities and function of the Project Board. The Terms of Reference also provide a framework that includes the Project vision and goals, guiding principles and values, Project Board meeting protocols, confidentiality considerations and identifies those matters that must be referred to the CRD Board for approval. The bylaw was adopted by the CRD Board on May 25, 2016.

Business Case

The Business Case defined the scope of the Project and established the control budget of $765 million (the "Control Budget"). The CRD Board approved the Business Case on September 14, 2016.

Core Area Liquid Waste Management Plan

The Core Area Liquid Waste Management Plan ("CALWMP") outlines CRD's wastewater management strategies, including wastewater treatment under the Environmental Management Act.

Amendment 11 of the Core Area Liquid Waste Management Plan defines how the CRD will treat wastewater in the Core Area. The CRD has received approval from the Ministry of Environment for Amendment 11 on the condition that a definitive plan for the beneficial use of biosolids be submitted to the Minister by June 30, 2019

The CALWMP also includes seven liquid waste management initiatives designed to protect the core area's water quality: monitoring and sampling; harbour stewardship; watershed protection; trucked liquid waste management; inflow and infiltration; onsite septic maintenance; and source control.

Project Charter

The Project Charter was developed to define the parameters and establish the mandate for the Project Team to execute and deliver the Project. The Project Charter included the Project goals from the Project Board's Terms of Reference and established key performance indicators for the Project. The Project Charter also includes a description of roles and responsibilities, and presents a high-level description of the Project budget, schedule, scope, risks, and stakeholders. The Project Charter was first approved by the Project Board on April 4, 2017, and was subsequently updated twice to account for progress made on delivering the Project, with each update approved by the Project Board (on April 27, 2018 and September 30, 2019).

Project Management Plan

The Project Management Plan specified the project management objectives and approaches intended to be used to achieve the key performance indicators (as established in the Project Charter); and stated the key organizational roles and responsibilities anticipated to be required

to provide effective management, administration and control of the Project. The Project Management Plan was approved by the Project Board on September 26, 2018.

Risk Management Plan

The Project's Risk Management Plan included the risk management process, roles and responsibilities, management escalation hierarchy and requirements for risk meetings and reporting cycles, in order to direct and empower the Project Team to: develop and maintain a 'risk aware' culture; provide a comprehensive risk identification and control process; and to proactively forecast and report on risks. The Project Risk Management Plan was approved by the Project Board on March 29, 2018.

Communications and Engagement Plan

The Project's Communications and Engagement Plan defined the Project's communications and engagement goals, described the communications and engagement activities during the construction period; and described the roles and responsibilities of the Wastewater Treatment Project's Communications and Engagement Team, which included CRD staff, consultants and representatives from the contractors for each component of the Project. The Project's Communications and Engagement Plan was first approved by the Project Board on April 4, 2017, and was subsequently updated twice to account for progress made on delivering the Project, with each update approved by the Project Board (on July 26, 2018 and July 25, 2019).

Appendix B – Project Cost Report at April 30, 2021

Appendix B: Project Cost Report at April 30, 2021

APPENDIX A

Description	BUDGET		COST EXPENDED		FORECAST	
	Control Budget	Allocated Budget	Expended to April 30, 2021	Expended to April 30, 2021 as a % of Allocated Budget	Forecast to Complete	Forecast at Completion
McLoughlin Point Wastewater Treatment Plant	**331.4**	**336.3**	**329.5**	**98%**	**6.8**	**336.3**
Construction	306.7	334.4	329.3	98%	5.1	334.4
Contingency	14.9	1.0	-	0%	1.0	1.0
Financing	9.8	0.9	0.2	26%	0.7	0.9
Residuals Treatment Facility	**159.4**	**140.2**	**12.7**	**9%**	**127.5**	**140.2**
Construction	145.4	139.8	12.7	9%	127.1	139.8
Contingency	12.3	-	-	0%	-	-
Financing	1.7	0.4	-	0%	0.4	0.4
Conveyance System	**158.0**	**206.5**	**198.9**	**96%**	**7.6**	**206.5**
Macaulay Point Pump Station	25.4	32.4	32.1	99%	0.3	32.4
Macaulay Forcemain	5.6	7.4	7.4	100%	-	7.4
Craigflower Pump Station	12.5	12.4	12.4	100%	-	12.4
Clover Point Pump Station	23.7	28.7	27.4	96%	1.3	28.7
Currie Pump Station^	2.8	0.1	0.1	100%	-	0.1
Arbutus Attenuation Tank	14.2	24.6	22.9	93%	1.7	24.6
Clover Forcemain	14.6	31.8	31.7	99%	0.2	31.8
Currie Forcemain^	3.3	0.2	0.2	100%	-	0.2
Trent Forcemain	9.5	11.0	9.5	86%	1.6	11.0
Residual Solids Conveyance Line	19.1	37.0	37.0	100%	0.0	37.0
Residual Solids Pump Stations & Bridge Crossings	4.6	18.1	17.8	98%	0.4	18.1
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	100%	-	0.3
Contingency	16.8	1.7	-	0%	1.7	1.7
Financing	5.8	0.6	0.1	24%	0.4	0.6
Project Management Office ("PMO")	**75.8**	**72.5**	**68.8**	**95%**	**3.6**	**72.5**
Project costs Aug 2016-Dec 2016	2.2	2.2	2.2	100%	-	2.2
Owner's Engineering	17.2	18.4	17.7	96%	0.7	18.4
Conveyance Design	5.0	11.0	9.9	90%	1.1	11.0
Advisors & Professional Support	7.0	11.6	11.4	98%	0.3	11.6
Project Board	2.0	1.1	1.1	96%	0.0	1.1
Project Board Expenses	0.3	0.1	0.1	100%	-	0.1
Project Team	29.1	21.9	20.4	93%	1.6	21.9
Project Leadership Team Expenses	0.7	0.3	0.3	100%	-	0.3
Project Support Team Expenses	0.5	0.1	0.1	100%	0.0	0.1
CRD Financial Services	1.5	1.4	1.4	100%	-	1.4
CRD Human Resources	0.3	0.3	0.3	100%	-	0.3
CRD Corporate Communications	0.2	0.2	0.2	100%	-	0.2
CRD Real Estate	0.3	0.3	0.3	100%	-	0.3
CRD Information Technology	0.4	0.3	0.3	100%	-	0.3
CRD Insurance	0.1	0.0	0.0	100%	-	0.0
CRD Operations	0.6	0.6	0.6	100%	-	0.6
CRD Legislative Services	0.1	0.1	0.1	100%	-	0.1
CRD Corporate Safety	0.2	0.2	0.2	100%	-	0.2
CRD Executive Services	-	0.1	0.1	100%	-	0.1
Office Lease	1.9	1.1	1.1	96%	0.0	1.1
Office Supplies	0.1	0.2	0.2	96%	-	0.2
Vehicles	0.2	0.2	0.2	100%	-	0.2
Connections Call Center	-	0.0	0.0	100%	-	0.0
Communication support materials	0.5	0.2	0.2	100%	-	0.2
Computer Hardware, Software & Training	1.0	0.7	0.7	99%	-	0.7
Contingency	4.8	-	-	0%	-	-
BC Hydro	**12.9**	**2.7**	**2.7**	**100%**	**-**	**2.7**
Third Party Commitments	**8.1**	**8.5**	**4.6**	**54%**	**3.9**	**8.5**
Subtotal^^	**745.7**	**766.6**	**617.2**	**81%**	**149.4**	**766.6**
Program Reserves^^^	**19.2**	**8.3**	**-**	**0%**	**8.3**	**8.3**
Core Area Wastewater Treatment Project	**765.0**	**775.0**	**617.2**	**80%**	**157.8**	**775.0**

* Values presented in $millions, results in minor rounding differences

** Costs expended to April 30, 2021 includes invoices received and processed before the cut-off for the April 2021 cost period

^ In 2019, the Wastewater Treatment Project's scope was refined to remove three components of the conveyance system (expanding the capacity of the Currie Pump Station, twinning the Currie Forcemain and twinning the East Coast Interceptor), as it was determined that they would provide no benefit to the CRD's residents and businesses: see section 4.3.7.1 for further information. The expended costs on these removed components comprise costs incurred before 2016 on planning and design.

^^ While the total Project cost will not be known until total completion of all contracts, which is anticipated to occur in Q4 2021, it is forecast that the total Project cost will be approximately $766.7 M, which is within the approved budget of $775M.

^^^ A program reserve of $19.2 million was included in the Control Budget to manage risks impacting the entirety of the Project, or the interface between any of the Project components. At April 30, 2021, $8.3 million remains in program reserve; this is in addition to $2.74M of contingency that is included within the total forecast cost of $766.7M, to manage the risks associated with completing the Project-related commitments and activities that extend beyond May 2021.

Appendix C – Funding, First Nation and Land Access Agreements

Funding Agreements:

- Infrastructure Canada:
    - Building Canada Fund;
    - Green Infrastructure Fund; and
    - PPP Canada Fund;
- Province of BC; and
- Federation of Canadian Municipalities (FCM): three funding agreements (for three grants and one loan).

First Nation Agreements:

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

Land Access Agreements:

- Transport Canada Licences:
    - McLoughlin Point Harbour Crossing;
    - McLoughlin Point Outfall;
- Township of Esquimalt Amenity Agreements:
    - Host Community Impact 5-Year Agreement;
    - Community Impact Mitigation and Operating Agreement; and
    - Amenity Reserve Fund Administration Agreement.
- City of Victoria Licences of Occupation:
    - Dallas Road; and
    - Clover Point Pump Station.
- Greater Victoria Harbour Authority (GVHA) Agreements:
    - Compensation Agreement; and
    - Right to Enter Agreement.
- DND Licence Agreements:
    - Access to Federal Real Property; and
    - Relocation Expenses
- Minister of Transportation and Infrastructure RSCL Highway Crossing Agreement;
- District of Saanich RSCL Infrastructure Access Agreement; and
- Rock Bay Lease Agreement.

Wastewater Treatment Project

Treated for a cleaner future

CRD Wastewater Treatment Project

Governance Transition Report

Report Date: May 17, 2021

TABLE OF CONTENTS

1 Executive Summary 3

1.1 Wastewater Treatment Project 3

1.2 Objective of this Governance Transition Report 3

2 Project Commitments: Source and Summary Status 5

2.1 Construction Contracts 5

2.1.1 Construction Contract Claims 9

2.1.1 Third-Party Insurance Claims 10

2.1.2 BC Hydro 10

2.2 Obligations Remaining to be Fulfilled in the Project's Funding, First Nation and Land Access Agreements 11

2.2.1 Funding Agreements 12

2.2.2 First Nation Agreements 13

2.2.3 Land Access Agreements 14

2.3 Committed Funds for the Resources Required to Oversee the Completion of the Remaining Obligations and Close-Out the Construction Contracts 16

2.4 Operation and Maintenance of Infrastructure Built by the Project 19

2.4.1 Responsibility for Operations and Maintenance of Project Components 19

2.4.2 Contract Administration of Residuals Treatment Facility Project Agreement 20

2.4.3 Environmental Management and Permits 21

2.4.4 Responsibility for Operations and Maintenance of Project Amenities 21

2.5 Signage and First Nations Artwork 22

3 Project Communications and Engagement 24

3.1 Project Telephone Line and E-mail Address 24

3.2 Media Inquiries 24

3.3 Community Committees 25

3.3.1 Esquimalt Liaison Committee 25

3.3.2 City of Victoria Neighbourhood / Community Associations 25

3.3.3 Saanich / Electoral District A / Willis Point 26

3.4 Local Government Technical Engagement: Staff Working Groups 26

4 Project Documentation 28

4.1 Software Packages 28

4.1.1 SharePoint 28

4.1.2 Prolog 32

4.2 Project Hardcopies 33

4.2.1 Infolinx 33

4.3 Project Risk Registers 34

5 Knowledge Transfer 35

Appendix A - Source of Project Commitments 36

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: o Residual effluent line modifications; and o 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: o Modifications at ring road connector; o Changes to biosolids loadout chute; o 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, degritted 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:
    - Municipal Wastewater Regulation registration;
    - Federal Wastewater System Effluent Regulations, including the transitional authorizations; and
    - 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:
    - CP310 Macaulay Point Pump Station and Forcemain;
    - CP320 Craigflower Pump Station;
    - CP330 Clover Point Pump Station;
    - CP350 Arbutus Attenuation Tank;
    - CP360 Clover Forcemain;
    - CP370 Trent Forcemain;
    - CP380 Residual Solids Conveyance Line;
    - 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;
    - 0110 Administration;

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

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

- CP300 Conveyance System;

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

  - CP320 Craigflower Pump Station;
    - 5220 Contracts;

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

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

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

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

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

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

  - 5220 Contracts;
  - 5220 Correspondence;
  - 5220 Procurement.

- CP400 BC Hydro;
  - 5220 Contracts;
  - 5220 Correspondence.

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

- Meeting Minutes;
- Project Files.

- Field Administration:
  - Daily Reports;
  - 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 CP370 Trent Forcemain CP380 Residual Solids Conveyance Line	WasteWater Treatment Plant library	1	1	1
	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:
    - the inlet channel debris removal at Clover Point Pump Station; and
    - 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:
    - Building Canada Fund;
    - Green Infrastructure Fund; and
    - P3 Canada Fund;
- Province of BC; and
- Federation of Canadian Municipalities:
    - GMF 16576;
    - GMF 15822; and
    - 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:
    - McLoughlin Point Harbour Crossing;
    - McLoughlin Point Outfall;
- Township of Esquimalt Amenity Agreements:
    - Host Community Impact 5-Year Agreement;
    - Community Impact Mitigation and Operating Agreement; and
    - Amenity Reserve Fund Administration Agreement;
- City of Victoria Licences of Occupation:
    - Dallas Road; and
    - Clover Point Pump Station;
- Greater Victoria Harbour Authority (GVHA) Agreements:

    - Compensation Agreement; and
    - 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.

PROJECT COST REPORT
as at September 30, 2021

Description	BUDGET		COST EXPENDED		FORECAST	
	Control Budget	Allocated Budget	Expended to September 30, 2021	Expended to September 30, 2021 as a % of Allocated Budget	Forecast to Complete	Forecast at Completion
McLoughlin Point Wastewater Treatment Plant	**331.40**	**336.3**	**329.9**	**98%**	**6.4**	**336.3**
Construction	306.7	334.4	329.7	99%	4.7	334.4
Contingency	14.9	1.0	-	0%	1.0	1.0
Financing	9.8	0.9	0.2	26%	0.7	0.9
Residuals Treatment Facility	**159.4**	**140.2**	**139.8**	**100%**	**0.4**	**140.2**
Construction	145.4	139.8	139.8	100%	0.0	139.8
Contingency	12.3	-	-	0%	-	-
Financing	1.7	0.4	-	0%	0.4	0.4
Conveyance System	**158.0**	**206.4**	**203.8**	**99%**	**2.5**	**206.3**
Macaulay Point Pump Station	25.4	32.4	32.3	100%	0.2	32.4
Macaulay Forcemain	5.6	7.4	7.4	100%	-	7.4
Craigflower Pump Station	12.5	12.4	12.4	100%	-	12.4
Clover Point Pump Station	23.7	29.4	28.9	98%	0.5	29.4
Currie Pump Station^	2.8	0.1	0.1	100%	-	0.1
Arbutus Attenuation Tank	14.2	24.6	24.0	97%	0.7	24.6
Clover Forcemain	14.6	31.8	31.7	100%	0.2	31.8
Currie Forcemain^	3.3	0.2	0.2	100%	-	0.2
Trent Forcemain	9.5	11.1	11.1	100%	0.0	11.1
Residual Solids Conveyance Line	19.1	37.2	37.2	100%	-	37.2
Residual Solids Pump Stations & Bridge Crossings	4.6	18.2	18.1	99%	0.2	18.2
Residual Solids Conveyance Line – Highway Crossing	-	0.3	0.3	100%	-	0.3
Contingency	16.8	0.4	-	0%	0.4	0.4
Financing	5.8	0.6	0.1	24%	0.4	0.6
Project Management Office ("PMO")	**75.8**	**72.5**	**71.4**	**99%**	**1.1**	**72.5**
Project costs Aug 2016-Dec 2016	2.2	2.2	2.2	100%	-	2.2
Owner's Engineering	17.2	18.3	18.2	99%	0.2	18.3
Conveyance Design	5.0	11.0	10.6	96%	0.4	11.0
Advisors & Professional Support	7.0	11.8	11.5	98%	0.3	11.9
Project Board	2.0	1.1	1.1	100%	-	1.1
Project Board Expenses	0.3	0.1	0.1	100%	-	0.1
Project Team	29.1	21.9	21.7	99%	0.2	21.9
Project Leadership Team Expenses	0.7	0.3	0.3	100%	-	0.3
Project Support Team Expenses	0.5	0.1	0.1	100%	-	0.1
CRD Financial Services	1.5	1.4	1.4	100%	-	1.4
CRD Human Resources	0.3	0.3	0.3	100%	-	0.3
CRD Corporate Communications	0.2	0.2	0.2	100%	-	0.2
CRD Real Estate	0.3	0.3	0.3	100%	-	0.3
CRD Information Technology	0.4	0.3	0.3	100%	-	0.3
CRD Insurance	0.1	0.0	0.0	100%	-	0.0
CRD Operations	0.6	0.6	0.6	100%	-	0.6
CRD Legislative Services	0.1	0.1	0.1	100%	-	0.1
CRD Corporate Safety	0.2	0.2	0.2	100%	-	0.2
CRD Executive Services	-	0.1	0.1	100%	-	0.1
Office Lease	1.9	1.1	1.1	100%	-	1.1
Office Supplies	0.1	0.2	0.2	100%	-	0.2
Vehicles	0.2	0.1	0.1	100%	-	0.1
Connections Call Center	-	0.0	0.0	100%	-	0.0
Communication support materials	0.5	0.2	0.2	100%	-	0.2
Computer Hardware, Software & Training	1.0	0.7	0.7	100%	-	0.7
Contingency	4.8	-	-	0%	-	-
BC Hydro	**12.9**	**2.7**	**2.7**	**100%**	**-**	**2.7**
Third Party Commitments	**8.1**	**10.5**	**4.7**	**45%**	**5.8**	**10.5**
Program Reserves	**19.2**	**6.3**	**-**	**0%**	**6.3**	**6.3**
Core Area Wastewater Treatment Project	**765.0**	**774.9**	**752.4**	**97%**	**22.5**	**775.0**

* Values presented in $millions, results in minor rounding differences
** Cost report presents approved expenditures
^ Component no longer required, and would not provide any value therefore removed from Project Scope; Costs include Seaterra initiation, planning and design

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REPORT TO ELECTORAL AREAS COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Appointment of Officers**

ISSUE SUMMARY

This report is to update bylaw enforcement appointments to reflect staff changes in the Capital Regional District Bylaw and Animal Care Services Division.

BACKGROUND

Pursuant to Section 233 of the *Local Government Act* and Section 28(3) of the *Offence Act* and in accordance with Capital Regional District Bylaw No. 2681, the Electoral Areas Committee must from time to time make resolutions for persons in new positions.

ALTERNATIVES

Alternative 1
That the Electoral Areas Committee recommends to the Capital Regional District Board:
That for the purpose of Section 233 of the *Local Government Act* and Section 28(3) of the *Offence Act* and in accordance with Capital Regional District Bylaw No. 2681, Mark Groulx be appointed as Chief Bylaw Officer.

Alternative 2
That the Appointment of Officers report be referred back to staff for further information based on Electoral Areas Committee direction.

IMPLICATIONS

Service Delivery Implications
This appointment is for the new Manager of Bylaw and Animal Care Services.

CONCLUSION

The bylaw enforcement appointments reflect staff changes in the Capital Regional District Bylaw and Animal Care Services Division.

RECOMMENDATION

That the Electoral Areas Committee recommends to the Capital Regional District Board:
That for the purpose of Section 233 of the *Local Government Act* and Section 28(3) of the *Offence Act* and in accordance with Capital Regional District Bylaw No. 2681, Mark Groulx be appointed as Chief Bylaw Officer.

Submitted by:	Shawn Carby, CD, BHSc, MAL, Senior Manager Protective Services
Concurrence:	Kevin Lorette, P.Eng., MBA, General Manager Planning & Protective Services
Concurrence:	Bob Lapham, MCIP, RPP, Chief Administrative Officer

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ERM 21-35

REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 29, 2021

SUBJECT **Solid Waste Management Plan – Implementation Update**

ISSUE SUMMARY

To provide an update on implementation of the Solid Waste Management Plan.

BACKGROUND

On May 12, 2021, the Capital Regional District's (CRD) new Solid Waste Management Plan (SWMP) was approved by the CRD Board. At the same meeting, staff were directed to submit the plan to the Ministry of Environment and Climate Change Strategy (ENV) for regulatory approval and to immediately begin implementing the plan. In response to this direction, staff have submitted the Plan to ENV for review and approval, have developed a short-term work plan and framework, and have begun plan implementation. Details are provided below for information.

The new SWMP has a goal to surpass the provincial waste disposal target and aspires to achieve a disposal rate of 125 kg/capita/year. By the end of its tenth year, the plan targets a waste disposal rate of 250 kg per capita (or less). This represents an overall regional waste reduction of approximately one-third, or around 40,000 tonnes of waste against 2020 levels within 10-years – a significant challenge for a growing region.

The CRD has focused on waste reduction for many years and has already been successful in diverting a significant portion of the region's waste from the landfill. Between 1989 and 2019, the CRD's per capita waste disposal rate went down approximately 43%, as a result of a variety of CRD initiatives, including the blue box program, recycling depots, landfill disposal bans on materials when viable alternatives exist (including processing systems and end markets), as well as the introduction of the Extended Producer Responsibility programs regulated by the Province.

To meet the targets of the new SWMP, the CRD will need to build on these successes and implement new and expanded programs, policies and regulations, as identified within the plan, to continue to reduce, reuse and recycle materials, and recover materials and energy from the waste stream.

To support meeting the plan's waste disposal target within the timeframe, staff have developed a short-term work plan and framework (Appendix A) and have prioritized the plan's 72 actions through the lenses of those actions that will be most effective in reaching the plan targets, align with community (including municipal) priority areas, and are areas that fall within the CRD's jurisdiction and operational control.

On this basis, staff have identified five short-term focus areas for immediate implementation (see details in Appendix A). The vast majority of waste reduction is expected to be achieved through the targeted material stream diversion of wood waste, organics, paper and plastics, which combined represent about two-thirds of the materials currently being disposed at Hartland Landfill.

At its September 15, 2021 meeting, the Solid Waste Advisory Committee received the SWMP – Implementation Update staff report for information and passed the following related motion:

> *That the Capital Regional District prioritize waste stream management licensing as part of the short-term strategies to support municipalities in their initiatives.*

The Solid Waste Advisory Committee motion, and staff prepared implications report, will be brought to Environmental Services Committee for consideration at their October 20, 2021 meeting.

CONCLUSION

The final draft Solid Waste Management Plan has been submitted to the Ministry of Environment and Climate Change Strategy for regulatory approval. Meeting the targeted waste disposal rate of 250 kg per capita (or less) per year within 10 years represents an overall reduction of approximately one-third of the current solid waste generation and will be a significant challenge for our growing region. Staff have begun plan implementation and have prioritized the 72 plan actions into five short-term focus areas through the lenses of actions that will be most effective in reaching the plan targets, align with community (including municipal) priority areas, and are areas that fall within the CRD's jurisdiction and operational control.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board:

That this report be received for information.

Submitted by:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT

Appendix A: Solid Waste Management Plan – Short-Term Implementation Framework and Timeline

APPENDIX A

SOLID WASTE MANAGEMENT PLAN
SHORT-TERM IMPLEMENTATION FRAMEWORK

September 2021

Staff have developed a short-term work plan and framework and have prioritized the plan's 72 actions through the lenses of those actions that will be most effective in reaching the plan targets, that align with community (including municipal) priority areas, and are areas that fall within the Capital Regional District's (CRD) jurisdiction and operational control.

Priority Areas

The immediate priority areas include:

- **Targeted Material Stream Diversion:** Wood waste, organics, paper and plastic account for over 65% of the total materials currently sent to the landfill and represent an immediate opportunity for diversion and recovery of material and energy from the solid waste stream. Staff have begun developing new programming and tools to reduce waste and recover energy from these material streams. Actions under evaluation include modifying the tipping-fee structure to incent diversion, expanding landfill material bans for streams where viable alternatives exist, facilitating the diversion of material and energy recovery of diverted material and expanding regulatory enforcement, where required. Staff will be consulting with municipalities and the private sector on proposed operational changes over the fall and expect to bring a proposed material stream diversion program, including associated tipping fee and bylaw changes to the committee for consideration in early 2022.

- **Multi-Family/Industrial, Commercial and Institutional (ICI) Strategy:** ICI refers to waste generated through industrial, commercial and institutional sectors. Multi-family refers to waste generated by residential housing that is not considered single-family. Collectively, these two sectors generate approximately 53% of the solid waste stream. Much of the CRD's historical efforts and successes in diverting 43% of materials from the waste stream over the previous decades have been realized through an early focus on the single-family sector with the residential blue box collection program. Opportunity exists to enhance diversion activities and programming to the ICI and multi-family sectors. This focus area was also identified as a priority by municipalities during the plan's consultation phase. Staff are working to develop an ICI/multi-family sector specific strategy, and have included a budget request through the CRD's annual budgeting process for a new Initiatives Coordinator position, which would begin in early 2022.

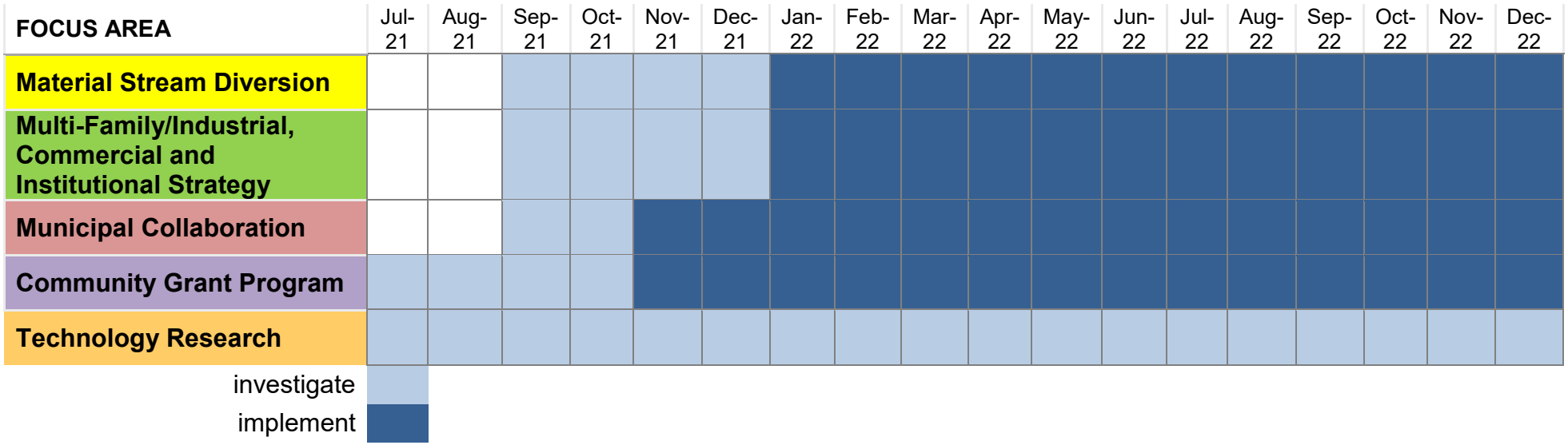
- **Municipal Collaboration***:* Municipalities are primary partners in implementing the Solid Waste Management Plan and provide various curbside collection or drop-off services to residents and other sectors; education and outreach associated with local solid waste services; litter collection, streetscape sanitation and waste collection services for public spaces; along with many other critical roles. Through programming, regulation and bylaws, municipalities have the ability to access waste streams and incent diversion in areas that are outside of the scope or authority of the CRD. Staff are working to enhance the collaboration with municipalities on plan implementation. Immediate first steps include inventorying current municipal initiatives and reenergizing and expanding the existing staff inter-municipal solid waste working group through the development of a terms of reference and populating the working group.

- **Community Grant Program**: Through the Solid Waste Management Plan consultation, the CRD heard many waste reduction ideas with potential from the community. A community-based waste reduction grant program will provide resources and support for individuals and groups that want to turn their ideas into action. Funds have been allocated to the program within the Environmental Resource Management budget, and staff are currently developing program guidelines and looking to launch the program in 2022.

- **Technology Research**: Staff continue efforts researching, investigating and reporting out on emerging waste management technologies, including alternatives to landfilling, such as integrated resource management and gasification. On July 14, 2021, the CRD Board directed staff to facilitate, where possible, the business case process the Township of Esquimalt has undertaken to explore feasibility of gasification of solid waste and kitchen scraps management, and CRD staff continue to work with and support staff at Esquimalt. Additionally, the CRD is investigating the feasibility of testing municipal solid waste in conjunction with the CRD's biosolids gasification testing and will bring results of these investigations to the Environmental Services Committee.

SOLID WASTE MANAGEMENT PLAN SHORT-TERM IMPLEMENTATION TIMELINE

2021



REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 29, 2021

SUBJECT **Capital Region Energy Retrofit – Business Case**

ISSUE SUMMARY

To provide results of the Capital Region Residential Energy Retrofit Program Business Case.

BACKGROUND

On October 28, 2020, the Capital Regional District (CRD) Board directed staff to pursue completion of a detailed business case for a Regional Energy Retrofit Program and report back in 2021 with 2022 budget implications. At the same time, as part of the 2019-2021 Transition 2050 Residential Retrofit Acceleration Project, the CRD launched the pilot Bring It Home 4 Climate program to support homeowners to overcome barriers associated with home retrofits. Between August 2020 and August 2021, with very little marketing, the program has engaged over 400 homeowners and supported over 100 homeowners with a virtual home energy check-up. Staff have leveraged this, and previous work, to secure Community Efficiency Financing program funding from the Federation of Canadian Municipalities to complete an in-depth design study of a full-scale municipal residential retrofit program. As part of that work, staff have delivered a Capital Region Residential Energy Retrofit Business Case (Appendix A) that offers costs and a design framework for achieving the emission reduction goals associated with the residential built environment.

The business case recommends a regionally coordinated, subsidized and well-marketed program following a “One Stop Shop” model, with an initial focus on Part 9 (i.e., single family homes, duplexes and townhomes). The Program would build on the CRD’s Bring it Home 4 Climate program to provide turnkey service to homeowners via a Retrofit Coordinator, operated by a third-party administrator, similar to the provincial programs. The Retrofit Coordinator scope of work is found on page 6 of Appendix A.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the Capital Regional District Board:

That the Capital Region Energy Retrofit – Business Case be received for information and that implementation be considered as part of the Climate Action 2022 Service Planning Process.

Alternative 2

That staff report back to the committee with further information.

IMPLICATIONS

Environmental & Climate Implications

The business case estimates that the proposed budget would enable an annual 1% regional retrofit rate, estimating an approximate 1,780 to 2,050 tCO_2e in carbon savings annually. Past

and current studies have shown that a 3-5% annual retrofit rate of existing buildings is required to achieve local, provincial and federal greenhouse gas reduction targets. A higher rate would require further support from the provincial and federal levels of government.

The business case targets a Capital Region Residential Energy Retrofit Program that will drastically reduce greenhouse gas emissions in participating homes. This means programming efforts will focus to support residents in fuel switching from carbon intensive energy sources and improve home energy efficiency.

Regional Growth Strategy Implications

This program has the potential to contribute significantly to the Regional Growth Strategy goal of reducing emissions by 61% by 2038.

Social Implications

The business case offers a potential reduction in energy poverty by targeting moderate-income communities where natural gas is less prominent. The Province is shortly releasing a low income-qualified energy retrofit program and recommends that the CRD focus on other demographics until the Province of BC's program is more established.

Retrofitting and improving of homes in the capital region supports healthy homes. For example, heat pumps provide heating and cooling in one appliance and safeguard against increases in summer temperatures and heat waves that will come with climate change. Home retrofits that involve envelope improvements and air filtration also help seal homes from environmental contaminants, such as wildfire smoke, and help regulate moisture.

Financial Implications

The business case indicates that the total core budget required to operate a five-year program would be $602,500 in 2022, increasing to $606,500 in 2026. The detailed budget is found on page 8 of Appendix A. This fixed budget for the first five years is estimated to support the completion of home retrofits in 1% of the homes in the capital region per year.

Service Delivery Implications

This program requires an increase in service levels (refer to *2022 Service Planning – Climate Action & Adaptation* staff report*,* also on the September 29 agenda*),* and would require an increase in the requisition limit under CRD Bylaw 3510 – Climate Action & Adaptation.

Several federal and provincial level programs exist to support homeowners in retrofitting their homes. These include rebate programs (e.g., Better Homes, Canada Greener Homes Grant, and the Better Home Energy Coach). The senior government-led programs are "fuel neutral", meaning upgrades and rebates for both electric and fossil fuel equipment (e.g., natural gas boilers) are available and may be recommended. The business case proposes to leverage those rebate programs for capital region homeowners and address identified gaps (i.e., consumer awareness, acceptance and access to products and services, and complexity navigating home renovations). The program would focus on electrification to meet emission reduction goals.

Alignment with Board & Corporate Priorities

The proposed Program aligns with the CRD Board's Climate Emergency Declaration. This program is embedded with the CRD's forthcoming renewed Climate Action Strategy.

NEXT STEPS

Immediate next steps include completing a retrofit financing study and a detailed study of potential retrofit packages. These items will complete a commitment to Federation of Canadian Municipalities associated with the CRD's design study grant.

The business case identifies the future need to address larger Part 3 (i.e., multi-unit residential buildings), which make up 20% of the rental floor area in the region. Targeted outreach to the owners and property managers for these buildings could have a significant impact on community emissions and would benefit a greater proportion of lower-income households more at risk of energy poverty or climate-related health impacts. Metro Vancouver and a group of local governments are actively exploring the potential expansion of Metro Vancouver's Strata Energy Advisor Program across the province. Staff will keep apprised of this opportunity.

CONCLUSION

The CRD Board directed staff to develop a detailed business case for a Regional Energy Retrofit Program and report back in 2021 with 2022 budget implications. Building off of lessons from previous programs, the CRD completed a CRD Residential Energy Retrofit Program Business Case that provides costs and a design framework that will provide the capital region a pathway to achieving our emission reduction goals associated with the residential built environment. The Board will consider this program, along will other financial implications, through the 2022 service planning process.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board:

That the Capital Region Energy Retrofit – Business Case be received for information and that implementation be considered as part of the Climate Action 2022 Service Planning Process.

Submitted by:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

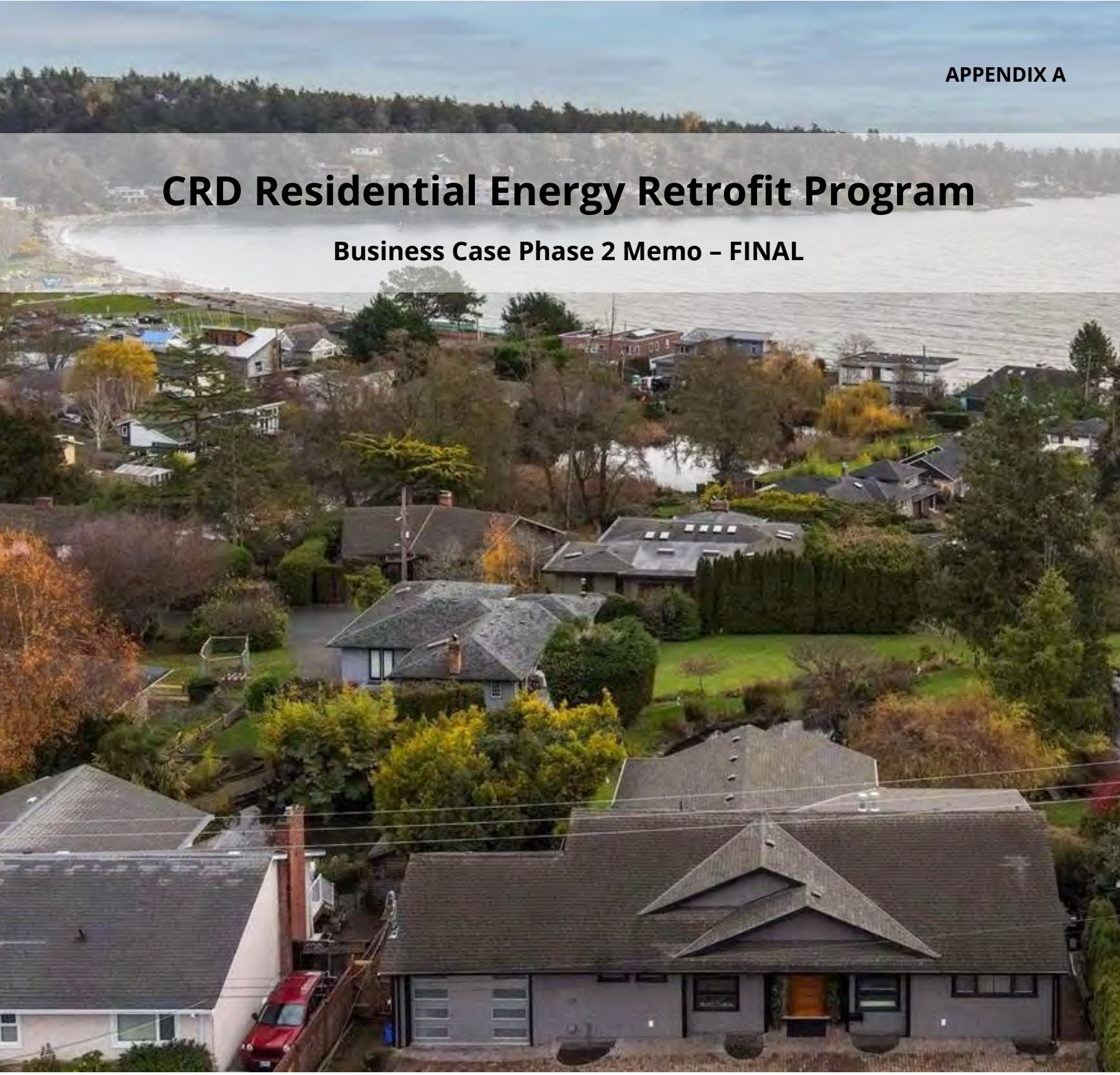
ATTACHMENT

Appendix A: CRD Residential Energy Retrofit Program – Business Case Phase 2 Memo – Final

APPENDIX A

CRD Residential Energy Retrofit Program

Business Case Phase 2 Memo – FINAL



September 2021

Prepared by

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TABLE OF CONTENTS

EXECUTIVE SUMMARY 5
1. INTRODUCTION 10
1.1. Background 10
1.2. Project Purpose & Approach 11
2. EMISSIONS REDUCTION POTENTIAL IN THE CAPITAL REGION 12
2.1. Single-Family/Part 9 Savings Potential 13
2.2. Multifamily/Part 3 Savings Potential 14
2.3. Housing Stock Analysis 15
2.4. Emissions Reduction Potential Across the Capital Region 21
2.5. Key Takeaways 27
3. THE EXISTING PROGRAM LANDSCAPE 28
3.1. Utility Programs 28
3.2. CleanBC Better Homes and Buildings 29
3.3. Natural Resources Canada 30
3.4. Bring It Home for the Climate 31
3.5. SEA Change – Strata Energy Advisor Program 31
3.6. Federation of Canadian Municipalities (FCM) 31
4. PROPOSED PROGRAM DESIGN 32
4.1. A Proposed Program Model for the CRD 32
4.2. Proposed Program Design 33
4.3. Targeting Program Markets 35
4.4. Exploring Potential Homeowner Markets 40
4.5. Key Takeaways 44
4.6. Additional Program Benefits 45
5. ESTIMATED PROGRAM COSTS 47
5.1. Estimated Costs: Program Overhead 48
5.2. Estimated Costs: Homeowner Support 50
5.3. Key Takeaways 52
5.4. Key Barriers and Issues to Resolve 52
5.5. Managing Liability and Program Risk 55
6. PART 3 MULTIFAMILY HOMES 55
6.1. Strata Buildings 56
6.2. Multifamily Rental Buildings 56
7. CONCLUSION 57

APPENDIX A. ONE-STOP-SHOP (OSS) CASE STUDIES 58
A.1 KFW Effizienzhaus 58
A.2 Oktave 59
A.3 Izigloo 60
A.4 SuperHomes 61
A.5 BetterHome 62

EXECUTIVE SUMMARY

Background

Reducing emissions in the buildings sector presents a significant challenge. While new construction standards are continuously improving in energy efficiency (with an emissions target potentially forthcoming), the existing stock of the capital region's homes will need to be retrofitted to reduce energy consumption and shift to renewable, low emissions sources of energy. When combined with the region's existing affordability challenges, retrofits pose a complex issue.

To help address these challenges and support the achievement of the Capital Regional District's (CRD) and local municipal climate change goals, the CRD and local government partners, are exploring the development of a *Regional Residential Energy Retrofit Program* capable of spurring deep emissions retrofit actions by home and building owners across the region. While several programs at the federal, provincial, and regional level have been put in place to support homeowners in retrofitting their homes, they have only begun to address the many barriers that homeowners face, from a lack of awareness of options, to a lack of trust in or access to measures, affordability challenges, and the sheer complexity of the task, among others.

A regionally-coordinated program that builds on these programs and specifically seeks to remove these barriers and provide homeowners with the support they need to make the switch to lower carbon home energy systems will be crucial to meeting the CRD's emissions reduction targets. Such a program would also highlight the many benefits to homeowners that electrification can bring, including:

- **Improved air quality**, by improving filtration and ventilation, regulating moisture, strengthening barriers to outdoor pollutants, and reducing sources of indoor air pollutants that can exacerbate pre-existing conditions.
- **Increased equity and affordability**, by helping homeowners identify and implement measures to reduce their energy consumption, especially when coupled with other incentives that reduce retrofit costs.
- **Improved resilience**, by supporting homeowners install heat pump systems that provide cooling as well as heating, safeguarding against increases in summer temperatures and the incidence of heat waves that will come with climate change. Supporting the addition of enhanced air filtration will also help protect household health against increasing wildfire smoke events.
- **Increased local economic growth**, by increasing the number of higher income/lower barrier jobs in the retrofit industry.

A Regional Home Energy Retrofit Program

To help homeowners identify and implement retrofit measures best-suited for their home, a subsidized "One Stop Shop" model is recommended for the capital region based on its ability to:

- Build on and integrate existing program infrastructure, including the CRD's current Bring It Home 4 Climate (BIH4C) program and the Province's Energy Coach Service, by providing homeowners with much-needed support in choosing the right option for them
- Provide homeowners with enhanced retrofit coordinator support tailored according to their needs, and focused on supporting the decarbonization of existing homes
- Better identify and target local market opportunities and help establish local contractor delivery networks, and
- Monitor performance through post retrofit follow-up to ensure homeowner satisfaction

A new CRD program could leverage the intake process through the Energy Coach program, while placing a concerted focus on fuel switching for emissions reductions as in BIH4C to ensure the benefits of home electrification are reaped. The proposed program design assumes that a moderate level of support could be provided by a Retrofit Coordinator per household to add to existing services, specifically helping alleviate the challenges of navigating the retrofit process once initial support has been provided via the Energy Coach service. Specific services that are assumed will be provided by a Retrofit Coordinator are outlined in the table below. These services build on the information and resources provided by the Federal government and the EnerGuide auditor, while addressing key gaps that prevent residents from translating the EnerGuide recommendations into specific actions and real-world GHG savings.

Step	Tasks
Screen	• Conduct (virtual) home energy check-up/screening
Review and Plan	• Review EnerGuide Renovation Upgrade Report • Assist client with upgrade choices • Consider DIY options and provide contractor selection advice and standardized quotation forms • Direct client to qualified contractor directory
Compare & Select	• Help homeowner scope work, compare contractor bids, ensure rebate eligibility, and provide troubleshooting throughout the process.
Finance	• Help identifying and selecting financing and incentives
Document	• Help getting documentation and assist with submitting rebate applications
Evaluate	• Quality Assurance checks post-retrofit (done in aggregate or spot-check) • Measurement & Verification

An initial focus on Part 9 (i.e., single family homes, duplexes and townhomes) is recommended for the CRD, as this sector represents the most significant opportunity and a potential savings of up to 15% of the capital region's total emissions over current levels. The upper end of this range can be captured by ensuring that most retrofits involve electrification and that the benefits of all electric homes listed above are captured. Some key considerations for the development of a Part 9 focused program are noted below:

- Oil heated-homes constructed before 1940 have the highest GHG emissions and remain a good target for retrofits, though there are fewer of these homes remaining. Oil-heated homes are also high adopters of fuel switching projects and often select heat pumps.
- Pre-1990 gas heated homes are high adopters of insulation upgrades, though they tend to retain or upgrade gas equipment rather than considering fuel switching. Newer homes (i.e., after 1990) are particularly high adopters of heat pumps.
- The rapid increase over the last decade of homes in the capital region adding natural gas furnaces indicates a continued risk of homes fuel switching towards natural gas. Every home that replaces electric resistance heating with a heat pump is one fewer home adding natural gas. As such, homes with electric resistance heating should remain a target area for the program, to forestall increases in natural gas use that could otherwise eliminate the net savings.
- The Province of BC is releasing an income qualified program specifically targeting low-income households and the unique barriers they face in upgrading their homes, the CRD should focus on other demographics in initial stages of the program and seek to strategically fill gaps as these income-qualified programs become established in the market.
- Targeting program outreach materials to the following markets will help to increase uptake in formative program years and build overall market capacity and demand:
    - Demographics and neighbourhoods that may be well equipped to make improvements, including higher income neighborhoods (e.g., Oak Bay and the Uplands), senior populations, and households in need of renewal, can improve program uptake and the overall impact on energy and carbon savings.
    - Newly purchased homes represent an opportunity for upgrades, as many new homeowners often take on renovations early on.
    - Moderate-income communities where natural gas is less prominent, and electric resistance and oil heating are more common, also presents a valuable GHG reduction opportunity alongside a potential reduction in energy poverty.
- Emphasizing the non-financial benefits of retrofits (e.g., increased thermal comfort and cooling, better indoor air quality, and lower carbon footprint), in communication and outreach can help attract homeowners to the program.

A Business Case for the CRD

Total estimated program costs for a Part 9 focused home retrofit program are outlined in the table below:

Program Year	Y1	Y2	Y3	Y4	Y5
Calendar Year	**2022**	**2023**	**2024**	**2025**	**2026**
Budget	**$602,500**	**$602,500**	**$602,500**	**$602,500**	**$602,500**
CRD Staff (0.5 FTE)	$52,500	$53,500	$54,500	$55,500	$56,500
Program Overhead	$240,000	$188,220	$190,484	$192,794	$195,150
Homeowner Support	$310,000	$360,780	$357,516	$354,206	$350,850
Estimated Program FTEs (excluding CRD staff)	3	5	5	5	4
% Program Overhead (excluding CRD staff)	40%	31%	32%	32%	32%
Homes Going Through Program/Year	885	1030	1021	1012	1002
% annual penetration	0.9%	1.0%	1.0%	1.0%	1.0%
Homes/Year with leveraged resources	92	107	106	105	104
% annual penetration with leveraged resources	0.1%	0.1%	0.1%	0.1%	0.1%
Additional tCO_2e abated each year*	1781	2072	2054	2036	2016

Key insights from the cost analysis include the following:

- A CRD-run program that integrates into existing program offerings and provide homeowners with coordinator support not currently offered by existing CleanBC Energy Coach services is estimated to require an average of 7 hours of support or $350 per household. Such levels of support will vary considerably as those engaging in deeper retrofits or with more complex homes may require more, while others will require less.
- Program overhead is estimated at approximately $290,000 in the first year, decreasing to $240,000 in subsequent years as the program gets off the ground and promotional materials are developed.
- Program resources that can be leveraged in a CRD-led program include existing federal and provincial rebates and incentives for pre- and post-retrofit audits, electrical service upgrade top-ups and rebates. In the event that these resources are reduced or eliminated, the CRD will need to reassess the nature and/or level of support for homeowners to reap the best value.
- A fixed budget of $602,500 per year for the first five years is estimated to support the completion of home retrofits in 1% of the homes in the capital region per year, representing a standard but substantial uptake rate. While carbon savings will vary based on the nature of the upgrade, it is estimated that this could yield between 1.18 tCO_2e and 2.43 tCO_2e of emissions savings per home, or a total of over 2000 tCO_2e additional carbon savings across

the capital region each year. This translates into a cumulative29,443 tCO_2e avoided over five years.

- Program costs supporting a 1% uptake rate can be met by applying to the Federation of Canadian Municipalities' *Community Efficiency Financing* (CEF) funding stream. However, an uptake rate of 3% of homes per year is necessary to achieve a full building stock improvement by 2050. The scale of such a program would require significant support at provincial and federal levels, including additional incentives and rebates for electrification equipment and supporting efficiency measures.

Moving Beyond Single-Family Homes

While the GHG savings available in Part 3 multifamily buildings represent only 18% of the GHG savings potential as is available in the Part 9 housing stock, a significant proportion of the building sector in some CRD communities is made up of multi-unit residential buildings. As such, both strata owned and rental, and will require dedicated programming to meet municipal and provincial emission reduction ambitions. With respect to strata, a project currently being led by Metro Vancouver and a group of other local governments is exploring the potential expansion of Metro Vancouver's *Strata Energy Advisor Program* across the province. In its current form, the program is intended to provide strata buildings with a program specifically designed to address their unique barriers. If adopted at the provincial level, such a program would support strata owners and their property managers understand and undertake energy efficiency and emissions reduction upgrades, and fill the gap of retrofit support currently available to strata owners. However, even if the Strata Energy Advisor program is not expanded provincially, it would provide a strong framework on which to expand the CRD's program to strata housing in a later or concurrent phase.

The analysis of the multifamily rental housing stock listed in the BC Assessment data indicates that there are 30 purpose-built rental buildings over 100,000ft^2, accounting for 20% of the rental floor area in the region but only 2.5% of the 1,187 buildings. The overall age of the rental stock is older than the strata stock as well; 15 of the 30 largest rental MURB buildings were built before 1977, with the median year built for the sector overall at 1969. Targeted outreach to the owners and property managers for these buildings could have a significant impact on community emissions across the region, and would benefit a greater proportion of lower-income households or those living in or at risk of energy poverty.

1. INTRODUCTION

1.1. Background

The Capital Regional District (CRD) has set a target of reducing its greenhouse gas (GHG) emissions community-wide by 61% (over a 2007 baseline) by 2038, and working towards regional carbon neutrality by 2030. To meet this goal, emissions reductions will need to be achieved across several sectors, including the building sector, which accounts for over 30% of the capital region's emissions.

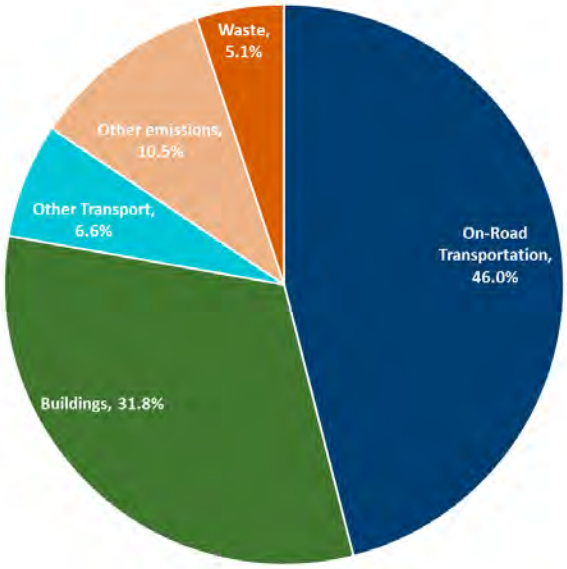

Figure 1: CRD GHG inventory by sector, 2018

Reducing emissions in the buildings sector presents a significant challenge. While new construction standards are continuously improving in energy efficiency (with an emissions target potentially forthcoming), the existing stock of capital region's homes will need to be retrofitted to reduce energy consumption and shift to lower carbon sources of energy. When combined with the region's existing affordability challenges, retrofits pose a complex issue. Indeed, the CRD's *Transition 2050* initiative identified seven key challenges to deep emissions retrofits[1]:

- **Scale of the challenge.** Retrofit uptake has been low across the Province, meaning a rapid increase in the rate, scale and depth of home retrofits will be required for both the CRD and the Province of BC to meet their 2030 GHG reduction targets.
- **Economic barriers.** Changes in utility costs, high upfront costs, overall affordability, and contractual restrictions with some rental properties all constrain retrofit uptake.
- **Awareness and acceptance.** Homeowners lack awareness and understanding of retrofit opportunities, rebates, technologies, and the overall benefits of retrofits.

[1] City Green Solutions & Home Performance Stakeholder Council. *Residential Retrofit Market Acceleration Strategy.*

- **Consumer trust, access, and industry capacity**. There is limited access to high efficiency products, as well as challenges finding qualified contractors.
- **Rental housing and demographic challenges**. Economic barriers are present in low-medium income (LMI) households, while rental properties are faced with a split incentive problem.
- **Complexity**. The overall complexity of the retrofit process and additional barriers associated with hazardous material; for example, asbestos and disposal costs limit homeowners' ability and willingness to engage in retrofits.
- **Psychological barriers.** Physiological barriers to the adoption of residential retrofits include distrust towards experts and authorities, as well as a perceived risk of changing from one system to another.

Coupled with the fact that approximately 15% of the capital region's population is characterized as living in or being at risk of energy poverty, any effort to increase the rate and depth of retrofits must take care to also ensure that the cost of living can be improved or at least maintained. Energy poverty is often defined as households who struggle to meet their home energy needs and spend more than 6% of their after-tax income on their energy needs.[2] Similar concerns also exist around the issue of "renovictions", in which tenants may be evicted to allow for renovations to be made to a unit, often resulting in higher rent units.

1.2. Project Purpose & Approach

To help address these challenges and support the achievement of the CRD's climate change goals, this project is tasked with developing a detailed business case for a successful *Regional Residential Energy Retrofit Program* capable of spurring deep emissions retrofit actions by home and building owners across the region. While several programs at the federal, provincial, and regional level have been put in place to support homeowners in retrofitting their homes, they have only begun to address the barriers noted above. A regionally-coordinated program that builds on these programs and specifically seeks to remove these barriers and provide homeowners with the support they need to make the switch to lower carbon home energy systems will be crucial to meeting the CRD's emissions reduction targets. Such a program would also highlight the many benefits to homeowners that electrification can bring, from improved air quality and resilience, to lower home energy costs and increased local economic activity.

Given the emissions reduction opportunity that this sector faces, this memo has developed a draft program design and business case focused on Part 9 homes (i.e., single-family, duplex and townhouse). The data presented here is based on the following steps and sources of information and analysis:

- A review of available data sources to assess the scale of the retrofit market in the capital region
- A review of existing and planned program offerings in the residential retrofit market in BC and Canada

[2] CUSP. 2019. *Energy Poverty in Canada: a CUSP Backgrounder*

- A scan of best practices in residential retrofit programs to determine potential models
- A workshop and follow-up meetings with an Advisory Committee to review proposed program approaches and costs, representing leaders and key stakeholders in the retrofit market
- Discussions with CRD staff and Steering Committee members, representing staff from member jurisdictions

The information and insights derived from these steps were used to draft a high-level set of assumptions around potential program design, which were then costed based on consultant team, Advisory Committee and CRD and municipal staff experience to inform a business case prior to full program design. Recommendations for Part 3 (i.e., multi-unit residential buildings) are also provided, given the importance of taking advantage of the equity and emissions reduction opportunities in this sector as well.

2. EMISSIONS REDUCTION POTENTIAL IN THE CAPITAL REGION

To assess the potential of a residential retrofit program to help meet the CRD's emissions reduction targets, it is necessary to first identify the region's current residential building stock and its key characteristics. The scale of the retrofit market in the region was assessed by taking the following steps for both Part 9 and Part 3 residential buildings[3]:

1. **Energy Savings Potential:**
    a. *Part 9*: An assessment of available EnerGuide data to show the average pre- and post-retrofit energy use intensities (EUI) and greenhouse gas intensities (GHGI)
    b. *Part 3*: A review of energy savings estimates from the Strata Energy Advisor program and an analysis of the GHG potential for multi-unit residential buildings (MURB) fuel-switching
2. **Building Stock:** An analysis of BC Assessment data to identify the number of homes and floor area across the capital region, grouped by decade built, jurisdiction, and housing type.
3. **Fuel Type Estimates:**
    a. *Part 9*: An exploration of a Victoria Real Estate Board survey of >10,000 homes to estimate primary heating fuel for single family homes.
    b. *Part 3*: A review of the BC Assessment data, coupled with an application of assumptions from previous studies
4. **Region-wide Estimates:** An application of EnerGuide pre-retrofit, post-retrofit, and post-fuel-switch-retrofit[4] EUIs and GHGIs assigned across homes (based on number and floor area) by jurisdiction and building age, to estimate total current emissions and total emissions savings potential across the region

[3] The B.C. Building Code has two main categories of buildings, Part 9 (simple buildings) and Part 3 (complex buildings). Part 9 buildings are generally three stories or less, and under 600 square meters. Some examples include houses and duplexes, small apartment buildings, and small commercial buildings. Part 3 buildings are generally over three stories and more than 600 square meters. Some examples include shopping malls, office buildings, condos, apartment buildings, schools, theaters, and care facilities.

[4] A fuel switch retrofit refers to a replacement of a more GHG emissions-intensive heating system (i.e., one that uses oil or natural gas) with one that is lower in emissions intensity (i.e., electricity)

Each of these steps is discussed in further detail in the sections below.

2.1. Single-Family/Part 9 Savings Potential

EnerGuide for Houses is a program created by Natural Resources Canada (NRCan) that provides homeowners with independent expert advice concerning energy efficiency in their homes. Through the work of Registered Energy Advisors (REAs), homes are evaluated across Canada both before and after energy efficient retrofit projects. By collecting key measurements such as fuel type, floor area and insulation levels, REAs use a home modelling software to derive metrics including GHG emissions, EUI, and EnerGuide ratings, all of which are used to advise the homeowner on making energy efficient improvements to their home. Data from all EnerGuide evaluations are then collected by NRCan, creating a database of houses and home retrofit projects ideal for benchmarking existing homes and estimating emission reduction potential.

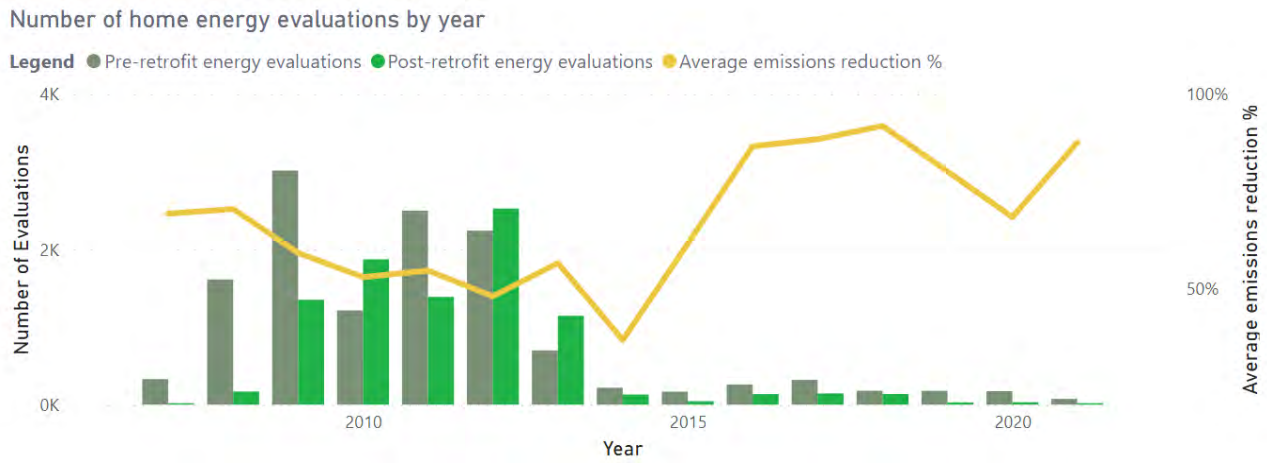

Figure 2: Reviewed EnerGuide data set and average emissions reductions.

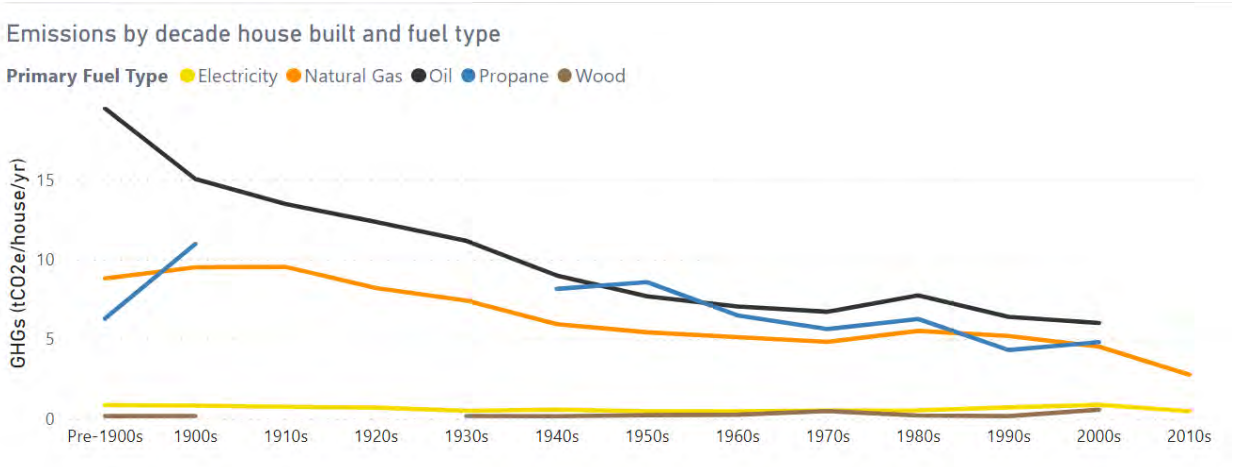

Figure 3: Pre-retrofit emissions by decade and heating fuel type (Note: gaps indicate where no data was gathered on homes of that vintage using that fuel)

For this project, 13,177 pre-retrofit evaluations and 9,117 post-retrofit evaluations within the capital region were analyzed, spanning from 2007 to early 2021 (see Figure 2). Below are some key findings:

- An average retrofit project within the region reduces GHG emissions by 38.45%. When segmented, fuel switching projects save an average of 70.53 of emissions, whereas non-fuel switching projects save 10.58%.
- Fuel switching occurs in 26% of recorded retrofit projects, with 63% switching to electricity and 37% switching to natural gas. 92% of fuel switches see a shift away from oil, with 5% shifting away from natural gas. The high occurrence of fuel switching away from oil reflects the high cost of oil heat, as well as the *Oil-to-Heat-Pump* program that operated in the region from 2015 to 2018.
- Average household GHG emissions vary heavily based on the heating fuel source used. Oil-using homes are the highest emitters with an average of 9.92 tCO2e/year, followed by natural gas at 8.05 tCO2e/year and propane at 7.70 tCO2e/yr. Electric heated homes are considerably lower at 1.52 tCO2e/year. Figure 3 shows the pre-retrofit evaluation GHGs per home by decade.
- The largest quantity of GHG emissions reduced through retrofitting is in 1910 homes, with an average household reduction of 3.32 tCO2e/yr. The average reduction continues to decline with decreasing house age, with homes built in the 2000s only saving an average of 0.52 tCO2e/yr.
- While the high number of EnerGuide evaluations in the sample reflects in part the availability of federal ecoEnergy incentives during the earlier half of the sample period, these 9,117 completed retrofits still represent *less than 10%* of the homes in the capital region.
- Among single family homes, floor area, year of construction and primary pre-retrofit heating fuel are key indicators of GHG savings. These findings drove the structure of the remainder of this analysis.

2.2. Multifamily/Part 3 Savings Potential

Given the absence of EnerGuide data to draw on for Part 3 multi-family buildings, the energy savings potential for the Part 3 building stock was estimated by using findings from Metro Vancouver's *Strata Energy Advisor* program, in addition to a set of studies of retrofit opportunities in MURB properties on Vancouver Island and the Lower Mainland.[5] The *Strata Energy Advisor* pilot program report from 2016 grouped MURB retrofits into several key retrofit tiers.[6] However, this analysis did not examine a change of heating fuel or technology; buildings using natural gas heat were assumed to still be using natural gas heat, and buildings using electric resistance were not assumed to switch to heat pumps. As such, a Tier 4 retrofit opportunity was developed by drawing on an analysis of the heat pump opportunities to estimate the savings opportunity from a fuel switch.[7] The resultant tiers are as follows:

0. *Retrocommissioning / Tune-up only*
1. *Normal Renewal:* code minimum equipment replacement without increased insulation, or air sealing

[5] Metro Vancouver, Strata Energy Advisor. http://www.strataenergyadvisor.ca/Pages/default.aspx
[6] RDH, Strata Energy Advisor Program Recommendations, 2016
[7] Integral Group, Heat Pump Applications in Residential Buildings, 2016

2. *Energy Retrofit:* R5 Wall Insulation, R10 Roof Insulation, Condensing Boiler/furnace
3. *Comprehensive Retrofit*: R10 Wall Insulation / R20 roof insulation, air sealing, U-0.2 windows,93%+ efficient furnace or boilers
4. *Heat Pump Retrofit*: Distributed air source heat pump or 4-pipe air-to-water heat pump with COP of 3.0, and a central air to water heat pump for domestic hot water, along with similar insulation upgrades as Tier 3.

Average emissions savings estimates for MURB retrofits for each of these tiers are shown in Figure 4.

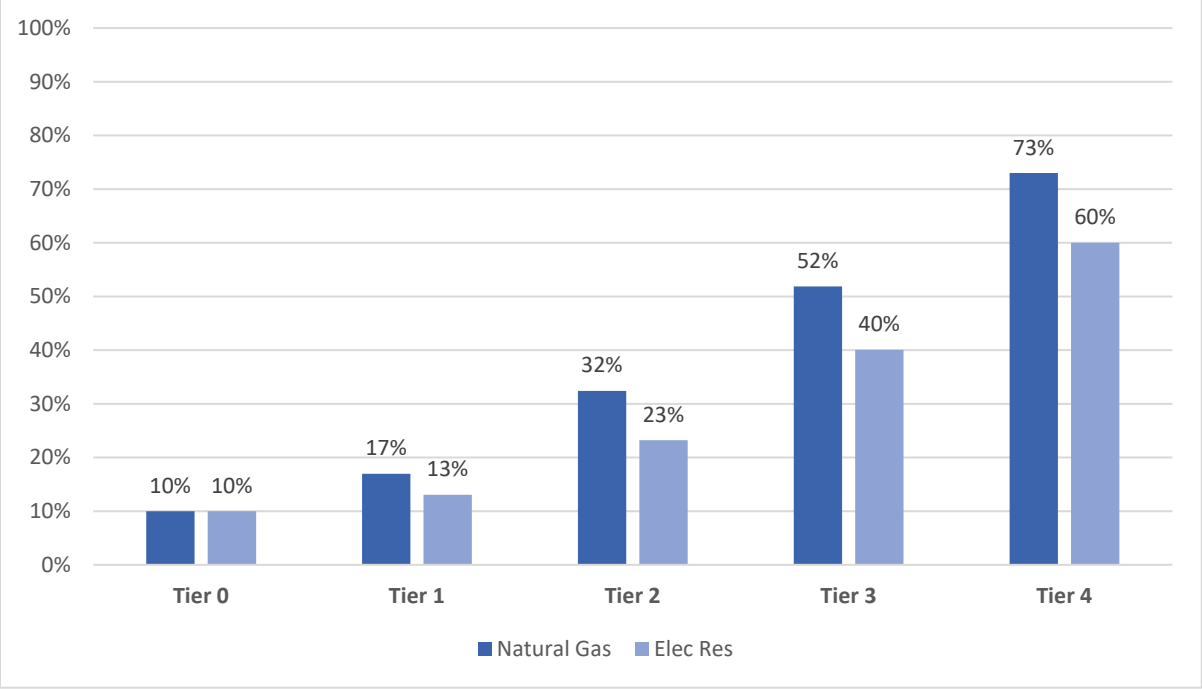

Figure 4: Potential GHG savings in MURB retrofits, British Columbia Climate Zone 4C

2.3. Housing Stock Analysis

A review of the BC Assessment housing data for the region was conducted to identify the floor area of homes by decade and jurisdiction (see Figures 5 and 6 for single family homes, and Figures 7 and 8 for Part 3 Multifamily buildings). This analysis revealed that most homes in the capital region are smaller, single-family homes, and 63% of all residential dwellings and 68% of all residential floor area is represented by Part 9 buildings. These 101,535 homes in the dataset comprise single-family detached homes, townhouses, strata townhouses, duplexes, triplexes, and fourplexes.[8]

The remaining residential floor area is represented by strata multifamily buildings and purpose-built rental multifamily buildings. Stratified condominium buildings (strata) represent 63% of the Part 3 floor area and 20% of the overall residential floor area, while purpose-built rental represents 37% of the Part 3 buildings and 12% of overall residential floor area. The bulk of the Part 3 stock is found in the City of Victoria, home to 49% of all multifamily units, and 61% of the purpose-built rental

[8] As BC Assessment does not account specifically for First Nations homes, they are not represented in this analysis

multifamily units in the Capital Region. Esquimalt, Langford, Saanich, and Sidney are home to 86% of the total multifamily housing stock in the Capital region.[9] *A summary breakdown of all home types across the capital region is shown in Table 1*.

Table 1: Breakdown of home type across the capital region

Typology	Units/ Homes	Buildings	Gross Floor Area (ft^2)	% of Units/Homes	% Buildings	% GFA
Single Family Houses (including suites)	110,034	92,085	133,454,861	56.9%	90.7%	63.9%
Duplex, Triplex, and Fourplex	12,786	6,074	8,523,298	6.6%	6.0%	4.1%
Strata MURB	40,674	2,200	41,954,968	21.1%	2.2%	20.1%
Rental MURB	29,730	1,187	24,772,510	15.4%	1.2%	11.9%
Total Residential	193,224	101,546	208,705,637	100.0%	100.0%	100.0%

[9] Purpose-built rental multifamily floor area and unit counts are both partial estimates. As 75% of the multifamily rental buildings in the BC Assessment dataset have no listed floor area, floor area was estimated based on the number of units. Conversely, as 40% of the buildings with a listed gross floor area had no unit counts, unit counts for those properties were estimated based on the floor area. Both sets of estimates used the ENERGY STAR assumption of 1.2 units per 1,000 ft^2. An additional 272 multifamily properties had neither floor area nor unit counts; these buildings were excluded from the sample entirely.

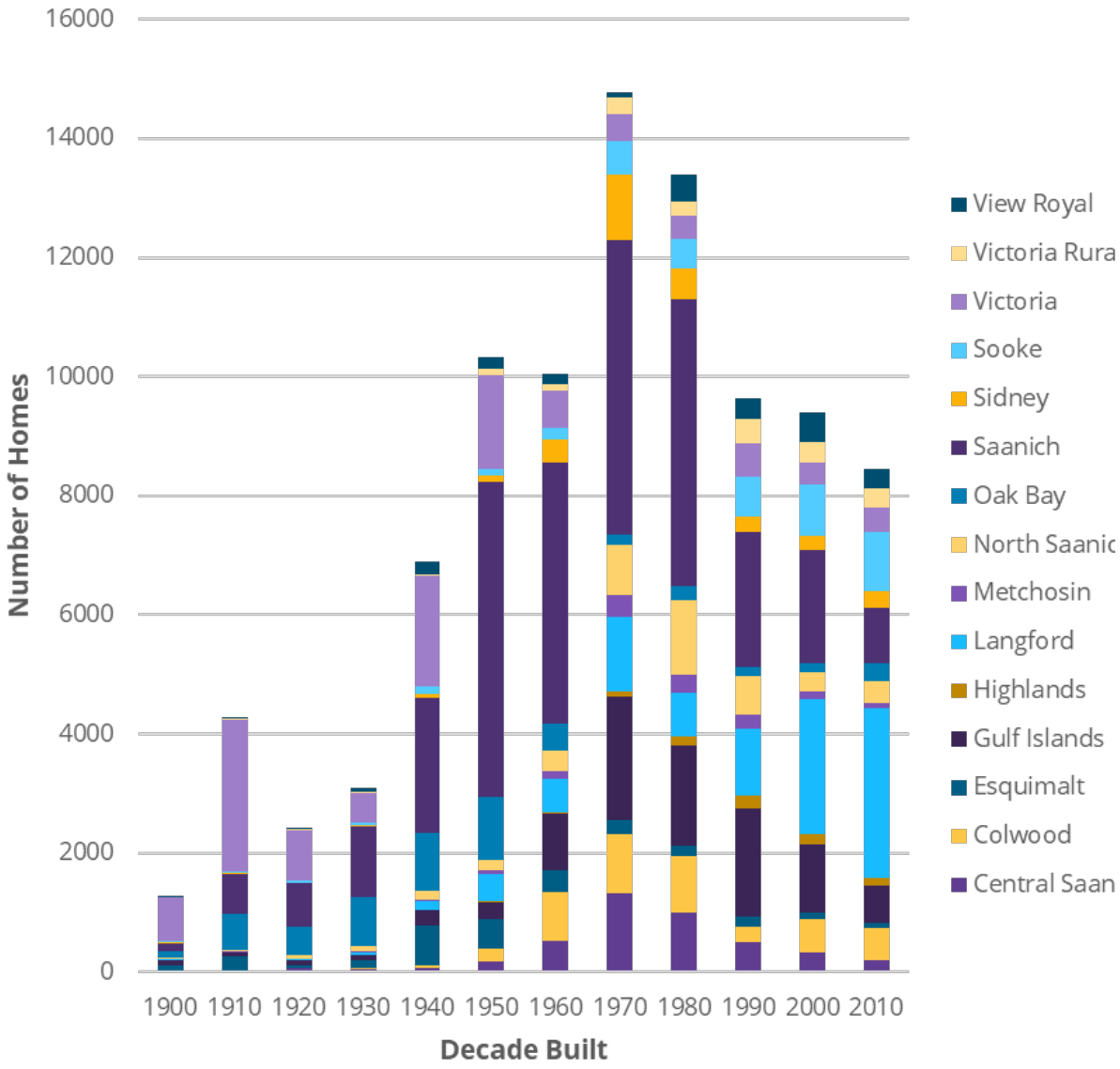

Figure 5: Number of homes in the capital region by decade built and jurisdiction (Victoria Rural here refers to the unincorporated Juan de Fuca Electoral Area)

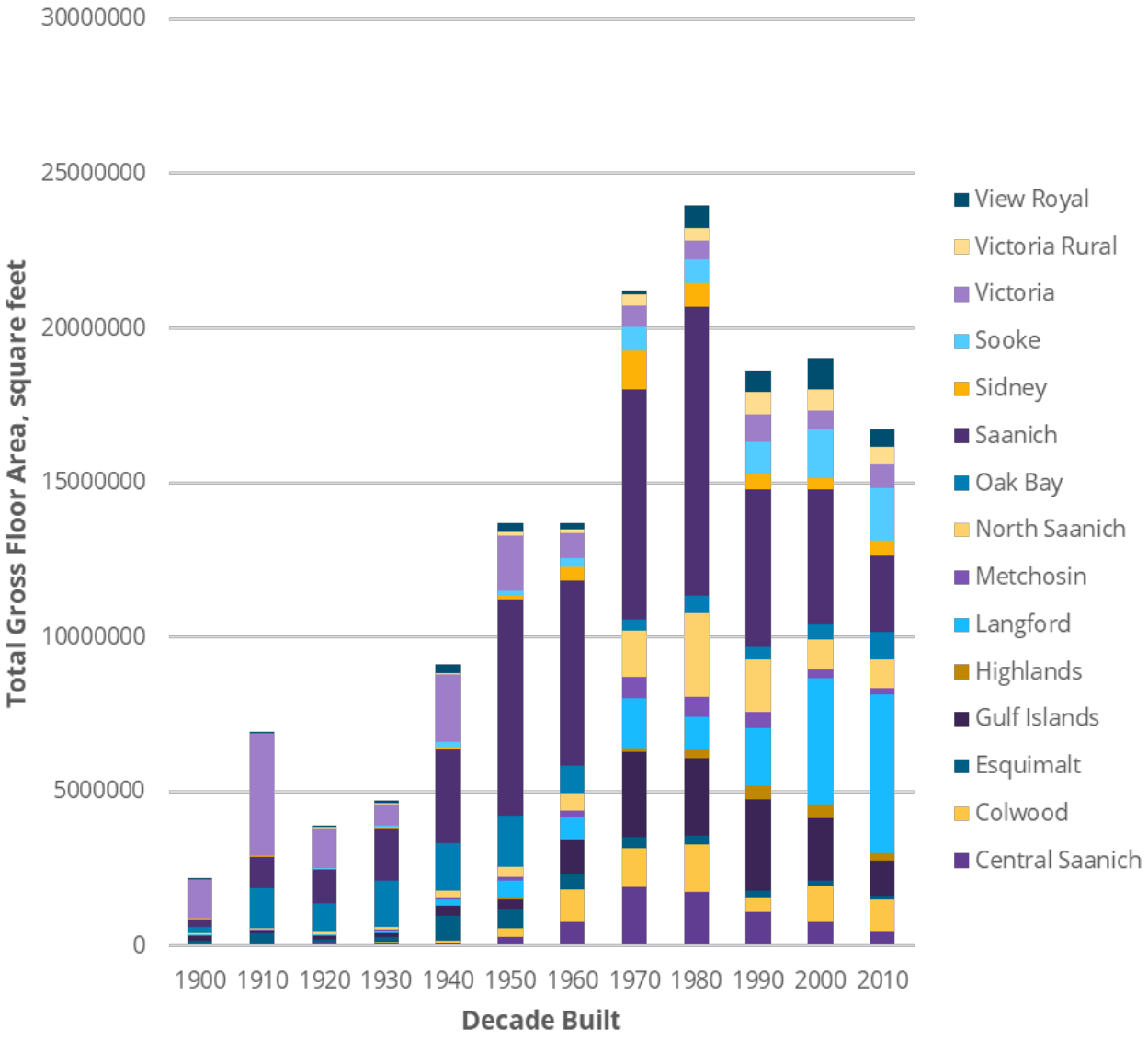

Figure 6: Total floor area of homes in the capital region by decade and jurisdiction (Note: Victoria Rural here refers to the unincorporated Juan de Fuca Electoral Area)

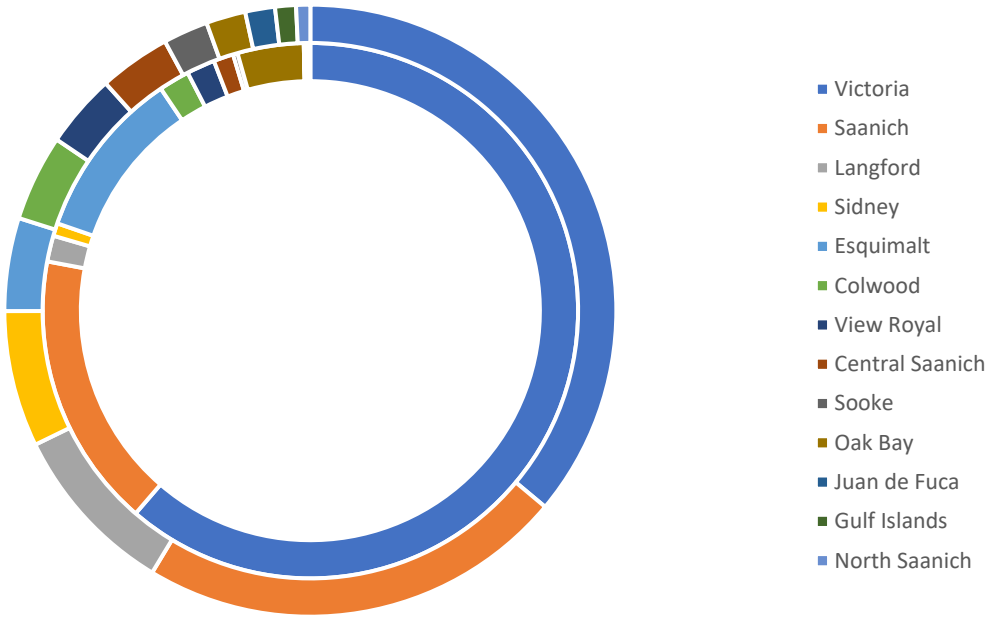

Figure 7: Breakdown of strata-owned MURB (outer ring) and purpose-built rental MURB (inner ring) floor area by jurisdiction

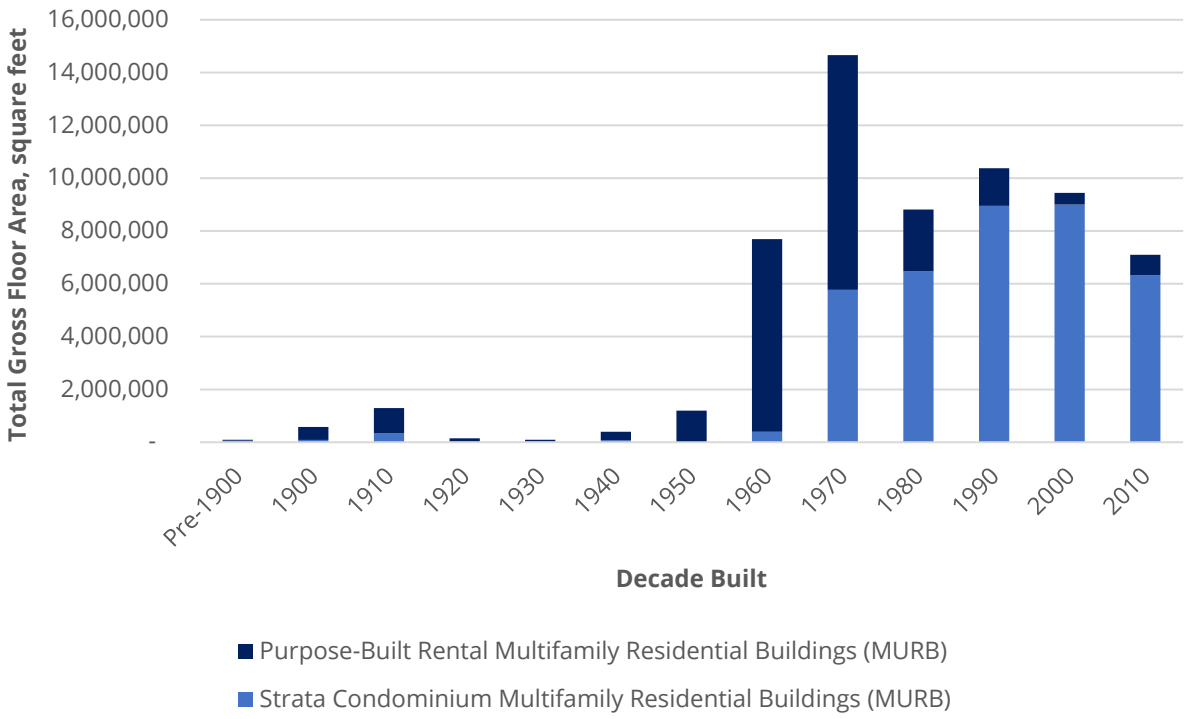

Figure 8: Distribution of Strata and Purpose-Built Rental MURB floor area by decade built in the capital region.

Survey data of 10,000 homes in the capital region was also used to assess heating fuel type distribution. This data shows that natural gas use is also increasing across the capital region, as the rate of gas hookups has gone up five-fold over the last decade (see Table 2and Figure 9). This is an issue of particular concern for a residential retrofit program, as natural gas represents an emissions-intense source of energy.

Table 2: Primary heating fuel breakdown among single family homes in each jurisdiction (Note: some rows do not add up to 100% due to rounding)

Jurisdiction	Electric	Gas	Oil	Propane	Wood
Colwood	39%	42%	6%	3%	9%
Central Saanich	42%	36%	5%	6%	12%
Esquimalt	41%	35%	10%	2%	11%
Gulf Islands	38%	1%	2%	12%	46%
Highlands	44%	24%	2%	11%	19%
Langford	58%	33%	3%	2%	4%
Metchosin	27%	12%	17%	11%	33%
North Saanich	58%	16%	5%	12%	9%
Sidney	42%	46%	3%	2%	7%
Oak Bay	34%	46%	12%	1%	7%
Saanich	42%	34%	12%	3%	10%
Sooke	45%	28%	2%	10%	16%
Victoria	42%	41%	8%	2%	7%
View Royal	46%	44%	2%	3%	4%

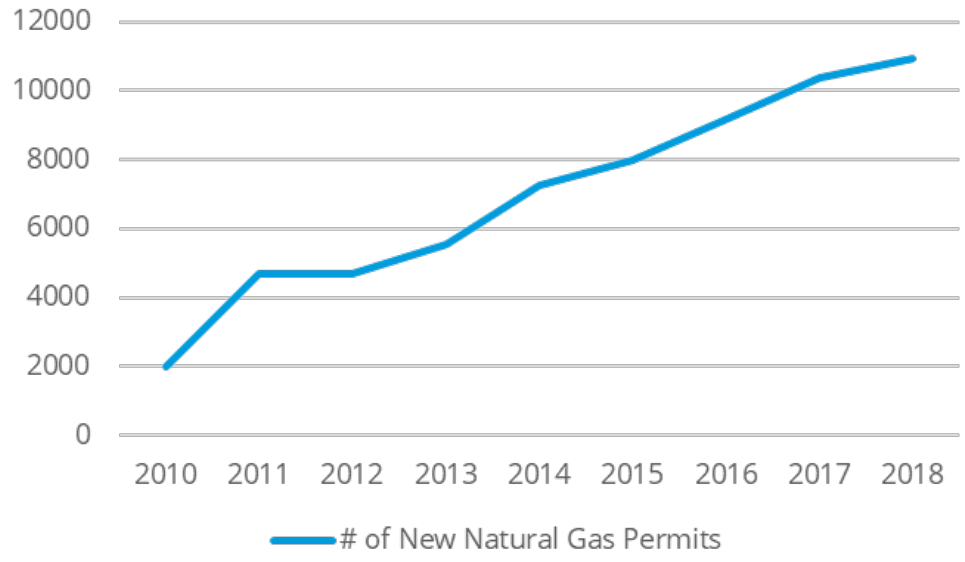

Figure 9: New natural gas connections in the capital region, 2010-2018

2.4. Emissions Reduction Potential Across the Capital Region

Part 9

To model the potential emissions savings from a residential retrofit program, a number of steps were taken. First, home age and the heating fuel survey results were used to assign an assumed heating fuel to each home in region's BC Assessment dataset. Each home was then assigned a pre- and post-retrofit energy use and emissions profile, based on the home's size, age, and assumed heating type, which resulted in 890 possible combinations of heating fuel type, decade built, and jurisdiction. Using EnerGuide data, a pre- and post-retrofit energy use intensity (EUI) and greenhouse gas emissions intensity (GHGI) was calculated for each of the combinations of decade built and primary pre-retrofit heating fuel. Average post-retrofit EUI and GHGI values were also calculated for homes that switched from any heating fuel to electricity. These two sets of EnerGuide-derived EUI and GHGI values were then mapped to homes in the region.

This process allowed for an estimate the pre-retrofit emissions for all homes in the capital region, by jurisdiction, and estimate hypothetical post-retrofit emissions if all homes were to be retrofitted. Estimated pre-retrofit emissions cannot be directly compared to the CRD GHG inventory, due to inconsistencies in the assignment of energy use to sectors of the building stock and the specific emission factors. However, calculated emissions roughly align with the current CRD inventory for residential emissions, which validates the overall approach. Post-retrofit estimates were calculated for two scenarios. Under the "standard" scenario, all homes receive retrofits that achieve the average savings for homes of their age and heating type (with 25% switching to lower emissions heating fuels, in line with historical rates). Under the second scenario, all homes are assumed to switch to high-efficiency electric heating (i.e., heat pump); see Table 3.[10]

Table 3: Potential GHG savings, assuming all Part 9 homes in the capital region are retrofitted

Single Family Scenario	Total GHG (tCO_2e)	Savings Estimate (tCO_2e) vs Calculated Baseline	Average GHG Savings per home	% GHG Savings in Single Family Sector	*Savings as % of CRD 2018 Emissions*
Baseline Calculated Emissions	375,918				
Scenario 1: Post-retrofit with standard approach	248,932	126,986	1.35	**34%**	*7%*
Scenario 2: Post-retrofit with electric heat pump fuel switch	131,498	244,420	2.60	**65%**	*15%*

The variation across jurisdictions as shown in Figure 9 and Figure 10 below is due to the differences in the age of homes, the predominant heating fuels, and the number of homes. Most jurisdictions

[10] As these calculations use the latest 2021 BC Hydro emissions factor of 40.1 tCO_2e/GWh, the comparison with the CRD's 2018 emissions inventory (see Figure 1) is not exact, but gives a general sense of the scale of the potential impact.

will see emissions reductions in the single-family sector of between 30% and 40% in the standard retrofit scenario, and 55% and 70% in the electrification fuel switch scenario. Langford and Sooke are outliers due to the age of their housing stock; new homes see lower emissions savings, and in both jurisdictions, the majority of homes were built in the last 30 years. The unincorporated areas of Juan de Fuca and the Gulf Islands also have lower savings, as a higher proportion of the existing homes in those areas already use a biomass fuel and so see lower emissions savings from retrofits.

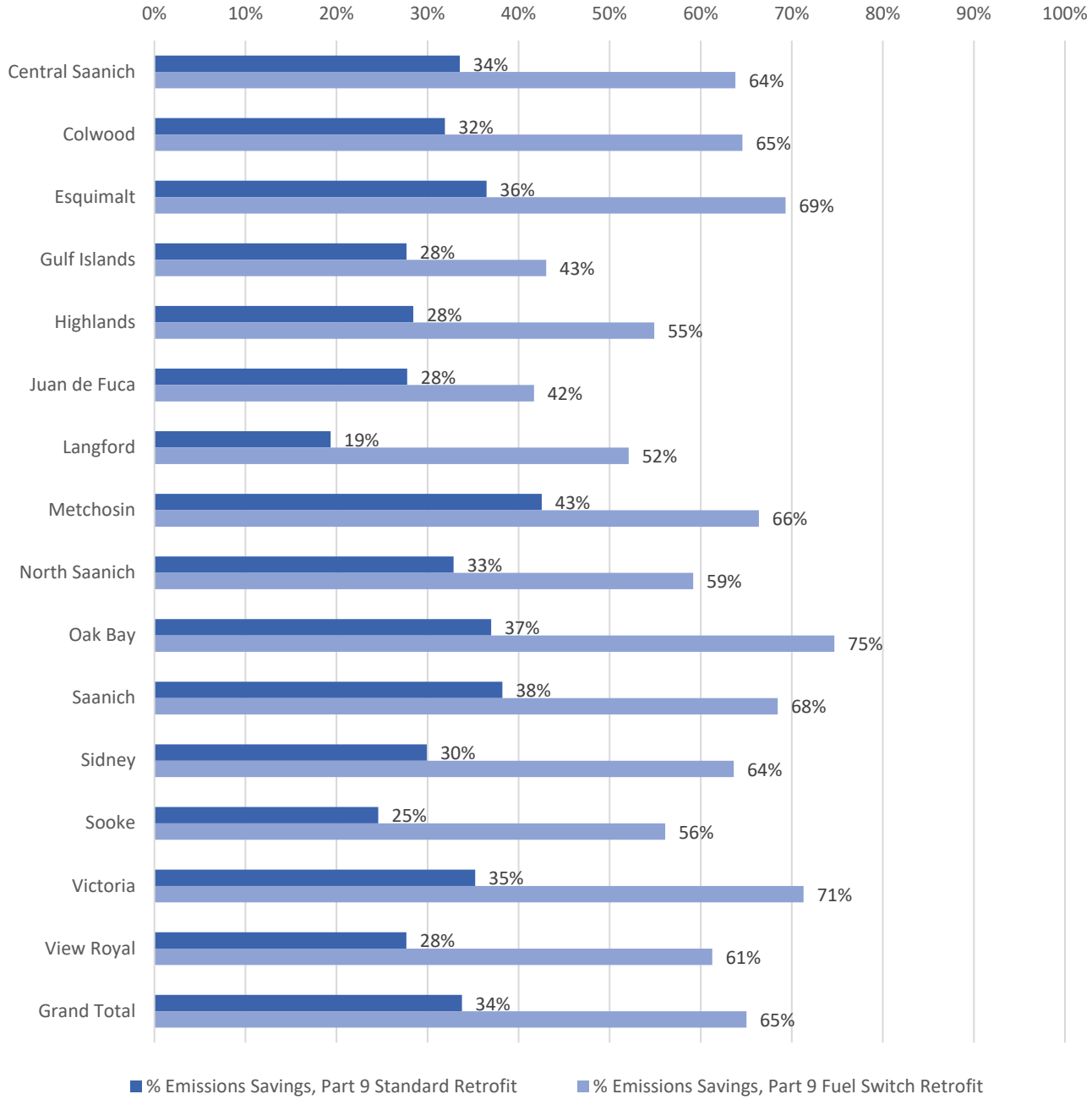

Figure 10: GHG savings potential in Part 9 homes by jurisdiction, percentage

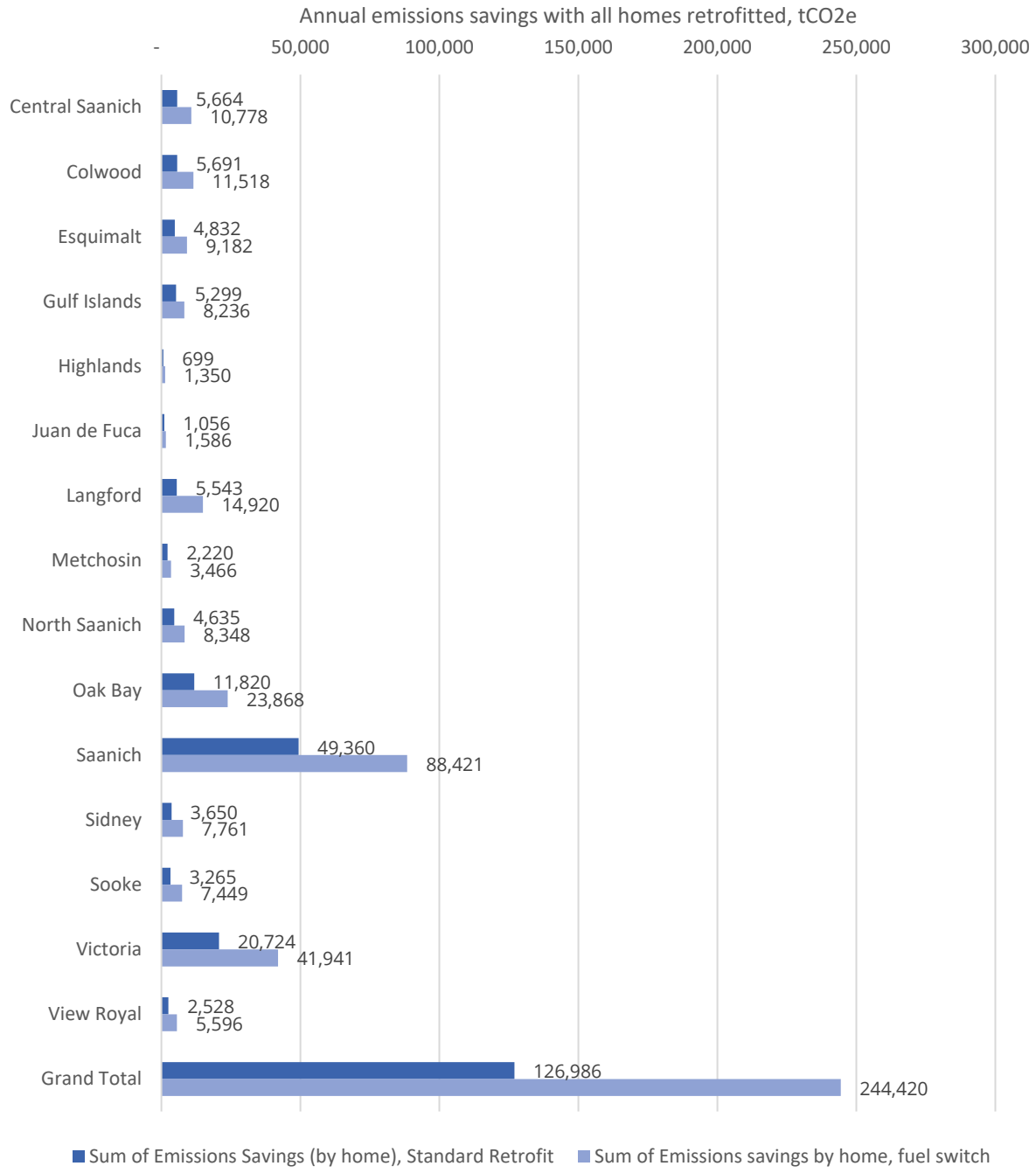

Figure 11: Emissions savings potential in Part 9 homes by jurisdiction, annual avoided tco_2e

Part 3

To model the potential emissions savings from a program targeting Part 3 strata and purpose-built rental homes, data from the Climate Action Secretariat and NRCAN's *Comprehensive Energy Use Database* (CEUD) was used to estimate the division of the multifamily housing stock in the capital region. These estimates were created using five scenarios of space heating energy source and domestic hot water energy source (see Figure 12), each of which have different associated baseline EUIs and GHGIs. Due to lack of localized survey data on heating fuels or achieved emissions reductions for Part 3 MURB in the capital region, Part 3 GHG estimates are higher level than Part 9 estimates described above.

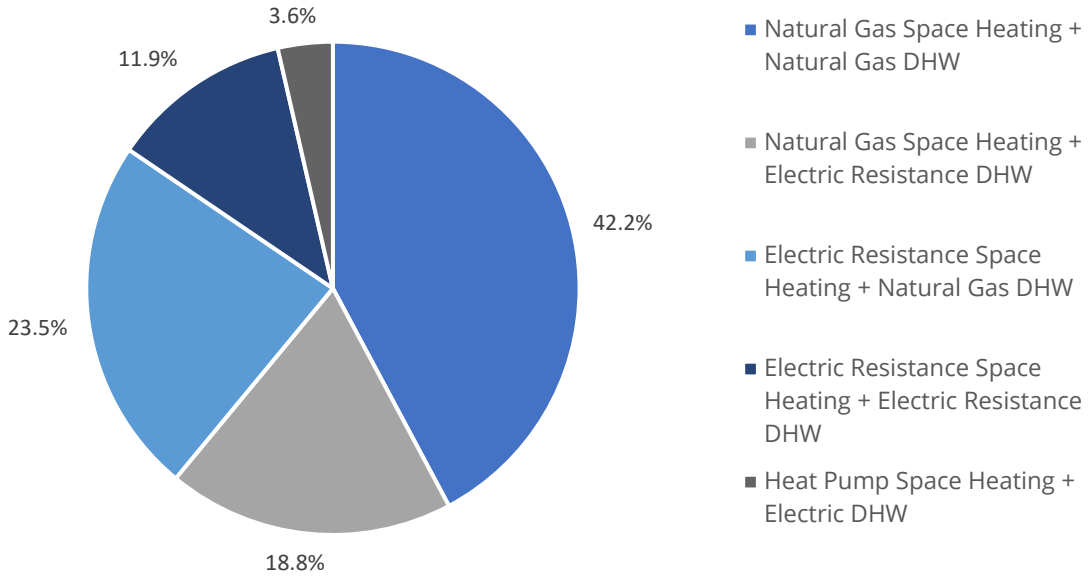

Figure 12: MURB heating sources in British Columbia Climate Zone 4A

EUI, total energy use, and total GHG emissions were then calculated for the estimated MURB floor area for each heating configuration and jurisdiction. GHG savings for the five tiers of MURB retrofits (which also differ by heating configuration) were then calculated and totaled, as shown in Table 4.

Of these five tiers, the Tier 2 "Standard Retrofit" is the closest MURB approximation of the EnerGuide "standard retrofit" shown above, while the Tier 4 fuel switch retrofit is a heat pump-based fuel switch and electrification retrofit. Overall, the potential savings represent approximately one quarter of the estimated savings from the single-family home sector, but remain significant. Savings are broken out between rental and strata buildings; however, as there is insufficient data on the differences in heating types between rental and strata-owned MURB, this is based solely on floor area. As heating sources may vary between strata and rental buildings; the relative savings may also be different. Figure 13 shows the distribution of savings by jurisdiction, which primarily reflects the distribution of MURB floor area across the capital region.

Table 4: Estimated potential energy and GHG savings for Part 3 residential buildings

Scenario	Total GHG Estimates for Part 3 MURB (tCO2e)	Savings Estimate (tCO_2e) for Part 3 MURB	Savings Estimate (tCO_2e) for Strata MURB	Savings Estimate (tCO_2e) for Rental MURB	% GHG Savings in Multifamily Sector	*Savings as % of CRD 2018 Emissions*[11]
Baseline Calculated Emissions	103,740					
Tier 0: Retrocomissioning	93,366	10,374	6,523	3,851	**10%**	*0.6%*
Tier 1: Basic Renewal	87,325	16,415	10,321	6,094	**16%**	*1.0%*
Tier 2: Standard Retrofit	72,888	30,852	19,398	11,454	**30%**	*1.8%*
Tier 3: "Comprehensive" Retrofit	53,505	50,235	31,585	18,650	**48%**	*3.0%*
Tier 4: Fuel Switch Retrofit	32,360	71,380	44,880	26,500	**69%**	*4.2%*

[11] Calculated emissions use the latest 2021 GHGI figures for BC Hydro, which diverges from the assumptions used in the 2018 CRD GHG Inventory, Therefore, the comparison of estimated savings to the region-wide inventory is provided to give a sense of relative scale but does not represent an apples-to-apples comparison.

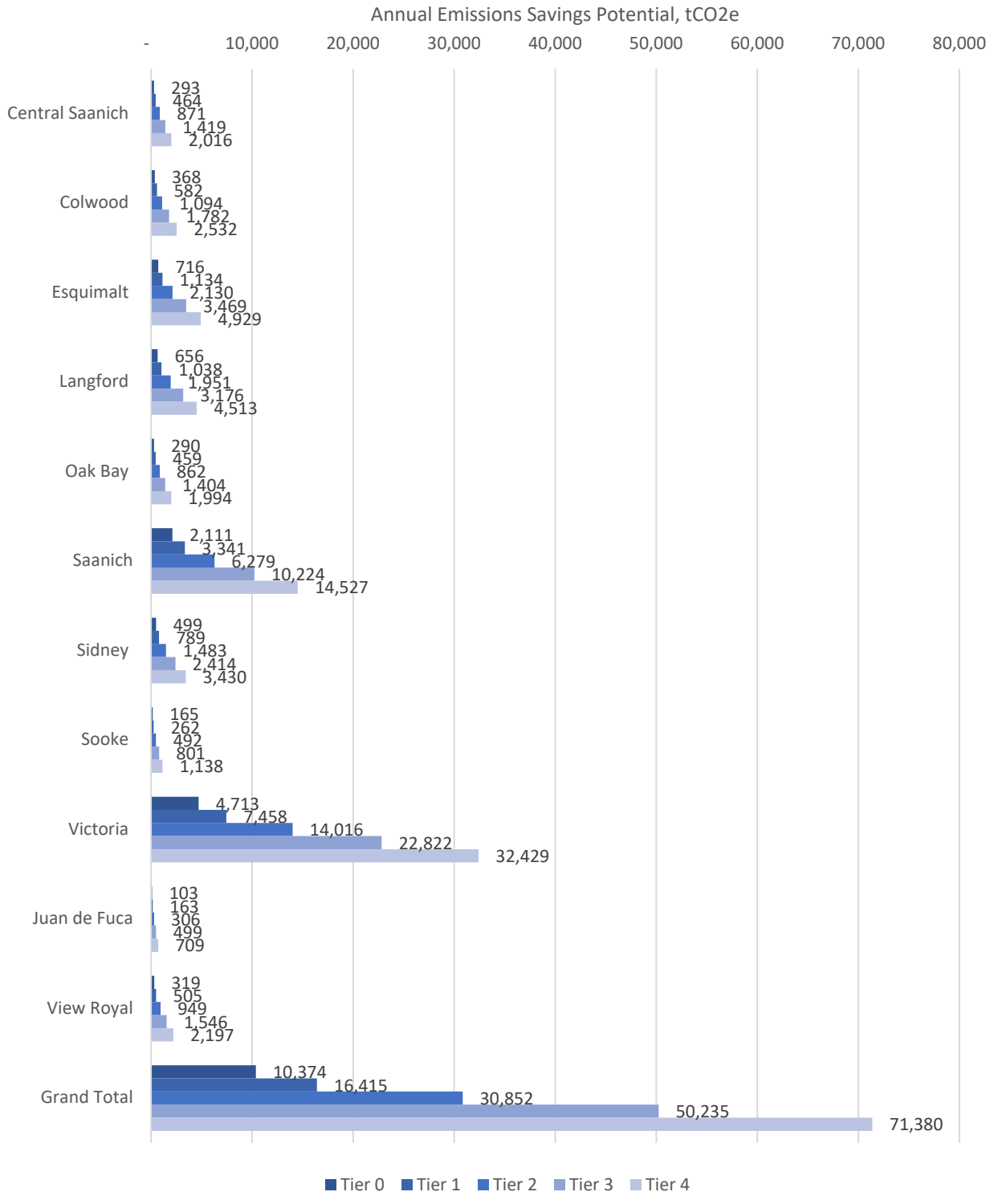

Figure 13: Emissions savings potential at varying Retrofit Tiers in Part 3 MURB by jurisdiction, annual avoided tCO_2e (Note: jurisdictions accounting for less than 1% of total potential emissions savings are not shown).

2.5. Key Takeaways

The analysis above reveals a number of key points of relevance to a potential energy retrofit program in the capital region:

- Overall, there is a large untapped potential for energy retrofits to help reduce emissions from existing homes in the capital region and support the achievement of the CRD's climate targets. Retrofitting every home in the region could achieve a 7% to 15% reduction in region wide GHG emissions relative to current levels, a significant contribution to its goal of reducing emissions by 61% by 2038. The upper end of this range can be captured by ensuring that most retrofits involve electrification (i.e., a switch to a heat pump).
- Part 9 homes represent the most significant opportunity for emissions reductions, while Part 3 residential dwellings make up a much smaller proportion of total homes in the region.
- There is significant emissions reduction potential from fuel switching from high emitting heating sources such as oil, natural gas, and propane towards electric heating.
- Older construction homes and homes using fuel oil are best to target for a residential retrofit program, as they have the highest average GHG emissions and the highest emission reduction potential. However, given the increasing growth of natural gas, retrofitting homes from natural gas to electricity will also be an important program focus.

Targeting homes that are 15 to 25 years old and using natural gas or another fossil fuel are a potential program target, as they will be coming up on their first heating system replacement and will have sufficient insulation to make a switch to a heat pump more cost-effective (in general, residential heating systems have a lifespan of 15 years, though many are used beyond that lifespan).

3. THE EXISTING PROGRAM LANDSCAPE

Prior to developing its own program, it is important for the CRD to explore the existing program landscape to ensure complementarity and avoid duplication or potentially confusing the market. Several programs are already on offer in the Canadian and BC context that have begun to address some of the barriers associated with deep emissions retrofits in the residential sector. However, many still remain, leaving a need and an opportunity for the CRD to go further in supporting homeowners in completing retrofit projects. The success of a residential retrofit program for the CRD will be contingent on its ability to leverage and fit into this existing program landscape, and fill any remaining gaps, while staying within its legal authority and an acceptable budget. The key programs that are either currently offered or have been signalled as forthcoming are summarized briefly below.

3.1. Utility Programs

Part 9

The province's two main utilities, FortisBC and BC Hydro, offer a number of incentives and rebates that support homeowners in reducing the costs of home energy upgrades. Rebates ranging from $100 to $2000 are currently offered for the following upgrades:

- Electrical heating systems to heat pumps
- Furnace upgrades
- Water heater upgrades to high efficiency natural gas heaters
- Window and door upgrades
- Insulation upgrades
- Secondary space heating
- Appliances

Many capital region municipalities also offer top-ups for specific rebate programs, ranging from $350 to $2000. However, it should be noted that a number of these top-ups are currently fully subscribed and are therefore no longer available (e.g., District of Central Saanich, District of North Saanich, Township of Esquimalt, CRD).

Part 3

Utility incentives are also available for improving the performance of multi-unit residential buildings (Part 3). Rebates range from $1,000 - $45,000, and are currently offered for:

- Natural gas furnace and boiler upgrades
- Water heater upgrades to high-efficiency natural gas heaters
- HVAC controls
- Window and door upgrades
- Insulation upgrades
- Secondary space heating
- Lighting upgrades
- Appliances

While many incentives exist for broad upgrade measures that improve the overall efficiency of both Part 9 and Part 3 homes, those that encourage natural gas upgrades are currently incentivizing more emission-intensive choices, making it more challenging for homeowners to make lower-carbon choices.

3.2. CleanBC Better Homes and Buildings

Part 9

CleanBC Better Homes is an online platform funded by the Province of BC and the Government of Canada. The platform provides online resources and support for homeowners and businesses interested in reducing energy use and greenhouse gas emissions from new and existing buildings. CleanBC sponsors a number of rebates, ranging from $100-$3000. This includes the CleanBC Heat Pump *Group Purchase Rebate* (GPR). The GPR rewards groups of homeowners who join together and complete a fuel switch upgrade to an electric air source heat pump. The larger the group, the higher the rebate, ranging from $200 per participant (2-4 homes) to $500 per participant (20-30 homes).

Another notable aspect of the program is the offer of free energy coaching services, provided by trained energy efficiency specialists via email or phone. This service is available at all stages of an energy improvement project. Energy coaches provide information and advice on energy efficiency upgrades and rebates, with translated services are also available in Cantonese, Mandarin, Punjabi and Farsi. It should be noted, however, that this service is "fuel neutral", in that upgrades and rebates for fossil fuel equipment (e.g., natural gas boilers) are available and may be recommended. In addition to the energy coaching service, the following are also available via the Better Homes program:

- Educational materials on types of energy efficiency upgrades available and the interaction of upgrades with the 'House As a System' approach
- Details of the EnerGuide Home Evaluation process, benefits and eligibility
- Energy advisor search tool filtered by upgrade type and area
- Information on the CleanBC Better Homes and Home Renovation Rebate Program
- User-friendly rebate search tool
- Explanation of program requirements and sample contractor invoices
- Help finding a suitable contractor through the Program Registered Contractors list. The database allows the homeowner to filter contractors by location and type of upgrade
- Online application tool to help homeowners and businesses apply for rebates

The Province of BC is also currently considering an income-qualified home retrofit program intended to provide high-value incentives to low- and moderate-income households for a range of space heating, building envelope, ventilation and health and safety measures. While qualification criteria are currently under development, the projected value of retrofits are expected to cover up to 80-90% of costs for low-income households, and 70-80% of costs for moderate-income households. The program is expected to launch in late summer or early fall 2021, and will offer support services tied to the receipt of specific rebates, providing significant cost reduction opportunities for homeowners across the board. The focus of this program on either energy efficiency and/or emissions reductions (and therefore on fuel switching) is currently unknown.

Part 3

CleanBC provides three custom programs focused on electrification of larger residential and commercial buildings. The *Custom*, *Custom-Lite*, and *Commercial Express* programs allocate incentives based on carbon savings, and the CleanBC Small Building Energy Coach program provides support for smaller buildings in accessing these incentives.

- ***The Custom Program*** supports up to 50% of an energy study's cost, up to a maximum of $20,000. based on a rate of $40/tCO2e of lifetime greenhouse gas savings, BC Hydro will support up to $200,000 per customer. For heat pump rooftop units, the Program offers a rate of $60/tCO2e.
- ***The Custom Lite Program*** provides $60/tCO2e of lifetime GHG savings for heat pump rooftop units up to a maximum of $72,000 and $40/tCO2e of lifetime GHG savings for all other qualifying measures up to maximum $48,000 incentive per customer.
- ***The Commercial Express Program*** offers capital incentives up to a maximum of $100,000 per project. Incentives are based on various factors specific to your building, including building: type, age, location, square footage, hours of operation, and the type of equipment being considered.
- ***The CleanBC Small Building Energy Coach*** program currently offers free energy coaching services to assist building owners and operators reduce GHGs through fuel-switching and other electrification measures and take advantage of CleanBC's *Commercial Express* and *Custom Lite* programs.

3.3. Natural Resources Canada

Part 9

The Canadian federal government committed to supporting home and building retrofits in the Pan-Canadian Framework on Clean Growth and Climate Change, which outlined the following commitments:

- Developing a model code for existing buildings by 2022 to be adopted by the provinces and territories
- Requiring benchmarking and labelling of building energy use
- Setting new standards for heating equipment and other key technologies to the highest level of efficiency that is economically and technically achievable, and
- Supporting the continuation and expansion of provincial and territorial efforts to retrofit existing buildings

Since then, the federal government has committed to supporting homeowners in retrofitting their homes via an allocation of $2.6 billion to Natural Resources Canada to supply:

- Canada Greener Homes Grant
    - Up to $5,000 per home in energy efficiency grants
    - $1 million for free EnerGuide assessments ($600 per home)
- Up to $40,000 in interest-free loans, and
- $10 million for EnerGuide Energy Advisor training

Part 3

The Federal Government has committed to investing $2 billion in low-interest financing for energy efficient buildings through the Canada Infrastructure Bank (CIB) Building Retrofit Initiative. The initiative provides funding for large projects with a minimum requirement of $25 million. Two types of project applicants are eligible:

1. Building owners may apply for financing to retrofit one or more of their buildings
2. Third-party retrofit aggregators, including:
    - Existing Energy Service Companies (ESCO) that form a dedicated Special Purpose Vehicle (SPV) to originate and develop retrofit projects
    - Super ESCO models that are SPVs functioning as an intermediary between building owners and multiple ESCO providers
    - New entrants to the energy services market that are working on buildings or investing in retrofit projects
    - Commercial PACE (C-PACE) program administrators

3.4. Bring It Home for the Climate

The *Bring It Home 4 the Climate* program (BIH4C) program is designed to support and engage homeowners in the capital region by addressing barriers to retrofit uptake. The program forms a component of the Transition 2050 *Residential Retrofit Acceleration project* developed by the CRD and City Green Solutions.

To encourage progress towards deep energy and emission retrofits, the program subsidizes EnerGuide energy assessments and provides free materials for shallow retrofits. BIH4C focuses on building community champions and rewarding those who participate to raise awareness and motivate others in the community to explore energy efficiency upgrades. The program includes the offering of a free Virtual Home Energy Check Up (VHEC), which involves an online survey followed by a video call with an energy expert to explore next steps. The BIH4C administrative team is also available to support participants in registering for a subsidized Pre-Upgrade EnerGuide Home Evaluation. A unique element of the program is the seasoned EnerGuide evaluators who operate as program "Energy Experts" available to support homeowners on a wide range of topics related to the retrofit process including accessing rebates. Advice is additionally geared towards supporting low-carbon retrofits, in light of the program's focus on climate change and emissions reductions The BIH4C program is funded to the end of 2021.

3.5. SEA Change – Strata Energy Advisor Program

The *Strata Energy Advisor* pilot program was launched in May 2018 in Metro Vancouver to address the unique barriers strata councils face in retrofitting common space. The program provided strata councils, property managers and strata members free assessments and advice on measures to reduce energy and carbon. Through the initial pilot, 38 buildings completed retrofits resulting in 2,265 tonnes of GHG reductions. Metro Vancouver and UBC are currently exploring opportunities to expand the program provincially.

3.6. Federation of Canadian Municipalities (FCM)

The Federation of Canadian Municipalities (FCM) supports local governments in implementing sustainability practices through the Green Municipal Fund. This program provides funding streams, resources and training to help municipalities deliver their sustainability initiatives. CRD's Residential Energy Retrofit Program Business Case study is supported by FCM's *Community Efficiency Financing*

(CEF) funding stream, as part of a larger program design study in partnership with the City of Victoria and District of Saanich.

The CRD's previous feasibility work in this area identified third-party lending as the preferred financing model to integrate into a residential energy retrofit program. However, the scope and design of the program will remain flexible given the changing financing landscape in the province and country. The CEF funding stream has also made capital funding available to implement municipal retrofit programs. The CRD will have the opportunity to apply to the CEF capital funding stream to support the cost of the programing suggested below.

4. PROPOSED PROGRAM DESIGN

4.1. A Proposed Program Model for the CRD

While the programs noted above have begun to address some of the barriers to deep emissions retrofits in the residential sector, many still remain. Among those that are most under the purview and interest of the CRD are awareness and complexity barriers that limit homeowners' interest in completing retrofits, both as a result of limited understanding and valuation of retrofits, as well as the inconvenience they pose. Moreover, many of the programs offered at federal, provincial and utility scales have shifted considerably over time, changing their offerings, eligibility criteria, application processes, and even branding. As such, there is still considerable value in a consistently offered, CRD-led program that better supports homeowners in understanding and navigating the home retrofit process, especially in a way that meets the CRD's emissions reduction targets.

Overall, an appropriate model for a CRD-led retrofit program is one that will best support and achieve energy and emissions reductions in CRD's residential sector, while leveraging/planning for the support at federal and provincial levels noted in the section above. However, there are several additional program details to consider, including notably the model of program support that the CRD can offer. A review of precedent programs in other jurisdictions (see Appendix A) reveals several potential models, ownership types, and revenue sources.

Among these, **One Stop Shops (OSS)** have been widely adopted and are worth more exploration. OSS are integrated home retrofit services that are designed to eliminate well known barriers to energy efficiency renovations. They provide a turnkey service to homeowners, simplify communications and knowledge sharing, and at their best place a trained independent third-party energy advisor at the side of the homeowner to support the complex decisions clients must make regarding interrelated retrofit measure installation, evaluation of quotes, and contractor selection.

In Europe, OSS retrofit facilitation programs are considered a best practice and have expanded beyond low-income programs and are available in many jurisdictions to all homeowners regardless of family income. For example, almost 4 million homes had been retrofitted under the German OSS *Effizienzhaus* program by 2019. The first such service in Canada was designed and piloted by Windfall Ecology Centre with several indigenous communities beginning in 2006. Today, OSS are a common approach to delivering turnkey home weatherisation programs to low-income families in North America.

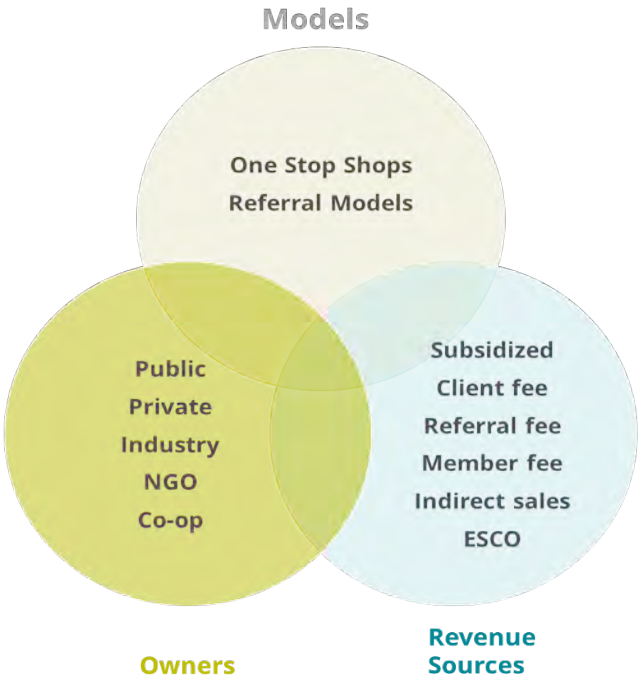

Figure 14: Different program models, ownership types and revenue sources contemplated for this study

Ontario's Winterproofing program is an example of a ratepayer funded OSS that provides free insulation and draft proofing upgrades to income qualified homeowners and renters. The entire upgrade process including pre and post audit, contractor selection, and project management is performed by third party service organizations.

4.2. Proposed Program Design

Based on existing program review, consultant team experience, and feedback from key stakeholders, a subsidized OSS model is recommended for the CRD based on its ability to:

- Build on existing program infrastructure, including current BIH4C program offerings, to simplify the retrofit process for homeowners
- Provide homeowners with enhanced retrofit coordinator support tailored according to their needs, and focused on supporting the decarbonization of existing homes at relatively low cost (when compared to more intensive support programs))
- Avoid the potential risk and liability issues associated with a direct program ownership model
- Better identify and target local market opportunities and help establish local contractor delivery networks, and
- Monitor performance through post retrofit follow-up.

Given the ongoing nature of the existing Energy Coach and BIH4C offerings, it is recommended that the CRD build on the success of these programs to provide additional wrap-around services for homeowners. While the current energy coach program is well-suited to those who are just getting started with a retrofit project, homeowners often need additional support once they are part way

through the process and have been provided baseline information about their building and retrofit options. A new CRD program could leverage the intake process through the Energy Coach program, while placing a concerted focus on fuel switching for emissions reductions as in BIH4C to ensure the benefits of home electrification are reaped.

The proposed program design for the CRD therefore assumes that a moderate level of support could be provided by a Retrofit Coordinator per household to add to existing services, specifically helping alleviate the challenges of navigating the retrofit process once initial support has been provided via the Energy Coach service. Specific services that are assumed will be provided by a Retrofit Coordinator are outlined in Table 5.

As the end goal of this program is not only to increase the number of home retrofits, but to increase the depth of those retrofits (i.e., achieve greater levels of energy efficiency) and promote fuel switching, extending the full level of support to all retrofits may not be appropriate. As a starting point, it is assumed that any customer will be able to access the initial steps of initial screening, and reviewing pre-upgrade EnerGuide audit results—but that fossil fuel-based equipment retrofits should be excluded from further program assistance.

Table 5: Proposed responsibilities of the Retrofit Coordinator

Step	Tasks
Screen	• Conduct (virtual) home energy check-up/screening
Review and Plan	• Review EnerGuide Renovation Upgrade Report • Assist client with upgrade choices • Consider DIY options and provide contractor selection advice and standardized quotation forms • Direct client to qualified contractor directory
Compare & Select	• Help homeowner scope work, compare contractor bids, ensure rebate eligibility, and provide troubleshooting throughout the process.
Finance	• Help identifying and selecting financing and incentives
Document	• Help getting documentation and assist with submitting rebate applications
Evaluate	• Quality Assurance checks post-retrofit (done in aggregate or spot-check) • Measurement & Verification

Given that the GHG savings potential in the Part 9 single-family sector in the capital region is five to six times that of the Part 3 sector, it is both recommended and assumed that an initial program will focus on targeting this sector. Providing a strong level of support for Part 9 homeowners will ensure that the CRD can move more swiftly and efficiently towards meeting its emissions reduction targets, while assisting the largest proportion of residents in the capital region with program support. Further reflections on a future expansion to Part 3 residential buildings are presented at the conclusion of this report.

4.3. Targeting Program Markets

Understanding specific home archetypes is essential to clarifying the market potential of a residential energy retrofit program and developing targeted marketing opportunities, but will also be necessary later on to help support the development of unique retrofit pathways, costing models, and to inform detailed program design. Once a program is up and running, Retrofit Coordinators and/or program application forms can query homeowners to quickly identify their home archetype, narrowing the potential retrofit pathway options available to the homeowner and thereby simplifying the homeowner support process.

To better inform the business case and future program design considerations, statistical cluster analysis techniques were therefore used to further break down the capital region's Part 9 housing sector into specific archetypes. Part 9 housing archetypes were derived from 13,177 pre-retrofit EnerGuide evaluation files, spanning from 2007 to present. Differences in floor area, year of house construction, number of storeys, primary fuel type, and house type were investigated to develop the individual clusters.

To compare differences between these six variables, a Gower distance metric was applied to create a matrix of partial dissimilarities across individuals ranging from 0 to 1, where 0 is most similar and 1 is most dissimilar. Gower distance was used over the K-means method, as it allows for clustering with a mix of numeric and qualitative variables. The optimal number of clusters was determined by running an analysis on groups ranging from 2-10 clusters. Silhouette coefficients ranging from –1 to 1 were then determined for each grouping, where groups nearest 1 show the highest degree of separation between clusters. From this analysis, an initial grouping of seven clusters was chosen, as the silhouette coefficient did not substantially increase with further increasing clusters.

Once the number of clusters was selected, the Gower distance matrix was run through a Partitioning Around Medoids (PAM) algorithm to partition the housing data into seven distinct clusters. The PAM algorithm was chosen over K-means because although it is more computationally intensive, it is more robust and less susceptible to outliers.

Following feedback from the client and Advisory Committee, homes built since 1990 and homes built before 1920 were split out into their own groups, creating nine archetypes in total. These post-process adjustments were needed as newer homes were underrepresented in the source data but represent almost a third of all homes in the capital region, while the oldest homes represent a particularly significant savings opportunity. Upon finding that two-story gas-fired homes built in the interwar period made up only 2% of homes in the capital region and had similar retrofit measures newer single-story gas homes, clusters 6 and 7 were combined into a single archetype.

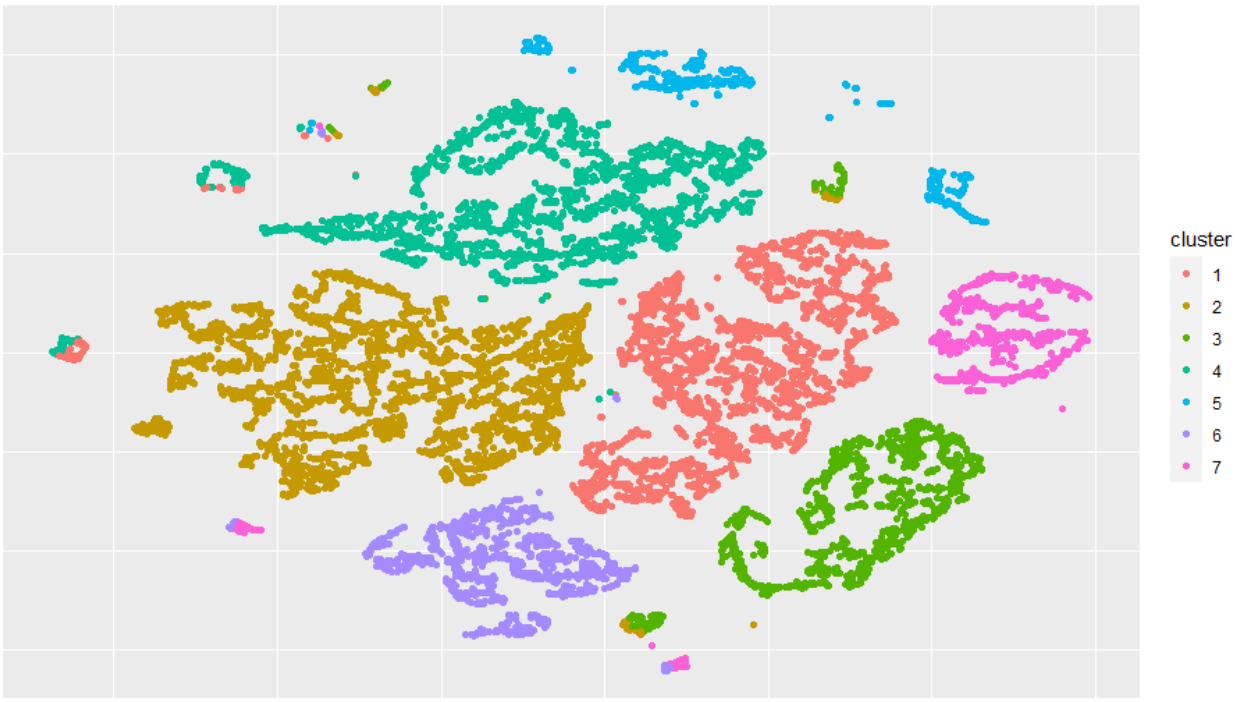

Figure 15: Initial seven clusters

Table 6 lists the defining attributes of each archetype, including common retrofit measures based on which retrofit elements showed up the most frequently in EnerGuide audits of homes in that archetype. Table 7 provides the percentage of EnerGuide audits for each archetype that included that measure, with the most common elements in bold.

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Table 6: Archetype characteristics

1	***Archetype Name***	**Single-Story Electric**
	% of Homes in the Region	23%
	Housing Type	Single Story Detached
	Heating Type(s)	Electric Heating, with some wood or propane
	Primarily Built In	1950s – 1970s
	Median Gross Floor Area	193 m^2
	GHG Intensity per home	1.42 tCO_2e/yr.
	Common Retrofit Measures	• Windows • Ceilings
2	***Archetype Name***	**Mid-Century Oil**
	Housing Type	Single Story Detached
	% of Homes in the Region	7%
	Heating Type(s)	Oil Heating, with some wood or propane
	Primarily Built In	1950s – 1960s
	Median Gross Floor Area	192 m^2
	GHG Intensity per home	8.51 tCO_2e/yr.
	Common Retrofit Measures	• Foundation • Windows • Heat Pumps • Fuel Switch
3	***Archetype Name***	**Interwar Oil**
	Housing Type	Two-Story Detached
	% of Homes in the Region	4%
	Heating Type(s)	Oil Heating
	Primarily Built In	1920s – 1940s
	Median Gross Floor Area	240 m^2
	GHG Intensity per home	11.64 tCO_2e/yr.
	Common Retrofit Measures	• Ceiling • Windows • Heat Pumps • Fuel Switch
4	***Archetype Name***	**Two-Story Electric**
	Housing Type	Two-Story Detached
	% of Homes in the Region	3%
	Heating Type(s)	Electric Heating
	Primarily Built In	1970s – 1980s
	Median Gross Floor Area	248 m^2
	GHG Intensity per home	1.69 tCO_2e/yr.
	Common Retrofit Measures	• Windows • Heat Pumps
5	***Archetype Name***	**Row Homes**
	Housing Type	Two-Story Row House
	% of Homes in the Region	6%
	Heating Type(s)	Predominantly Electric Heating (77%)

	Primarily Built In	1970s – 1980s
	Median Gross Floor Area	143 m^2
	GHG Intensity per home	2.26 tCO_2e/yr.
	Common Retrofit Measures	• Windows • Ceilings
6	***Archetype Name***	**Mid-Century Gas Homes**
	Housing Type	Predominately Single-Story Detached
	% of Homes in the Region	20%
	Heating Type(s)	Gas Heating
	Primarily Built In	1940s – 1970s
	Median Gross Floor Area	Single-Story: 195 m^2 Two-Story: 262 m^2
	GHG Intensity per home	Single-Story: 6.67 tCO_2e/yr. Two-Story: 9.09 tCO_2e/yr.
	Common Retrofit Measures	• Ceiling • Windows • Furnace • Water Heater
7	***Archetype Name***	**Newer Homes**
	Housing Type	Mix of One and Two Story Detached
	% of Homes in the Region	29%
	Heating Type(s)	Predominantly Electric Heating (80%) Gas Fireplaces Common
	Primarily Built In	Since 1990
	Median Gross Floor Area	267 m^2
	GHG Intensity per home	2.40 tCO_2e/yr.
	Common Retrofit Measures	• Heat Pumps
8	***Archetype Name***	**Older Homes**
	Housing Type	Predominantly Two Story Detached
	% of Homes in the Region	9%
	Heating Type(s)	Mix of Gas and Oil
	Primarily Built In	Before 1920
	Median Gross Floor Area	241 m^2
	GHG Intensity per home	10.65 tCO_2e/yr.
	Common Retrofit Measures	• Ceiling • Walls • Foundation • Windows • Fuel Switch

Table 7: Percent of homes in each archetype that undertook a given measure, as identified in the EnerGuide data

#	Name	Ceiling Insulation	Wall Insulation	Foundation Insulation	Windows	Fuel Switch	Furnace	Water Heater	Heat Pump
1	**Single-Story Electric**	41%	16%	19%	**52%**	2%	0%	5%	35%
2	**Mid-Century Oil**	35%	17%	**26%**	43%	**58%**	8%	7%	**48%**
3	**Interwar Oil**	35%	**24%**	22%	38%	**58%**	9%	8%	**47%**
4	**Two-Story Electric**	30%	12%	17%	**54%**	2%	0%	6%	37%
5	**Row Homes**	**48%**	19%	12%	48%	10%	2%	3%	15%
6	**Mid-Century Gas**	**45%**	**28%**	**28%**	**53%**	6%	**22%**	**15%**	14%
7	**Newer Homes**	16%	2%	9%	19%	7%	6%	12%	**60%**
8	**Older Homes**	**45%**	**44%**	31%	**40%**	32%	15%	12%	25%

4.4. Exploring Potential Homeowner Markets

In addition to specific home archetypes, program design must also consider the different needs and opportunities associated with different homeowner markets. Of particular importance is the potential impact of fuel switching on the cost of energy to the consumer, especially given the difference in costs between electricity and natural gas in BC. The impact of energy costs can be expressed as a measure of a region's energy poverty, defined as a condition in which a household is required to spend more than 6% (i.e., twice the national median of 3%) of after-tax income on energy. In the capital region, 14% of households have been found to experience an energy cost burden of 6% of greater. This is especially true in Juan De Fuca, Metchosin, and Sooke, where over 20% of households have high energy cost burdens (see Figure 16).[12] This issue is not unique to the capital region – nationwide, 17% of households in Canada's Census Metropolitan Areas (CMAs) experience high energy cost burden.[13] However, it is nevertheless an important consideration when designing energy and emissions reduction programs.

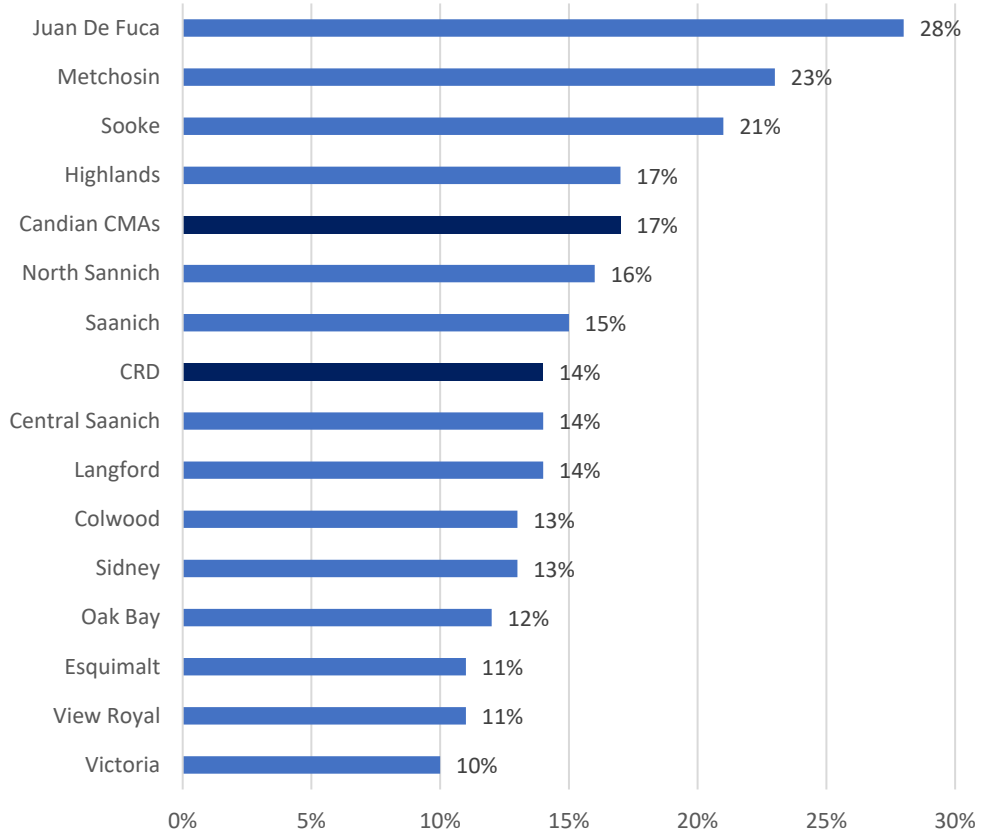
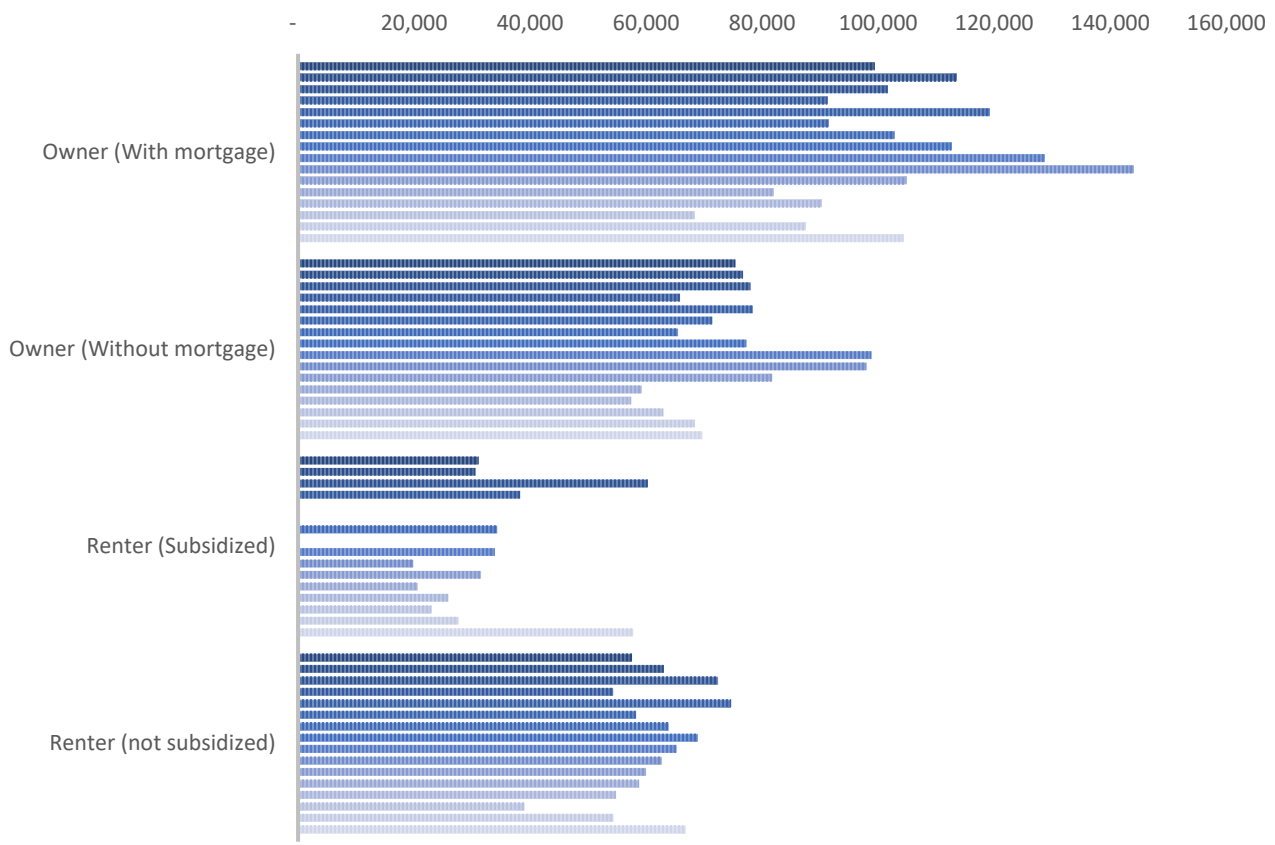


Figure 16: Energy poverty across the capital region (data source did not include Gulf Islands)

[12] M. McNaughton (2020). "Energy Poverty Community Profile: District of Saanich." University of British Columbia. https://sustain.ubc.ca/about/resources/energy-poverty-community-profile-district-saanich

[13] Canadian Urban Sustainability Practitioners (2019). "Energy Poverty Across Canada: A CUSP Backgrounder." https://www.energypoverty.ca/backgrounder.pdf



	Renter (not subsidized)	Renter (Subsidized)	Owner (Without mortgage)	Owner (With mortgage)
CRD	57,546	31,131	75,376	99,389
Central Saanich	63,026	30,590	76,665	113,436
Colwood	72,354	60,292	77,960	101,603
Esquimalt	54,286	38,291	65,800	91,227
Highlands	74,650	-	78,393	119,204
Juan de Fuca	58,202	-	71,331	91,347
Langford	63,822	34,327	65,420	102,684
Metchosin	68,890	-	77,244	112,592
North Saanich	65,231	33,913	98,776	128,590
Oak Bay	62,685	19,938	97,910	143,923
Saanich	59,962	31,551	81,628	104,800
Sidney	58,729	20,664	59,140	81,857
Sooke	54,775	25,928	57,398	90,122
Gulf Islands	39,004	23,006	62,863	68,260
Victoria	54,303	27,622	68,324	87,381
View Royal	66,754	57,752	69,629	104,297

Figure 17: Median income by municipality and tenure type

Other key demographic criteria to explore in program design include the distribution of incomes across the region, as well as the proportion of renters vs. owners and overall homeowner age. With respect to the former, this analysis shows a high proportion of fixed-income homeowners in the region, many of whom are without a mortgage (see Figure 17).

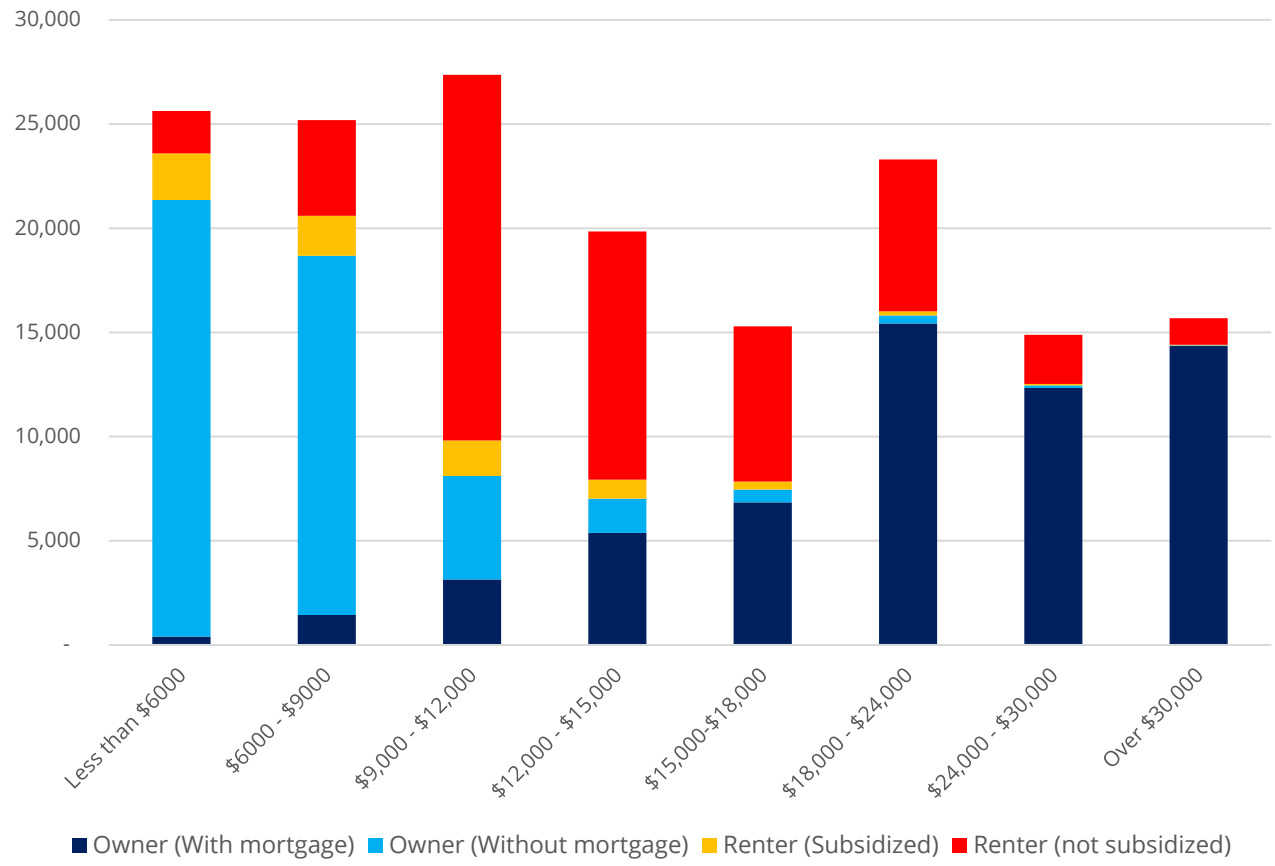


Figure 18: Number of households by annual shelter cost and tenure type

As shown in Figure 18, renters are uncommon in a number of capital region jurisdictions, but make up over 30% of households in the urban areas of Victoria, Esquimalt, Colwood, Saanich, and Langford. Figure 17 also shows that there are significant senior household populations (>30%) across several municipalities/electoral areas: North Saanich, Sidney, Central Saanich, Oak Bay, Metchosin, Juan de Fuca, and the Gulf Islands. As might be expected given the high percentage of seniors, less than half of homeowners still have a mortgage in most of these communities; conversely, there are a low percentage of seniors in Victoria, Esquimalt, Colwood, Saanich, Langford, Highlands and View Royal. These communities also have more renters, and fewer homeowners without a mortgage. Such information is important to consider in program and business case development, as rental housing expenses tend to be less than homeowner expenses (though some renters are burdened with very high annual housing costs as well).

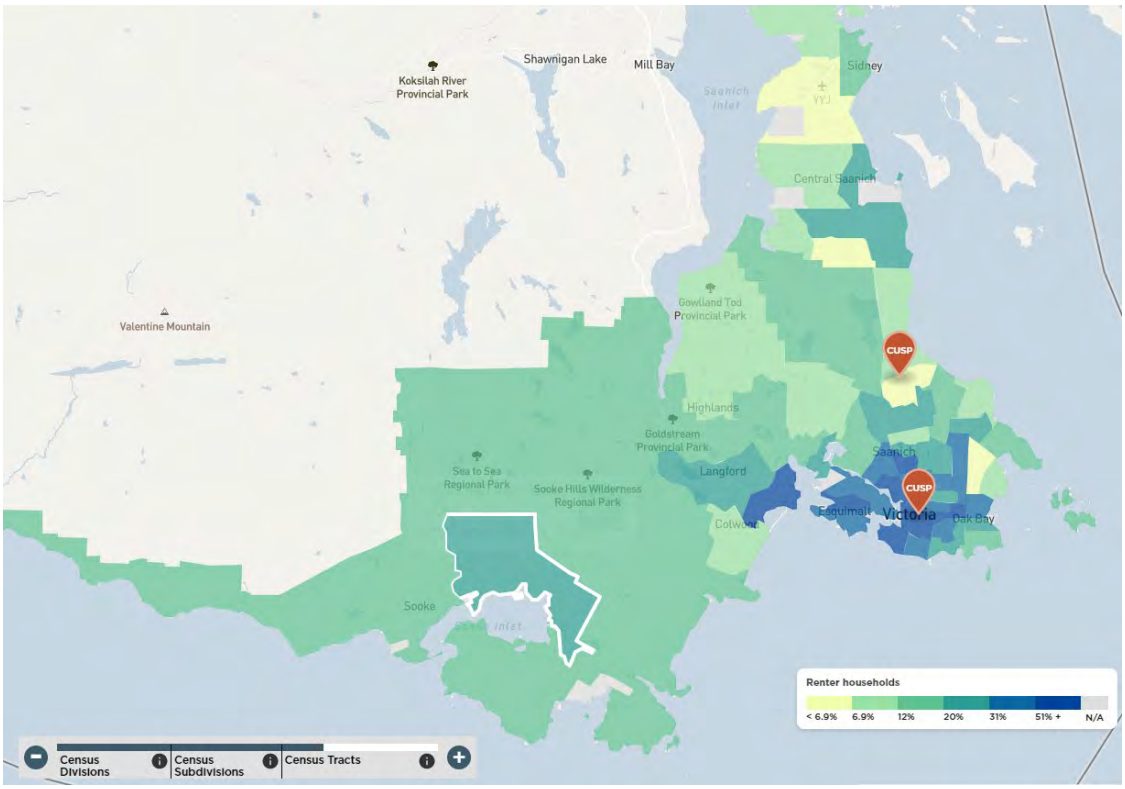


Figure 19: Percent of renters across the capital region census areas (www.energypoverty.ca)

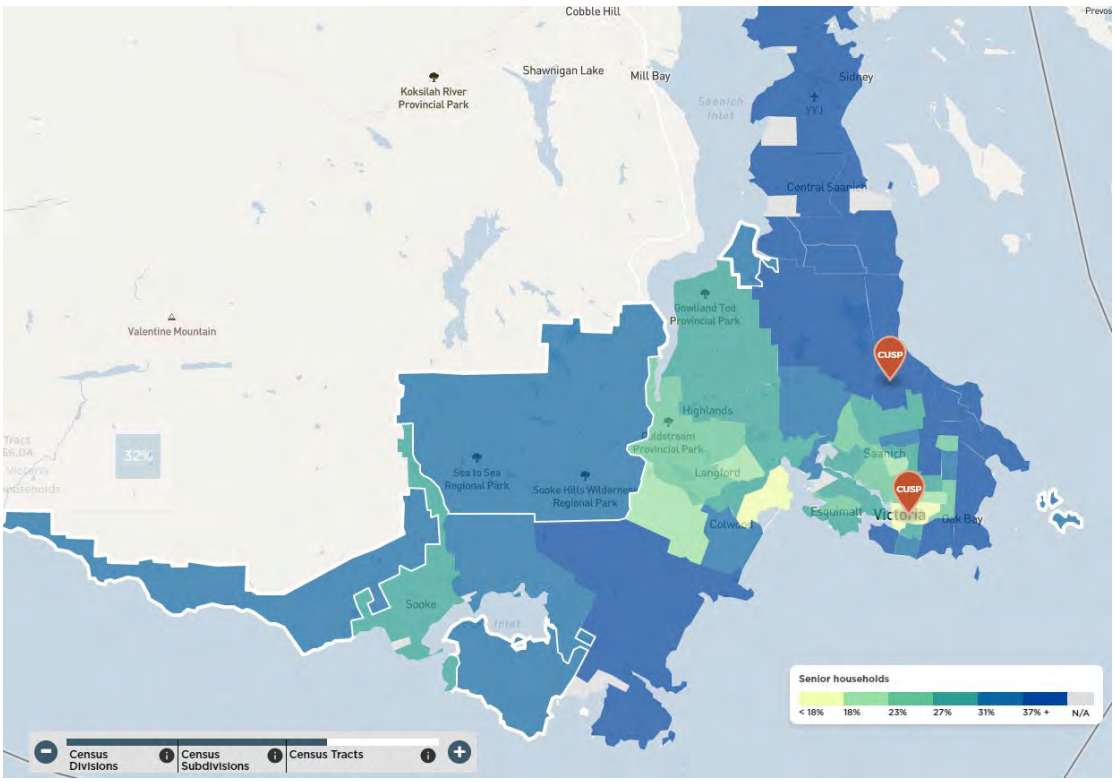


Figure 20: Percent of seniors across the capital region census areas (www.energypoverty.ca)

4.5. Key Takeaways

Drawing on this additional analysis, several key opportunities and challenges emerge:

Home Archetypes

- Interwar oil and older homes have the highest GHG emissions and remain a good target for retrofits, though there are fewer of these homes remaining. Oil-heated homes are also high adopters of fuel switching projects, generally towards heat pumps.
- Pre-1990 gas heated homes are high adopters of insulation upgrades, though they tend to retain or upgrade gas equipment rather than considering fuel switching.
- Newer homes are particularly high adopters of heat pumps.
- While 42% of homes in the capital region are already primarily heated by electricity, the rapid increase over the last decade of homes adding new natural gas connections indicates a continued risk of fuel switching towards natural gas. EnerGuide data shows low rates of gas heated homes fuel switching or adding a heat pump—switching customers off natural gas will be a significant challenge, once they are locked in. Every home that replaces electric resistance heating with a heat pump is one fewer home adding natural gas. Therefore, homes with electric resistance heating should remain a target area for the program, to forestall increases in natural gas use that could otherwise eliminate the net savings.

Homeowner Markets

- As the BetterHomes BC's *Energy Coach* program already provides some OSS services, the CRD should focus on providing additional services that address additional retrofit barriers and support homeowners in making low-carbon retrofits as easy as possible. Aligning any new program with existing offerings will be key to simplifying the experience for homeowners.
- The *Canada Greener Homes Grant* (p.19) will likely increase the demand for home energy advisors, increasing the need for OSS programs that can support homeowners in executing the recommendations in their EnerGuide assessment.
- Any new program must help to avoid and even alleviate energy poverty in the capital region. The relatively high levels of energy burden in the region make it particularly urgent to ensure that energy costs remain low, including through the recommendation of complementary envelope upgrades to reduce energy demand. While natural gas is often seen as a low-cost alternative to electrically heated homes, the costs of energy can vary greatly depending on the condition of the home. Preparing homeowners for the increasing federal carbon tax, as well as BC Hydro's upcoming amendments to rate structures, will help to futureproof upgrades to political and economic factors that are increasingly favouring electrification.
- Fuel switching using heat pumps is still in early adoption phase and may increase utility costs, particularly in large or leaky homes. To avoid exacerbating energy poverty, complementary envelope upgrades should be supported, and an early focus placed on middle and upper-income homeowners to support market development before being rolled out more broadly. Existing programs also already target low-income households and the

unique barriers they face in upgrading their homes; as such, the CRD should focus on other demographics in initial stages of the program and seek to strategically fill gaps as these income-qualified programs become established in the market.

- Targeting the program outreach to larger demographics and neighbourhoods that may be well equipped to make improvements, including higher income neighborhoods (e.g., Oak Bay and the Uplands), senior populations, and households in need of renewal, can improve program uptake and the overall impact on energy and carbon savings. Targeting outreach to more moderate-income communities where natural gas is less prominent and electric resistance and oil heating are more common may also present a valuable GHG reduction opportunity, alongside a potential reduction in energy poverty.
- Emphasizing the non-financial benefits of retrofits (e.g., increased thermal comfort and cooling, better indoor air quality, and lower carbon footprint), in communication and outreach can help attract homeowners.
- Developing a broad set of value propositions that can be tailored to individuals based on their unique needs can increase participant interest and ensure their needs are being met.

4.6. Additional Program Benefits

In addition to GHG reductions, home retrofits create a range of social, environmental and economic benefits. Retrofitting existing buildings can increase safety and health for residents, improve social inequities, and stimulate economic growth and jobs. Designing programs using social, environmental and economic lenses can help optimize these co-benefits, and leverage complementary programs focused in these areas.

Improved health outcomes for residents. Energy inefficient and poorly performing homes can be often overlooked sources of poor occupant health. Poor indoor air quality as a result of poor ventilation can cause headaches, fatigue, coughing, sneezing, sinus congestion, shortness of breath, dizziness, nausea, and irritation of the skin, eyes, nose or throat.[14] It can also trigger or exacerbate allergy and asthma symptoms, as well as increase susceptibility to viruses such as COVID-19 by compromising the immune system.[15] These poor health outcomes disproportionately impact vulnerable groups, including those with pre-existing medical conditions, pregnant women, seniors, and children. With respect to the type of system used, natural gas appliances pose both a risk of fire (due to its flammability) as well as natural gas poisoning via gas leakages. While leakages from gas boilers are less common, natural gas use in cooking equipment are now linked with significant air pollutant levels inside the home.[16,17] Fortunately, significant improvements in air quality can be achieved by increasing filtration and ventilation, regulating indoor moisture, remediating mould, strengthening barriers to indoor and outdoor pollutants, and shifting to less polluting energy

[14] British Columbia. "Indoor Air Quality" (accessed on Aug 10, 2021). https://www.healthlinkbc.ca/healthlinkbc-files/indoor-air-quality
[15] Health Link BC. "Wildfires and Your Health" (accessed on Aug 20, 2021) https://www.healthlinkbc.ca/health-feature/wildfires
[16] Hu, Tianchao, Singer, Brett C., and Logue, Jennifer M. Wed (2012), "Compilation of Published PM2.5 Emission Rates for Cooking, Candles and Incense for Use in Modeling of Exposures in Residences." Lawrence Berkeley National Lab. https://www.osti.gov/servlets/purl/1172959.
[17] Brady Anne Seals and Andee Krasner, (2020), "Health Effects from Gas Stove Pollution," Rocky Mountain Institute. https://rmi.org/insight/gas-stoves-pollution-health/

systems. These changes also have benefits for local governments and health authorities - an analysis of the Toronto building stock found that retrofitting all residential buildings with forced-air HVAC systems and tighter building envelopes could save the province USD2.3 - 3.8 billion a year in healthcare costs due to reduced exposure to particulate matter. [18]

Increased resilience to climate stresses and shocks. Several measures that improve energy efficiency and reduce emissions can also improve resilience, including adding mechanical cooling through electric heat pumps to protect against overheating, improving envelope performance to increase the home's safety in the case of blackouts, and adding mechanical ventilation and filtration to protect residents from wildfire smoke.

Of recent and noteworthy mention is the record-breaking heat, wildfires and drought seen in summer 2021, with heat alone causing 570 premature deaths across the Province during the "heat dome" event in June and July.[19] Seniors and those living with pre-existing health conditions are particularly vulnerable to death or severe illness from sustained high temperatures.[20] The risks inherent in these increasing temperatures have led to increasing pressure for all levels of government to create long-term solutions addressing extreme indoor temperatures. Indeed, the City of Vancouver passed a motion in the aftermath of the heatwave, acknowledging that "*it is time we make maintaining high indoor air quality and energy efficient air conditioning part of our standard expectations of housing just as we do toilets, bathtubs, and heat*." BC Hydro data shows that air conditioning use in BC households has more than tripled to 34% since 2001, and residents are adding an average of $200 to their total summer bills by using A/C inefficiently. [21] The portable A/C units are the most popular and also the least efficient –they use ten times more energy than a central air conditioning system or a heat pump and use twice as much energy as a window unit.

The increased demand for cooling strengthens the business case for heat pumps, and can be leveraged to market electric heat pumps over traditional A/C units. Electric heat pumps can meet dual climate and resilience objectives by providing low-carbon efficient cooling and heating. As such, proactively targeting those looking to purchase A\C units and vulnerable populations can address public health needs and reduce the number of households locking into inefficient cooling systems.

Increased equity and affordability. As noted above, approximately 15% of the CRD's population is characterized as living or at risk of energy poverty, defined as households who struggle to meet their home energy needs and spend more than 6% of their after-tax income on their energy needs.[22] A

[18] Zuraimi, M.S. and Tan, Z (2015), "Impact of residential building regulations on reducing indoor exposures to outdoor $PM_{2.5}$ in Toronto," *Building and Environment*.
[19] Province of British Columbia, Chief Coroner's Statement on Public Safety During High Temperatures (July 30, 2021). https://archive.news.gov.bc.ca/
[20] Smith, K.R., A.Woodward, D. Campbell-Lendrum, D.D. Chadee, Y. Honda, Q. Liu, J.M. Olwoch, B. Revich, and R. Sauerborn, 2014: Human health: impacts, adaptation, and co-benefits. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 709-754.
[21] BC Hydro. "Not-so well-conditioned: How inefficient A/C use is leaving British Columbia out of pocked in the cold" https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/news-and-features/bch-ac-report-aug-2020.pdf
[22] CUSP. 2019. *Energy Poverty in Canada: a CUSP Backgrounder*

retrofit program can help to reduce energy bills and thus energy poverty by recommending retrofit measures that have short payback periods and that can quickly reduce household energy costs. These cost saving measures can be prioritized and paired with incentives for lower-income residents to help reduce overall retrofit costs as well. Energy savings over the long term can also be realized by supporting fuel shifts to electricity where feasible, as the increasing federal carbon tax and upcoming changes to BC Hydro's rate structure that will support electrification will make natural gas the less cost-effective choice.

Create jobs and economic growth. Retrofits drive economic growth and jobs in design, construction, trades, and manufacturing. Governments can support climate action and economic recovery by investing in green industries. Retrofits create a high number of jobs per dollar invested – 9.5 direct and indirect jobs per $1 million invested, compared with 3.6, 2.8 and 5.3 jobs per $1 million invested for the oil and gas sector, electricity generation, and plastic product manufacturing respectively.[23, 24] These jobs are located in communities where people live. Energy efficiency jobs present an attractive mix of higher pay and lower barriers to entry –meaning that workers in the energy efficiency sector have less formal education than the national average, but their income is higher than the national average.[25]

5. ESTIMATED PROGRAM COSTS

Based on the analysis and key takeaways presented above, a business case can be developed based on a set of high-level assumptions around program design and their associated costs. In terms of program design, the following assumptions have been made:

- The program will initially focus on Part 9 homes, with a potential expansion to Part 3 in the future (i.e., Part 3 is not addressed in this business case), and
- The program will leverage existing program architecture at provincial and regional scales to ensure best use of resources.

Specifically, the estimated program costs presented below assume the availability of the following supports and infrastructure to help support the home retrofit process:

- Free pre/post EnerGuide assessments subsidized by the federal government, supplemented as needed by the CleanBC program (i.e., where federal subsidies cover only a portion of the cost of assessments)
- A variety of product rebates, including existing provincial and utility rebates, as well as up to $5,000 in federal rebates
- Additional product rebates for low- and moderate-income households to be offered by the provincial government
- Up to $40,000 in federally funded interest-free loans

[23] Madi Kennedy and Tom-Pierre Frappé-Sénéclauze (2021), "Canada's renovation wave: A plan for jobs and climate." The Pembina Institute. https://www.pembina.org/reports/canadas-renovation-wave.pdf

[24] Statistics Canada, "Input-output multipliers" https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3610059401&pickMembers%5B0%5D=2.3&pickMembers%5B1%5D=4.6&cubeTimeFrame.startYear=2013&cubeTimeFrame.endYear=2017&referencePeriods=20130101%2C20170101

[25] Kennedy, and Frappé-Sénéclauze. "Canada's renovation wave: A plan for jobs and climate.".

- Existing CRD program resources and architecture (e.g., web platforms, outreach materials) that can be supplemented/adapted

In the sections below, cost estimates are broken down into to major categories:

1) *Program overhead*, which represent costs associated with overall program design, marketing, staffing, and administration
2) *Homeowner support*, which provides cost estimates for retrofit support service per home.

These costs are then combined to provide an overall estimate of program costs for the first five years of a regional retrofit program.

5.1. Estimated Costs: Program Overhead

Table 8 below lists one-time and annual overhead costs assumed as a part of the program, including marketing and awareness raising, recruitment, training, staffing (including both CRD and other program staff), and other program materials. It is worth noting that while significant investment in marketing and recruitment would likely yield higher program uptake rates, a more moderate level of investment in these items has been assumed to maintain a more modest program budget. Overall, a greater investment in targeted marketing efforts that identify high-potential demographics (e.g., new millennial homeowners, higher-income, climate-conscious households) and homes (e.g., with near-term heating system replacement needs) is likely to yield improved uptake and is recommended for the first phase of program deployment. Such a targeted approach would also reduce outreach costs, which could be further supplemented by marketing and recruitment support from CRD municipalities, contractors, and community-based organizations (CBO).

Table 8: Estimated costs: program overhead

Program Component	Description	Y1 Costs	Annual Costs, Y2+
Initial marketing & awareness raising	**Targeted marketing by home and demographic** • Development of a fulsome marketing and outreach plan • Segregation of different demographics/home age/needs based on available data • Identification of specific home/owner profiles/archetypes with associated messaging	$25,000	$5,000
	Marketing and educational materials* • Brand development • Website update • Program flyers • Info/fact sheets • Short video production • Testimonials** • Social and newspaper media content • Lawn signs	$30,000	$15,000

Program Component	Description	Y1 Costs	Annual Costs, Y2+
	• Translation into other languages (e.g., French, Cantonese, Mandarin, Punjabi, Farsi)	$3,500	$1,000
Recruitment	**Program outreach** • Paid social and other media • Community events • Targeted door-to-door outreach	$20,000	$15,000
	• Mail blast/bill inserts	$13,000	$13,000
	Contractor outreach/training • Webinar/contractor breakfast • Fact sheet • Homeowner script • Ongoing outreach/relationship building (in concert with HPSC) • Encourage collaboration between contractors to provide coordinated experience and single point of contact for homeowners	$15,000	$8,000
	Community Based Organization (CBO) outreach • Webinar/lunch • Fact sheet • Homeowner script • Ongoing outreach/relationship building	$5,000	$8,000
Training	**Retrofit Coordinator** • Training on CRD program only, including available rebates and financing options	$10,000	$10,000
Staffing* **	CRD staff – Program Coordinator (0.5 FTE)	$52,500	$53,500
	Program manager (1 FTE)	$75,000	$75,000
	Direct supervision	$20,000	$20,000
	Program administration	$16,000	$16,000
Other Materials	**Program Materials** • Development of contractor form, including consultation with contractors	$7,500	$0
Totals	**CRD Staff**	**$52,500**	**$53,500**
	Program Overhead	**$240,000**	**$186,000**
	Total Overhead	**$292,500**	**$239,500**

** Assumes existing materials can be adapted*

*** Testimonials are already being funded under a different program outside the CRD, but can be adapted for CRD program use*

**** Staffing costs do not include Retrofit Coordinator time, as this is captured in homeowner support costs (see Section 5.2)*

5.2. Estimated Costs: Homeowner Support

Table 9 below shows the estimated costs for upgrade support per home. Hourly rates for support are estimated at a blended rate of $50/hour to account for the levels of training/support that are likely required for successful program deployment. Note that a section indicated leveraged resources has been included to demonstrate where current rebates already help reduce the costs associated with home energy retrofits. While there is no indication that such rebates will be discontinued in the near future, the CRD could need to find additional funding or amend the program to address any such gaps in the future.

Table 9: Estimated costs: homeowner support

Step	Tasks	Hours/ Home	Cost/ Home
Screen	• Conduct (virtual) home energy check-up/screening	0.5	$25.00
Review and Plan	• Review EnerGuide Renovation Upgrade Report • Assist client with upgrade choices • Consider DIY options and provide contractor selection advice and standardized quotation forms • Direct client to CleanBC qualified contractor directory	2	$100.00
Compare and Select	• Help homeowner scope work, compare contractor bids, and ensure rebate eligibility	2	$100.00
Finance	• Help identifying and selecting financing and incentives	0.25	$12.50
Document	• Help getting documentation and assist with submitting rebate applications	1.25	$62.50
Evaluate	• Quality Assurance checks post-retrofit (done in aggregate or spot-check) • Measurement & Verification	1	$50.00
TOTAL		**7**	**$350.00**
Leveraged Resources	• Pre/post-audit costs (likely unnecessary due to anticipated Federal programs)	N/A	$500
	• Top-ups for electrical service upgrades / heavy-ups	N/A	$1500
	• Rebate top-ups	N/A	$350 - $1000
TOTAL with Leveraged Resources		**7**	**$2,700 - $3,350**

Table 10 shows total program costs for a fixed budget and approximately 1% uptake, which is fairly standard for an effective, traditional efficiency program. The number of homes retrofitted increase in Year 2, once higher start-up costs are expended in Year 1, and then decrease slightly in Years 3-5 as staff costs increase by 2% per year while the budget stays fixed.

Table 10: Total Program Costs, assuming a fixed budget over five years

Program Year	Y1	Y2	Y3	Y4	Y5
Calendar Year	**2022**	**2023**	**2024**	**2025**	**2026**
Budget	**$602,500**	**$602,500**	**$602,500**	**$602,500**	**$602,500**
CRD Staff (0.5 FTE)	$52,500	$53,500	$54,500	$55,500	$56,500
Program Overhead	$240,000	$188,220	$190,484	$192,794	$195,150
Homeowner Support	$310,000	$360,780	$357,516	$354,206	$350,850
Estimated Program FTEs (excluding CRD staff)	3	5	5	5	4
% Program Overhead (excluding CRD staff)	40%	31%	32%	32%	32%
Homes Going Through Program/Year	885	1030	1021	1012	1002
% annual penetration	0.9%	1.0%	1.0%	1.0%	1.0%
Homes/Year with leveraged resources	92	107	106	105	104
% annual penetration with leveraged resources	0.1%	0.1%	0.1%	0.1%	0.1%
Additional tCO_2e abated each year*	1781	2072	2054	2036	2016

** Carbon abatement assumes savings of 2 tCO2e per home, which represents a mid-point case between the average GHG savings per home for a standard retrofit of 1.35 tCO2e, and the GHG savings of fuel switching retrofits of 2.6 tCO2e per home; see Section 2.1 for more details on these estimates.*

While retrofitting 1% of homes per year is substantial, a higher uptake rate of 3% of homes per year is necessary to achieve a full building stock improvement by 2050. Table 11 shows the costs, program reach, and carbon savings under a higher uptake scenario to demonstrate the scale of the costs and effort that would be required to meet this target. However, it should be noted that to achieve such a high level of program penetration, multiple funding provincial, federal, and utility streams and efforts will be required, making CRD's program one of a larger set of complementary program offerings. In both scenarios, it is assumed that this will be met by a mix of federal incentives, utility incentives, and top-ups from other levels of government.

Table 11: Program budget implications of higher (3%) program uptake

Uptake Scenario	High Uptake
% Annual Penetration	3%
Homes Per Year	**3046**
Total Budget Needed	**$1,305,600**
CRD Staff Support	$53,500
Program Overhead	$186,000
Homeowner Support	$1,066,100
Program FTEs	11
Total budget including leveraged resources	*$10,204,100*
tCO2e abated per year	6129

5.3. Key Takeaways

The cost analysis presented above yields several key pieces of information that are necessary to consider as the CRD moves into the next phase of program design:

- A CRD-run program that integrates into existing program offerings and provide homeowners with coordinator support not currently offered by existing CleanBC Energy Coach services is estimated to require an average of 7 hours of support or $350 per household. Such levels of support will vary considerably as those engaging in deeper retrofits or with more complex homes may require more, while others will require less.
- Program overhead is estimated at approximately $290,000 in the first year, decreasing to $240,000 in subsequent years as the program gets off the ground and promotional materials are developed.
- Program resources that can be leveraged in a CRD-led program include existing federal and provincial rebates and incentives for pre- and post-retrofit audits, electrical service upgrade top-ups and rebates. In the event that these resources are reduced or eliminated, the CRD will need to reassess the nature and/or level of support for homeowners to reap the best value.
- A fixed budget of $602,500 per year for the first five years is estimated to support the completion of home retrofits in 1% of the homes in the capital region per year, representing a standard but substantial uptake rate. While carbon savings will vary based on the nature of the upgrade, it is estimated that this could yield between 1.18 tCO_2e and 2.43 tCO_2e of emissions savings per home, or a total of over 2000 tCO_2e additional carbon savings across the capital region each year. This translates into a cumulative 29,443 tCO_2e avoided over five years.
- Program costs supporting a 1% uptake rate can be met by applying to the Federation of Canadian Municipalities' *Community Efficiency Financing* (CEF) funding stream. However, an uptake rate of 3% of homes per year is necessary to achieve a full building stock improvement by 2050. The scale of such a program would require significant support at provincial and federal levels, including additional incentives and rebates for electrification equipment and supporting efficiency measures.

5.4. Key Barriers and Issues to Resolve

The program and business case described above has been designed to provide homeowners with a significant addition of support to identify and complete deep emissions retrofits, while avoiding duplicating existing and forthcoming programs at federal and provincial scales. However, a number of additional issues remain in need of resolution for the CRD to successfully implement such a program. While some of these issues lie outside of the CRD's direct control, there are nevertheless opportunities to work with other organizations and jurisdictions to support them. Some key issues identified in this preliminary phase of work include:

- **The bespoke nature of many retrofits.** There is a wide variance in the actual conditions in an individual home and the upgrades required in a deep energy efficiency and/or fuel switching retrofit, especially when health issues are considered. This in turn creates a wide variation in costs, much of which is not accounted for in typical energy efficiency incentives. For example, asbestos materials found in many older homes require remediation prior to renovation, which adds costs not covered by rebate or incentive programs.
- **Conflicting messaging of multiple programs.** Both homeowners and contractors can become easily confused and fatigued by the array of programs on offer by different actors, which is only set to increase over the next few months and years. While additional support for retrofits is sorely needed, the CRD will need to work closely with provincial and federal authorities to ensure clear and coordinated messaging. In particular, it will be important to coordinate with the existing provincial Energy Coach program, as this is a strong potential entry point into a CRD-led program.
- **Managing liability.** Feedback from key stakeholders indicates that ensuring objectivity and impartiality with respect to contractor selection is important to maintain to avoid potential conflicts of interest or litigation. This can be accomplished by referring to existing qualified contractor lists where relevant. Homeowner support in understanding contractor quotes would need to be approached carefully by adhering to the risk management practices outlined below.
- **Low contractor interest in retrofit programs.** Stakeholder input indicates that regional contractors are already currently over capacity, making it difficult for them to become familiar with and promote new programs. The CRD will need to work with contractors directly, as well as industry organizations, to ensure a sufficient value proposition is developed that piques the interest of the contractor community in promoting and supporting the program. This is especially important given the multiple federal, provincial and other programs on offer or planned for the near future.
- **Insufficient availability of qualified contractors.** Where contractors are available and interested, there may be relatively few with the skills and training required to complete successful upgrades that meet both emissions reduction and customer satisfaction goals. Furthermore, the recent announcement of federal rebates for efficiency upgrades have made for long wait times to contract with an Energy Advisor. The CRD can partner with organizations such as the Home Performance Stakeholder Council to continue to increase interest in additional contractor training and thus the available pool of qualified contractors capable of meeting program targets.
- **Little authority over quality assurance.** Neither energy advisors nor the CRD have the necessary authority to require contractors to follow up in the event of a dissatisfied program participant. While making use of qualified contractors lists can help reduce this risk, there remains a threat of poor performance, to the detriment of both meeting the CRD's targets and the reputation of the program.
- **Ongoing need for coordination.** The complexity of arranging and coordinating work is a key barrier to home retrofits. This additional service is a common element of best-in-class

retrofit programs from Europe; however, providing this service was estimated to require 6-15 hours of additional work, depending on the number of measures selected. Such a level of support was assumed to be beyond the scope and potential level of support for this program, and would greatly reduce the number of homes the program could reach under the assumed project budget. The CRD may wish to work with existing general contractors to encourage partnerships with program-offered retrofit coordinators to ensure better overall service delivery while maintaining low program costs.

- **Ongoing support for natural gas systems.** Several studies have shown the impact that significant rebates can have on the market adoption of certain products and technologies.[26,27] Ongoing programs at the provincial and utility scales that offer rebates for natural gas heating and domestic hot water systems make such products significantly more attractive than some electrification measures, especially given their already low up front capital costs. In order to make investments into fuel switch renovations more attractive, the CRD has an opportunity to advocate for higher levels of provincial and federal incentives that reduce the capital costs of electrification, in addition to a sufficiently compelling marketing campaign to promote their benefits.
- **Need for additional financial support for low-income homeowners.** While the proposed program reduces the financial and other burden associated with the retrofit process, it does not actually help pay for retrofits themselves. Low-income programs tend to cover a greater percentage of the cost of energy efficiency measures than other programs and in many cases will cover the full cost of selected measures. On average, market-rate multifamily programs cover one-third of the costs of efficiency measures, with the property owner covering the remaining portion. In the low-income space, on average, efficiency programs cover 90% of costs, and the customer covers 10% or less of the costs.[28] Low-income homeowners also need specific marketing and outreach, and programs targeted to their needs. As the CRD does not have the capital to finance low-income retrofits, low-income customer uptake will depend on other incentives available. This gap is expected to be filled by a forthcoming Province-led income-qualified retrofit program.
- **Rental housing.** Rental housing has not been effectively tackled by home retrofit programs, as the tenants typically pay all utilities but have no ability to engage in retrofits, while the landlords have little incentive to upgrade homes. The CRD program may wish to support single family rental dwellers using landlord education and other supportive programs, including guides to help renters engage in conversations with their landlord about retrofits.

[26] Fuller, Merrian C., Cathy Kunkel, Mark Zimring, Ian Hoffman, Katie Lindgren Soroye, and Charles Goldman (2010), "Driving Demand for Home Energy Improvements." Berkeley National Laboratory. https://escholarship.org/content/qt2010405t/qt2010405t.pdf

[27] Stephane de la Rue du Can, Amol Phadke, Greg Leventis, and Anand Gopal (2010), "A Global Review of Incentive Programs to Accelerate Energy-Efficient Appliances and Equipment," Lawrence Berkeley National Laboratory, https://www.osti.gov/servlets/purl/1165201

[28] Ian M. Hoffman, Charles A. Goldman, et al., "The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009–2015," Lawrence Berkeley National Laboratory (June 2018), https://emp.lbl.gov/publications/cost-saving-electricity-through

5.5. Managing Liability and Program Risk

Providing expert advice to homeowners regarding home energy retrofits is widely recognized as an effective support to retrofit uptake and is a best practice in much of the developed world. In Canada, home retrofit advisory services are already offered in BC and Ontario. Windfall Ecology Centre has provided home retrofit advice to homeowners since 2001 and delivered turn-key home retrofit services to low-income families in Ontario on behalf of Enbridge Gas since 2014. In BC, City Green has provided similar services via the Province of BC's *Energy Coach* program, and provided homeowners in the capital region with retrofit advice and support over 2020 and 2021 to considerable success. Retrofit advisory services are now under consideration by the Metro Vancouver Regional District, the City of Vancouver, and several other municipalities across Canada, and will increase in prevalence as existing building emissions reductions become increasingly important to reducing municipal and regional carbon emissions.

Managing potential liability and risk is an important aspect of the CRD business case and is one of the reasons an OSS model delivered by a third party has been recommended. Other risk management measures include advisor training, appropriate insurance coverage, and a simple liability waiver agreed to by program participants as part of the enrollment process. In all cases, advisors should be sure to provide advice and never make decisions on behalf of homeowners.

6. PART 3 MULTIFAMILY HOMES

As shown above, the GHG savings available in Part 3 multifamily buildings represent only 18% of the GHG savings potential as is available in the Part 9 housing stock. As such, it is recommended that the CRD focus its resources on single family, townhome, and duplex/triplex homes to ensure most efficient use of existing capital, ensure access to the service from homes across the region, and leverage ongoing work at the provincial scale (e.g., via the Energy Coach service).

However, a significant proportion of the building sector in some CRD communities is made up of multi-unit residential buildings, both strata owned and rental, and will require dedicated programming to meet municipal and provincial emission reduction ambitions. These building types require a different process than single-family homes—the audit process is different and more expensive (ASHRAE Level 2 or 3, instead of EnerGuide), and the retrofits are often more complex, especially if fuel switching is being considered. Low to moderate income earners are also more likely to be renters and occupy MURBs, and as such present a more acute equity challenge than single family dwellings in the capital region. There are also split incentives between the individual strata owner or tenant and the building management, where the actor footing the bill for a retrofit is not the same actor that receives the resultant benefits in the form of energy and cost savings. Strata-owned and purpose-built rental housing therefore require different forms of support to realize emission reductions. Because the affordability gap — i.e., the difference between the cost of a housing unit and the price a low-income resident can afford— is a central housing issue in the capital region, it also needs to be a core focus of any program focused on these buildings.

Nevertheless, the urgency for electrifying these buildings remains as great or greater than for Part 9 homes, as there are fewer opportunities to replace commercial-scale boilers and furnaces (due to their longer service lives). Moreover, demographic analyses tend to show that lower-income

households disproportionately inhabit multi-family buildings (particularly purpose-built rental) and are more likely to be affected by the health impacts associate with poorly performing buildings and/or those that are ill-equipped to manage the impacts of climate change.

Fortunately, there are some current and potential future programs that are seeking to address this space, including the *Building Benchmark BC* program, designed to support large building and portfolio owners understand, report and publicly disclose their buildings' performance. While not a retrofit support program, *Building Benchmark BC* provides owners and participating jurisdictions with the information necessary to begin to improve performance. Support offered to participating building owners in future years of the program will also receive basic information on potential retrofit opportunities.

As this is also a growing sector, it is worth noting that the BC Energy Step Code (which governs the construction of purpose-built rental in many municipalities in the capital region) will be the most direct way to influence the energy performance of new MURB. Potential changes to the BC Energy Step Code to include carbon regulations and resilience measures, such as high efficiency cooling, could make accelerated adoption of the BC Energy Step Code a high impact way to reduce future emissions from this sector.

Other opportunities for specific ownership types are noted in further detail below.

6.1. Strata Buildings

As noted above, a project currently being led by Metro Vancouver and a group of other local governments is also currently exploring the expansion of Metro Vancouver's *Strata Energy Advisor Program* across the province. In its current form, the program is intended to provide strata buildings with an OSS program designed to address their unique barriers. If adopted at the provincial level, such a program would support strata owners and their property managers understand and undertake energy efficiency and emissions reduction upgrades, and fill the gap of retrofit support currently available to strata owners. However, even if the Strata Energy Advisor program is not expanded provincially, it would provide a strong framework on which to expand the CRD's program to strata housing in a later or concurrent phase.

6.2. Multifamily Rental Buildings

Purpose-built rental buildings are a complex target for a CRD retrofit program, as the sort of guidance, support, and incentives needed for this ownership type differ dramatically from the single family or strata stock. However, an additional targeted outreach opportunity to this sector is likely of high value. The analysis of the multifamily rental housing stock listed in the BC Assessment data indicates that there are 30 purpose-built rental buildings over 100,000 ft^2, accounting for 20% of the rental floor area in the region but only 2.5% of the 1,187 buildings. The overall age of the rental stock is older than the strata stock as well; 15 of the 30 largest rental MURB buildings were built before 1977, with the median year built for the sector overall at 1969. Targeted outreach to the owners and property managers for these buildings could have a significant impact on community emissions across the region, and would benefit a greater proportion of lower-income households or those living in or at risk of energy poverty. As such, it is recommended that a targeted program for

purpose-built rental housing be developed in partnership with capital region municipalities. The City of Victoria's *Market Rental Revitalization Study* (MaRRS) could form a foundation for the CRD to build on, as it characterized the rental building stock in Victoria and explored means of ensuring tenant support and avoid renovictions while undergoing energy and seismic retrofits.

7. CONCLUSION

This report has presented the findings of a set of analysis and engagement intended to inform a business case for a residential energy retrofit program at the CRD. While specifics of program design are out of scope for this work, a broad set of assumptions have been made regarding program design that can be built upon in subsequent phases of program development. Following approval of the business case, program design should be more fully fleshed out using input from key stakeholders, including contractors working in the region. The CRD should also continue to monitor developments at the federal and provincial scales to ensure program developments at these scales can be leveraged for best program results.

APPENDIX A. ONE-STOP-SHOP (OSS) CASE STUDIES

A.1 KFW Effizienzhaus

KFW Effizienzhaus is the German national home retrofit program.

Attributes	Details
Location	Germany
Date Started & Impact	Operating over 10 years
Ownership Model	KFW state bank in partnership with German Energy Agency
Key Activities	KFW provides low interest loans and other incentives. The German Energy Agency licenses Energy Advisors, maintains the Effizienzhaus rating system and quality assurance protocols (similar to NRCan).
Key Resources	• Low interest loans up to 120,000 EUR (up to 35% forgivable) • Incentives for audit and retrofit facilitation costs (including contractor selection and coordination • State licensed independent Energy Advisors provide audit and retrofit facilitation services.
Homeowner Journey	1. Homeowner retains a licensed Energy Advisor. There are over 10,000 licensed Energy Advisors (included among them are trades people, architects, engineers, etc.). KFW supports the cost of the Energy Advisor 2. With assistance from the Energy Advisor apply for a retrofit loan from a local bank which manages loans on behalf of KFW (significant portions of KFW loans are forgiven based on performance achieved). 3. Enter into loan agreement and start retrofit work. 4. Submit confirmation and receive repayment grant. The Energy Advisor plays an important role in the remodeling process. Devises the remodeling plan with the homeowner, based on: • Building specifications, calculations, and experience • Current incentives and rules • The wishes and financial constraints of the homeowner • Reviews bids with the homeowner Directs the actual retrofit and all contractors. • Helps develop contractor RFPs • Helps collecting and comparing bids • Advises homeowner regarding contractor selection • Ensures quality and timeliness of contractors' work • Measures the results (e.g., blower door test) and issues the "Energy ID" • Fills out relevant (technical) forms for KfW and the loan application.

Attributes	Details
Marketing Channels	KFW is a highly recognised brand familiar to most Germans. Information websites are maintained by KFW, the German Energy Agency, and licensed Energy Advisors
Revenue	German government recovers costs through expanded economic activity. Estimated over 200,000 jobs created or protected per year.
Costs	Energy Advisor fees are paid by KFW on a sliding scale with a maximum of EUR 4000 per completed retrofit. Pre and post audits are separately subsidized (EUR 800)
Success & Risks	As of 2019 over 3 million retrofits completed

A.2 Oktave

Oktave is an integrated renovation service model in the French region of Alsace, which aims to increase the number of deep renovations. The model provides the building owner with a main point of contact that guides them throughout the renovation process.[29]

Attributes	Details
Location	Grand Est region, France
Date Started & Impact	Started in 2016 to provide homeowners with an independent renovation advice service specialising in deep energy retrofits. Completed 180 project in first 2 years.
Ownership Model	Regional government agency
Key Activities	Technical renovation advice tailored to the specific building. • Support with a financial plan, combining potential grants, tax rebates and low-interest loans • Project management assistance throughout the renovation process • Personalised "post-works care" for two years after completion of the renovation • A directory of qualified and experienced professionals trained by Oktave to guarantee long-term building performance
Key Resources	• Financial management (accounting, auditing, quality control, litigation) • Operational management (renovation advisors, loan advisors, relationship with contractors and companies)
Homeowner Journey	The retrofit journey follows four main steps: 1. Initial contact and on-site visit, from which the suggested measures are derived. The renovation plan is discussed and outlined based on the need and financial means of the homeowner. Following this, an Oktave contract is signed, stipulating the terms and cost. 2. The Oktave advisor collects offers from relevant building professionals and puts together the most appropriate renovation package. The homeowner agrees on a renovation and financial package suggested by the advisor.

[29] Turnkey Retrofit, 2020, *project n°839134*.

Attributes	Details
	3. The actual renovation works take place, during which the advisor supports the homeowner when needed. A blower-door test is used to control the general quality and performance of each renovation. 4. The final step is the "post-work care", in which the advisor stays in contact with the homeowner and ensures the technical and financial plans work as intended.
Marketing Channels	• Local renovation advice centres • Local network (installers, architects, tradespeople etc.) • Website and social media
Revenue	• Compensation of the technical support in the form of a service package billed to the customer. • Financial income generated through its credit intermediary activity (referrals).
Costs	• Labour cost (advisors, admin personnel etc.) • Information system cost (development, maintenance) • Communication cost
Success & Risks	The program was modestly successful in its first two years of operation and was projecting uptake of 1000+ retrofits per annum post 2020. Since it is operated by a local government agency it is exposed to litigation risk.

A.3 Izigloo

The Izigloo web platform is an intelligent online registry. It keeps track of the maintenance and management of single-family homes on behalf of subscribers. Based on an analysis of data from 70,000 completed renovation projects, it can provide a quick estimation of a homes upgrade potential, which often entices people to engage in a retrofit. The Izigloo renovation service allows homeowners to check their energy consumption online, get personalized advice on how to improve the performance of the home and provide links with qualified professionals to carry out the work.

Attributes	Details
Location	France
Date Started & Impact	The platform launched in 2015 but the company has been retrofitting homes since 2010. It recognised the need for a more structured support for renovation projects because customers, often, perceive them as complicated, expensive, and time-consuming. Few customers were willing to pay for additional services, hence the idea of industrialising the support through a digital platform. The main objective is to trigger renovation work and match customers with building professionals. Since launch the project has supported 40,000 home retrofits with an average project size of EUR 9000
Ownership Model	Privately owned
Key Activities	• Provides automated calculation and estimations of the required cost, energy savings, available subsidies relating to a potential renovation project

Attributes	Details
	• Offers energy renovation advice • Allocates the right building professionals to a project
Key Resources	• Online portal and extrapolation solution • Network of professionals
Homeowner Journey	1. The building owner finds their way to the Izigloo website. User receives an estimate of the total cost (based on decision trees, product list with prices, subsidies and eligibility criteria) 2. If the building owner is interested, an appointment is made with an advisor. The building owner indicates how soon he/she would like to get the work done. 3. The project is published on the portal as an open tender for the professionals to bid on. 4. Up to three professionals can "buy" the prospective project and deliver their proposal. 5. The building owner signs with the preferred professionals. 6. The renovation work is conducted. 7. 8. Follow-up feedback form is filled in by the building owner.
Marketing Channels	Izigloo reaches most customers through online marketing and guides them through the steps of the renovation journey.
Revenue	• Selling potential projects to professionals (i.e., leads) • Percentage of the project value when a project is carried out
Costs	EUR 8 million to develop
Success & Risks	Successful model with high development costs

A.4 SuperHomes

SuperHomes is an integrated renovation service that has been successful in increasing the number of deep energy renovations by providing technological and financial support for homeowners.

Attributes	Details
Location	Tipperary region, Ireland
Date Started & Impact	Started in 2015 and completed approximately 280 retrofits. Average primary energy saving is 71%
Ownership Model	Publicly owned by the Tipperary Energy Agency
Key Activities	• Home energy assessment/survey • Renovation project management • Grant/subsidy application • Post-installation check/evaluation
Key Resources	• Good project managers • Strong local network • Financial package
Homeowner Journey	1. The building owner expresses interest and makes an application on the SuperHomes website. 2. If the project is deemed feasible, a home energy audit is carried out. The assessment includes a blower door test.

Attributes	Details
	3. A suggested package of measures designed to achieve an EPC A-rating is proposed. Some measures are mandatory within the scheme. The complexity of a deep renovation is simplified and presented in a digestible way to the homeowner, while the recommendations are tailored to the specific building and the incentives of the homeowner. 4. SuperHomes provides costs to the homeowner from a pre-approved panel of contractors and sub-contractors. 5. If the homeowner wishes to proceed, TEA accesses subsidies on behalf of the client. 6. The project management and quality assurance of the various contractors and installers is by TEA. 7. A post-audit is carried at the end of the works by TEA.
Marketing Channels	• Local network (companies, association of building managers etc.) • Local renovation advice centres • Website
Revenue	Project management and professional fees which are included in the total cost of the works for the homeowner.
Costs	Labour cost (advisors, admin personnel etc.) • Communication/outreach costs
Success & Risks	Approximately 280 deep retrofits completed in first 3 years. Regional utility absorbs liability risks

A.5 BetterHome

BetterHome is an industry-driven one-stop-shop model. It has proven successful in increasing demand for deep energy renovations. The model reduces the burden on the building owner by streamlining the renovation process.

Attributes	Details
Location	Denmark
Date Started & Impact	Started by 4 retrofit sector suppliers in 2014 the collaboration has generated 1182 retrofit to 2019.
Ownership Model	BetterHome was created as an independent organisation. The overall objective is governed by the private suppliers through regular board meetings (Rockwool, Danfoss, Grundfos, and Velux)
Key Activities	• Renovation advice. The homeowner uses an online tool to enter details about their homes and energy consumption and receive a report and recommendations on renovation measures and offers from local suppliers. • Skilled professionals. Local craftspeople carry out the installation work. The craftspeople receive training and guidelines from BetterHome. • Financial package. The customer discusses the renovation project with his/her usual bank, and the bank can use the BetterHome tool

Attributes	Details
	to refer to the details. The associated banks trust the BetterHome quality and financial characteristics
Key Resources	• Project managers • Smart digital solution • Network of building professionals • Expertise in building components
Homeowner Journey	1. Homeowner uses the BetterHome online portal to get a first estimate for their building and indicates interest in learning more about their retrofit options. If both parties are interested in moving forward, they schedule a date for an on-site visit. 2. During the on-site visit an energy assessment is conducted, for which the installer has an online standardised survey to complete. The installer also discusses different renovation possibilities that they have and informs them about indoor environmental quality aspects and how to improve these. Based on the online survey, the installer can present energy and cost saving potential for different renovation alternatives. 3. If they find a solution that meets the expectations of the building owner, they sign a contract. While BetterHome assists in providing standardised contracts, the contract is between the installer and building owner. 4. Renovation is carried out. 5. Post-retrofit survey to make sure everything went as planned. Installers that receive substantial complaints are removed from the BetterHome network.
Marketing Channels	• Online portal • Network (suppliers, installers, local banks) • Social media
Revenue	Free to the homeowner and there are no payments between BetterHome and the contractors. The industry consortium relies on product sales to generate revenue.
Costs	• Labour cost (project managers, business model developers, admin personnel etc.) • Development and maintenance of the online portal/solution
Success & Risks	1182 retrofits in first 5 years. Product suppliers assume retrofit risks

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REPORT TO FIRST NATIONS RELATIONS COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 22, 2021

SUBJECT **Ecological Asset Management Plan**

ISSUE SUMMARY

Update regarding implementation of Board Priority 3a-4, relating to natural asset management planning with a First Nations lens.

BACKGROUND

The Board's 2019-2022 Strategic Plan includes Board Priority 3a-4:

> To prepare an ecological asset management plan that includes natural infrastructure, First Nations guiding principles, First Nations language & place names, historical uses & invasive species management.

The Regional Board has considered undertaking ecological asset management planning in the past but ultimately did not include natural assets in our corporate Asset Management Strategy.

On July 6, 2016 the Board endorsed a Notice of Motion requesting the CRD's Asset Management approach be refined to include Natural Capital, attached at Appendix A.

On December 14, 2016, in follow up to the Notice of Motion, the Board received a report with background information related Natural Asset Management (Natural Capital) and that staff were initiating some work around natural asset management within service delivery. The report was received for information, attached at Appendix B.

In June 2017, the Board received a presentation regarding the Municipal Natural Assets Initiative (MNAI) Request for Expressions of Interest. Staff provided a verbal overview of what would be entailed in submitting a proposal in regards to costs, time and staffing. The Board did not direct further action at that time.

On March 13, 2019 the Board adopted the Corporate Asset Management Policy and Strategy. The Board did not include natural asset management in the strategy. See Appendix C.

Staff have undertaken preliminary investigations to determine the cost of retaining a consultant to incorporate ecological asset management planning into our Corporate Asset Management program. Initial estimates range as high as $300,000-$500,000. Additional funds may be required to incorporate an Indigenous lens into the plan to meet the full intent of the Board Priority.

In the absence of an ecological asset management plan, staff have continued to advance a number of initiatives that meet many of the same objectives as an ecological asset management plan. Concurrently, staff have been incrementally advancing more understanding of Indigenous perspectives through additional consultation and information-sharing with local First Nations on land-altering works and on parks management projects. More information on existing initiatives is discussed below.

ALTERNATIVES

Alternative 1
The First Nations Relations Committee recommends to the Capital Regional District Board:
That staff proceed with ongoing, existing projects and activities that identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names.

Alternative 2
That this report be referred back to staff for additional information.

IMPLICATIONS

Environmental & Climate Implications
Understanding the multitude of ways that ecosystems support and enable communities in the region, whether as 'ecosystem services' supporting human needs or as 'gifts' to which we respond with reciprocity, leads decision-makers to make choices that nurture ecosystem abundance and resilience. Enhancing our collective understanding of ecological values in the region and proactively taking steps to nurture these values will support both climate mitigation (by protecting, managing and restoring of natural habitat that provide important carbon sinks) and adaptation (by maintaining natural mechanisms to reduce flooding and sea-level rise risks).

A variety of existing initiatives serve to identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names. Related, ongoing work includes the following:

- Biodiversity inventory for the capital region; to protect biological diversity and foster extraordinary environmental stewardship, CRD staff are engaging with key stakeholders (municipalities, provincial/federal governments and the stewardship sector) to promote biodiversity awareness with the public and to compile a regional biodiversity inventory. Tasks include:
    - Facilitating a regional discussion on biodiversity information;
    - Compiling existing relevant biodiversity data, information and research from various sources to identify data gaps and to support local government responsibilities;
    - Promoting public awareness of the importance of biodiversity and its role in improving harbour and watershed health through outreach and education and collaboration with stewardship groups.

- Updating the intertidal and backshore Harbours Ecological Inventory and Rating of the five core area harbours (Victoria and Esquimalt harbours, the Gorge Waterway, Portage Inlet and Esquimalt Lagoon to Albert Head); using low tide orthophoto imagery of the intertidal zone and backshore to gather data and classify the information into a spatial data set of biological and physical features and assign an ecological rating of the shoreline. This project is underway and will be completed by early 2022. In 2022, underwater video will be used to update the subtidal inventory for the five core area harbours. All maps and datasets will be publically available on the CRDs Harbour Atlas.

- Completing the fourth update to the land cover data for the region with a specific emphasis in changes in tree cover and impervious surface cover in a time series (1986, 2007, 2011, and 2019). Potential riparian habitat and potential tree planting areas were also identified. These data are provided to municipalities and First Nations to support urban forest plans, storm water management and watershed initiatives.

- Watershed report cards; CRD is working on a tool to assess the health of watersheds in the region, using various parameters (i.e. tree cover, impervious cover, road density, water quality and quantity).

- Updating the Regional Parks Strategic Plan; provides an opportunity to incorporate strategies regarding First Nations guiding principles, languages and place names, where requested by the Nations.

- Ongoing management planning of Regional Parks; staff regularly assess and consider ecosystem values and work with First Nations to understand and protect cultural heritage values, incorporate Indigenous place names, and support traditional use in parks.

- Land Altering Works policy and MOU; staff conduct impact assessments for land-altering works and engage in quarterly reviews with the WLC, which includes consideration of ecological values as well as archaeological and cultural values.

- Invasive species management; The Capital Region Invasive Species Program brings together local governments and First Nations with an interest in, or management responsibilities for, invasive species within the capital region to pursue a coordinated approach to effectively and efficiently managing invasive species. Priority focus areas are collaboration, capacity building and training, regional education and outreach programs, early detection and rapid response for new invasive species in the region, disposal, inventory and mapping and restoration, research and trials. Four Nations are currently participating in this program and CRD staff are actively working with T'Souke Nation, District of Sooke and the Province on the management of a significant knotweed infestation on the lower Sooke River.

- Updating the CRD Climate Action Strategy; includes opportunities for collaboration with First Nations on key regional climate adaptation priorities and actions.

- Watershed protection in the Sooke Lake watershed and Leech River watershed; to protect the natural functions of the watershed in order to supply good quality drinking water, for example proactive investments in fire suppression and in enhancing green infrastructure by acquiring and restoring additional sources of drinking water in the Leech watershed.

There is increasing understanding globally that respecting Indigenous worldviews and approaches to ecosystem management can help support resilient ecosystems and communities (including health and food security) in the face of the climate emergency. Continuing to learn from Indigenous perspectives on ecological values will enable the CRD to more effectively collaborate with local Nations on climate solutions for the benefit of the region.

Intergovernmental Implications (First Nations)
Staff have considered how Board Priority 3a-4 links First Nations guiding principles, languages, place names and historical uses to the preparation of an ecological asset management plan. The concept of 'assets' tends to imply ownership, and a view of nature as a service provider, which does not easily align with Indigenous worldviews which recognize the reciprocal relationship amongst humans and all beings in nature. Further, Indigenous languages and place names are definitively not 'assets' of the CRD.

In comparison to how an ecological asset management plan tends to highlight separate parts of the environment for their specific function, many Indigenous worldviews take a more holistic view. A better understanding of Indigenous perspectives and guiding principles related to ecosystem values, language, place names and traditional use would be important foundational work prior to proceeding with ecological asset valuation, with a possible re-framing of the approach to valuing ecosystem features in a manner that incorporates Indigenous perspectives.

Upcoming opportunities to deepen CRD awareness of First Nations guiding principles include:

- Development and delivery of Regional Parks Indigenous interpretive cultural programming, which includes working with First Nations regarding guiding principles for how to respectfully and reciprocally engage with all beings, as well as incorporating First Nations language, place names and historical uses into Parks programs.

- Inclusive governance; where First Nations have nominated representatives to participate in CRD Standing Committees, First Nations can offer their perspectives and guiding principles as related to a wide range of CRD governance and decision-making.

- Annual Forum of All Councils; provides an opportunity for municipal leaders to hear directly from First Nations leaders on a variety of topics. For the 2022 Forum, First Nations Relations staff will ask First Nations if they would like to share Indigenous understandings of ecological values and guiding principles for taking care of land and water in support of the CRD's Climate Action Strategy.

- Protection and Conservation of Heritage Sites; staff are working with First Nations on how to respect cultural heritage sites.

- Cultural sensitivity training for staff who engage directly with First Nations; may include opportunities to learn Indigenous perspectives on taking care of land and water.

- Cultural training sessions for Regional Parks staff, Salt Spring Island parks staff, and Southern Gulf Islands park commissioners and contractors; will provide an opportunity for First Nations to share their perspectives on ecological and cultural values and on taking care of land and water.

Through these opportunities, CRD staff, Directors and the public will be encouraged to learn from Indigenous perspectives on understanding, protecting and conserving ecosystem values.

Financial Implications
Alternative 1 would require no additional resources, as all current initiatives are already within existing budgets. If the Board wishes to proceed with an Ecological Asset Management Plan,

approximately $500,000 would need to be included in the 2022 provisional budget to retain a consultant to develop the plan.

Alignment with Board & Corporate Priorities
Further to Priority 3a-4 to prepare an ecological asset management plan, additional Strategic Board Priorities identified in the 2019 – 2022 CRD Corporate Plan relate to valuing ecological features in the region and working with First Nations to take care of land and water. These include:

3a-3 Work with First Nations on taking care of the land and water while providing space for cultural and ceremonial use, food and medicine harvesting, traditional management practices and reclaiming Indigenous place names.

5a-6 Evaluate & respond to Climate Change impacts & risks to water supply

6a-1 Ensure appropriate funding for parks & trails infrastructure, improvements & maintenance by updating the Regional Parks Strategy with consideration to ecological, recreation & reconciliation principles, land acquisition capacity, & expanded partnerships with First Nations & parks user groups

6b-1 Provide residents with information for advancing with invasive species management by increasing the number of partnerships

15c-2 Integrate asset management & risk analysis into our capital planning processes to strengthen our fiscal management practices & support resource sustainability

Alignment with Existing Plans & Strategies
Related strategies include:

- Special Task Force on First Nations Relations Final Report and the Statement of Reconciliation
- Regional Climate Action Strategy
- Regional Parks Strategic Plan
- Regional Water Supply Strategic Plan
- Corporate Asset Management Strategy

CONCLUSION

In 2019, when the Corporate Asset Management Policy and Strategy was adopted by the CRD Board, the direction was to not include natural asset management. Instead, staff have implemented Board Priority 3a-4 through a variety of other existing initiatives which serve to identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names.

RECOMMENDATION

The First Nations Relations Committee recommends to the Capital Regional District Board:
That staff proceed with ongoing, existing projects and activities that identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names.

Submitted by:	Caitlyn Vernon, MES, Manager, First Nations Relations
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Notice of Motion: Refinement of CRD's Asset Management Approach to Include Natural Capital, July 6, 2016
Appendix B: Staff Report: Natural Asset Management (Natural Capital), November 23, 2016
Appendix C: Staff Report: Corporate Asset Management Policy and Strategy, March 6, 2019

NOTICE OF MOTION TO THE CAPITAL REGIONAL DISTRICT FINANCE COMMITTEE
MEETING OF JULY 6, 2016

SUBJECT **Refinement of CRD's Asset Management Approach to Include Natural Capital**

BACKGROUND

The town of Gibsons is leading the way in valuing and maintaining its 'natural capital' or 'eco-assets' (see attached document for more information). Recently three other local governments in Canada have teamed up with Gibsons along with the David Suzuki Foundation to undertake a two-year pilot project, the "Municipal Natural Capital Initiative." This pilot project will generate practices and approaches that will be useful with regard to valuation, accounting and maintenance of natural capital that is stewarded by local and regional governments. In the meantime, the CRD can take a leadership role as a regional government by beginning to evaluate, value and develop an asset management strategy for the ecosystem services provided by the region's natural capital.

MOTION

1. That the CRD declare nature, and the ecosystems services that it provides, as a fundamental component of the region's infrastructure system.
2. That the CRD amend/develop an Asset Management Policy that ensures adequate provision for the operation, maintenance and funding of natural assets.
3. That the CRD conduct a natural capital valuation of the Greater Victoria water supply area to identify the ecosystems services that provide vital municipal functions, such as storm water conveyance and drinking water storage and filtration, and other ecosystem services and the associated economic value of those services.

Respectfully Submitted,

Mayor Helps

Mayor Williams

Making a difference...together

EEP 16-75

REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, NOVEMBER 23, 2016

SUBJECT **Natural Asset Management (Natural Capital)**

ISSUE

To provide the Environmental Services Committee with background information related to Natural Asset Management (Natural Capital).

BACKGROUND

Sustainable Service Delivery ensures that current community service needs, and how those services are delivered (in a socially, economically and environmentally responsible manner), do not compromise the ability of future generations to meet their own needs. Under the BC Framework for Asset Management for Sustainable Service Delivery, Asset Management is defined as "an integrated process, bringing together skills, expertise, and activities of people with information about a community's physical assets; and finances so that informed decisions can be made supporting Sustainable Service Delivery." Assets are physical infrastructure (e.g., water and wastewater systems, drainage and flood protection systems, transportation systems, civic facilities, parks and fleet) and can also include natural features and the ecological functions they provide (e.g., natural infiltration of stormwater; the cleaning and polishing capacity of wetlands to produce clean water). Natural Asset Management integrates an understanding of natural systems and the functions they provide into traditional service delivery.

Increased alignment of asset management with integrated watershed management leads to improvements in watershed health. Examples are being documented across many jurisdictions. New York City invested $1.5 billion USD in watershed protection in its Catskills watershed, and has saved $6 billion in capital costs and $300 million in annual operating costs for a treatment plant that it would otherwise have required. Research following Hurricane Sandy showed that healthy marshes, beaches and dunes, oyster reefs and floodplains provided important natural barriers against storm surges and flooding risks, making them an effective complement to, or in some cases a replacement for, engineered infrastructure.

Asset management business processes are increasingly used to manage aging infrastructure and service level expectations, and are increasingly becoming a requirement for grant programs such as federal gas tax funding. In May 2014, Canada, the Province of BC and the Union of BC Municipalities (UBCM) signed the renewed Gas Tax Agreement for a 10-year term. The Agreement identifies that local governments will be required to meet asset management commitments as established by the Partnership Committee. These asset management commitments are aligned with Asset Management BC's *Asset Management for Sustainable Service Delivery: A BC Framework*.

The Framework links directly to, and provides support and guidance in meeting, the asset management requirements under the Gas Tax Fund. Stakeholders such as the Province, UBCM, Local Government Management Association, Government Finance Officers Association, Public

Works Association, Planning Institute of BC, BC Water and Waste Association, and others, have endorsed it as the framework for asset management in BC.

Municipalities are starting to recognize the important role the natural environment plays in regional infrastructure systems. Strategies to conserve and enhance natural capital by measuring and managing natural capital within existing asset and financial management processes are starting to emerge. The Town of Gibsons is the first municipality in North America to develop a natural asset policy. The policy explicitly defines and recognizes natural assets as an asset class and creates specific obligations to operate, maintain and replace natural assets alongside traditional capital assets, including having natural asset management strategies and financial resources to maintain them. However, under the Public Sector Accounting Board (PSAB)'s, recognition criteria for tangible assets, natural capital resources are not recognized on the statement of financial position. While there has been growing support to include such natural resources in the definition of tangible assets, there is no timeline from PSAB on development or implementation of a natural capital policy.

Asset Management BC and UBCM are also starting to introduce the concept of natural capital in an asset management context through the Municipal Natural Asset Initiative. UBCM announced recently that "Gibsons is the first of several local governments engaged with the Municipal Natural Asset Initiative, a project bringing together asset management, financial planning and ecological protection."

Within the Capital Regional District (CRD), staff initiated a cross-departmental discussion in March 2016 that identified a number of current projects that have a link to natural capital. The group put forward a recommendation to discuss the Municipal Natural Asset Initiative at the Asset Management Steering Committee to promote awareness of the initiative across the organization. The CRD Board has formally expressed its support for the partnership and this workshop was identified as a deliverable from that support. Finally, Finance staff are working on a response to the July 6, 2016 Finance Committee request for more information on what is required to deliver certain tasks under Natural Asset Management.

ENVIRONMENTAL IMPLICATIONS

Natural Asset Management integrates land use, infrastructure servicing, financial and ecological planning. Emphasis is on the levels-of-service that assets provide and what is affordable over time. A logical management unit for natural capital is the watershed, a boundary within which all water drains to a common point. The BC *Water Sustainability Act* establishes expectations and direction for adapting to a changing climate and recognizes the connection between land use actions and the implications for the water cycle and watershed sustainability. There is strong and growing evidence that natural assets such as forests, rivers, wetlands and riparian areas can provide municipalities with services equivalent to those from engineered assets. Furthermore, natural assets can provide these services at lower cost than engineered alternatives, as they often have both lower capital costs and operating costs.

FINANCIAL IMPLICATIONS

Inclusion of natural asset management into business practices has the potential to reduce capital, operating and maintenance costs of service delivery by local and regional governments. In some

cases, natural systems can replace infrastructure at a lower upfront cost with lower operation and maintenance costs and longer service life. However, at this point, there are no established PSAB accounting standards or costing valuation methods in place.

SOCIAL IMPLICATIONS

The inclusion of asset management, and specifically natural asset management, moves service delivery closer to the goal of sustainability where the needs of current communities are met without compromising the ability of future generations to meet their needs.

NEXT STEPS

Some work in support of natural asset management is planned or underway:

- Integrated Watershed Management staff will co-host a sustainable service delivery workshop in early 2017 with the Partnership for Watershed Sustainability in BC.
- Staff will continue to work to support natural system mapping (through updating of CRD watershed mapping and supporting the Habitat Acquisition Trust's Land Cover Mapping project) and the completion of a set of low-impact guidelines for green infrastructure.

CONCLUSIONS

Natural Asset Management is an emerging component of asset management that meets the larger goal of sustainable service delivery. Consideration of natural asset management is becoming a requirement of funding requests from senior levels of government as it becomes more relevant with aging infrastructure, climate change and our understanding of the potential of natural systems to support resilient communities. CRD staff have initiated actions around natural asset management within our service delivery.

RECOMMENDATION

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

That this report on Natural Asset Management (Natural Capital) be received for information.

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Nelson Chan, MBA, CPA, CMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

DG:cam

REPORT TO THE GOVERNANCE AND FINANCE COMMITTEE
MEETING OF WEDNESDAY, MARCH 6, 2019

SUBJECT **Corporate Asset Management Policy and Strategy**

ISSUE

To present the draft Corporate Asset Management Policy and Strategy and recommend Board endorsement and direction to implement the action plan outlined in the strategy.

BACKGROUND

New assets are procured with a focus on safety, security, and sustainability while current assets are maintained with a similar focus but also to extend useful life. Assets and their systems differ in terms of their complexity, their operational and performance parameters and requirements, and their levels of management. In order to maximize the lifetime of assets, which can be measured in years or decades, assets need to be conserved, protected, maintained, modernized, or upgraded depending on their level of service requirements. This requires different timed intervention strategies accomplished through asset management.

Asset Management is an emerging discipline at the regional and municipal government level. As a result, the CRD is broadening its scope of responsibility by expanding Asset Management practices at both the technical and corporate strategic level.

In 2015, the CRD Board set a priority to develop and implement both a policy and a strategic framework for asset management, to continue in proactively managing assets to meet the needs of the community today and into the future. In response to this priority, the CRD have made improvements in processes relating to capital planning, project management, and impact reporting in regards to the economy. Additionally, the CRD hosted an asset management provincial seminar that hosted a variety of organizations across the province which consisted of provincial ministries, colleges, non-profit housing societies, professional associations, local government, BC Ferries, and BC Housing. Through this seminar, connections were made with the 13 local municipalities and established a local asset management community of practice to share local knowledge and build on each other's successes on asset management maturity.

To formalize our commitment, a Draft Corporate Asset Management Policy and Strategy has also been developed to provide the pathway to sustainable service delivery. The policy outlines key asset management objectives, principles, and governance, while the strategy sets out the improvement action plan to achieve the objectives of the policy to meet the Board's directives. This will ensure that we will be resilient to the challenges we face and be sustainable in delivering the services to the community today and into the future.

The purpose of the policy is to promote sustainable service-delivery through the following objectives:

- Link Asset Management to the CRD's vision, values, and priorities;

- Establish a consistent, methodical, and integrated approach to Asset Management which incorporates a level of flexibility to recognize the differences between departments, services provided, and resources;
- Minimize life-cycle costs while maintaining approved service levels and managing risk within approved boundaries;
- Commit to providing the appropriate workforce and resource funding;
- Balance the level of service, customers' expectations, and regulatory requirements with affordability, available resources, risk, climate action, socio-cultural, and environmental impacts;
- Improve asset and service resiliency through monitoring and adapting to meet current needs, foreseeable medium-term needs, and long-term future needs where practical and appropriate;
- Establish a system of education, continuous improvement, reporting, performance measures, and innovation within the organization; and
- Demonstrate responsible governance in asset and service delivery decisions by requiring:
    - A lifecycle approach when estimating asset investment options;
    - Consideration of long-and-short term decision impacts;
    - Evidence-based decision-making with transparent and consistent decision processes; and
    - Role and responsibility accountability.

To achieve these objectives, the strategy sets out targets and an improvement action plan while linking them with the asset management principles. The priority actions we had set in the short term are:

- Establishing a Policy, Strategy, and Asset Management Steering Committee;
- Developing an Asset Management Program Manual;
- Conducting an Asset Management Maturity Assessment;
- Developing Sustainable Service Delivery Plans for each Service.

The development of this policy and strategy was guided by accepted industry practices and standards including:

- Asset Management BC: AM Roadmap and Guide;
- BC Capital Asset Management Framework;
- A BC Framework for Sustainable Service delivery;
- International Standards Organization (ISO) 55001;
- FCM: Municipal Asset Management Program Resources (Tools and Guides);
- International Infrastructure Asset Management Manual (IIMM).

The Corporate Asset Management Policy and Strategy can be found in Appendices A & B for further information on our progress to-date.

ALTERNATIVES

Alternative 1
That the Governance and Finance Committee recommend to the Capital Regional District Board: That the Corporate Asset Management Policy and Strategy be adopted and staff be directed to implement the strategy.

Alternative 2
That the Corporate Asset Management Policy and Strategy be referred back to staff for specific revisions and additional information, as identified by the Governance and Finance Committee.

IMPLICATIONS

STRATEGIC PRIORITIES IMPLICATION

The CRD provides many services across the region that include a variety of strategic goals and objectives, and are directly and indirectly related to asset management. One of the key principles of asset management is being transparent and as a result, there will be clearer communication on how asset management activities are linked and contribute to achieving strategic goals and objectives within the organization. The Asset Management (AM) Policy and Strategy will unify our efforts and play a key role in achieving the strategic goals and objectives in a manner that is affordable, culturally beneficial, socially and environmentally responsible.

GOVERNANCE IMPLICATION

The AM Policy and Strategy will improve the governance for Asset Management within the organization. It defines the accountabilities and responsibilities at different levels. As a result, it will provide clear cross-departmental roles and responsibilities to create an efficient and consistent model which enables informed decision-making on asset investments that balances risks and costs, and will be sustainable in the delivery of the agreed-upon level of service.

DECISION-MAKING IMPLICATION

Decision-makers at all levels of the organization are constantly challenged to:

- Find a balance between costs, risks, and benefits;
- Meet the current needs of the community, while also trying to position the CRD to best meet future needs;
- Consider climate change, growth forecasts, environmental management, socio-economic issues, affordability, and changing risk as infrastructure assets age;
- Maintain compliance with current and changing legislative requirements and industry standards.

Asset Management business practices will provide evidence-based data for informed decision-making, and analysis of that data will build understanding of the many complex relationships between inputs, variables, options, and consequences which need to be considered. Having a consistent, systematic, standardized method of collecting, storing and analyzing information about our assets will help our organization know which assets are in critical need of replacement, how much we should put into our capital reserve for future replacement, and ultimately show our region we are good stewards of the services and assets they rely on every day.

Figure 1 shows common criteria for informed decision-making.

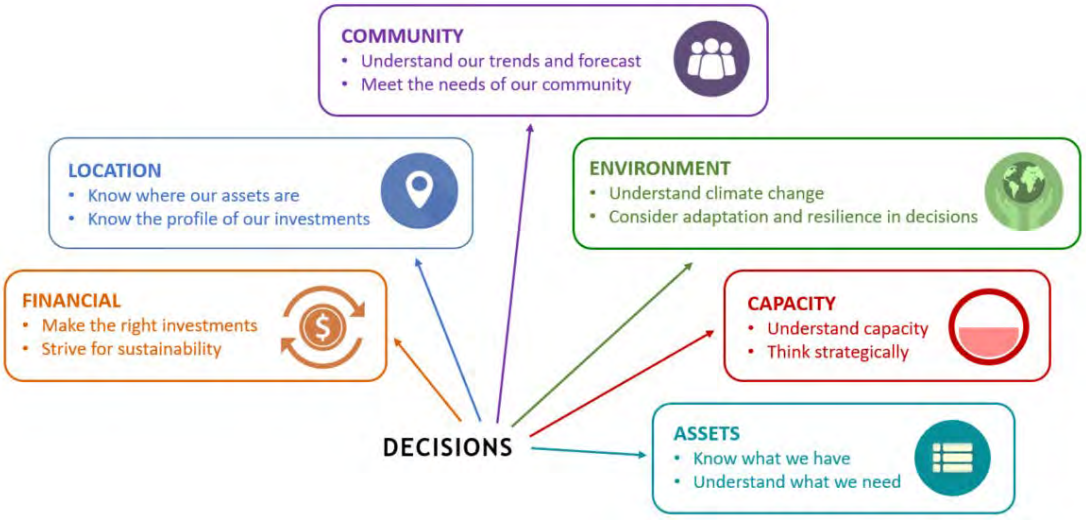

Figure 1: Common criteria for informed decision-making

Asset Management data and analysis will support the CRD decision-makers to more easily navigate complex issues, and to understand the truly important matters which will guide them to make well-informed, transparent, and balanced decisions.

LEVEL OF SERVICE IMPLICATION

Our community relies on the services the CRD provides. Level of service is defined in the strategy through service attributes such as quality, quantity, and reliability, and written from a perspective of how the community receives this service. The core output of implementing asset management ensures the sustainability of our service delivery through having established sustainable service delivery plans which analyse the key elements of managing assets such as demand, cost, risks, asset condition, and capacity, to ensure we meet the needs of the community today and into the future.

LONG-TERM SUSTAINABILITY IMPLICATIONS

- Implementation of the AM Policy and Strategy will build organizational resilience towards the practice of asset management. It does so through adopting a continuous improvement 'Plan, Do, Check, Adjust' process (based on the Deming Cycle). This four-step process will be used to generate on-going iterative improvement, and facilitate responsible adaptation to change in the AM program, supporting the improvement of our information and processes over time.

- Asset Management is a whole-life management practice of our infrastructure from planning through construction, to operation and maintenance, and then through disposal or replacement at the end of life. With the implementation of the AM Policy and Strategy, our mindset of asset management as a continuously adapted business process will support informed decision-making on an on-going basis within a long-term environment of change.

- Asset management will build collaboration cross-departmentally and build robust teams which get all the right information to make well informed decisions. Asset Management is a complex practice; a team effort is needed to scale the practice relevant to the complexity of the services and related assets, in order to provide the best value of time and effort. As our assets and services mature over time, our teams and asset management practices will also mature to provide for a more robust and complex analysis, greater accuracy in financial forecasts and assessments of options, costs, and risks that can be reported to support decision-makers. In addition, collaborating with other local governments to share knowledge and tools, and developing relationships with provincial and federal governments is key to sustaining and evolving the practice of asset management.

- Measuring performance is critical to understanding what progress is being made and whether the goals and targets that have been set are delivering the intended outcomes. Performance measurement drives improvement and provides critical guidance for decision-making. Key performance indicators will be established to ensure we are meeting our objectives, targets, activities, and procedures as well as identifying improvements on how we deliver our services and improve our asset management practices.

  Figure 2 shows the Performance Measurement Framework the CRD will use to measure and report performance towards asset management.

Figure 2: Performance Measurement Framework

- Our region is becoming increasingly more diverse, dynamic, and exposed to disruptive and unpredictable events (i.e. climate change and natural disasters). To be resilient, the provision of assets which are adaptable to change is of paramount importance. A risk register will be implemented and maintained, and risk analyses will be completed on all assets from an asset, service delivery, and organizational risk perspective, and outputs will be used to make evidence-based decisions in the procurement of new assets and in the replacement of existing assets. Having robust risk management processes and well-defined levels of service will enable the capital region to become more resilient.

- Asset management will provide a methodology to articulate and understand workforce requirements to ensure the service is delivered at the defined and agreed-upon level to the community.
- The Corporate Climate Action Strategy demonstrates leadership within operations and the management of CRD-owned assets to reduce greenhouse gas emissions and adapt to climate change, and asset management builds upon this commitment through integration of climate mitigation and adaptation into our sustainable service delivery plans.

FINANCIAL IMPLICATIONS

- As a steward of the tax-payer dollars, services and assets, we aim to make decisions that minimize life cycle costs and maximize the value of our investment by understanding the life cycle cost of an asset that includes the cost of capital, operations, and maintenance costs. With a sound asset management program, we will have a detailed understanding of the costs over the life of an asset which includes capital, operations and maintenance, which will help in calculating the level of funding into capital and operational reserves for long-term financial sustainability. This will provide visibility of the timing and cost of asset replacements.
- Implementation of this policy and strategy is organization wide and will have an impact on existing organizational resources. Determining resource need will be determined through conducting the asset management maturity assessment. An outcome of this assessment will indicate whether the service-delivery team's utilization is balanced, under or over utilized. If a resource gap is identified, it will be addressed through the annual service and budget planning. This ensures that we are appropriately resourced to deliver the level of service to the community.

COMMUNITY IMPLICATIONS

- Public confidence will increase in the organization's stewardship towards the sustainability of our service delivery through having established sustainable service delivery plans. Sustainable service delivery plans will increase our transparency towards the health of our service delivery by stating our asset registry, condition profile, risks, financial profile, and life-cycle strategies. Asset management integrates business practices to manage our assets cost-effectively and to help us make forward-looking decisions to ensure we meet the current and future demands of our community. Ensuring that we have a robust asset inventory, thorough knowledge of our capacity and future demands, established risk, procurement and project management processes, will greatly assist in our goal for long term sustainability.
- Asset management is a process that will provide visibility to opportunities and challenges that our services are facing today and in the future. As it relates to decisions towards asset (re)investments, the processes of asset management will provide the relevant information in making those decisions such as how it impacts the level of service, the consequences associated with the options provided and risks. This will ensure that the decision-maker is well informed in making the decision in order to meet community needs.

CONCLUSION

The Corporate Asset Management Policy and Strategy presents a pathway to CRD's sustainable service delivery including a clear set of objectives, principles, and an action plan to achieve sustainable service delivery.

RECOMMENDATION(S)

That the Governance and Finance Committee recommend to the Capital Regional District Board: That the Corporate Asset Management Policy and Strategy be adopted and staff be directed to implement the strategy.

Submitted by:	Carlo Vijandre, PMP, AScT, FMP, Manager, Asset Management
Concurrence:	Nelson Chan, MBA, CPA, CMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

Attachments
Appendix A: Corporate Asset Management Policy
Appendix B: Corporate Asset Management Strategy

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CAPITAL REGIONAL DISTRICT

CORPORATE ASSET MANAGEMENT POLICY

Section	Financial Services	
Subsection	Policies, Procedures, Manuals	*(policy #)*
Title	CORPORATE ASSET MANAGEMENT POLICY	

POLICY:

This policy outlines the Capital Regional District's (CRD) direction on Asset Management practices and responsibilities. See Appendix A for definitions.

PURPOSE:

The purpose of this policy is to promote sustainable service delivery through the following objectives:

- Link Asset Management to the CRD's vision, values, and priorities;
- Establish a consistent, methodical, and integrated approach to Asset Management that incorporate a level of flexibility to recognize the differences between departments, service provided and resources;
- Minimize life-cycle costs while maintaining approved service levels and managing risk within approved boundaries;
- Commit to providing the appropriate workforce and resource funding;
- Balance the level of service, customers' expectations and regulatory requirements with affordability, available resources, risk, climate action, socio-cultural and environmental impacts;
- Improve asset and service resiliency through monitoring and adaptation to meet current needs, foreseeable medium-term needs, and long-term future needs where practical and appropriate;
- Establish a system of education, continuous improvement, reporting, performance measures, and innovation within the organization; and
- Demonstrate responsible governance in asset and service delivery decisions by requiring:
    - A lifecycle approach when estimating asset investment options;
    - Consideration of long-and-short term decision impacts;
    - Evidence-based decision making with transparent and consistent decision processes; and
    - Role and responsibility accountability.

Further information is available in the Corporate Asset Management Strategy.

SCOPE:

This applies to all CRD services and functions including CRD, Capital Region Housing Corporation (CRHC) and Capital Regional Hospital District (CRHD) Boards, Committees, Commissions, Officers, and Employees. It applies to all assets, both natural and engineered, owned or managed by CRD in the region.

Progress will be reported periodically and implementation of this policy reviewed by the Board at the mid-point of its term.

ASSET MANAGEMENT PRINCIPLES:

To achieve the objectives of the policy and alignment with corporate values and priorities, the CRD will apply the following principles in all asset management initiatives:

1. Put community service delivery needs first and foremost;
2. Make well-informed and evidence-based decision making;
3. Deliver services that are environmentally, economically, and socially sustainable for current and future generations;
4. Manage risk and build resilient infrastructure;
5. Evaluate and include full lifecycle costs in financial decisions;
6. Establish a systematic and integrated approach to asset management and require rigorous and transparent processes; and
7. Commit to continual improvement, encouraging innovation of asset management practices and service delivery.

Further information is available in the Corporate Asset Management Strategy.

ASSET MANAGEMENT DOCUMENTS:

The following are guiding documents for Asset Management:

- **Asset Management Policy** – this defines the organization's commitment to the development, implementation, maintenance, and improvement of Asset management practices; and defines organizational and stakeholder expectations around the administration of CRD's natural and engineered assets. It will initially be reviewed in three years then on a five-year cycle.
- **Asset Management Strategy** – this defines the organization's commitment and approach to implementing the Asset Management Policy. It will be reviewed on an annual basis. It provides an outline of how asset management practices align with the AM Policy and support achievement of corporate goals and objectives.
- **Asset Management Program Manual** – this provides guidance for the development of sustainable service delivery plans and outlines the standard approaches and methods that need to applied consistently within Service Areas to enable corporate-level outcomes reporting.
- **Sustainable Service Delivery Plans** – these plans provide information on how assets are managed including, asset valuation, current asset condition, sustainability plans, risks, long-term financial plans (O&M and Capital), and current performance against levels of service.

ROLES AND RESPONSIBILITIES:

<u>CRD Board (including Capital Regional Hospital District Board and Capital Region Housing Corporation)</u>

- Adopt the Corporate Asset Management Policy and Strategy;
- Provide commitment to ensure sufficient organizational resources are available;

<u>Commissions and Committees</u>

- Understand and implement the approach to Asset Management and use the tools provided in the exercise of delegated authority or provision of recommendations;

Chief Administrative Officer and Executive Leadership Team

- Implement the Asset Management Policy across the CRD;
- Approve Asset Management Strategy, Asset Management Steering Group Terms of Reference, and Asset Management priorities;
- Provide oversight to ensure Asset Management goals and objectives are met;
- Report to Board on Asset Management Program;

Chief Financial Officer

- CRD Asset Management sponsor, providing overall leadership for Asset Management;

General Managers, Senior Managers, Managers

- Accountable for delivery of a service or for one or more asset classes required to support service delivery;
- Understand and implement the Corporate AM Policy and AM Strategy;
- Ensure Division's compliance with the Corporate AM Policy, as applicable;
- Manage assets under their oversight, and for the accuracy and maintenance of required asset data in the registry;
- Maintain agreed levels of service throughout the life cycle of assets, for all services (functions) managed by their Division;
- Develop and implement Sustainable Service Delivery Plans for Services in accordance with the Corporate Asset Management Program Manual;

Manager of Asset Management

- Establish and chair the Asset Management Steering Group (AMSG);
- Development and maintain the Asset Management Strategy, Program Manual and other strategic documents, including tools and templates;
- Review and update Corporate Asset Management Policy as appropriate;
- Advise CRD staff on asset management practices which support the principles and purpose of the Corporate Asset Management Policy;
- Report Asset Management outcomes;

Asset Management Steering Group (AMSG)

- Implement the Asset Management Strategy, as a corporate cross-functional team comprised of –
    - Manager of Asset Management (Chair);
    - Senior Managers and Managers representing departments, services, and asset groups as defined in the AMSG Terms of Reference;
- Recommend priorities to ELT and implement approved priorities;
- Provide governance and management for the continuous improvement process and implementation of the Asset Management improvement plan; and
- Provide oversight on implementation of improvement initiatives, and monitoring and reporting on the overall performance of Asset Management.

STANDARDS OF PRACTICE:

The implementation of Asset Management within the CRD is guided by accepted industry practices including:

- Asset Management BC: AM Roadmap and Guide
- BC Capital Asset Management Framework
- A BC Framework for Sustainable Service delivery
- International Standards Organization (ISO) 55001
- FCM: Municipal Asset Management Program Resources (Tools and Guides)
- International Infrastructure Asset Management Manual (IIMM)

The CRD complies with tangible capital asset reporting requirements as set out by the Public Sector Accounting Board and developed a Tangible Capital Asset Accounting Policy in 2008 that defines the requirements for tangible asset accounting and financial reporting.

Approval Date:		Approved By:	
1. Amendment Date:		Approved By:	
Next Review Date:		Reviewed By:	
Supersedes:			

APPENDIX A

TERMS AND ABBREVIATIONS

Asset Management (AM): AM involves the balancing of costs, opportunities and risks against the desired performance of assets to achieve organizational objectives. It is an integrated approach made up of business practices performed throughout the asset life cycle to maximize the asset's value, while managing risk and life cycle costs, and providing services to the community that are socially, culturally, environmentally, and economically sustainable.

Sustainable Service Delivery Plan (SSD Plan): A plan developed for the management of infrastructure assets that combines multi-disciplinary management strategies (including technical and financial) over the life cycle of the asset in the most cost-effective manner to deliver a specified level of service. It specifies the activities, resources and timescales required for individual assets to achieve the organization's asset management objectives. A significant component of the plan is therefore a long-term program of works and cash flow projection for the activities.

Asset Management Policy (AM Policy): The asset management policy describes the organization's intentions and directions for asset management, as formally expressed by its senior management. It describes the principles and framework adopted in applying asset management to achieve the organization's strategic objectives.

Asset Management Steering Group (AMSG): A group of people with different functional expertise working toward a common goal. It may include people from finance, IT, operations, and human resources departments. Typically, it includes employees from all levels of an organization.

Asset Management Strategy (AM Strategy): Documented information that specifies how organizational objectives are converted into asset management objectives; the scope and role of the asset management system in supporting achievement of the asset management objectives; and the approach for developing sustainable service delivery plans. The AM Strategy provides a clear "line of sight" between high-level objectives and the day-to-day activities carried out to deliver services and manage assets.

CRD Corporate Asset Management Program (CAMP): The people, resources, funding, processes, and activities necessary to manage implementation of the requirements of the CRD Corporate AM Strategy and Action Plan.

CRD Asset Management: The complete set of interrelated elements used to effect the AM Policy and support the development and continuous improvement of appropriate asset management practices that will deliver sustainable, affordable services to required standards. CRD Asset Management elements include documents, procedures, tools, data, and the assets. Together, these elements create the total management system for asset management.

Continuous Improvement: An ongoing effort to improve services or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once.

Engineered Assets: Assets that have been constructed and are owned by the Regional District (e.g. water mains, roads, streetlights, buildings), land that is owned by the Regional District and supports assets (e.g., land under roads or buildings), or land that is undeveloped and owned by the Regional District. These assets must be operated, maintained, managed, and, with the exception of land, ultimately replaced as they wear out.

Level of Service: The service level delivered to the public by the Regional District. This can take the form of the selection of services that are provided (e.g., bike lanes, doggie bags, or a new pool), the standard of infrastructure in place (e.g., concrete sidewalks versus gravel paths), or the standard to which an asset is maintained (e.g., the frequency of trail clearing/cleaning). The desire of Board or the public for a particular Level of Service will directly affect utility fees or taxation.

Life Cycle Costs: Life cycle costs refer to the total cost of ownership over the life of an asset. This may include but is not limited to capital costs, operating costs, maintenance costs, renewal costs, replacement costs, environmental costs and decommissioning costs.

Natural Assets: Naturally occurring land or subsurface features which perform or support service delivery to the Regional District (e.g., Regional Trails, watersheds, regional parks etc.). This category also includes artificial features that mimic naturally occurring features (e.g., ditches, ponds and wetlands). If these assets did not exist, Engineered Assets would be required to provide these services. Natural Assets must be operated and maintained but, if managed appropriately, require no replacement.

Sustainability: The pillars of sustainability include ensuring that current socio-cultural, economic and environmental commitments are considered in investment decisions and do not compromise the ability of future generations to meet their own needs.

Triple Bottom Line: Framework that expands on the traditional view of an organization's financial bottom line by also measuring an organization's commitment to socio-cultural and environmental factors.

Appendix C

Corporate Asset Management Strategy

Making a difference...together

Front cover photos, top to bottom:

Craigflower Pump Station

Royal Theatre

Engineering staff at Sooke fire station

Regional parks dock

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This strategy represents current information as of the time of publication. The Capital Regional District will be periodically updating and revising this strategy to reflect changes in direction and other developments.

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Table of Contents

At a Glance • 2

Context & Definition

Overview • 5

Delivering efficient and effective services 5
Cost recovery of services 6
Current challenges with assets 6

Asset Management Defined • 7

An integrated approach 7
Evidence-based decision-making 8
Life-cycle management 8
Continuous improvement 10
Benefits 10

Approach

Asset Management Framework • 13

Corporate Asset Management Policy 13
Corporate Asset Management Strategy 13
Asset management practices 14
Sustainable service delivery plans 14

Implementation & Measurement • 16

Implementation: plan and do phases 16
Measuring performance: check and adjust phases . . 18

Taking Action

Improvement Action Plan • 20

Service Delivery & Community 24
Decision-Making 26
Sustainability 28
Risk & Resiliency 32
Financial Strategy 36
Transparency 38
Continual Improvement 40

Appendix:
Risk Assessment Table • 42

AT A GLANCE

Asset management is the pathway to sustainable, resilient and adaptive service delivery.

This strategy outlines how the CRD will apply an integrated approach, evidence-based decision-making, life cycle management and continuous improvement to maintain the levels of service desired by residents of the capital region.

It establishes seven asset management principles, developed in alignment with industry practices and organizational values and priorities:

1. **Service Delivery & Community:** The CRD will put community service delivery needs first and foremost.
2. **Decision-Making:** The CRD will make well-informed and evidence-based decisions.
3. **Sustainability:** The CRD will deliver services that are environmentally, socially and economically sustainable for current and future generations.
4. **Risk & Resiliency:** The CRD will manage risk and build resilient infrastructure.
5. **Financial Strategy:** The CRD will evaluate and include full life cycle costs in financial decisions.
6. **Transparency:** The CRD will establish a systematic and integrated approach to asset management and require rigorous and transparent processes.
7. **Continual Improvement:** The CRD will commit to continual improvement, encouraging innovation of asset management practices and service delivery.

The CRD's service delivery system

Appendix C

1,100 employees managing the CRD's assets

15 drinking water systems
treating & delivering 130M litres of water daily

618 structures
including bridges, dams, docks and affordable housing covering over 92,000 square metres

7 wastewater systems
processing 100M litres of wastewater daily

130,000
average tons of muncipal solid waste received at Hartland landfill annually

3 regional trails

31 regional parks & reserves

750
kilometres of pipe infrastructure

Panorama Recreation Facility

Context & Definition

Swim lessons at SEAPARC

OVERVIEW

This Corporate Asset Management Strategy outlines how the Capital Regional District (CRD) will achieve and maintain a level of service delivery that is sustainable, resilient and adaptive to changing needs and circumstances.

The CRD was incorporated in 1966 to provide regional decision-making on issues that transcend municipal boundaries and to enable more effective service delivery to residents of the capital region.

Today, the CRD delivers more than 200 services. To accomplish this, the CRD owns a vast amount of assets, both engineered, such as treatment plants, and natural, such as parks.

These assets are managed by a workforce of approximately 1,100 employees and a network of more than 1,700 registered volunteers.

This strategy describes how the CRD will use a consistent and systematic approach to support the long-term sustainability and efficiency of all these assets to maintain desired levels of service.

Delivering efficient and effective services

The CRD is the regional government for 13 municipalities and three electoral areas on southern Vancouver Island and the nearby Gulf Islands, serving an estimated population of over 403,000 residents.

As a local government, the CRD develops partnerships to facilitate and deliver projects and services — regionally, sub-regionally and locally — that will ensure a sustainable, livable and vibrant capital region.

The key objectives of this Corporate Asset Management Strategy are to:

1. Establish asset management guidelines and targets to ensure all divisional activities are in alignment with organizational priorities.
2. Specify tasks in a detailed Improvement Action Plan to achieve the objectives of the Corporate Asset Management Policy and to improve the CRD's asset management program.
3. Provide a baseline understanding of asset management practices.

This strategy came together with input and collaboration from divisional experts across the CRD. It is based on industry best practices and governed by the CRD's Corporate Asset Management Policy.

At a **regional level**, the CRD provides governance and services, such as affordable housing, parks and solid waste management, to all 13 municipalities and electoral areas. The CRD serves local municipalities while municipalities serve the residents.

For example, the CRD manages Hartland Landfill & Recycling Facility, a multi-purpose facility that provides collection for recycling, household hazardous waste and salvageable items; yard and garden waste collection and processing; and controlled waste disposal and landfill service for commercial and residential customers across the region.

At a **sub-regional level**, the CRD provides a service partnership when two or more jurisdictions jointly decide to receive services. For example, the CRD operates and manages SEAPARC, a recreation centre that is funded by the Town of Sooke and the Juan de Fuca Electoral Area.

At a **local level**, the CRD serves as the local government for three electoral areas — Salt Spring Island, Southern Gulf Islands and Juan de Fuca — and provides services such as community planning and land use regulation only to those areas.

Cost recovery of services

Each CRD service is established by bylaw or letters patent that set out cost recovery methods within each service area. Funds collected must only be used for a specific service and cannot be shared, per Part 11 of the *Local Government Act*.

The only exception is a temporary loan from one service's reserve fund to another service's reserve fund for a budgeted capital purpose, also called inter-fund borrowing.

Current challenges with assets

The majority of the CRD's existing assets were constructed in an era when there was significant funding support from provincial and federal governments across Canada.

Today, assets in the region face the following issues:

- They are seeing increasing demand from growing communities in the region.
- They need to be upgraded to comply with evolving environmental and safety standards.
- They must be able to handle the frequent and severe weather-related events of climate change.
- Their operational greenhouse gas emissions must be reduced.

Additionally, these assets are approaching the end of their expected useful life, and renewal investment is required so they can continue to provide services to the region.

Asset management is crucial to the CRD's vision of an effective, efficient and open organization where communities strive to achieve exemplary environmental stewardship; a dynamic, vibrant economy; and an inclusive, caring society.

ASSET MANAGEMENT DEFINED

Asset management involves the balancing of costs, opportunities and risks against the desired performance of the assets for the purpose of delivering services that are socially, culturally, environmentally and economically sustainable.

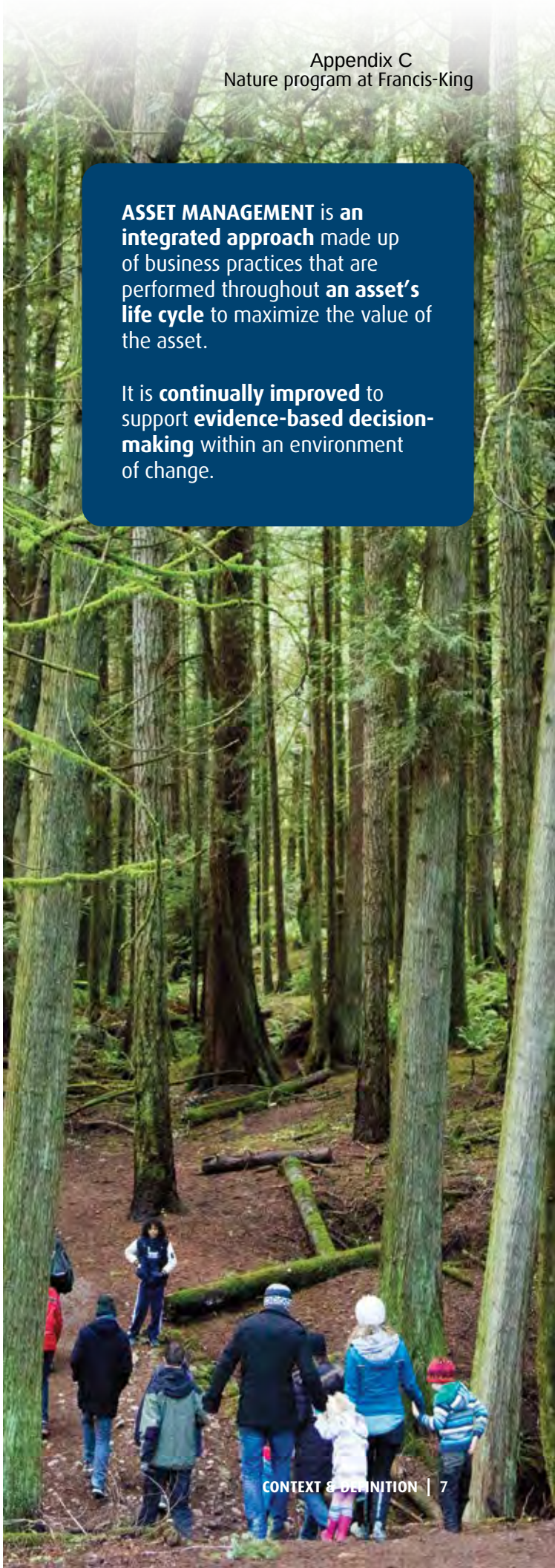
An integrated approach

Asset management is a team effort involving cross-divisional communication to gather all relevant information to make well-informed decisions.

The CRD's Asset Management Division was formed to guide the development of asset management at the CRD by collaborating with divisions; by developing policy, strategies, frameworks, guidelines and procedures; and by serving in an advisory and mentoring role.

The key role of other divisions is to operationalize asset management practices by creating sustainable service delivery plans for the services they manage and then reporting out on progress.

A steering group that includes representation from every department within the CRD was created to develop this strategy as well as enable information-sharing throughout the organization and coordinate all asset management activities.



Appendix C
Nature program at Francis-King

ASSET MANAGEMENT is **an integrated approach** made up of business practices that are performed throughout **an asset's life cycle** to maximize the value of the asset.

It is **continually improved** to support **evidence-based decision-making** within an environment of change.

Evidence-based decision-making

The CRD is governed by a Board of 24 elected officials supported by over 70 committees and commissions. Its internal functions and external services are administered by staff in departments and divisions, volunteers, partnerships and contracted service arrangements.

The CRD works collaboratively with First Nations and other levels of government and also nurtures relationships with individuals, businesses, organizations, institutions and communities to deliver services to residents.

Within this environment, CRD decision-makers at all levels of the organization are constantly challenged to:

- find a balance between costs, risks and benefits
- meet the current needs of the region while trying to position the CRD to meet future needs
- consider climate change, growth forecasts, environmental management, socio-economic issues, affordability and changing risks as assets age
- maintain compliance with current and changing legislative requirements and industry standards
- provide consistent governance and decision-making across the organization

CRD decision-makers can more easily navigate these complex issues and structures when they have access to reliable and consistent information.

Asset management data and analysis will help them make well-informed, transparent and balanced decisions based on evidence that considers the purpose for the assets, the reason the assets exist and what the assets are required to do — all in the context of community needs and service performance objectives.

Having a consistent, systematic and standardized method of collecting, storing and analyzing information about assets will help CRD decision-makers determine which assets are in critical need of replacement, determine the capital reserve allocations for future replacement and demonstrate good stewardship of the services and assets that residents rely on every day.

Life-cycle management

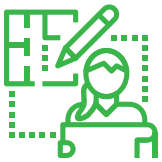
As a public sector organization, the CRD procures new assets with a focus on safety, security and sustainability and maintains current assets with a similar focus while also maximizing their useful life.

Decisions in one stage of an asset's life cycle can have significant impacts on the asset's performance in that stage and in subsequent stages. For example, a reduction in critical maintenance can shorten the lifespan of an asset, which results in needing to invest more in capital asset replacement programs.

Asset management considers these interrelationships and promotes a holistic way to achieve best performance against required outcomes.

Asset Life Cycle

Planning Stage



determine asset requirements

- assessment of supply and demand, existing assets and their capabilities
- systematic analysis and review of strategic alignment
- review of long-term plans
- prioritization and development of a business case
- cost-risk-benefit analysis
- consideration of total life cycle costs

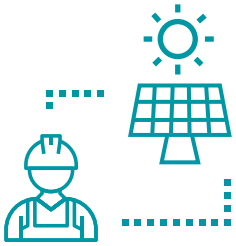
Implementation Stage

build or acquire the asset

- pre-construction tasks, such as design and tender, procurement analysis and acquiring funding
- construction or acquisition
- project management
- post-construction tasks, such as commissioning and handing off to operations and maintenance staff and systems

renew or dispose of asset

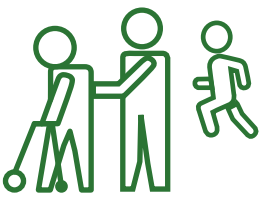
- replacement
- upgrading
- disposal



Renewal or Disposal Stage

deliver services with the asset

- general operations
- preventative and reactive maintenance
- routine and periodic inspections
- condition assessments
- compliance testing and monitoring
- performance measuring and reporting
- cost tracking



Operations & Maintenance Stage

Continuous improvement

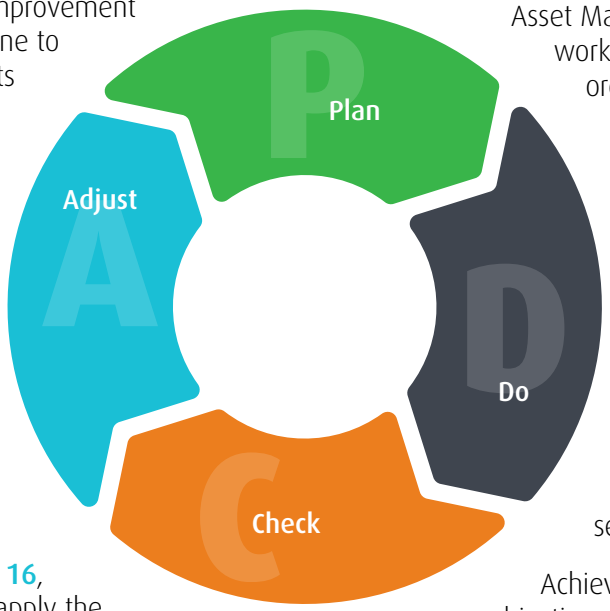
Continuous improvement is an integral part of asset management as it allows improvement and adaptation of processes as needed, which builds organizational resilience.

The continuous improvement process is a way to review the continued relevance of targets and actions and to identify a new set of actions for upcoming years.

The continuous improvement cycle the CRD applies to its asset management activities is an industry best practice.

It repeatedly cycles through the following stages:

- **Plan**: identify what improvement actions need to be done to achieve desired targets
- **Do**: implement the improvement actions
- **Check**: monitor and measure improvement progress and results
- **Adjust**: compare outcomes to objectives and determine if changes need to be made



See **Implementation & Measurement on page 16**, to learn how the CRD will apply the continuous improvement cycle to its asset management activities.

Benefits

Asset management provides multiple benefits, including:

- the ability to demonstrate accountability to stakeholders
- greater access to financial assistance, as some funding agencies give applicants higher priority ratings for having sustainable service delivery plans
- credible evaluation and communication of trade-offs between service, cost and risk
- a defensible way of prioritizing projects and resources

Additionally, implementation of the Corporate Asset Management Strategy will align work happening throughout the organization.

For example, the Regional Growth Strategy (RGS), a framework developed by municipalities and the CRD for identifying social, economic and environmental objectives and for guiding the direction of planning decisions, has a core objective to sustainably manage regional infrastructure services.

Achieving this and other RGS objectives will be critical to successfully sustaining the level of services that assets deliver today and for future generations. This Corporate Asset Management Strategy supports achievement of RGS actions, such as aligning with their long-term planning horizons.

This strategy also supports the other major strategies, plans and initiatives at the CRD. The benefits of this organizational integration will also be seen through the following:

- maximizing investments through managing risks and balancing costs
- ensuring fiscal management by knowing how much money needs to be saved for future infrastructure renewal
- achieving organizational strategic priorities and the service delivery mandate
- aligning with the long-term planning horizon of 20 years
- integrating a climate change lens in all relevant asset management decisions
- enhancing business continuity planning for essential service requirements
- ensuring that current and future demands are known and planned for in all relevant asset management decisions

Sharing knowledge freely and openly will build a sustainable asset management culture within our community of practice.

~CARLO VIJANDRE
ASSET MANAGEMENT MANAGER

Asset management seminar presentation

Approach

ASSET MANAGEMENT FRAMEWORK

The CRD's asset management framework ensures the organization will be **sustainable in service delivery**, will be **equipped to adapt to change** and will have the **tools to build resilience** into its infrastructure, natural assets and workforce.

The framework enables the organization to evolve its asset management practices and link them together, regardless of which division is implementing them. It also gives individual staff the confidence to make evidence-based decisions that are in alignment with organizational priorities and CRD policies while balancing cost, levels of service and risk.

Corporate Asset Management Policy

The CRD's Corporate Asset Management Policy formalizes the corporate commitment to asset management and sets out specific roles and responsibilities for governance, management, implementation and participation in the various elements of the asset management program.

Guided by the CRD's organizational values, prioritization criteria, risk policy, accepted industry practices and other relevant corporate strategies, the Corporate Asset Management Policy establishes the CRD's seven asset management principles and the overarching objectives of the asset management program.

It also aligns the CRD's asset management approach with the region's needs and objectives, drives decision-making to be evidence based, requires integration of asset management into all phases of an asset's life cycle and supports the CRD's approach to asset financing.

Corporate Asset Management Strategy

The Corporate Asset Management Strategy ensures the CRD's Corporate Asset Management Policy will be implemented consistently across the organization while allowing flexibility and scalability within that implementation to accommodate differences in services.

It establishes 27 targets to ensure progress is made in achieving the seven principles defined by the Corporate Asset Management Policy and outlines tangible things the CRD will do to achieve those targets. This strategy also guides the development of sustainable service delivery plans, providing a clear line of sight between high-level objectives and the day-to-day activities carried out to deliver services and manage assets.

The Improvement Action Plan within the Corporate Asset Management Strategy will be updated annually to acknowledge completed actions and modify actions as needed to adapt to change in internal and external environments.

Residents using the Galloping Goose Regional Trail

Asset management practices

Each division will implement asset management practices and tools – for example, data collection and monitoring – being mindful of continuous improvement to enhance and optimize decision-making capabilities throughout the life cycle of the assets.

Sustainable service delivery plans

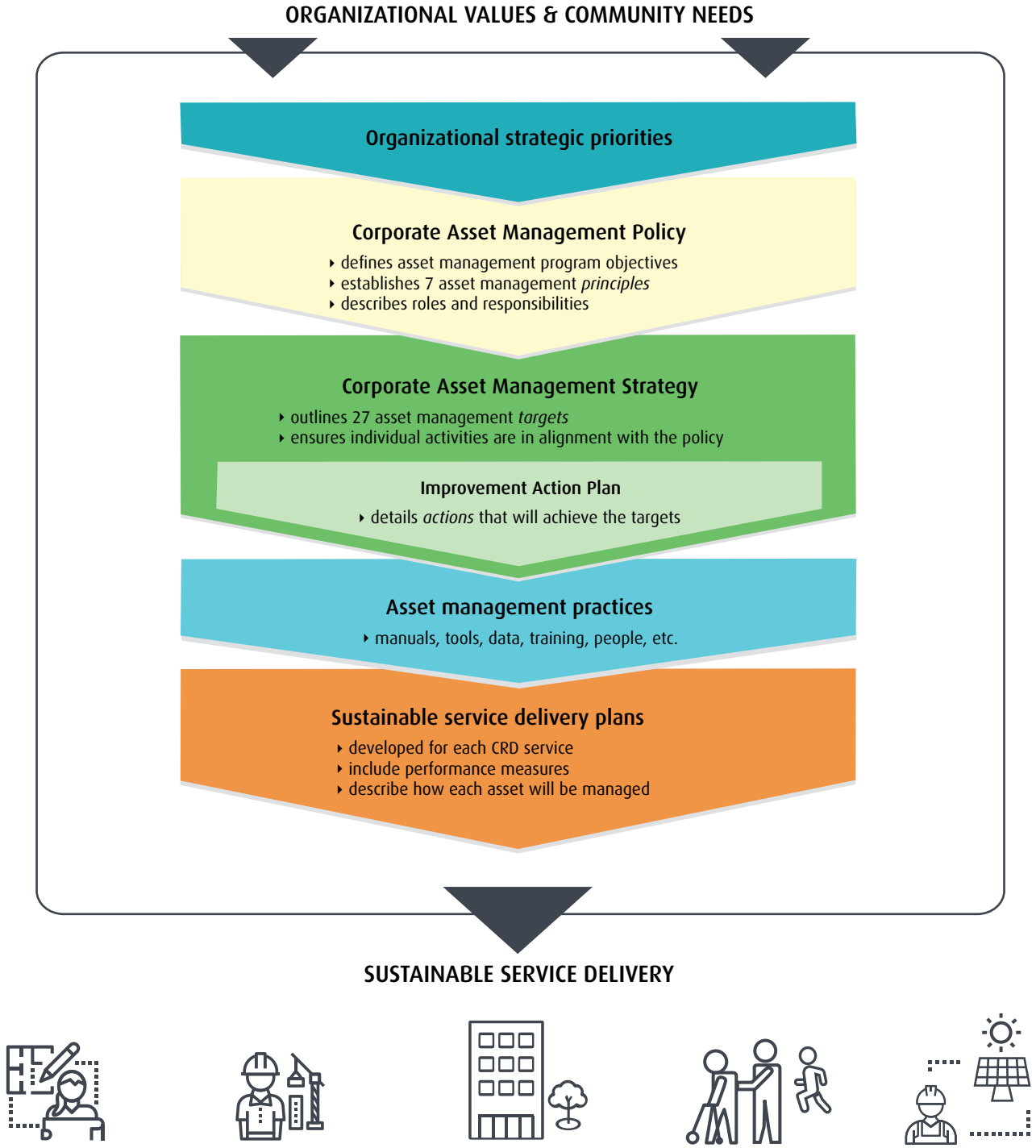
Each CRD service with an asset will have a sustainable service delivery plan. A corporate sustainable service delivery plan will aggregate these plans.

The plans will include performance measures with criteria such as condition and age profiles, level of risk exposure, total cost of service compared to income and reserves, technical measures for regulatory compliance, customer satisfaction indicators and other measures as appropriate.

While this strategy outlines how the practice of asset management will be integrated into every element of CRD operations, the service-level plans will describe how each specific asset will be managed and will include detailed information about the asset, such as valuation, current condition, risks and long-term financial plans.

Each sustainable service delivery plan will be routinely reviewed to accommodate the changing needs of communities.

CRD Asset Management Framework



IMPLEMENTATION & MEASUREMENT

The CRD's methodology for implementing and measuring success on its corporate asset management framework is to follow the **continuous improvement cycle** of "Plan, Do, Check, Adjust."

Implementation: plan and do phases

Plan: developing the corporate asset management program

The CRD has completed the plan phase of its asset management program, and the outcome is this Corporate Asset Management Strategy, which outlines 27 targets to realize the seven asset management principles and also lists actions to achieve those targets.

The planning process was led by the Manager of Asset Management, with help from various subject matter experts. An asset management steering group, which included representatives from multiple CRD divisions, collaborated and held workshops to develop the corporate approach to asset management.

The plan phase also included a strategic risk assessment. Risk assessments are an important part of asset management, and for the purposes of this document, only risks relating to the CRD's ability to achieve asset management targets were defined. See the **Risk assessment table on page 42** for a list of potential risks and options for mitigation.

Risks associated with service delivery and individual assets will be defined through different avenues, such as the corporate risk register and site-specific risk assessments. These risks will be described in sustainable service delivery plans.

Do: implementing improvement tasks

The **Improvement Action Plan on page 20** sets out tasks to be completed to improve asset management practices and service delivery across the CRD and achieve the asset management targets.

The responsibility for completing these tasks is shared across the organization. Progress on tasks will depend on availability of resources, commitment of senior management to assign staff and prioritize improvement work, and approval of funding for the support of external subject matter experts or additional resources as needed.

The divisions will determine the workforce needed to complete these actions, which may require new resourcing, depending on the results of the asset management maturity assessment and the capacity of their division.

Implementation & Measurement of the CRD's Asset Management Program

Measuring performance: check and adjust phases

The CRD will be monitoring and reporting out on the success of:

- the corporate asset management program
- the overall effectiveness of asset management
- the level of asset management maturity
- the success of service delivery

The Asset Management Division will prepare a report for the Board that includes progress in implementing improvement actions and achieving asset management performance measures, the status of asset management maturity, and recommendations for adjustments to the Improvement Action Plan.

Check: assessing progress

Performance of the corporate asset management program will be assessed by measuring the rate of progress in completing tasks in the Improvement Action Plan. Completion of assigned actions on time and on budget will indicate that the program is successful with the provision of appropriate levels of funding and resourcing.

Ongoing monitoring of the Improvement Action Plan will occur throughout the year and be reported on annually. The responsibility for monitoring, measuring performance and reporting is a collaborative one, with inputs and actions from all divisions.

In addition to measuring whether individual actions have been completed or not, progress on the 27 targets will also be measured and reported out on as an indicator of the overall effectiveness of asset management.

Each division currently managing assets will complete an asset management maturity assessment that will help them understand where they are along the asset management journey. Individual divisional assessments will be collated by the Asset Management Division to establish a corporate result.

The level of asset management maturity achieved will be compared to previous benchmarked measures to report overall organizational improvement and capability. This performance measure is an indication of the level of knowledge and understanding that exists among CRD staff to do asset management as well as the level to which asset management practices have been implemented and embedded into routine business activities.

Service delivery performance will be monitored by each division based on the performance measures included in sustainable service delivery plans.

Adjust: revising the Improvement Action Plan

The asset management maturity assessment process will help divisions with the annual process of considering asset management objectives and performance targets and of reviewing, resequencing and reprioritizing action items as relevant at a corporate level.

From this, the CRD will have the annual opportunity to review the continued relevance of the 27 targets and 73 actions in the Improvement Action Plan and update them accordingly.

Taking Action

Capital Region Housing Corporation maintenance and property

IMPROVEMENT ACTION PLAN

This section outlines the targets and actions that will ensure day-to-day activities are in alignment with the CRD's seven asset management principles:

1. **Service Delivery & Community:** The CRD will put community service delivery needs first and foremost.

2. **Decision-Making:** The CRD will make well-informed and evidence-based decisions.

3. **Sustainability:** The CRD will deliver services that are environmentally, socially and economically sustainable for current and future generations.

4. **Risk & Resiliency:** The CRD will manage risk and build resilient infrastructure.

5. **Financial Strategy:** The CRD will evaluate and include full life cycle costs in financial decisions.

6. **Transparency:** The CRD will establish a systematic and integrated approach to asset management and require rigorous and transparent processes.

7. **Continual Improvement:** The CRD will commit to continual improvement, encouraging innovation of asset management practices and service delivery.

Each of the seven sub-sections includes:

- The principle statement for the section.
- Discussion on the principle statement, what it means and why it's needed.
- A list of targets, which are numbered sequentially across all seven sections, that will demonstrate progress made toward achieving the principle.
- A list of improvement actions designed to achieve the stated targets. The actions are listed in tables that provide the following details:
  - a reference number linking tasks and sub-tasks to the seven principles
  - a brief description of the action
  - a timeline for completion: 1-2 years (short-term actions), 3-5 years (medium-term actions), 5-10 years (long-term actions) or ongoing (actions with no fixed end date)
  - a status column that indicates whether an action is completed, in progress or not started
  - a column that indicates which division(s) or stakeholder will be responsible for carrying out the action

The improvement actions requiring immediate attention have been highlighted as priority actions, and many of the actions listed in this plan already have been started or are well underway.

Implemented as part of this strategy, the improvement actions will:

- improve asset management practices and service delivery across the CRD
- evolve the CRD's asset management practices
- implement the requirements and commitments in the Corporate Asset Management Policy
- achieve tangible benefits that support delivery of CRD services and programs

Appendix C

Construction at the Summit project

Status of Improvement Actions

as at December 2018

4 completed

31 in progress

38 not started

These are actions that were not a corporate-wide priority as at the time of publishing this strategy.

Hartland landfill

CRD drinking water

1

Service Delivery & Community

The CRD will put community service delivery needs first and foremost.

Deciding whether a service is needed and then what the appropriate level of service should be requires balancing community needs, safety regulations, legal obligations, the demands of a changing climate, changes to demographics and population and the cost of service delivery.

Defining service levels ensures that stakeholder and community needs and expectations are fully understood and that the effectiveness of the service can be measured against those needs. With a clear understanding of the desired and required levels of service, the CRD will be better able to manage risk and save costs by planning proactively and will also be able to identify any surplus or under-performing assets.

The CRD believes it is important to communicate to the community the true cost of delivering their desired level of service and the different risks associated with these various levels. Consulting with community members on service priorities and expectations will also help direct the focus of asset management efforts.

In addition, developing relationships with other organizations will ensure asset management best practices and techniques are shared to spur innovation and continuous improvement.

Targets:

1. Levels of service that balance customer expectations and regulatory requirements with affordability, available resources and risk, and with climate, socio-cultural and environmental impacts
2. Levels of service that are sustainable because the following were considered in all asset and service delivery decisions:
   - current and long-term service delivery requirements
   - likely changes in demographics and population
   - community needs
   - legislative requirements
   - technological factors
   - adaptation to climate change
   - greenhouse gas reduction
   - socio-cultural, economic and environmental impacts
3. Strong, collaborative relationships with relevant organizations and stakeholders for sharing asset management knowledge

Action		Timeline	Status	Associated Division(s) and Key Stakeholders
1.1	Develop a corporate levels of service framework.	‣ 3-5 years	‣ In progress	‣ Asset Management Division ‣ Asset Management Steering Group
1.2	Define the level of service for every service in both customer need and technical output.	‣ 3-5 years	‣ In progress	‣ All divisions*
1.3	Establish networks and relationships with relevant organizations and stakeholders.	‣ Ongoing	‣ In progress	‣ All divisions

** "All divisions" refers to divisions within the CRD that manage infrastructure assets.*

2

Decision-Making

The CRD will make well-informed and evidence-based decisions.

The CRD delivers numerous services through the use of infrastructure assets, both engineered and natural.

Making the best decisions about these assets requires understanding the service need and evaluating all costs and benefits over the life of the asset. This can only happen when the CRD has appropriate, accurate, complete and credible information, together with an awareness of community priorities (see **Principle 1: Service Delivery & Community**).

When it has that information, the CRD is empowered to make well-informed decisions that promote financial stability and resilience and demonstrate good stewardship.

Targets:

4. The inclusion of relevant corporate perspectives, such as growth, sustainability and risk, and functional interdependencies, such as finance and land use, in asset and service delivery decisions
5. Informed decision-making that identifies full life cycle revenues and costs of assets, assesses options on a comparative basis, articulates and evaluates trade-offs and documents the basis for the decision

Decision-Making

Action		Timeline	Status	Associated Division(s) and Key Stakeholders
2.1.	Develop and Implement a multi-criteria analysis framework for prioritizing projects.	▸ 1-2 years	▸ In progress	▸ Asset Management Division ▸ Asset Management Steering Group ▸ All divisions
2.2.	Develop a business case framework, including implementation guide and templates, to support decision-making for major and minor capital projects.	▸ 1-2 years	▸ In progress	▸ Asset Management Division ▸ Asset Management Steering Group
2.3.	Establish a decision-making process for determining which projects should be submitted for grant applications.	▸ 1-2 years	▸ Complete	▸ Asset Management Division

3

Targets:

6. Sustainable service delivery plans for each service that minimize life cycle costs while providing agreed levels of service, achieving public safety requirements, ensuring risks do not exceed acceptable levels, and considering social, cultural, environmental and economic sustainability
7. Periodic assessments of all assets regarding their use, function, and operating and maintenance costs to identify when assets are no longer necessary for the delivery of the agreed level of service
8. Procurement documents that include requirements to integrate relevant asset management practices during transitions from planning to implementation and from implementation to operation of assets
9. Asset and service delivery projects that are continually delivered according to current industry project management standards and best practices, including but not limited to project integration, scope, schedule, cost, communication, quality, human resources, procurement, risk and climate change lens
10. A corporate asset registry that has information on current engineered assets to support evidenced-based decisions
11. An enterprise asset management system that meets functional requirements and where asset data is optimized and maintained throughout the asset's life cycle
12. A corporate asset management program, including a steering group, policy and strategy, that supports the implementation of asset management practices across the CRD

Sustainability

The CRD will deliver services that are environmentally, socially and economically sustainable for current and future generations.

Asset management integrates business practices to help make forward-looking decisions that ensure the current and future demands of the community can be met.

These practices include: development and maintenance of a robust asset inventory; thorough knowledge of capacity and future demands; and established risk, procurement and project management processes.

The outputs from these processes and other considerations will be used to determine whether the total cost to manage assets and deliver services for the long term meets the three tiers of sustainability.

Action	Timeline	Status	Associated Division(s) and Key Stakeholders
3.1. Enhance and maintain condition data in asset inventory:			
a. Develop condition assessment program guidelines and framework, including framework for reporting assessment outcomes and trends.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
b. Develop and implement 10-year prioritized condition assessment programs and procedures.	‣ 3-5 years	‣ Not started	‣ All divisions
c. Annually report on asset condition outcomes and trends.	‣ 3-5 years	‣ Not started	‣ All divisions
3.2. Implement and integrate asset management practices into operations and maintenance business practices:			
a. Develop a register of maintenance activities to enable long-term maintenance planning.	‣ 1-2 years	‣ Not started	‣ All divisions
b. Define and document existing operations and maintenance management strategies.	‣ 3-5 years	‣ Not started	‣ All divisions
c. Develop and implement periodic assessment of use and function of all assets in relation to service delivery and optimization of service delivery costs and long-term sustainability.	‣ 3-5 years	‣ Not started	‣ All divisions
d. Identify legal obligations, standards, CRD Board targets and commitments related to assets at a divisional level.	‣ 3-5 years	‣ Not started	‣ All divisions
e. Establish a corporate energy management process for buildings, facilities and infrastructure (see Corporate Climate Action Strategy for details).	‣ 3-5 years	‣ In progress	‣ Asset Management Division ‣ Risk & Insurance Division ‣ Facilities Management & Engineering Services Division
3.3. Develop and implement key sustainable service delivery planning documents to support sustainable service delivery, informed decision-making and effective risk management:			
PRIORITY ACTION a. Develop framework and templates for: ‣ sustainable service delivery plans ‣ corporate sustainable service delivery plan	‣ 1-2 years	‣ In progress	‣ Asset Management Division ‣ Asset Management Steering Group
PRIORITY ACTION b. Integrate and implement the Corporate Asset Management Strategy into relevant service plans.	‣ 1-2 years	‣ In progress	‣ All divisions
PRIORITY ACTION c. Develop sustainable service delivery plans for each service and maintain up to date.	‣ 1-2 years	‣ In progress	‣ All divisions
d. Aggregate all sustainable service delivery plans into the corporate sustainable service delivery plan.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
e. Develop a corporate sustainable service delivery plan for the Salt Spring Island, Southern Gulf Islands and Juan De Fuca electoral areas.	‣ 3-5 years	‣ In progress	‣ Southern Gulf Islands Administration ‣ Salt Spring Island Administration ‣ Juan De Fuca Electoral Area Planning

Action table continues on next page.

Action	Timeline	Status	Associated Division(s) and Key Stakeholders
3.4. Develop and implement key asset management reports and long- term financial plans to support sustainable service delivery, informed decision-making and effective risk management:			
a. Develop a Corporate Infrastructure Status Report template and distribute to divisions for completion.	‣ 1-2 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group ‣ All divisions
b. Gather standard analytic and insight reports for reporting at corporate, departmental and divisional levels, and for electoral areas.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
3.5. Integrate asset management practices into procurement procedures:			
a. Assess current procurement methods and how they could improve with asset management data and reports.	‣ 1-2 years	‣ Not started	‣ Asset Management Division ‣ Legal Services Division
b. Liaise with Corporate Services to update existing procurement documentation and scope of work definitions to embed asset management principles.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Legal Services Division
c. Develop and embed standard asset management terms and requirements in operating agreements with third parties that operate and maintain CRD-owned assets.	‣ 5-10 years	‣ Not started	‣ Asset Management Division ‣ Legal Services Division
3.6. Integrate industry project management standards and best practices into capital project delivery:			
a. Develop guidelines for project management standards and best practices to be used for capital projects.	‣ 1-2 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
b. Develop guidelines for converting capital project costs to unit rates that can be used for capital budgeting and renewal forecasts.	‣ 1-2 years	‣ Not started	‣ Corporate Asset Management Division ‣ Asset Management Steering Group
3.7. Enhance and maintain comprehensive asset inventory:			
PRIORITY ACTION a. Develop data governance document, including data model, data standards, definition of data roles and responsibilities, quality control and reporting framework.	‣ 1-2 years	‣ Not started	‣ Asset Management Division ‣ Information Technology & GIS Division
b. Develop and implement prioritized data capture programs and procedures.	‣ Ongoing	‣ Not started	‣ All divisions

	Action	Timeline	Status	Associated Division(s) and Key Stakeholders
	3.8. Implement an enterprise asset management system:			
PRIORITY ACTION	a. Develop a corporate technology master plan (related to physical assets) and include an enterprise asset management technology road map and readiness assessment.	‣ 1-2 years	‣ In progress	‣ Asset Management Division ‣ Information Technology & GIS Division
PRIORITY ACTION	b. Develop a functional requirements list for each division, covering asset management, service delivery and decision support needs in every phase of an asset's life cycle.	‣ 1-2 years	‣ In progress	‣ Asset Management Division ‣ Asset Management Steering Group
	c. Evaluate the corporate IT systems against the asset management functional requirements list and report outcomes.	‣ 3-5 years	‣ In progress	‣ Asset Management Division ‣ Information Technology & GIS Division
	d. Develop an enterprise asset management system, including: ‣ an operations and maintenance module ‣ a capital project management module ‣ a capital planning module ‣ a training program	‣ 5-10 years	‣ In progress	‣ Asset Management Division ‣ Information Technology & GIS Division
	3.9. Provide effective asset management guidance to enhance and maintain appropriate consistency of approach in implementing asset management practices:			
PRIORITY ACTION	a. Establish an asset management steering group, document terms of reference, and develop asset management roles & responsibilities structure.	‣ 1-2 years	‣ Complete	‣ Asset Management Division
PRIORITY ACTION	b. Develop the asset management policy and strategy.	‣ 1-2 years	‣ Complete	‣ Asset Management Division ‣ Asset Management Steering Group
	c. Liaise with Corporate Services to include relevant asset management principles and requirements when developing and updating service and requisition bylaws.	‣ Ongoing	‣ Not started	‣ Asset Management Division ‣ Legal Services Division
	d. Identify measurable indicators for assessing the sustainability of current service delivery. Develop a framework and guide for assessment of sustainability of service levels.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
	e. Complete assessments of the sustainability of current levels of service and report results.	‣ 5-10 years	‣ Not started	‣ All divisions ‣ Risk & Insurance Division

4

Risk & Resiliency

The CRD will manage risk and build resilient infrastructure.

The capital region is becoming increasingly diverse, dynamic and exposed to disruptive and unpredictable events. To be resilient, assets must be adaptable to change.

To ensure this resiliency, the CRD will implement a risk management program that maintains a risk register. The organization will also complete risk analyses on all assets from an asset, service delivery and organizational risk perspective and will use outputs to make evidence-based decisions in the procurement of new assets and in the replacement of existing assets.

These robust risk management processes and well-defined levels of service will improve the CRD's resiliency.

Targets:

13. Infrastructure and levels of service that can adapt to changing conditions and recover rapidly from identified, disruptive events

14. An up-to-date analysis of asset risk, service delivery risk and organizational risk

15. The integration of change factors — such as, but not limited to, population and demographic changes, climate change, legislative change and economic fluctuations — into future planning

	Action	Timeline	Status	Associated Division(s) and Key Stakeholders
	4.1. Provide asset management analysis to support adaptability to change:			
	a. Identify key demand drivers and analyze demand trends, current demands and demand forecast.	‣ Ongoing	‣ In progress	‣ All divisions
	b. Identify asset capacity, current demand and utilization; compare this to future demand forecast; and incorporate any required works into the operations and maintenance and capital planning programs.	‣ Ongoing	‣ In progress	‣ All divisions
PRIORITY ACTION	c. Align the Corporate Asset Management Strategy with Corporate Climate Action Strategy.	‣ 1-2 years	‣ Complete	‣ Asset Management Division ‣ Risk & Insurance Division
	d. Develop a climate adaptation program for critical infrastructure.	‣ 3-5 years	‣ In progress	‣ All divisions ‣ Risk & Insurance Division
	e. Develop a natural disaster (seismic, wildfire, storms) mitigation program for critical infrastructure.	‣ 3-5 years	‣ Not started	‣ All divisions ‣ Protective Services Division
	4.2. Provide asset management analysis to support organizational and service delivery resiliency:			
	a. Develop a framework for business continuity, including business impact analysis.	‣ 5-10 years	‣ Not started	‣ Asset Management Division ‣ Protective Services Division ‣ Risk & Insurance Division
	b. Develop business continuity plans using business continuity framework	‣ 5-10 years	‣ Not started	‣ All divisions
	c. Consider participating in the Regional Resilience Assessment Program to measure and improve resilience to all hazards in Canada.	‣ 5-10 years	‣ Not started	‣ Asset Management Division ‣ Asset Management Steering Group
	d. Incorporate 5yr, 10yr, and 20+yr greenhouse gas reduction capital plans into sustainable service delivery plans as they become available.	‣ 3-5 years	‣ Not started	‣ All divisions
	e. Perform a climate risk/vulnerability assessment aligning with the guidance of the forthcoming corporate adaptation plan.	‣ 3-5 years	‣ Not started	‣ All divisions

Action table continues on next page.

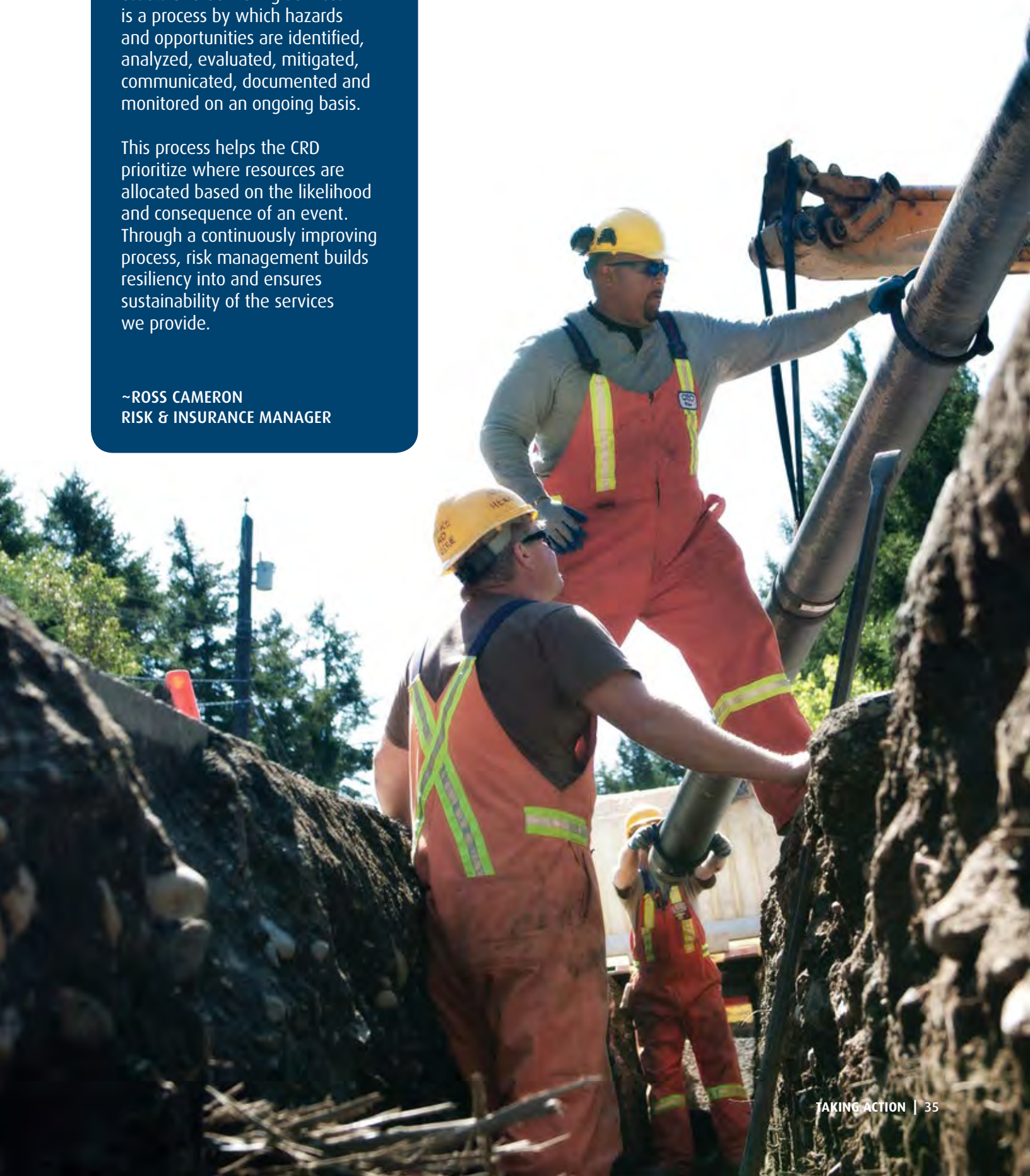
Action	Timeline	Status	Associated Division(s) and Key Stakeholders
4.3. Enhance understanding, management, analysis and reporting of risk to support informed decision-making:			
a. Develop an asset criticality assessment framework.	‣ 1-2 years	‣ Not started	‣ Asset Management Division ‣ Protective Services Division ‣ Risk & Insurance Division
b. Develop a risk assessment and management framework and guide.	‣ 1-2 years	‣ In progress	‣ Asset Management Division ‣ Risk & Insurance Division
c. Develop and implement training programs for asset criticality assessments, risk assessments and risk management.	‣ 3-5 years	‣ Not started	‣ Asset Management Division ‣ Protective Services Division ‣ Risk & Insurance Division
d. Implement criticality assessment program, identify critical infrastructure assets, develop action plans and establish review and reporting procedures.	‣ 3-5 years	‣ Not started	‣ All divisions
e. Implement risk assessment program, determine risk ratings for infrastructure assets, document mitigation plans, and establish review and reporting procedures.	‣ 3-5 years	‣ Not started	‣ All divisions
f. Perform a hazard, risk and vulnerability analysis of CRD and specific analyses for the electoral areas.	‣ 1-2 years	‣ In progress	‣ Protective Services Division ‣ Risk & Insurance Division

RISK MANAGEMENT in managing assets and delivering services is a process by which hazards and opportunities are identified, analyzed, evaluated, mitigated, communicated, documented and monitored on an ongoing basis.

This process helps the CRD prioritize where resources are allocated based on the likelihood and consequence of an event. Through a continuously improving process, risk management builds resiliency into and ensures sustainability of the services we provide.

~ROSS CAMERON
RISK & INSURANCE MANAGER

Integrated Water Services crew replacing water pipe



5

Financial Strategy

The CRD will evaluate and include full life cycle costs in financial decisions.

When the assets that the CRD owns age and are exposed to demands that they weren't initially designed for, such as climate change, it is important to replace those assets and continue to deliver services in the most financially responsible way.

To do this, the CRD will create processes to help decision-makers understand the life cycle cost of an asset, including capital, operations and maintenance costs. This will help calculate the level of funding needed to be placed into capital and operational reserves for long-term financial sustainability and will provide visibility of the timing and cost of asset replacements.

Targets:

16. Needs-based budgets that are based on long-term financial plans for delivering agreed levels of service

17. Capital reserves for asset renewal funding that are based on asset management analysis of current state of infrastructure and long-term projection of asset renewals

18. Operational reserves that can fund variable reactive maintenance and periodic operations, inspections and preventative maintenance tasks that are completed less frequently than every year, i.e., once every two, five or 10 years

19. Implementation of financial policies that support asset management

20. Long-term financial plans that identify funding needs and consider full life cycle cost of ownership for all new capital assets and upgrades

Action		Timeline	Status	Associated Division(s) and Key Stakeholders
5.1.	Design and implement procedures to record operational and maintenance costs at an asset level.	1-2 years	Not started	All divisions
5.2.	Review current cost tracking for infrastructure assets; identify improvements to be implemented in enterprise asset management system; and define relationships between asset management data, analysis, reports and informed decision-making.	1-2 years	Not started	Asset Management Division Asset Management Steering Group
5.3.	Generate needs-based budgets based on financial data in sustainable service delivery plan documents and analyses:			
	a. Develop a framework for short- and long-term financial and work plans for operations, maintenance, renewals and capital planning, based on agreed levels of service, including standardized methods for determining asset replacement values.	1-2 years	Not started	Asset Management Division Asset Management Steering Group
	b. Create short- and long-term financial and work plans for agreed service delivery, in accordance with framework, and maintain them: • long-term renewals plans based on expected service life • 5yr, 10yr and 20+yr capital (new assets) plan based on future need analysis • long-term maintenance and operations plans include post-construction and ongoing operations, maintenance and inspections costs for new assets scheduled in the 5yr, 10yr, and 20+yr capital plans	3-5 years	Not started	All divisions
	c. Determine needs-based budgets by comparing short- and long-term financial and work plans with forecast revenue; identifying gaps; and considering options and service delivery impacts.	3-5 years	Not started	All divisions
5.4.	Develop an asset (infrastructure) funding strategy.	3-5 years	In progress	All divisions
5.5.	Develop a capital reserve policy.	3-5 years	In progress	Financial Services Division
5.6.	Develop a capital reserve account for infrastructure assets.	3-5 years	In progress	Financial Services Division
5.7.	Review connectivity between asset data for Public Sector Accounting Board (PSAB) financial reporting and asset data for asset management analysis and supporting informed decision-making and identifying improvement actions.	3-5 years	In progress	Asset Management Division Financial Services Division

6

Transparency

The CRD will establish a systematic and integrated approach to asset management and require rigorous and transparent processes.

The CRD is committed to developing functional policies, technical standards, plans and processes that achieve a consistent approach to asset management practices across the organization.

The CRD's corporate asset management framework is built on its Corporate Asset Management Policy, which provides the mandate to practice asset management. Other strategic documents, such as this Corporate Asset Management Strategy, link to corporate documents and provide implementation guidance.

The CRD will adopt an integrated approach that interweaves processes with other management systems, such as quality, environment, risk and health and safety management. This will improve cross-departmental coordination, optimize processes and reduce risks.

Targets:

21. An asset management program that complies with statutory requirements and aligns with other relevant CRD policies and corporate documents

22. A corporate asset management program manual that compiles scalable templates, process flow maps, procedures, processes and technical guides to enable all divisions to follow an approved and consistent approach to implement asset management

23. Routine status reports that communicate the condition of assets, target service levels and service level performance, costs, risks and options

	Action	Timeline	Status	Associated Division(s) and Key Stakeholders
PRIORITY ACTION	6.1. Develop and implement a corporate asset management program manual, including requirements and guidance relating to: ‣ alignment between the Corporate Asset Management Strategy and sustainable service delivery plans and CRD policies and relevant corporate documents ‣ compliance of asset management practices with statutory and regulatory requirements ‣ a framework for implementation and continuous improvement of consistent asset management practice across the CRD ‣ relevant templates, standards, process flow diagrams, methodologies or approaches to be used; scalability for different applications; available tools; knowledge area matrix; and examples to assist staff	‣ 1-2 years	‣ In progress	‣ Asset Management Division ‣ Asset Management Steering Group
	6.2. Communicate the outcomes and impacts on the environment, society, culture and economy from asset management inputs, activities and outputs.	‣ 3-5 years	‣ In progress	‣ Asset Management Division ‣ Asset Management Steering Group

7

Continual Improvement

The CRD will commit to continual improvement, encouraging innovation of asset management practices and service delivery.

This organization's asset management program is exposed to a dynamic environment.

A continuous improvement practice is fundamental to ensuring the CRD can adapt to this environment. Key performance indicators will be established to monitor progress against targets and to ensure the system can be adjusted when necessary.

Targets:

24. An asset management continuous improvement process and program that is resourced appropriately with staff and funding

25. Established key performance indicators and regular reports on the performance of CRD asset management, including:

- annual progress reports about the Improvement Action Plan
- reports on corporate and divisional asset management maturity
- reports on how effectively asset management initiatives are achieving intended outcomes

26. Development and implementation of asset management training programs to educate staff and establish and maintain an asset management knowledge base within the CRD to support organizational resiliency

27. Defined asset management maturity levels at divisional and corporate levels

Continual Improvement

	Action	Timeline	Status	Associated Division(s) and Key Stakeholders
PRIORITY ACTION	7.1. Develop and maintain a prioritized list of asset management Initiatives with estimated budget and resource needs.	Ongoing	In progress	All divisions
	7.2. Develop a mechanism to provide financing and resources for asset management initiatives.	1-2 years	Not started	Asset Management Division Financial Services Division
PRIORITY ACTION	7.3. Develop a method for assessing asset management maturity.	1-2 years	In progress	Asset Management Division Asset Management Steering Group
PRIORITY ACTION	7.4. Conduct an asset management maturity assessment for each division.	1-2 years	In progress	All divisions
	7.5. Develop corporate key performance indicators.	3-5 years	In progress	Asset Management Division Asset Management Steering Group
	7.6. Develop and implement enhanced learning and development program for asset management.	3-5 years	In progress	Asset Management Division Asset Management Steering Group
	7.7. Perform an organizational structure assessment to determine how to efficiently conduct asset management, and develop a methodology to determine demands of delivering the service to human resource capacity and utilization.	3-5 years	In progress	Asset Management Division Asset Management Steering Group
	7.8. Facilitate working groups that contribute to continuous improvement of data and reports.	3-5 years	Not started	Asset Management Division Asset Management Steering Group
	7.9. Integrate asset management continuous improvement initiatives into the CRD corporate plan.	1-2 years	In progress	Asset Management Division Asset Management Steering Group

APPENDIX: RISK ASSESSMENT TABLE

This table summarizes the most likely strategic risks related to implementation of this Corporate Asset Management Strategy and Implementation Action Plan. See **Implementation on page 16** for more details.

Risk No.	Potential Risk & Description	Forecast Impact	Mitigation Options
R1.01	**Failure to get Board endorsement:** The Board does not support asset management initiatives.	‣ Difficultly in achieving successful maturity of asset management	‣ Include the Board early on in the CRD's asset management initiatives. ‣ Draft a policy and strategy for asset management to embrace stewardship role and responsibility. ‣ Provide regular status updates through staff reports on the progress of asset management initiatives.
R1.02	**Inadequate communication within the community** The local community expects to have an opportunity to be advised and consulted on how tax dollars are being invested. Engagement with community is key to educate them on our asset management initiatives, their importance and the risks of failing to proactively manage publicly owned assets.	‣ Unwillingness by residents to pay the costs ‣ Unclear expected levels of service	‣ Engage with the community when developing plans. ‣ Provide more transparency on publicly owned assets, regarding condition, service life, risk and cost.
R1.03	**Unclear roles and responsibilities** Each level has differing roles and responsibilities within the CRD. Board members have a stewardship and an oversight role, while staff have an implementation and reporting role to the Board.	‣ Overlapping efforts within team members ‣ Missed performing activities	‣ Document roles and responsibilities clearly so they are easy to understand, and communicate them out to appropriate members.
R1.04	**Undefined level of service** Level of service is a measure of the quality, quantity and/or reliability of a service from the perspective of residents, businesses and customers in the community.	‣ Unclear performance targets	‣ Define level of service based on customer expectations.
R1.05	**Failure to prioritize high-risk assets** Investing in high-risk assets is critical to ensuring the delivery of the service is sustained.	‣ Unexpected asset failures	‣ Assess risk and identify criticality on core assets.
R1.06	**Implementing too many initiatives** Asset management is a complex but scalable practice. It is an evolutionary process that takes years to build onto the CRD's existing practices.	‣ Slow progress ‣ Low morale within staff	‣ Start small and continually build on small wins.

Risk No.	Potential Risk & Description	Forecast Impact	Mitigation Options
R1.07	**Disconnected organizational effort** Asset management is an integrated business process that requires different divisions within the CRD to interact and develop sustainable service delivery plans.	‣ Inaccurate plans ‣ Inefficient process	‣ Create a cross-functional team that integrates the different departments/divisions.
R1.08	**Unidentified asset risks** Asset management involves risk management, and it is critical that asset risks are assessed to aid in the decision-making process in operations and planning.	‣ Unexpected asset failures	‣ Develop a risk management framework. ‣ Assess asset risks.
R1.09	**Lack of a long-term financial plan greater than five years** A key fundamental is linking long-term renewal plans with the long-term financial plan. An industry best practice on the planning horizon for a long-term plan is a minimum 10 years.	‣ Uncertainty in financial liabilities ‣ High risk in not delivering the defined level of service	‣ Develop 10-year plans.
R1.10	**High rate of outsourcing asset management** Using consultants to aid in the CRD's asset management activities is a reasonable approach depending on internal capacity. However, too reliant on external resources will inhibit building asset management maturity within internal staff.	‣ Slow progress on building internal capacity for practising asset management practices	‣ Carry out asset management workshops to train internal staff. ‣ Ensure that proper rationale is developed when engaging external resources.
R1.11	**Failure to track performance** Set performance targets relating to the performance of assets and asset management practices in order to be able to measure outcomes.	‣ Difficulty in achieving continuous improvement	‣ Develop key performance indicators.

At CRD, we're changing our definition of business as usual by incorporating climate action into the culture of the organization.

Global climate models project an average annual warming of about 3ºC in our region by the 2050s. While that may seem like a small change, it is comparable to the difference between the warmest and coldest years of the past and will impact many aspects of our operations, including provision of drinking water, the resiliency of ecosystems in regional parks, and the design, construction and maintenance of our buildings and infrastructure.

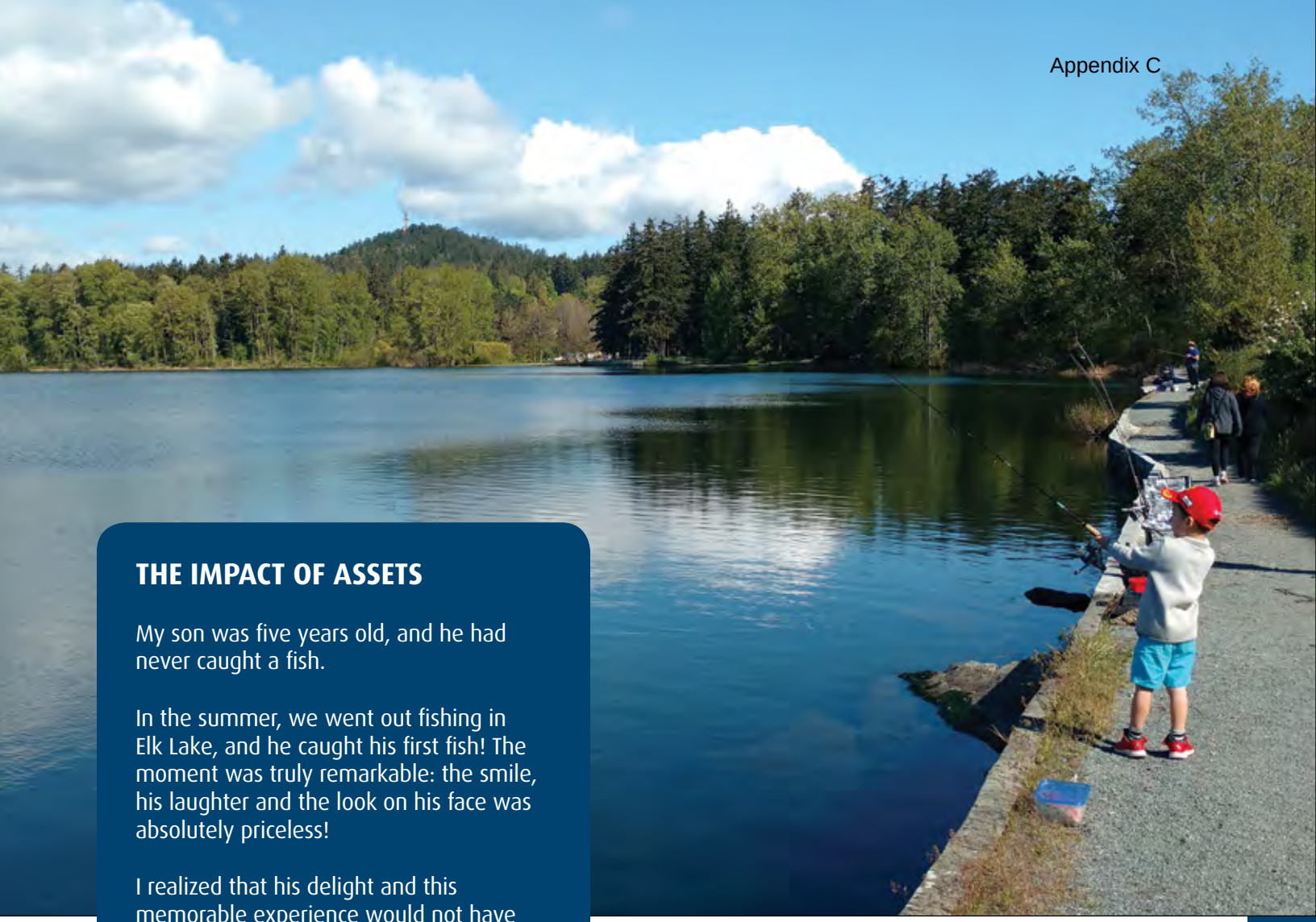
The asset management process integrates a climate change lens into each stage of the asset life cycle, from planning to operations, through to decommissioning.

By reducing CRD's contribution to global greenhouse gas emissions and preparing our assets to withstand the impacts of climate change, CRD can foster the sustainable, resilient region that the public and future generations expect of us.

~LIZ FERRIS
CORPORATE CLIMATE ACTION COORDINATOR

CRD fleet with electric bikes and vehicles

The Corporate Asset Management Strategy was edited and designed by Rachel Penner.



THE IMPACT OF ASSETS

My son was five years old, and he had never caught a fish.

In the summer, we went out fishing in Elk Lake, and he caught his first fish! The moment was truly remarkable: the smile, his laughter and the look on his face was absolutely priceless!

I realized that his delight and this memorable experience would not have been possible if it weren't for the CRD staff who create such a wonderful and safe environment at Elk Lake specifically and at all the regional parks more generally.

With this, I give the entire team a BIG thank you as neither I nor my son will ever forget our special afternoon together.

~CRD RESIDENT

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Making a difference...together

REPORT TO GOVERNANCE COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 06, 2021

SUBJECT **Establishing Best Practices for CRD Meetings**

ISSUE SUMMARY

The CRD Board has asked for guidelines to supplement the Board Procedures Bylaw and better facilitate discussion at Board and Committee meetings. Staff are seeking further direction from the Governance Committee on the meeting procedures and practices that would benefit from clear guidelines.

BACKGROUND

In November 2020, the Capital Regional District (CRD) Board asked staff to develop a policy to guide discussion at Board and Committee meetings. That direction came out of a notice of motion over concern that Directors are often moving motions, making amendments, asking questions and offering discussion in a somewhat disorganized fashion leading to confusion.

At the February 10, 2021 CRD Board meeting, the following motion was carried:

> *That staff report back to the Governance Committee with a best practices guide for meetings of the Capital Regional District Boards, Committees and Commissions.*

The best practice guidelines for meetings will be geared towards educating Directors on how to utilize the meeting management tools available in the existing *CRD Board Procedures Bylaw* ("Bylaw") and in Roberts Rule of Order ("RRO"). However, there are several meeting practices that have been raised by Directors that are outside the scope of the Bylaw or RRO and for which staff are seeking further direction on. For additional background information, please see the February 3, 2021 staff report attached as Appendix A to this report.

ALTERNATIVES

Alternative 1
The Governance Committee recommends to the Capital Regional District Board:
That staff report back to the Governance Committee with best practice guidelines for meetings of the Capital Regional District Boards, Committees and Commissions in accordance with the direction set out in this report.

Alternative 2
That this report be referred back to staff for additional information.

IMPLICATIONS

The CRD Board Procedures Bylaw governs the rules of procedure for all CRD Board, Standing and Select Committees, and Commissions. Furthermore, section 2 of the Bylaw establishes that RRO will apply in cases where the Bylaw is silent on procedure, as long as it is not inconsistent

with the *Local Government Act* or *Community Charter*.

This section will provide an overview of the meeting procedures and best practices that have been the subject of discussion at CRD Board and Standing Committee meetings.

Moving of Recommendation(s)

The guidelines will streamline the Board's decision making practice by prioritizing the moving of the recommendation(s) published on the meeting agenda before considering an alternative motion.

During past meetings, Directors have raised whether the proper procedure is for the Chair to seek movers and seconders of the recommendation, as printed on the meeting agenda, before an alternative motion will be considered. Currently, the Bylaw does not contain any direction on the priority of the staff recommendation. There are sometimes two sources of recommendations before the Board: the recommendation from the staff report; or an alternate or amended recommendation from a Committee or Commission. Most staff reports will have gone to committee for endorsement or further refinement (through amendments or motions arising) before making its way on the Board meeting agenda.

Allowing Directors the opportunity to move the staff recommendation before any alternative motions or amendments are raised would allow for fulsome discussion on the staff recommended course of action before discussion is redirected to an alternative course of action. When applied at Board, Directors should be made aware of the context of any amendments made at committee to ensure committee input is not sidelined in the Board's consideration of the issue; therefore, a note is published on the Board agenda highlighting any changes to the staff recommendation at committee.

Point of Order, Privilege, Parliamentary Inquiry, and Information

The guidelines will differentiate between the motions Point of Order, Raising a Question of Privilege, Parliamentary Inquiry, or Point of Information.

A point of order must be raised immediately when a member believes that the rules of order are being violated and wish for the Chair to enforce the rules or make a ruling. As per section 24(4) of the Bylaw and RRO, a point of order does not require a seconder and can interrupt another member who is speaking. Some common examples include: limiting discussion to the motion on the floor; prioritizing first time speakers; and objecting to the validity of a motion or amendment.

A point of order is often confused with the motions raising a questions of privilege, parliamentary inquiry, and point of information.

Raising a Question of Privilege is allowed to interrupt the pending business to state an urgent request or motion if a member or the Board's rights or privilege are being affected. For example, interfering noise, malfunctioning audio-visual equipment, and the discussion of confidential subject matters with guests still presents.

A parliamentary inquiry is made when a member has a question about the rules and how they apply to the current proceeding or to something that the member would like to propose. Unlike a

Point of Order, you may only interrupt a speaker if the question requires immediate attention such as before the calling of a question.

A motion to request for information (commonly referred to as point of information) is very similar to a parliamentary inquiry. A request for information is to ask a non-procedural question on the business matter before the Board; however, this question must be directed to the Chair who will then direct to the appropriate individual to respond.

Question Period and Debate

The guidelines will solidify the procedure that the Chair opens the floor for questions (point of information) before putting the question and hearing comments (debate).

A practice of the CRD Board Chair has been to ask if there are any questions from the Directors on the report or matter before them before putting a motion on the floor and opening up debate. This practice has been adopted by most Chairs of Standing Committees and provides an opportunity for staff to answer questions about their report or service area. For clarity, having a question period before a motion or opening the floor for comments (i.e. debate) does not negate the ability for Directors to raise more questions during the course of debate, after the motion has been moved and seconded, as is permitted in RRO.

Amendment, Motion Arising, and Notice of Motion

The guidelines will provide criteria and examples for Chairs and Members to better differentiate between an amending motion, a motion arising and a notice of motion.

A common challenge for Directors is being able to differentiate whether the motion they wish to put forward is an amendment to the main motion, a new motion that is arising from business matters before the Board, or a notice of motion to take additional action.

Section 22(4) of the Bylaw, and RRO, allows only one amendment to an amendment at one time. Each amendment is voted on separately and if successful requires that a vote be taken on the main motion as amended. The Bylaw requires that the amendments be strictly relevant to the main motion and not alter in a material way or be contrary in principle. For example, it is not proper procedure to amend a motion to “grant funds” by inserting a negative word in order to change the intent of the motion to “not” granting those funds. The proper procedure is to vote on the main motion and vote in opposition if you do not want the proposed action to be taken.

The practice by the Board and its Standing Committees has been to permit motions arising on an agenda item; however, the criteria and nuance between a motion arising versus amendment is not provided for in the Bylaw or RRO. In practice, motions arising are additional stand-alone motions calling for an additional action to complement the main motion before the Board. The best practice is to vote on motions arising separately than the main motion.

The Bylaw allows Members to bring forward a new matter for the Board’s decision through a notice of motion process in accordance with section 22 sub-sections (6) and (7). The procedure requires that notice be given at a meeting that the matter will be published on the next agenda for discussion. The two-step process ensures the following due process: that the meeting’s focus remains on the approved agenda items; that Directors have time to give thought to the matter and

prepare for a fulsome discussion at the next meeting; and it provides the an opportunity for public comment before a decision is made. The Bylaw provides an exception for same day consideration with a 2/3 affirmative vote provided that there is an urgent deadline, minor organizational impact, or to simply support the position of a member local government.

The Chair makes the ruling on whether a motion is an amendment, a motion arising, or a notice of motion; however, a Member may raise a point of order if they disagree with the appropriateness of the motion. A table of example motions is provided below for clarity.

Table: Example Motions for Action or Decision

Motion Type *(Procedures Bylaw)*	***Example(s)***
Motion/ Recommendation *s. 22(1)*	*That the Governance Committee recommends to the CRD Board:* That staff be directed to conduct public engagement on the proposed design for…
Amendment *s. 22(4)*	That the motion be amended by adding after "public engagement" the following: "including online and in-person opportunities"
Motion Arising *s. 22(5)*	• That the report be forwarded to municipal councils for information… • That the Board Chair send a letter to the Minister of Municipal Affairs… • That staff provide supplementary information (as directed) when the report is presented to the Board.
Notice of Motion *s.22(6) & 22(7)*	That staff be directed to report back through the Governance Committee on the development of a policy to address ….

Table, Postpone Indefinitely, and Postpone to a Certain Time

The guidelines will note the proper use of the motion to lay on the table and to postpone to a certain time in accordance with Robert's Rules of Order.

A common misconception is that tabling a motion puts the matter off to another day or kills the motion. In both cases, this is an improper use of the motion to lay on table. Under RRO, to lay on the table is to temporarily pause consideration of the pending business in order to address a more urgent matter before resuming consideration of the pending business in the same meeting.

To drop the main motion without a direct vote is the motion to postpone indefinitely.

The motion to postpone to a certain time allows the Board to put off an immediate decision on a matter with only a majority in favour. There are many reasons why the Board may want to delay consideration including, but not limited to, requiring more information before making a decision or to deal with more urgent business matters before the meeting is adjourned. Unlike a motion to lay on the table, the motion to postpone must define the period of time (e.g. next meeting). If the Board is seeking advice of a Committee, the proper motion is to refer the business matter to the Committee and ask that they report back.

Referrals to Other Standing Committees

The guidelines will establish that committees should not refer items to other Standing Committees without Board approval, except for service planning reports advancing to Committee of the Whole.

At a recent Standing Committee meeting discussion ensued on the proper procedure for a Committee to refer a report to another Standing Committee. Section 26(3) of the Bylaws states that a Board Standing Committee will carry out any matter referred by the Board or the Chair of the Board.

If the best practices guidelines were to stipulate that only the Board may refer to a Standing Committee, this would mean that recommendations of referrals to additional committees would take up to two months to proceed through committee to board, to another committee, and back to board for final consideration. The other challenge with sending a report to multiple committees is the possibility of contradictory recommendations from committees converging on the Board agenda.

The best practice guidelines will provide an exception for service planning reports which will be referred to the special Committee of Whole meeting for provisional budget prior to a Special Board meeting.

Limiting Speakers by Objecting to Consideration or Calling the Previous Question

The guidelines will NOT establish a practice that all Members be heard at least once before debate is closed and a vote is taken, unless directed to by the Board.

The practice of calling the question before all Directors wishing to speak had an opportunity to do so has been raised as a concern by some Directors. Section 21(3) of the Bylaw states that "*the Chair shall have the discretion to call the question on completion of debate"*. Under RRO, a Member who wishes to immediately close debate and amendment of a pending motion and taking a vote can do so by moving the previous question and with a 2/3 vote. Noteworthy exceptions to the application of the previous question in RRO are that it is not allowed in committees and prevents the making of other subsidiary motions except to lay on the table.

Section 22(3) of the Bylaw states that a motion to adjourn debate shall always be in order. If the Board wished to amend its procedure to ensure that that all Directors have an opportunity to speak at least once, it will require an amendment to the Board Procedures Bylaw. The Best Practices guidelines are only able to supplement the Board Procedures Bylaw and not provide contradictory procedures.

The motion objection to consideration of the question is made when a member believes that the main motion is undiplomatic and not in the best interest of the Board to be discussed in the meeting. RRO requires that the objection be raised before debate has begun and receive a 2/3 vote against consideration. The effect of this motion is that no member can speak to the motion.

Receive for Information

The guidelines will clarify that the motion to "Receive for Information" has no effect.

The motion to receive for information does not endorse further action in its passing, nor does it mean that the report was not received as it was published on the meeting agenda (i.e. received). Staff have identified a need to update staff report recommendation practices to move away from a recommendation to receive for information. Instead, staffs report will include a statement under Recommendation stating that, *"There is no recommendation. This report is for information only."* If there is further action being taken by staff, for example, the development of a plan, the recommendation would be more appropriate as, *"That staff proceed with community consultation on the draft plan.*"

CONCLUSION

The Capital Regional District Board asked staff to develop a policy to guide discussion at Board and Committee meetings. The best practice guidelines for meetings will be geared towards educating Directors on how to utilize the meeting management tools available in the existing *CRD Board Procedures Bylaw* and in Roberts Rule of Order. Staff are seeking further direction from the Governance Committee on meeting procedures and practice that would benefit from clear guidelines, which are: moving of recommendations before considering an alternative motion; when to raise a point of order, privilege, parliamentary inquiry, or request for information; having a question period before opening the floor to debate; appropriate use of amendments, motions arising, and notices of motion; clarifying the motion to lay on the table versus postponing to a certain time or indefinitely; Board approval of referrals to other Committees; limiting discussion by objecting to consideration of the question or calling the previous question; and the practice of receiving of reports for information. Staff will report back through the Governance Committee with best practice guidelines for meetings of CRD Boards, Committees and Commissions.

RECOMMENDATION

The Governance Committee recommends to the Capital Regional District Board:
That staff report back to the Governance Committee with best practice guidelines for meetings of the Capital Regional District Boards, Committees and Commissions in accordance with the direction set out in this report.

Submitted by:	Marlene Lagoa, MPA, Manager, Legislative Services & Deputy Corporate Officer
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Staff Report from Feb 3, 2021 (copy of Bylaw 3828-CRD Board Procedures)

Making a difference...together

REPORT TO GOVERNANCE COMMITTEE
MEETING OF WEDNESDAY, FEBRUARY 03, 2021

SUBJECT **Report on Options for a Board Discussion Policy**

ISSUE SUMMARY

The CRD Board directed staff to develop a policy to guide discussion at Board and Committee meetings.

BACKGROUND

At its November 18, 2020 meeting, the Capital Regional District (CRD) Board approved the following Motion with Notice from the Governance and Finance Committee:

> *That the Governance and Finance Committee recommend to the Capital Regional District Board:*
>
> *Whereas during board and committee meetings, Directors are often moving motions, making amendments, asking questions and offering discussion in a somewhat disorganized fashion.*
>
> *Whereas this can create some confusion from Directors as well as members of the public following the meeting virtually or viewing the recorded meeting.*
>
> *Therefore be it resolved that staff develop a policy to guide board discussion and that the policy be referred to as an addendum in the Board Procedures Bylaw.*
> *CARRIED*

A summary of the merits and concerns raised by the Governance and Finance Committee on November 4, 2020 and the CRD Board on November 18, 2020 is attached as Appendix A.

ALTERNATIVES

Alternative 1
The Governance Committee recommends to the Capital Regional District Board:
That staff report back to the Governance Committee with a best practices guide for meetings of the Capital Regional District Boards, Committees and Commissions.

Alternative 2
The Governance Committee recommends to the Capital Regional District Board:
That staff report back to the Governance Committee with draft amendments to the Procedures Bylaw to improve meeting procedures, particularly on the processing of motions and debate.

Alternative 3
The Governance Committee recommends to the Capital Regional District Board:
That staff develop a policy addendum to the Procedures Bylaw to guide board discussions at Capital Regional District Boards, Committee and Commission meetings, and draft an amending

bylaw to incorporate the policy by reference into the Procedures Bylaw.

IMPLICATIONS

Alignment with Existing Bylaw

Bylaw No. 3828, *"Capital Regional District Board Procedures Bylaw, 2012"* (the "Procedures Bylaw") already provides procedural tools that may address a number of the concerns Directors have raised including:

- Suspension of procedure for a specified time period with a 2/3 affirmative vote (s. 3);
- Amendments must be strictly relevant to the main motion and not alter in a material way or be contrary to the principle embodied in the main motion (s. 22(4));
- Member may speak no longer than 15 minutes on a question, and when a member has spoken less than 10 minutes, they may speak a second time to a maximum of 5 minutes (s. 24(9));
- Debate may be interrupted to raise a point of order (s.24 (3));
- A matter of privilege may be raised at any time and dealt with before continuing debate (s. 24(4));
- Chair shall preserve order and rule on all points of order (s. 20(4)); and
- Robert's Rules of Order apply for procedures not addressed in the Bylaw (s. 2)

The ability to suspend the rules with a two-thirds vote provides an opportunity for the Board to have a more open discussion without being limited by the Procedures Bylaw or Robert's Rules of Order.

Over the last six months, the validity of proposed amendments has been raised as a point of order at meetings. At other times, an amendment is moved, seconded and debated that significantly alters or strays from the spirit of the main motion often resulting in confusion. There is an opportunity to improve the proper use of amendments by upholding s. 22(4) of the Procedures Bylaw. If a Director wishes that a different course of action be taken, the main motion should be voted on and defeated instead of being altered to the point that it results in a significantly different outcome.

To keep debate focused, there are better options available in the Procedures Bylaw, they include:

a) Division of a motion to narrow the breadth of discussion and for clarity when voting (s.22(2));
b) Indicating during debate the intention to move a motion arising immediately following consideration of the main motion (s. 22(5)); and
c) Introducing a notice of motion to be debated at the next meeting (s. 22(6)).

The rules already established in the Procedures Bylaw and Robert's Rules of Order could address the concerns raised by the Board; therefore, staff recommend that a best practices guide for meetings could be an effective way to educate Chairs and Directors on how to use existing tools to guide Board and Committee discussions, without the need for a policy or bylaw amendments. A training session for Directors could be scheduled once the guidelines are approved by the Board.

Implications of Alternatives 2 and 3:

Alternative 2 proposes that any changes to meeting procedures be made to the existing Procedures Bylaw to ensure clarity and consistency across all Boards, Committees and Commissions. The bylaw already addresses procedural rules dealing with motions (s. 22) and debate and conduct (s. 24). If Alternative 2 was endorsed, staff would require further direction on the specific nature of the amendments that Directors would like to see that are not currently included in the bylaw. Any amendments would need to be made by amending bylaw.

Alternative 3 proposes the development of a comprehensive policy to guide effective discussions at Board and Committee meetings. This option requires the most staff resources and the longest timeframe to complete. All CRD policies must be developed and amended in accordance with the process set out in the Policy Management Framework, attached as Appendix C. An advantage of this alternative is that a policy is more binding than a best practice guide, however, if the intention of the Board is to enforce compliance with a set of procedural rules it may be preferable to amend the Procedures Bylaw so all rules applicable to meeting management are contained in one document. Further, it should be noted that creating a policy addendum to the Procedures Bylaw, as requested in the original motion, would still require staff to draft an amending bylaw to incorporate the policy by reference into the Procedures Bylaw.

CONCLUSION

In November 2020, the CRD Board directed staff to develop a policy to guide discussion at Board and Committee meetings. The current Procedures Bylaw provides a number of procedural rules to guide the making of motions, amendments, and conduct during debate at meetings. Roberts Rules of Order also provides other options for meeting management which, if fully utilized by meeting Chairs, could help to address many of the concerns raised in the motion. While a policy addendum to the Procedures Bylaw would help provide additional clarity to meeting management, the process to develop and adopt a new policy requires more staff resources than it would take to make targeted amendments to the Procedures Bylaw.

A best practices guide for chairing meetings could be developed and endorsed in a more streamline fashion than either bylaw amendments or a policy addendum and would be geared towards educating Directors on how to utilize the meeting management tools available in the existing Procedures Bylaw and in Roberts Rules of Order. Once approved by the Board, staff could schedule a training session for Chairs and Directors to reinforce the best practice guidelines.

RECOMMENDATION

The Governance Committee recommends to the Capital Regional District Board:
That staff report back to the Governance Committee with a best practices guide for meetings of the Capital Regional District Boards, Committees and Commissions.

Submitted by:	Marlene Lagoa, MPA, Acting Manager, Legislative Services & Deputy Corporate Officer
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Kevin Lorette, P. Eng., MBA, Acting Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Summary of Board Discussion Policy Comments from November 2020
Appendix B: CRD Board Procedures Bylaw No. 3828 (Consolidated)
Appendix C: CRD Policy Management Framework

APPENDIX A

Summary of Board Discussion Policy Comments from November 2020

The following is a summary of the merits and concerns raised by the Governance and Finance Committee on November 4, 2020 and CRD Board on November 18, 2020:

Guide, Procedures Bylaw, Policy

- Policy to serve as a best practices guide for Chairs
- Directors have varying levels of experience with meeting procedures
- Concern with imposing more procedures that would limit debate or hearing different views
- To create a consistent practice, discussion process needs to be adhered to
- Value to having clear procedures and strict limitations
- Debate on procedure is often taking place instead of focusing on the merits of the motion
- Directors should be developing the policy instead of staff

Discussion Procedures

- At times a new motion, that is not addressed in the staff report, is put on the floor while questions are still being asked
- Implementing a question period prior to a motion being placed on the floor
- Chair calls for movers of the recommendation on the agenda before welcoming alternatives
- Length and number of times a Member can speak may delay a vote or consideration of other agenda items
- Procedure may need to evolve with the inclusion of First Nation Members
- Desire for more expeditious process for discussion at Board when matters have been deliberated and recommended by Committee

Motions

- Motion to receive for information is unnecessary
- Amendments are inherently challenging to follow but a valuable tool towards reaching consensus on a matter
- Point of Order is often used incorrectly

APPENDIX B

Making a difference...together

BYLAW NO. 3828

CAPITAL REGIONAL DISTRICT BOARD PROCEDURES BYLAW, 2012

(as amended by Bylaw No. 3951, 3999, 4024, 4044, 4129, 4206, & 4262, 4312, 4313, 4353, 4368)

A bylaw to regulate the proceedings of the Capital Regional District Board

For further details, please contact the Capital Regional District,
Legislative Services Department, 625 Fisgard St., PO Box 1000, Victoria BC V8W 2S6
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CAPITAL REGIONAL DISTRICT
BYLAW NO. 3828
REGIONAL DISTRICT PROCEDURES BYLAW

Contents

BYLAW NO. 3828 1

CAPITAL REGIONAL DISTRICT BOARD 1

PROCEDURES BYLAW, 2012 1

PART 1 – INTRODUCTION 4

Definitions 4
Application of Rules of Procedure 5
Suspension of Rules of Procedure 5

PART 2 – BOARD MEETINGS 6

Inaugural Meeting 6
Election of Chair and Vice Chair 6
Meetings and Adjournment 7
Quorum 7
Notice of Regular Meetings 8
Notice of Special Meetings 8
Notice of Committee Meetings 8
Notice of Commission Meetings 9
Agenda 9

PART 3 – BOARD PROCEEDINGS 9

Delegations 9
Presentations 10
Order of Proceedings and Business 10
Minutes 12
Correspondence 12
Attendance of Public at Meetings 12
Closed Meetings 13
Use of Video Recording Devices 13
Chair and Presiding Officers 13
Rules of Order 14
Motions 14
Reconsideration of an Adopted Bylaw, Resolution or Proceeding 15
Debate and Conduct 15
Voting 16

PART 4 – COMMITTEES AND COMMISSIONS 17

Board Standing Committees 17
Advisory Committees 17
Select Committees 18
Commissions 18
Electronic Participation at Commission Meetings 18
Electronic Participation in case of Emergency or Special Circumstance 19
Attendance at Committee Meetings 19
Committee Reports 19
Quorum 19

VOTING AT MEETINGS 20
OPERATION 20
PART 5 – COMMITTEE OF THE WHOLE 20
PROCEDURES FOR COW MEETINGS 20
PART 6 – BYLAWS 21
PART 7 – RESOLUTIONS 21
PART 8 – GENERAL 21

CAPITAL REGIONAL DISTRICT

BYLAW NO. 3828

****

A BYLAW TO REGULATE THE PROCEEDINGS OF THE CAPITAL REGIONAL DISTRICT BOARD

****

The Board of the Capital Regional District enacts as follows:

PART 1 – INTRODUCTION

Definitions

1. In this Bylaw:

"Board" means the governing and executive body of the CRD;

"Chair" means the Chair or Vice Chair of the CRD elected pursuant to section 215 of the *Local Government Act* or other person presiding at a meeting of the Board or committee, as the context requires;

(Bylaw No. 4262)

"Committee" means a standing, advisory, select, or other committee of the Board, but does not include Committee of the Whole or a local service committee or a service committee;

"Commission" means a commission established by the Board under section 263(1)(g) of the *Local Government Act* and a local service committee and a service committee established by the Board.

(Bylaw No. 4262)

"Corporate Officer" means the officer of the CRD assigned the corporate administration responsibilities of section 236 of the *Local Government Act*, and includes that officer's designate;

(Bylaw No. 4262)

"COW" means the Committee of the Whole Board;

"CRD" means the Capital Regional District;

"CRD Offices" means the CRD located at 625 Fisgard Street, Victoria, BC;

"CRD Website" means the information resource found at an internet address provided by the CRD;

"Delegation" means an individual or an organization addressing the Board, a committee or commission about a specific item on the agenda of a meeting;

"First Nation Member" means a First Nations' elected representative who is permitted to participate on an Advisory Committee, Select Committee, or Standing Committee by the relevant Terms of Reference and includes their alternate if acting in the place of a First Nation Member;
(Bylaw No. 4368)

"Member" means a Member of the Board, whether a municipal director or an electoral area director, and includes their alternates if acting in the place of a Member;

"Presenter" means a person(s) or organization(s) invited by the CRD to make a presentation to the Board. It also includes a request to speak by a First Nations Elder or Chief and a federal, provincial or local government elected official.
(Bylaw No. 4024)

"Public Notice Posting Place" means the notice board, whether electronic or not, located in the front foyer of the CRD offices and the CRD Website; and, in the case of a Commission, means a consistent local public location designated by the Commission;

"Vice Chair" means the Member elected as Vice pursuant to section 215 of the *Local Government Act*.
(Bylaw No. 4262)

Application of Rules of Procedure

2. (1) The provisions of this Bylaw govern the proceedings of the Board, COW, all standing and select committees of the Board and all commissions, as applicable.

(2) In cases not provided for under this Bylaw, The Newly Revised Robert's Rules of Order, 11th edition, 2011, apply to the proceedings of the Board, COW, committees and commissions to the extent that those rules are:

(a) applicable in the circumstances; and

(b) not inconsistent with provisions of this Bylaw, the *Local Government Act* or the *Community Charter*.

(3) No provision of this bylaw relating to the procedure of the Board shall be altered unless notice of the proposed amendment is given in accordance with section 225 of the *Local Government Act*.

Suspension of Rules of Procedure

3. Except for those provisions of this Bylaw that are statutorily mandated, the rules of procedure contained in this Bylaw may be suspended for a temporary time period specified by the Board with a 2/3 vote of those Members present.

PART 2 – BOARD MEETINGS

Inaugural Meeting

4. (1) The Board shall meet in an inaugural meeting during the month of November at such time as shall be advised by the Corporate Officer in writing.

(Bylaw No. 4129)

(2) The presiding officer of the inaugural meeting shall be the Chief Administrative Officer until such time as the Chair has been elected.

(3) The Chief Administrative Officer shall announce results of elections and confirm that new Members have completed the Oath of Office set out in the *Local Government Act*, following which the Chair shall be elected from among the Members of the Board.

Election of Chair and Vice Chair

5. (1) The Chief Administrative Officer shall call for nominations for Chair and conduct a vote by secret ballot in which the person receiving a majority vote of those Members present shall be elected Chair. Each Member shall have only one vote. If only one candidate is nominated for an office, that candidate shall be declared elected by acclamation. The call for nominations for the office of Vice Chair shall be called by the Chair.

(2) Nominations do not need to be seconded and a candidate must consent to the nomination.

(3) If a candidate is not present at the meeting, his or her written consent to the nomination must be provided to the Corporate Officer at the meeting.

(4) At the close of nominations, if more than one candidate has been nominated, each candidate will be given a maximum of four (4) minutes to address the Board in favour of his/her candidacy in the order of his/her nomination. If a candidate is not present at the meeting, he or she may have their nominator deliver a prepared speech on his or her behalf not to exceed three minutes in duration.

(5) At the conclusion of the candidates' speeches, the Corporate Officer and Deputy Corporate Officer or designate will circulate a ballot box in which the completed ballots will be placed. When all of the ballots have been collected the Corporate Officer will remove the ballot box to a separate room and the ballots will be counted in accordance with subsection (6).

(6) The counting of the ballots will be conducted by the Corporate Officer together with the Deputy Corporate Officer or designate. Either the CRD's legal counsel or a judicial justice appointed under the *Provincial Court Act* will be present to observe the counting of the ballots.

(7) Following the counting of the ballots, the Corporate Officer shall advise the Chief Administrative Officer of the candidate that has received a majority of the votes.

(8) The number of votes received by each candidate will not be disclosed to the Board unless

a resolution requiring disclosure is passed.

(9) In the event that there are more than two candidates for the election of Chair or Vice Chair and if no person receives a majority of the votes of those Members present, the candidate receiving the least number of votes shall be eliminated and subsequent ballots shall be taken until one candidate receives the majority of votes of those Members present; unless there is a tie between the two candidates with the least votes of those Members present, in which case, subsequent ballots shall be taken until one candidate receives the least number of votes of those Members present and is eliminated. If the tie for the least number of votes of those Members present continues after three elections have been held, the candidate who shall be eliminated will be decided by a lot between the candidates as outlined in section 5(3). The voting on subsequent ballots will then proceed without the eliminated candidate until one candidate receives the majority of votes of those Members present.

(10) In the event of a tie vote for the most votes of two (2) or more candidates, the candidates who are tied remain in the election. If a definitive election result cannot be declared after three (3) elections have been held, then the majority vote shall be deemed to be determined by a lot between the candidates as follows:

(a) the names of the candidates shall be written on separate pieces of paper and placed in a container;

(b) the Corporate Officer shall be asked to withdraw one paper; and

(c) the candidate whose name is on the withdrawn paper shall be declared elected.

(11) Once a candidate has been declared elected, the ballots shall be destroyed by way of a Board resolution.

(12) Following the election of the Chair, the CRD Board shall elect one of its Members to be Vice Chair. The procedure for determining the Member to be elected Vice Chair shall be as set out in sections 5(1) to (11) for electing the Chair of the Board.

(Bylaw No. 4044)

Meetings and Adjournment

6. Regular meetings shall be held at the CRD Board Room, 625 Fisgard Street, Victoria, BC on the second Wednesday of the month commencing at 1:00 pm unless otherwise determined by resolution of the Board.

(Bylaw No. 4262)

6.1 Regular and special meetings shall be adjourned no later than three (3) hours from the scheduled start time of the meeting unless the Board resolves to proceed beyond that time by an affirmative vote of the majority of the members present.

(Bylaw No. 3951)

Quorum

7. (1) The quorum for a meeting of the Board shall be a majority of all the Members.

(2) At the appointed time for commencement of the meeting, the Chair or, in his/her absence, the Vice Chair, shall ascertain that a quorum is present before proceeding to the business of the meeting. If neither the Chair nor the Vice Chair is present within fifteen (15) minutes after the time appointed for a meeting, the Corporate Officer shall call the Members to order, ascertain that a quorum is present and, if so, the Board shall appoint an Acting Chair who shall preside during the meeting or until the arrival of the Chair or Vice Chair. Such person appointed as Acting Chair shall have all the powers and be subject to the same rules as the Chair.

(3) If a quorum has not been made within sixteen (16) minutes after the appointed time, the Corporate Officer shall record the names of the Members then present and the Board shall stand adjourned until the next meeting date or until another meeting shall have been called in accordance with this bylaw or to such time as the Chair shall appoint.

Notice of Regular Meetings

8. At least seventy-two (72) hours before a regular meeting of the Board, the Corporate Officer must give public notice of the time, place and date of the meeting by way of a notice and agenda posted at the Public Notice Posting Place.

Notice of Special Meetings

9. (1) Except where notice of a special meeting is waived by a unanimous vote of all Members under section 220(3) of the *Local Government Act*, before a special meeting of the Board, the Corporate Officer shall:

(a) at least twenty-four (24) hours in advance, give notice of the general purpose, time, place and date of the meeting by way of a notice posted at the Public Notice Posting Place; and

(b) at least five (5) days before the date of the meeting, mail to each Member the notice of the general purpose, time, place and date of the meeting.

(Bylaw No. 4262)

(2) Despite section 9(1), in the case of an emergency, notice of a special meeting may be given in accordance with section 220(4) of the *Local Government Act*.

(Bylaw No. 4262)

Notice of Committee Meetings

10. (1) At least seventy-two (72) hours before a regular meeting of a committee or COW, excluding a commission, public notice must be given of the time, place and date of the meeting by way of a notice posted at the Public Notice Posting Place.

(2) At least twenty-four (24) hours before a special meeting of a committee or COW, excluding a commission, public notice must be given of the time, place and date of the meeting by way of a notice posted at the Public Notice Posting Place.

Notice of Commission Meetings

11. (1) At least seventy-two (72) hours before a regular meeting of a commission, public notice must be given of the time, place and date of the meeting by way of a notice posted in a consistent public location in the area served by the commission.

(2) At least twenty-four (24) hours before a special meeting of a commission, public notice must be given of the time, place and date of the meeting by way of a notice posted in a consistent public location in the area served by the commission.

Agenda

12. (1) The Corporate Officer, under the direction of the Chair, shall prepare an agenda and shall circulate a copy of the agenda to each Member at least four (4) days before the meeting. If necessary, a supplementary agenda for a meeting of the Board will be circulated at least 24 hours before the meeting. At any meeting other than a special meeting, the Chair may add items of an emergent or time sensitive nature to the agenda.
(Bylaw No. 4262)

(2) At a meeting, a Member may, at the time adoption of the agenda is being considered, propose to place an additional item of an emergent or time sensitive nature on the agenda. The item must be added to the agenda only if the resolution is adopted by at least two thirds of the votes cast.

PART 3 – BOARD PROCEEDINGS

Delegations

13. (1) The Board may, by resolution, allow a delegation to address the meeting in person on the subject of an agenda item, provided written application on a prescribed form has been received by the Corporate Officer no later than 4:30 pm two (2) calendar days prior to the meeting. Each address shall be limited to four (4) minutes unless a longer period is agreed to by 2/3 vote of those Members present. The order of speakers will be based on the order in which the request was received. The Corporate Officer may determine the number of copies of any written submissions to be provided by each delegation to the Board. Each delegation shall provide the number of copies as determined by the Corporate Officer, for distribution at the time of the delegation's appearance.

(a) As an alternative to addressing a meeting as a delegation, a person may submit their comments in writing to the Corporate Officer for circulation to Members in advance of the next meeting.

(Bylaw No. 3951)

(2) Where written application has not been received as prescribed in section 13(1), an individual or delegation may address the meeting if approved by a unanimous vote of the Members present.

(3) Any video presentations used as part of a delegation’s address to the Board will count toward the time limit permitted for the delegation.

(4) If a delegation has registered to address a meeting but is no longer able to attend the meeting, a different delegation will not be permitted to address the meeting in substitution.

(5) The Board shall not permit a delegation to address a meeting of the Board regarding a bylaw in respect of which a public hearing has been held, where the public hearing is required under an enactment as a prerequisite to the adoption of the bylaw.

(6) The Board shall not permit a delegation to address a meeting of the Board regarding a matter to be dealt with as a grievance under a collective agreement, or that is within the exclusive mandate of the Greater Victoria Labour Relations Association Board.

(7) The subject matter upon which a delegation wishes to speak must:

(a) be within the jurisdiction of the Board; and

(b) be within the terms of reference of the Committee or Commission for which the delegation wishes to appear.

(8) The Chair may deny any delegation the right to address a meeting if, in the Chair's opinion, the spokesperson or any Member of the delegation:

(a) immoderately raises his or her voice, or uses profane, vulgar or offensive language, gestures or signs; or

(b) addresses issues not contained within the written application of the individual or delegation.

Presentations

14. (1) The CRD may, with the Chair's approval, invite a person, persons, or organization(s) to make a presentation to the Board. Time permitting, the Corporate Officer shall include the subject of the presentation and the designated speaker on the meeting agenda.

(2) With the Chair's approval, the Corporate Officer shall include a request to speak by a presenter on the meeting agenda.

(3) All presentations shall be limited to 10 minutes unless a longer period is approved by a majority vote of those Members present.

(Bylaw No. 4024)

Order of Proceedings and Business

15. (1) The order of business at all regular meetings shall be as follows:

1. Territorial Acknowledgement
2. Approval of Agenda
3. Adoption of Minutes of Previous Meeting

4. Report of the Chair
5. Presentations/Delegations
6. Consent Agenda
7. Administration Reports
8. Reports of Committees (not included in the Consent Agenda)
9. Correspondence
10. Bylaws and Resolutions
11. Motions for Which Notice Has Been Given
12. New Business
13. Motion to close the meeting in accordance with the applicable provisions of the *Community Charter*
14. Adjournment

(Bylaw No. 4262, 4312)

(2) The order of business at all special meetings shall be as follows:

1. Territorial Acknowledgement
2. Approval of Agenda
3. Presentations/Delegations
4. Special Meeting Matters
5. Motion to close meeting in accordance with the applicable provisions of the *Community Charter*
6. Adjournment

(Bylaw No. 4312)

(3) The order of business at all closed meetings whether regular or special shall be as follows:

1. Approval of Agenda
2. Approval of Minutes of Previous Closed Meeting
3. Closed Meeting Matters
4. Rise and Report
5. Adjournment

(4) A change to the prescribed order of business other than a special meeting may be ordered by the Chair or moved by a Member, with unanimous consent.

(5) The Consent Agenda portion of the agenda shall consist of staff or committee report items that contain clear take action, give approval, or receive for information recommendations.

(6) Members may vote on and adopt in one motion all recommendations appearing on the Consent Agenda that are subject to the same voting rule.

(7) At approval of the Consent Agenda, a Member may for the purpose of:
(a) debate or discussion;
(b) voting in opposition to a recommendation on the consent agenda or to propose an amendment to the motion; or

(c) declaring a conflict of interest with respect to an item on the consent agenda;

request that an item be removed from the consent agenda, without debate or vote of the Members.

(Bylaw No. 4262)

Minutes

16. (1) Minutes of all proceedings of the Board shall be kept by the Corporate Officer; such minutes to be concise and to detail proceedings of the Board. The minutes shall be legibly recorded, certified as correct by the Corporate Officer, and signed by the Chair, Vice Chair, or the person presiding at such meeting or at the next meeting at which they are adopted.

(2) Minutes of proceedings of standing and select committees, and commissions shall be legibly recorded and signed by the Chair, or Member presiding.

(3) Subject to section 16(4), and in accordance with sections 97(1)(b) and (c) of the *Community Charter*, minutes of the proceedings of the Board or of a body referred to in section 17(2) must be open for public inspection at the CRD Offices, Legislative Services, during their regular office hours and may be posted to the CRD website.

(4) Section 16(3) does not apply to minutes of a Board meeting or a meeting of a body referred to in section 17(2) for that part of the meeting from which persons were excluded under section 90 of the *Community Charter*.

Correspondence

16.1 (1) Following consultation with the Chair or other person who is to preside at the applicable meeting, the Corporate Officer may place correspondence from another government or government agency that requests an action from the Board, on the agenda of the next convenient Board meeting, or on an agenda of the meeting of a committee or commission whose mandate or terms of reference includes the requested action, together with any report from Regional District staff that the Chair or the Chief Administrative Officer consider advisable.

(2) Any other correspondence to the Board not accounted for in section 16.1(1), including but not limited to written comments received pursuant to section 13(a), may be placed on the meeting agenda at the request of the Chair or such other person who is to preside at the meeting where the correspondence is to be considered, or by way of Notice of Motion made in accordance with section 22(6). *(Bylaw No. 3951)*

Attendance of Public at Meetings

17. (1) Except where the provisions of section 90 of the *Community Charter* apply, all Board meetings must be open to the public. Before a meeting or part of a meeting is closed to the public, the Board must pass a resolution in the public meeting in accordance with section 92 of the *Community Charter.*

(2) The requirement in section 17(1) applies to meetings of bodies referred to in section 93 of the *Community Charter* including, without limitation:

(a) Advisory Commissions
(b) Advisory Committees
(c) a Commission established under s. 263(1)(g) of the *Local Government Act*
(d) Board of Variance
(e) Parcel Tax Review Panel
(f) Select Committees
(g) Standing Committees
(h) Committee of the Whole
(i) a body that under the *Local Government Act* or another *Act* may exercise the powers of the CRD or its Board

(Bylaw No. 4262)

(3) Despite section 17(1), the Chair may expel or exclude a person from a Board meeting or meeting of a body listed in section 17(2) of this Bylaw in accordance with section 133 of the *Community Charter*.

Closed Meetings

18 (1) No Member shall disclose to the public the proceedings of a closed meeting, unless a resolution has been passed at the closed meeting to allow disclosure.

(2) As soon as practicable, the Corporate Officer shall review and determine whether to seek a resolution of the Board for the release of closed minutes and related information that would no longer undermine the reason for discussing it in a closed meeting.

(3) Minutes of a closed meeting shall be kept in the same manner as a regular meeting but shall not be filed with the minutes of regular meetings.

(4) The Board must not vote on the reading or adoption of a bylaw when its meeting is closed to the public.

Use of Video Recording Devices

19. (1) The Chair shall preserve order and decorum at a meeting and at his/her discretion may require that any video recording devices be placed in a designated location while being used and remain in that location during the course of the meeting. This applies to the Chairs of Board, Committee, Commission and COW meetings.

Chair and Presiding Officers

20. (1) The Chair, if present, shall preside at meetings of the Board. Any Member of the Board may preside at a COW.

(2) The Vice Chair shall preside in the absence of the Chair or when the Chair vacates the chair.

(3) In the event that neither the Chair nor the Vice Chair is able to take the chair, the presiding officer shall be such person, as the Board may choose.

(4) The Chair shall preserve order and decorum and shall rule on all points of order, stating his/her reasons and the authority for ruling when making a ruling. The ruling of the Chair shall be subject to an appeal to the Board without debate.

(5) (a) If an appeal be taken from the decision of the Chair, the question "Shall the Chair be sustained?" shall be put forthwith and decided without debate by a simple majority of the Members present (exclusive of the Chair) and in the event of the votes being equal, the question shall pass in the affirmative. The names of the Members of the Board voting for or against the question shall be recorded in the minutes.

(b) If the Chair refuses to put the question "Shall the Chair be sustained?", the Board shall forthwith appoint the Vice Chair or, in his/her absence, one of the Members, to preside temporarily in lieu of the Chair. The Vice Chair, or Member so appointed, shall proceed in accordance with paragraph 20(5)(a).

(6) The Chair shall vote at the same time as the other Members of the Board.

Rules of Order

21. (1) The Chair's ruling on a point of order shall be based on rules of order as stated in section 2 herein.

(2) All questions shall be decided by a vote on motion.

(3) The Chair shall have the discretion to call the question on completion of debate and the Chair shall then advise that the debate is closed. Following closure of debate no Member shall speak further to the question.

Motions

22. (1) Motions shall be phrased in a clear and concise manner so as to express an opinion or achieve a result.

(2) The Chair may divide a motion containing more than one subject if the Chair feels this would produce a fairer or clearer result and the same shall be voted on in the form in which it is divided.

(3) A motion to adjourn the meeting or to adjourn the debate shall always be in order.

(4) An amendment to a motion does not require notice. Only one amendment to an amendment shall be allowed at one time and the same shall be dealt with before the amendment is decided. Amendments must be strictly relevant to the main motion and not alter in a material way or be contrary to the principle embodied in the main motion.

(5) Any Member desiring to bring before the Board any new matter, other than a point of order or privilege, shall do so by way of motion; provided, however, that any new matter of major import, which may require further information than could or would normally be available to the Board at such meeting, may be referred to a Board Standing Committee agenda by the Chair, or may be ruled by the Chair as a notice of motion and shall be dealt with as provided by section 22(6).

(6) Any Member may give notice of a motion to the Board by providing the Corporate Officer with a written copy of much motion before or during a meeting, and the Corporate Officer shall, upon the Member being acknowledged by the Chair and the notice of motion being read to the meeting, include it in the minutes of that meeting as a notice of motion and shall add the motion the agenda of the next regular Board meeting, or to the agenda of a special Board meeting scheduled for that purpose.

(7) Notwithstanding section 12(2), a motion under section 22(6) shall only be decided at its meeting of introduction if all of the following are met:

(a) the motion's subject matter falls into one or more of the following classes:

(i) those items with an urgent deadline;

(ii) those items of minor organization impact (e.g. simple advocacy or letters of support); or

(iii) those items supporting the position of member local governments;

(b) the Members present vote with a two-thirds majority to consider it.

(Bylaw 4313)

Reconsideration of an Adopted Bylaw, Resolution or Proceeding

23. (1) The Chair may require a matter to be reconsidered in accordance with Section 217 of the *Local Government Act* and if it has not been acted on by an officer, servant or agent of the Board.

(Bylaw No. 4262)

(2) The Chair may state his/her reasons to the Board. The Corporate Officer shall record in the Minute Book the reasons, suggestions or amendments of the Chair.

(3) The Board shall, as soon as convenient, consider the reasons and either reaffirm or reject the bylaw, resolution or proceeding, and if rejected, it is deemed repealed and is of no force or effect.

(4) The rejected bylaw, resolution or proceeding shall not be reintroduced to the Board for six (6) months, except with the unanimous consent of the Board.

(5) The conditions which apply to the passage of the original bylaw, resolution or proceeding apply to its rejection.

Debate and Conduct

24 (1) Debate shall be strictly relevant to the question before the meeting and the Chair shall warn speakers who violate this rule.

(2) No Member shall speak until recognized by the Chair.

(3) Every Member desiring to speak shall address himself to the Chair. No Member shall interrupt a person speaking except to raise a point of order.

(4) A matter of privilege (a matter dealing with the rights or interests of the Board as a whole or of a Member personally) may be raised at any time and shall be dealt with forthwith before resumption of business.

(5) Members speaking at a Board meeting:

(a) must use respectful language;

(b) must not use offensive gestures or signs;

(c) must speak only in connection with the matter being debated; and

(d) must adhere to the rules of procedure established under this Bylaw and to the decisions of the Chair and the Board in connection with the rules and points of order.

(6) If a Member does not adhere to section 24(5) or the Chair considers the Member to be acting improperly, the Chair may order the Member to leave the Member's seat.

(7) A Member may speak to a question, or speak in reply, for no longer than fifteen (15) minutes unless the majority of the votes of the Board support a time extension.

(8) A Member may speak more than once in connection with the same question only if:

(a) every other Member has spoken, or has had the opportunity to speak; and

(b) if the Member has already spoken for fifteen (15) minutes, the Member who wishes to speak a second time may request to do so by making a motion that must be approved by at least two-thirds of the votes cast by the Board.

(9) (a) a Member may not speak for longer than a total time of fifteen (15) minutes unless the Member has done so in accordance with sections 24(7) and (8); and

(b) a Member speaking for a second time under section 24(8) shall speak for a maximum of five (5) minutes only.

(10) The conflict of interest guidelines *(disclosure of conflict and restrictions on participation)* shall be in accordance with section 100 of the *Community Charter*.

Voting

25. (1) Voting rules will be in accordance with the *Local Government Act*.

(2) On any question where the numbers of votes, including the vote of the person presiding, are equal, the question is defeated.

(3) Where a Member who is present when a vote is taken abstains from voting, that Member shall be deemed to have voted in the affirmative.

(4) Whenever a vote of the Board is taken, after the vote is taken the Chair must then state the names of those Members voting in the negative, and the Corporate Officer must enter those names in the minutes.

PART 4 – COMMITTEES AND COMMISSIONS

Board Standing Committees

26. (1) The Chair may establish a Board Standing Committee as a regular permanent committee whose mandate will be in relation to a CRD service or potential service.

(2) The Chair shall appoint only Board Members to a Board Standing Committee with the following exceptions:

(a) Unless the authorizing legislation or Letters Patent for the Board Standing Committee defines its membership; and

(b) Where a Board Standing Committee Terms of Reference allow a First Nation Member to participate.

(Bylaw No. 4368)

(3) The general duties of Board Standing Committees shall be as follows:

(a) To consider and report to the Board from time to time or whenever desired by the Board and as often as the interest of the CRD may require, on all matters referred to them by the Chair of the Board, or coming within their purview, and to recommend such action by the Board in relation thereto as they, the Committee, deem necessary or expedient.

(b) To carry out the instructions of the Board expressed by resolution in regard to any matter referred by the Board to any Committee for immediate action thereon, but in such cases the instruction of the Board shall be specific and the Committee shall report its action in detail at the next regular or other meeting of the Board thereafter as specified in the instructions of the Board Advisory Committees.

Advisory Committees

27. (1) The Board, or Board Standing Committees, may establish an Advisory Committee to provide advice and recommendations to the Board, or to a Board Standing Committee, on matters determined to be within approved terms of reference or within a specific resolution of the Board.

(2) Members of an Advisory Committee shall be appointed by the Board, a Board Standing Committee, or the appointments may be delegated by the Board to the Chair.

(3) Persons who are not Members may be appointed to an Advisory Committee but each Advisory Committee should include at least one (1) Member of the Board.

(4) The term of any person who is appointed to an Advisory Committee who is not a Member

of the Board shall not exceed three (3) years.

Select Committees

28. (1) The Board may establish a Select Committee to consider or inquire into any matter dealing with a specific subject or issue referred to it by the Board and report its findings, opinions and recommendations to the Board, following its consideration and inquiry. Select Committees must have terms of reference approved by the Board.

(2) The Select Committee will cease to exist once it has reported its findings, opinions and recommendations to the Board.

(3) The Board may delegate to the Chair the establishment of a Select Committee and the appointment of its Members.

Commissions

29. (1) The Board may establish a Commission regarding a CRD service within the authorities delegated to it and as mandated by the Board by bylaw.

Electronic Participation at Commission Meetings

29.1 (1) A member of a Commission may participate in a regular or special meeting by means of electronic or other communication facilities that:

(a) enable the meeting's participants to hear, or watch and hear, each other;

(b) except for a meeting that is closed to the public, enable the public to hear, or watch and hear, the member participating by electronic or other communication facilities.

(2) The person presiding at the Commission meeting must not participate electronically.

(3) A person participating in a Commission meeting electronically is deemed to be present at the meeting as though they were physically present.

(4) The recording secretary shall record in the minutes the persons present including those participating electronically.

(5) Subject to section 29.1(9), no more than one person at one time may participate electronically.

(Bylaw No. 4206)

(6) The person wishing to participate in a Commission meeting electronically must advise the Corporate Officer at least 24 hours in advance of the meeting;

(7) Subject to section 29.1(9), if more than one person wishes to participate electronically at a Commission meeting, the Corporate Officer will by lot choose the person who is entitled to participate electronically. *(Bylaw Nos. 4206,4262)*

(8) Electronic participation will only be permitted where existing technical facilities at the location of the Commission meeting accommodate electronic participation.

(Bylaw No. 3951)

(9) Sections 29.1(5) and 29.1(7) do not apply to meetings of a Commission that operates a service that includes the entire Southern Gulf Islands Electoral Area as the service area.

(Bylaw No. 4206)

Electronic Participation in case of Emergency or Special Circumstance

29.2 (1) In an emergency, special circumstance, or public health event that prevents or restricts members from being able to physically meet in one location, members or persons appointed by the Board may participate in a meeting by means of electronic or other communication facilities that:

(a) enable the meeting's participants to hear, or watch and hear, each other; and,

(b) except for a meeting that is closed to the public, enable the public to hear, or watch and hear, the member(s) and person(s) participating by electronic or other communication facilities.

(2) Meetings called under subsection (1) will be at the call of the Board Chair.

(3) Special meetings called under subsection (1) will be in accordance with section 9 of this bylaw and will comply with the requirements set out in subsection 2(2)(d) of the *Regional District Electronic Meetings Regulations*, B.C. Reg. 118/2018.

(Bylaw No. 4353)

Attendance at Committee Meetings

30. Members of the Board who are not Members of a Committee may attend meetings of that Committee and may take part in any discussion or debate by permission of a majority of the Committee Members present but may not vote.

Committee Reports

31. A Standing or Select Committee of the Board may report to the Board at any regular meeting or shall report as required by the Board.

Quorum

32. The quorum in a Standing or Select Committee shall be the majority of the Persons appointed to the Committee, but shall not include First Nation Members.

(Bylaw No. 4368)

Voting at Meetings

33. (1) On a vote in a Committee each person shall have only one (1) vote.

(2) (a) The Chair shall be a Member of all Committees and entitled to vote on all matters.

(b) Despite section 33(2)(a) the Chair, when in attendance, may be counted as one Member for the purpose of constituting a quorum.

(c) First Nation Members are permitted to abstain from voting on an item, provided that they declare their abstention prior to the vote being called on the item.
(Bylaw No. 4368)

(d) When an abstention from voting on an item is declared by a First Nation Member, it shall be noted in the meeting minutes and the total number of votes on the item shall not include those First Nation Members who have abstained from voting.
(Bylaw No. 4368)

Operation

34. No Committee or Commission will operate outside of its expressed mandate or terms of reference without prior approval of the Board.

PART 5 – COMMITTEE OF THE WHOLE

Procedures for COW Meetings

35. (1) The Board may resolve to sit as a COW at any time.

(2) The Chair may appoint another Member to preside over the COW who shall maintain order therein and report the proceedings thereof to the Board.

(3) The rules of the Board shall be observed in COW as far as may be applicable. Motions shall be seconded and the names of Members shall not be recorded in case of a division. Divisions in COW shall be decided by a show of hands. A motion in COW to rise without reporting, or that the Chair of the Committee do leave the Chair, shall always be in order and shall take precedence over any other motion. A motion to rise without reporting, if affirmed shall be considered as disposing of the matter before the Committee in the negative.

(4) When all matters referred to the COW have been considered, a motion to rise and report shall be adopted. The Committee may report progress and ask leave to sit again if the matter before it has not been disposed of. On the Committee rising, the Chair shall report to the Board and an adoption of the report shall be moved.

(5) Discussion in COW shall be strictly relevant to the item or clause under consideration.

(6) First Nation Members may attend COW when invited in advance by the Board Chair.
(Bylaw No. 4368)

PART 6 – BYLAWS

36. (1) Bylaws shall be passed by the following stages:

(a) Introduction and first reading shall be decided by the motion "that Bylaw No. ____ be introduced and read a first time". The question shall be decided without amendment or debate.

(b) Second Reading - Debate on second reading shall be limited to the general principle of the bylaw.

(c) Third Reading - A bylaw may be amended at third reading and passed upon the motion "that Bylaw No. ____ (as amended or as presented) be read a third time".

(d) Despite sections 36(1)(a), (b) and (c) every proposed bylaw may be introduced and given first, second, and third readings at the same meeting by one motion for all three readings.

(e) Adoption - Not less than one clear day after third reading, the bylaw shall be adopted upon the motion "that Bylaw No. ____ be adopted", unless the Board adopts the bylaw in accordance with subsection (2) and section 228 of the *Local Government Act*.

(Bylaw No. 4262)

(2) A bylaw that does not require approval, consent or assent under the *Local Government Act* or any other Act before it is adopted may be adopted at the same meeting at which it passes third reading, so long as the motion for adoption receives at least two thirds of the votes cast.

(3) A copy of every bylaw shall be endorsed by the Corporate Officer with a record of the stages through which it has proceeded and shall be kept among the records of the Board. A copy of every adopted bylaw signed, sealed and where necessary bearing evidence of registration by the Inspector of Municipalities shall be kept with the records of the Board.

PART 7 – RESOLUTIONS

37. A resolution may be introduced at a Board meeting only if a written copy is given to each Member before consideration unless the Board waives this requirement.

PART 8 – GENERAL

38. The rules of the Board shall be observed in proceedings of the Capital Regional Hospital District Board, and Standing and Select Committees of the Board as far as may be applicable.

39. The provisions of sections 22 and 24 of this bylaw that apply to Members shall apply to First Nation Members. *(Bylaw No. 4368)*

40. The following bylaw is repealed: Bylaw No. 3708, "Capital Regional District Board Procedures Bylaw, 2010", and any amendments thereto.

41. This Bylaw may be cited as "Capital Regional District Board Procedures Bylaw, 2012".

READ A FIRST TIME THIS	19th	day of	September,	2018
READ A SECOND TIME THIS	19th	day of	September,	2018
READ A THIRD TIME THIS	19th	day of	September,	2018
ADOPTED THIS	10th	day of	October,	2018

[Original signed by]
CHAIR

[Original signed by]
CORPORATE OFFICER

APPENDIX C

CAPITAL REGIONAL DISTRICT

POLICY MANAGEMENT FRAMEWORK

Policy Type	Administrative [*Corporate*]		
Title	CRD POLICY MANAGEMENT FRAMEWORK		
Adopted Date		Policy Number	ADM00
Last Amended			
Policy Owner	Corporate Services		

1. POLICY & PURPOSE

1.1. This policy management framework ("Framework") provides guiding principles for developing and managing CRD policies.

1.2. All Corporate policies must be developed, amended, approved, maintained, reviewed and rescinded in accordance with the procedures in this policy.

1.3. All Departmental/Divisional policies must be referred to Corporate Services prior to modification or creation to determine whether they have corporate-wide application.

2. SCOPE

2.1. The Framework guides CRD in the planning and development of policies. There are two main policy categories within the CRD:

- Corporate [*a policy that affects more than one department*];
  - Board [*provide strategic direction on governance, programs, or services*];
  - Administrative [*assist staff/officers/Board to operate within existing legislation and corporate objectives or implement operations consistently across CRD*]; and
- Departmental or Divisional [*implementation of operations*]

2.2. This Framework applies to Corporate policies. It is advisable but not required to follow a similar development, approval, and revision process for departmental or divisional policies, guidelines, or operational manuals at the discretion of the applicable General Manager.

2.3. Board Policy Resolutions are not corporate policies. They are developed independently at the Board's discretion.

3. DEFINITIONS

ADMINISTRATIVE POLICIES: Provide internal direction across departments and where applicable, to the Board and commissioners. Such policies assist in operating within current legislation and corporate objectives. Examples include the Procurement Policy and the Contracts and Agreements Policy. Administrative Policies are approved by the CAO in consultation with the ELT, unless otherwise determined by the CAO.

BOARD POLICY RESOLUTION: A resolution adopted by the Board that provides strategic direction on governance, programs and services provided by the CRD that is not formalized in written Board Policy.

BOARD POLICIES: A written policy adopted by the Board of the CRD that provides strategic direction on governance, programs, or services provided by the CRD. These may establish, but are not limited to, rules that govern Board, commission or committee conduct or compensable expenses; engagement with governments, public authorities, and staff; and protocol for public relations, media, and ceremonial activities. Board Policies are approved by the CAO, then the Board, unless otherwise determined by Legal Services and the CAO.

CORPORATE POLICIES: Include Board and Administrative Policies. They generally affect more than one department and are meant to be applied across the organization.

DEPARTMENTAL/DIVISIONAL POLICY: Any policies, procedures, guidelines, and operational documents that provide direction to a specific department or division, but do not have material corporate-wide application. Such documents may operationalize a Corporate Policy or implement departmental or divisional best practices. Departmental/Divisional policies are developed, approved, implemented, and maintained by the applicable department (at the discretion of its General Manager).

POLICY: A generalized statement of intent based upon a body of principles, which describes what is to be done, now and in the future. It provides a framework for decision-making, eliminates misunderstandings, and reduces uncertainties. It serves as a basis for directing all officers, employees, and volunteers of the CRD toward the achievement of long-term objectives and short-term goals. Policies provide guidelines employees can follow consistently without referring to higher levels of authority.

POLICY OWNER: The department responsible for drafting, implementing and monitoring a policy.

PROCEDURE: Advises employees how to perform tasks or groups of activities or tasks: who does what and when. A procedure describes, task by task, how an activity is performed. Procedures can provide instruction on how to implement policies.

STANDARD OPERATING PROCEDURE MANUALS: Detailed instructions authorized by the Chief Administrative Officer and prepared by a General Manager for those region-wide functions (e.g. Safety, Human Resources, and Emergency Planning) for which the General Manager is responsible and which require a large volume of detailed procedures to ensure proper implementation of the related regional district policy or policies.

4. ROLES, RESPONSIBILITIES, AND ACCOUNTABILITIES

4.1. Corporate Services

Corporate Services is the designated coordinator for all Corporate Policies. Corporate Services facilitates policy development and amendment, ensuring concurrence and consistency with this framework. It is the initial point of contact to advise and provide direction on policy process.

It undertakes the following:

- Develop standards and guidelines that ensure consistency in the format, concurrence and approval processes, and publication of Corporate Policies;
- Advise and provide direction on policy process as required;
- Centralize and manage all corporate policy records, profiles and statuses; and
- Maintain a record of Board policies adopted or rescinded, along with revisions and amendments.

4.2. Policy Owner

The Policy Owner has primary responsibility for drafting, implementing, and monitoring a policy project. It is responsible for providing concurring departments with the approved policy draft along with information required by this policy (e.g. rationale for creation/revision, etc.). It shall undertake the following:

- Provide a written rationale and justification for the policy;
- Conduct research to determine best practices and application to the CRD;
- Consult with Legal Services on the possible legal implications of the proposed policy or amendment;
- Ensure adequate opportunity for review and input by other departments and stakeholders during policy development;
- Coordinate and monitor the approval process;
- Develop and provide appropriate communication and training plans to implement the policy; and
- Monitor and review policy on a regular basis.

4.3. Concurring Parties

4.3.1. Legal Services

This default concurring department must assess the legal nature of a policy or amendment, and determine whether the proposed policy is a Corporate or Divisional/Departmental policy (e.g. guideline, standard operating procedure, or other form of non-binding guidance or decision making instrument). The Policy Owner must acquire advice relating to the appropriate policy approving process.

4.3.2. Other CRD Departments

Other departments such as Corporate Communications, Finance, Human Resources, Information Technology, Real Estate, or Risk & Insurance. This may include the CRD Board or members of the public where applicable.

4.4. Approving Authorities

4.4.1. General Manager

Provides departmental approval of all new Corporate Policies and substantive amendments prior to distribution to concurring departments. Responsible for setting and revising any Departmental/Divisional policies or guidelines within own department.

4.4.2. **Chief Administrative Officer**

Approve all new Corporate Policies and amendments. Advise whether policies require approval of the CRD Board.

4.4.3. **Corporate Officer**

Approve any minor administrative changes to policy that do not affect the policy in a material way (e.g. correcting typos; legislation references; other non-major changes) and revise policy numbering for Corporate Policies.

4.4.4. **CRD Board**

Approve policies where applicable.

5. AVAILABILITY AND NUMBERING

5.1. Corporate Policies must be readily available to the Board, the employees, and the officers of the CRD to promote compliance, accountability and transparency. Public requests for policies will be answered within a reasonable period of time, consistent with CRD's responsibilities as a public authority.

5.2. CRD has the following policy numbering system and naming convention:

Category	**Abbreviation**	**Number Range**	**Naming Convention**
Administrative	ADM	[0 to 999]	ADM00
Board	BRD	[0 to 99]	BRD00
Departmental [*For policies, procedures, and guidelines*]			
Corporate	CORP	[100 to 199]	CORP100
Executive Services	EXEC	[200 to 299]	EXEC200
Finance & Technology	F&T	[300 to 399]	F&T300
Integrated Water Services	IWS	[400 to 499]	IWS400
Parks & Environmental Services	PES	[500 to 599]	PES500
Planning & Protective Services	PPS	[600 to 699]	PPS600
Divisional [*For policies, procedures, and guidelines*]			
Communications	COM	[0 to 99]	COM00
Facilities Management	FMGT	[0 to 99]	FMGT00
Finance	FIN	[0 to 99]	FIN00
Human Resources	HR	[0 to 99]	HR00
Information Technology	IT	[0 to 99]	IT00
Planning	PLAN	[0 to 99]	PLAN00
Regional Parks	PARK	[0 to 99]	PARK00
Safety	SAFE	[0 to 99]	SAFE00
Salt Spring Island	SSI	[0 to 99]	SSI00

5.3. Policy numbers may be revised by the Corporate Officer or the applicable General Manager at their discretion. Any revised numbering must be provided to Corporate Services.

5.4. Policies adopted after the adoption of this policy shall be numbered according to the above system. Existing policies shall retain their current numbering, if any, until being assigned a new category and policy number on policy review.

5.5 Corporate Services will assign codes to smaller divisions upon request.

6. POLICY DEVELOPMENT AND MAINTENANCE LIFECYCLE

6.1. Needs Identification/Policy Revision

A policy or a substantive amendment begins with the definition of a problem in need of a policy response. A policy problem may arise from any of the following:

- Need for corporate or cross-departmental/divisional consistency;
- identified risk;
- new technology;
- new mandates, organizational, or legislative change;
- in response to emerging issues; or
- Need to improve on existing processes.

A Policy Owner must be identified to lead policy development and serve as main point of contact.

A policy problem must be defined. Some questions to consider are:

- Can this problem be addressed by a policy change or is a procedure more appropriate?
- Is the issue applicable to a single department?
  - Can it be addressed with a departmental/divisional policy or procedure, or is there a cross-departmental or CRD-wide application?
- Is the issue within the scope of Board or Administrative policy?
  - Some issues may be outside the scope of Corporate Policy, and may require amendment of the *Local Government Act, Community Charter*, a bylaw, or other legal mechanism to propertly implement the change or address the problem.
- Is there an agreement on the problem internally and across CRD departments?
- Is there consensus on the issue from all stakeholders?
- Are there any existing policy measures with similar intent that can be amended, instead of creating a new policy?
- Will a bylaw amendment or other legal mechanism be necessary?

Once a department affirms a need for a Corporate Policy, it shall submit a New Policy Project Notification form to Corporate Services, summarizing the policy and intent. Corporate Services will update the Policy Tracking Sheet to include the new policy project and direct the policy owner to the appropriate policy SharePoint workspace. This workspace is where departments can share drafts, collaborate on policy development, and provide concurrences. All documentation relating to the creation or revision of the policy must be stored in this accessible location.

Corporate Services will review the Policy Project Notification summary and determine whether the proposed policy is a Corporate policy or a Departmental/Divisional policy. If Departmental/Divisional, Corporate Services will advise the Policy Owner of the appropriate approvals process and provide assistance generally in accordance with this policy, as applicable.

6.2. Planning & Identifying Concurring Departments

The Policy Owner shall undertake preparatory work to identify and document a general policy strategy, scope, objectives, research methods, and required resources.

The Policy Owner shall reach out to concurring departments and undertake initial consultation during the planning stage. The selection of concurring departments depends on how the proposed policy may impact the other parties.

Legal Services is a default concurring party. Other concurring parties may include, for example:

Concurring Department	Expertise
Real Estate	Policy concerns the use, purchase, disposal, or rental of CRD properties
Finance	Financial issues, billing, fees and charges Issues relating to grants and sponsorships
Risk & Insurance	Liability limitation Business continuity Corporate Climate Action
Information Services	Personal information, privacy protection
Legal Services	All policy matters, except where Legal Services has confirmed otherwise
Human Resources	Impacts CRD staff and employment
Information Technology	Impacts systems or IT resources
Safety	Impacts CRD staff and work practices Legislated safety compliance requirements

Attempts to contact concurring departments and feedback from concurring departments must be documented on the Policy Project form.

6.3. Policy Research and Drafting

6.3.1. Research

Research is fundamental for sound policy development. The process will help identify and formulate options and influence the final recommendation. The Policy Owner must identify a general strategy and objectives of research. This consists of at a minimum attempting to obtain and review similar policies from other relevant organizations, best-practices review, and legislation and legal review. Common research methods include:

- *Policy benchmarking:* Compare an existing policy or policy option against similar policies in relevant organizations. This allows for the extraction of best-practices.
- *Surveys, interviews and focus groups:* Conducted for researching policy issues that require extensive and qualitative input from staff and stakeholders (e.g. those affecting health and wellness);
- *Best-practices research:* Review of current literature and practice standards.
- *Legislation and legal review:* Carefully review any related and enabling legislation, legal documentation or past Board resolutions to ensure that policy statements align with existing regulations and practices.

6.3.2. Drafting Policy

Except where Legal Services has advised otherwise, the Policy Owner will draft the proposed policy using a provided template and will follow a policy development checklist. Where operational standards flow from the new policy, a procedure template shall be used to document the policy. A sample template is attached as Appendix I to this document.

6.3.3. General Manager Review

Prior to moving to inter-departmental concurrence, approval of a draft policy rests with the owning department's General Manager. Such approval shall be documented on the policy project form.

6.4. Concurrence & Approval

6.4.1. Concurrence

The Policy Owner will provide the approved draft and the following to the Concurring Departments:

- Rationale for creation/revision;
- Highlight of changes (if applicable);
- Summary of research and best practices;
- Summary of legal advice;
- Impact of implementation, including resources, and legal/risk management implications;
- Policies to be rescinded or replaced (if applicable);
- Outcomes of consultations with stakeholders; and
- Outline of communications and implementation plans.

During this phase, the Policy Owner may receive requests for revision until all parties agree on a final product to be submitted for ELT review and CAO's approval. If consensus cannot be achieved, at the GM's discretion, the final product may be submitted to ELT for approval.

6.4.2. Required Revision

In the event either ELT, the CAO, or the Board request revisions to the draft policy, the Policy Owner will make necessary changes to the draft or conduct further research if directed. Revisions will proceed through the same concurrence process as above.

6.4.3. Approval and Close-out

The CAO is the approving authority for all Corporate Polices, and whether approval of a given policy is required by the Board. Should approval be required by the Board, it will be done so through the Corporate Services process. Following all approvals, Corporate Services will update the Policy Tracking Sheet to reflect the status of policy development.

Prior to Board consideration, all Board policies must be forwarded to the Corporate Officer for review, or if the policy was developed at the Board's direction or on the recommendation of any committee or commission, it must be forwarded to the ELT for review.

Prior to close out on a policy project, the Policy Owner will set a review date on the policy project form along with a priority/risk justification of this review date.

6.5. Publication and Records Management

Once finalized, the Policy Owner notifies Corporate Services with the request to publish the policy. Corporate Services will issue a policy number and ensure the policy is stored on the appropriate platforms. An editable electronic copy of the final policy will be stored in the policy working folder for future amendment.

6.6. Implementation

The Policy Owner will be responsible for any communications plans, on-boarding, or organizational training surrounding the implementation of the new or revised policy. This includes but is not limited to communication plans; training and implementation plans; evaluation plans.

6.7. Review, Amendment and Rescission

Regular reviews over a three-year period are required. Policies should be reviewed when needed. Corporate Services collaborates with departments on establishing appropriate compliance.

Depending on priority and risk, certain policies are to be reviewed more frequently. When assessing priority and risk, consider the following:

a. Is the policy necessary for financial or legal requirements?
b. Are there environmental, health and safety, reputational, or regulatory risks associated with this policy?
c. Is the policy connected to existing legislation or bylaws?
d. Is there any strategic alignment and connection to other issues across the organization?

Following a policy review, one of the following actions may be taken:

Status	Action Following a Review
No changes	Policy requires no changes.
Minor Amendment	Policy's textual and editorial content will be refined. No substantive changes to the intent, scope or intervention measures.
Major Amendment	Policy's intent, scope and intervention measures will be substantively modified. This may be required ensure relevance and compatibility with legal changes or shifts in strategic priority and/or administrative processes. This process requires the same due diligence as when developing a new policy.
Rescission	Policy is no longer relevant and required. This process requires the same due diligence as when developing a new policy.

7. TRANSITION PROCEDURE

Policies after the date of adoption of this policy will be numbered according to the system set out in this policy. Existing CRD policies will be numbered on coming up in the three-year review cycle. As part of that review, policies will be updated to the new format, if necessary.

8. SCHEDULES

A. PROCEDURE TO DEVELOP AND IMPLEMENT CORPORATE/LEGISLATIVE POLICIES

B. PROCEDURE TO DEVELOP AND IMPLEMENT DEPARTMENT OPERATION POLICIES

C. PROCEDURE FOR ANNUAL REVIEW OF CORPORATE POLICIES

D. PROCEDURE FOR ANNUAL REVIEW OF DEPARTMENT POLICIES

E. NEW POLICY NOTIFICATION

F. NEW POLICY CHECKLIST

G. POLICY LIFECYCLE

H. DECISIONMAKING AND ACCOUNTABILITY MATRIX

I. CRD POLICY TEMPLATE

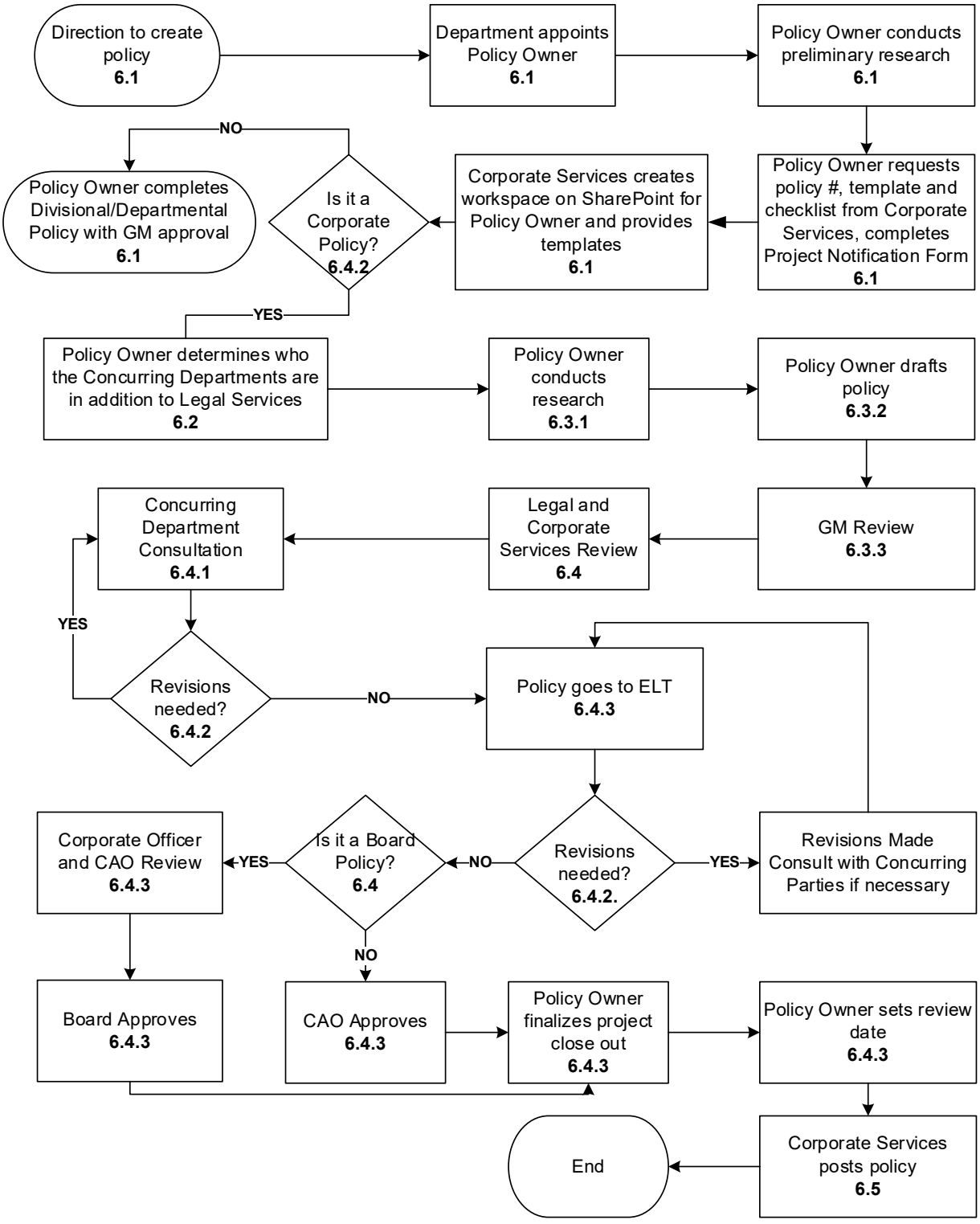
7. AMENDMENT(S)

Adoption Date	**Description:**
None	[Not applicable]

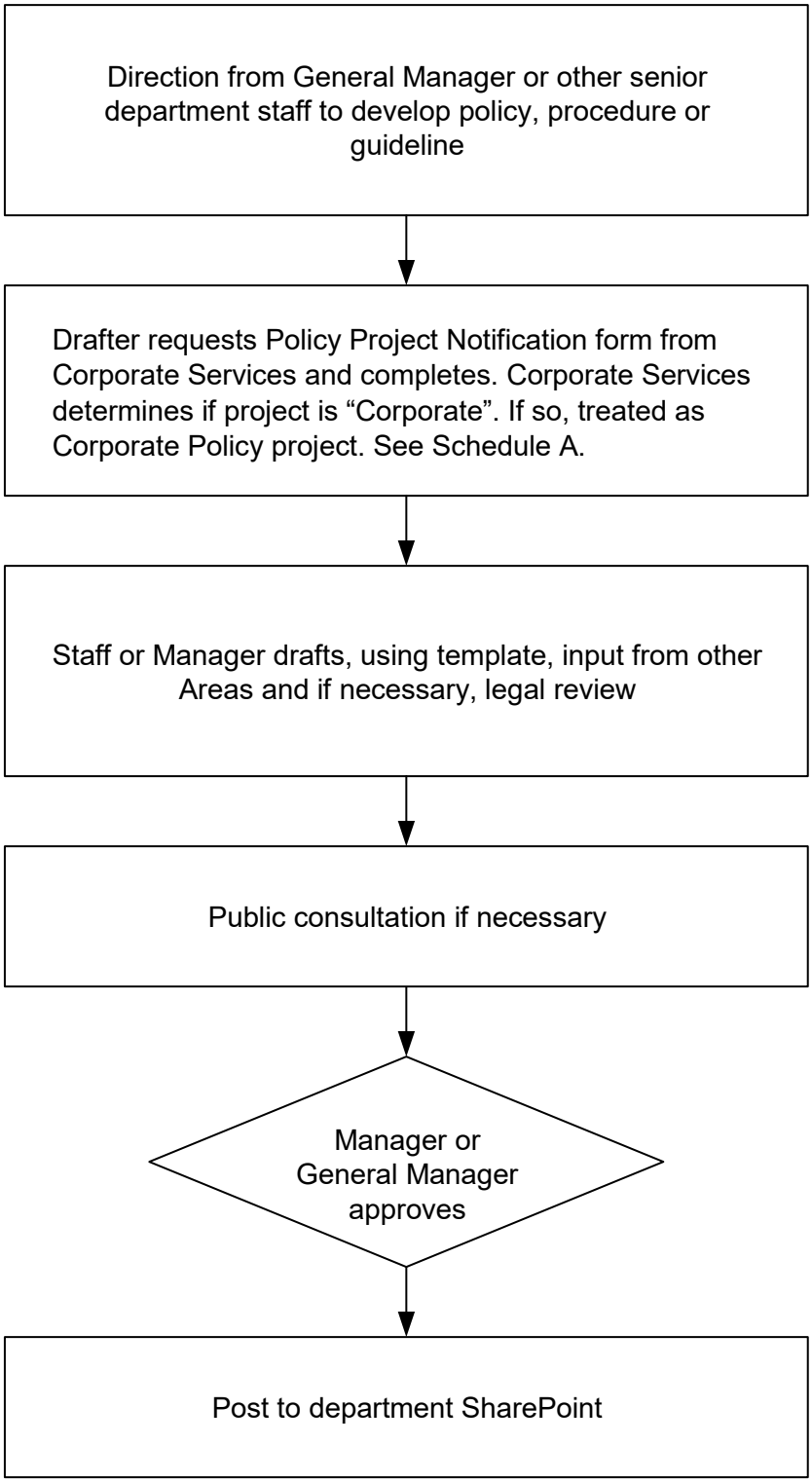
8. REVIEW(S)

Review Date	**Description:**
December 2020	To review after one year of use.

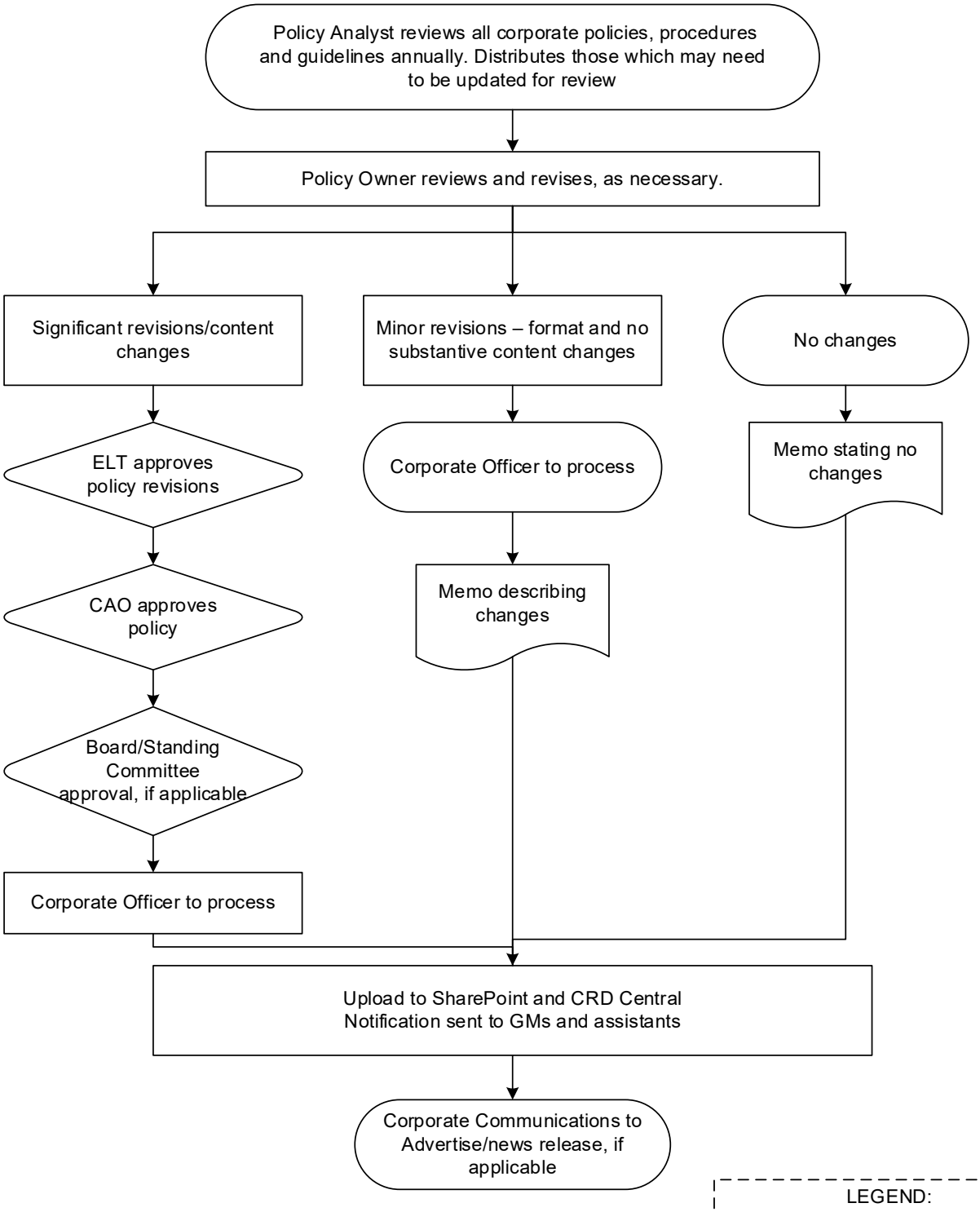
SCHEDULE A
CRD PROCEDURE TO DEVELOP AND IMPLEMENT POLICIES



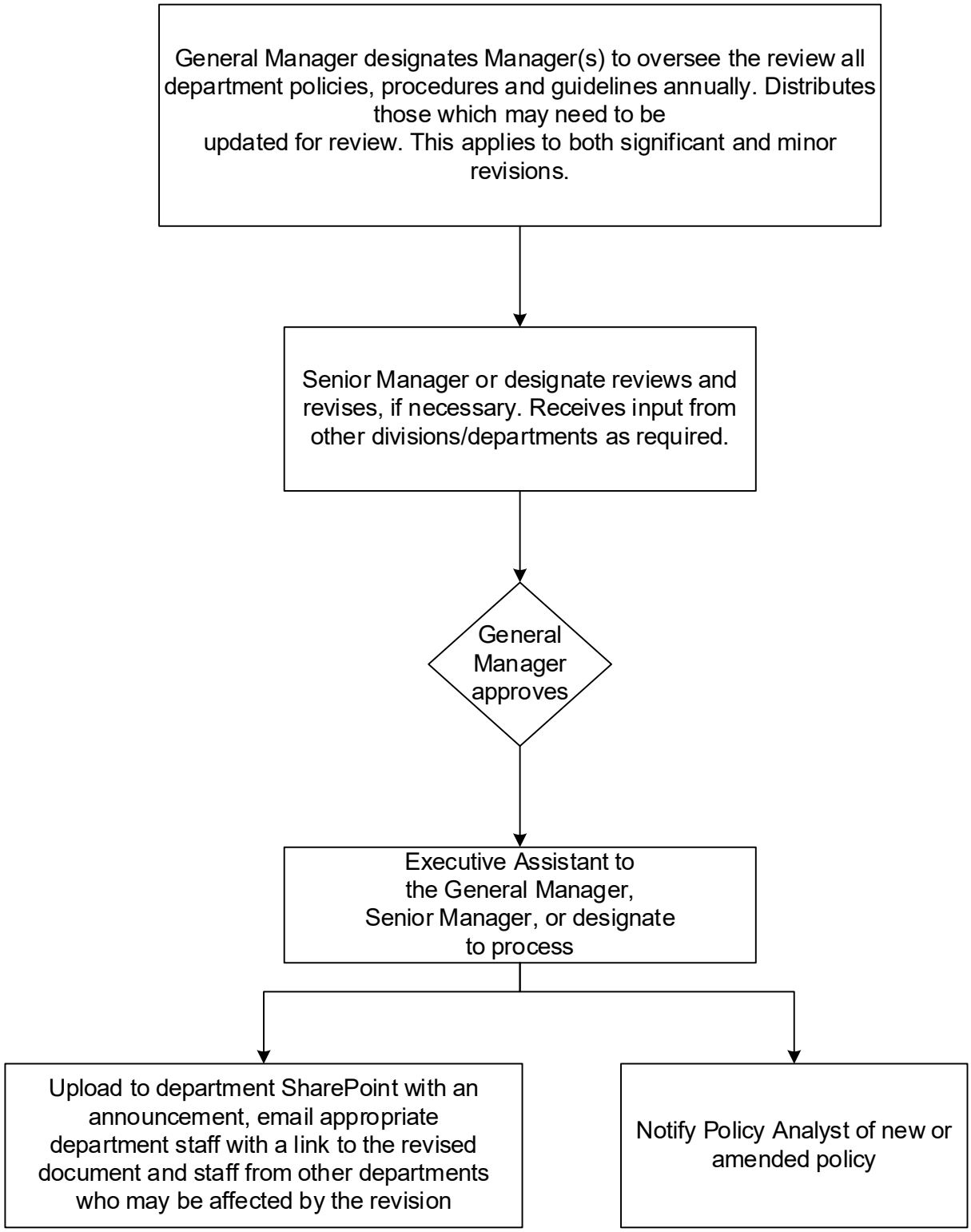
SCHEDULE B
CRD PROCEDURE TO DEVELOP AND IMPLEMENT DEPARTMENT POLICIES



SCHEDULE C
CRD PROCEDURE FOR ANNUAL REVIEW OF CORPORATE POLICIES



SCHEDULE D
CRD PROCEDURE FOR ANNUAL REVIEW OF DEPARTMENT POLICIES



SCHEDULE E
NEW POLICY PROJECT NOTIFICATION

Policy Owner	
Date Submitted	Click here to enter a date.
Policy Type	Choose an item.
Policy Title	
General Manager	Choose an item.
Department/Division	
Concurring Departments	Choose an item.

Rationale for Creation or Amendment of Policy (Highlight Changes if applicable):

[*Insert detailed rationale, no more than three paragraphs]*

Policy to be Rescinded (If Applicable):

[Insert policy name and number]

Impact of Implementation, Including Resource, Legal/Risk Management Implications:

[Insert detailed impact, estimate up to five paragraphs but may go longer at Policy Owner discretion]

Summary of Legal Advice, Applicable Research, and Best Practices:
[Insert summary, decision dates and decision points, and other research sources].

Sent to Concurring Departments For Review:

Date (initial)	*Date (follow-up)*	*Date (follow-up)*	*Results of Review*
			(results of follow up in short-form list)

Policy Drafting

[Insert dates of drafts of policy; who policy team was; results of incorporating feedback from Concurring Departments]

Results of General Manager Review

General Manager	<insert name of general manager>
Review Date	<insert date>
Results of Review	

Revisions Completed	<if applicable, insert date>
Approval Date	<insert date>

Results of ELT Review

ELT Meeting Date	<insert date>
Review Date	<insert date>
Results of Review	
Revisions Completed	<if applicable, insert date>
Approval Date	<insert date>

CAO Approval (if separate from ELT approval)

ELT Meeting Date	<insert date>
Review Date	<insert date>
Results of Review	
Revisions Completed	<if applicable, insert date>
Approval Date	<insert date>

Board Approval (for Board Policies)

Board Meeting Date	<insert date>
Review Date by Committee	<insert date>
Results of Review by Committee	
Revisions Completed	<if applicable, insert date>
Review Date by Board	<insert date>

Result of Review by Board	
Revisions Completed	<if applicable, insert date>
Additional Board Review	<if applicable, insert date>
Approval Date	<insert date>

Outline of Communications, Training / Implementation Plans, and an Evaluation Strategy:
[Provide overview].

Risk Assessment for Policy Review
[Insert risk assessment and determine the next policy review date]

SCHEDULE F
NEW POLICY CHECKLIST

- ☐ **Submit Completed New Policy Notification form to Policy Analyst**
- ☐ **Determination that Policy is "Corporate" rather than Departmental/Divisional**
- ☐ **Draft New/Amended Policy on approved Policy Template**
- ☐ **Obtain Input from Concurring Departments**
    - ☐ **Legal Services (Default Concurring Department)**
    - ☐ **Executive Administration**
    - ☐ **Finance**
    - ☐ **Human Resources**
    - ☐ **Information Services**
    - ☐ **Information Technology**
    - ☐ **Legislative Services**
    - ☐ **Real Estate**
    - ☐ **Risk & Insurance**
    - ☐ **Other _____**
- ☐ **Legal review (If necessary)**
- ☐ **Submit Policy to Appropriate General Manager (GM) for Review**

(If Departmental Policy, GM approval is highest level of authority required for sign-off. If Administrative or Board Policy, continue steps below)

- ☐ **Obtain Policy Number from Policy Analyst**
- ☐ **Submit to Corporate Officer to Review (If Board Policy)**
- ☐ **Executive Leadership Team Approval**
- ☐ **Chief Administrative Officer Approval**
- ☐ **Board Approval (Board)**
- ☐ **Policy Analyst to Process and Upload to SharePoint**
- ☐ **Send to Corporate Communications to Advertise/News Release (If Applicable)**

SCHEDULE G
POLICY LIFECYCLE

POLICY PROCESS

POLICY OWNER

Provide rationale & justification for the policy

Conduct research to determine best practices & application

Ensure adequate opportunity for review & input by other stakeholders

Develop & provide appropriate communication & training plans to implement the policy

Monitor & review policy on a regular basis

LEGAL SERVICES

Assess legal implications of the proposed policy or amendment

Advise on appropriate approving process for the proposed policy

Determine if a legal review is necessary

CONCURRING DEPARTMENTS

APPROVING AUTHORITIES

Board Policies - CRD Board

Administrative Policy - Input from ELT and approval of CAO

Department Policies - Departmental General Manager

SCHEDULE H
DECISION-MAKING AND ACCOUNTABILITY MATRIX

CORPORATE POLICY DEVELOPMENT PHASES	**D DECIDER** *Holds the ultimate power re: the project*	**A ACCOUNTABLE** *Person fully accountable for making the project happen*	**R RESPONSIBLE** *Those responsible for doing the work on the project*	**C CONSULTED** *Those from whom input will be solicited*	**I INFORMED** *Those to be kept apprised of relevant developments*
1. Needs identification	General Manager	General Manager	Policy Owner	Legal Services	Legal Services/Policy Analyst
2. Planning and Identifying Concurring Parties	General Manager	Policy Owner	Policy Owner	Legal Services Concurring Departments	Policy Analyst
3. Policy research and drafting	General Manager	Policy Owner	Policy Owner	Legal Services Concurring Departments	Policy Analyst
4. Concurrence	ELT/CAO/ CRD BOARD	Policy Owner	Policy Owner	Legal Services Concurring Departments	Policy Analyst
5. Review and Modify	ELT/CAO/ CRD BOARD	Policy Owner	Policy Owner	Legal Services Concurring Departments Policy Analyst	Policy Analyst

SCHEDULE I
CRD POLICY TEMPLATE

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CAPITAL REGIONAL DISTRICT
CORPORATE POLICY

Policy Type	*(Insert category: Administrative, Board) [Corporate] or [Division/Department]*		
Section	*(Insert division or department if applicable, or omit)*		
Title	(*ALL CAPS)*		
Adopted Date		Policy Number	
Last Amended			
Policy Owner			

1. POLICY: *<Mandatory>*

(A concise statement of what the policy is designed to accomplish and the circumstances under which it should be used) Text is full justified.)
(May be merged with Purpose where context requires.)

2. PURPOSE: *<Mandatory>*

(A concise statement of the rationale for the policy; why the policy needed to be created),

3. SCOPE: *<Mandatory>*

(Describe to whom/what the policy applies.)

4. DEFINITIONS: *<Optional>*

(Describe the definitions, terms, which apply to the policy and procedures, if needed)

5. PROCEDURE: *<Optional>*

(List in logical order the steps to take to implement the policy.)

6. SCHEDULE: *<Optional>*

(Attachments in an alphabetical list (A., B., C…)

7. AMENDMENT(S): *<Mandatory>*

Adoption Date	**Description:**
None	*(Brief description of adoption conditions – ELT, Board, CAO)* *(Insert Corporate Resolution if short -- meeting information at a minimum if Board Policy)*

8. REVIEW(S) *<Mandatory>*

Review Date	**Description:**
None	(*Insert date of scheduled review; results of review; and dates of next review in new table entry*)

9. RELATED POLICY, PROCEDURE OR GUIDELINE: *<If applicable>*

REPORT TO HOSPITALS AND HOUSING COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 06, 2021

SUBJECT **Regional Housing First Program: Project Update, Third Quarter 2021**

ISSUE SUMMARY

To provide the Hospitals and Housing Committee with a quarterly update on the implementation of the Regional Housing First Program (RHFP).

BACKGROUND

The RHFP was formed in 2016, through which the Capital Regional District (CRD), BC Housing Management Commission (BC Housing) and the Canada Mortgage and Housing Corporation (CMHC) committed $30 million (M) each to build housing units to help address chronic homelessness in the region. The program model includes 20% of all units having rent levels set at the Government of BC's Income Assistance Rate Table Shelter Maximum (Shelter Rate) and the remaining 80% of units being Affordable Rental Units.

In 2020, the CRD, BC Housing and CMHC committed to increasing their contributions by $10M each to address escalating land acquisition and construction costs. The total capital fund now available is $120M and better positions the program to achieve its target of up to 2,000 Affordable Rental Units, with up to 400 of those units having rents set at Shelter Rate. Overall, the program is expected to leverage the development of approximately $600M in capital development.

ALTERNATIVES

Alternative 1
The Hospitals and Housing Committee recommends to the Capital Regional District Board:
That the Regional Housing First Program: Project Update, Third Quarter 2021 report be received for information.

Alternative 2
That the Regional Housing First Program: Project Update, Third Quarter 2021 report be referred back to staff for additional information based on Hospitals and Housing Committee direction.

IMPLICATIONS

Program Delivery
Appendix A, attached to this report, summarizes the progress in the development of 10 RHFP capital projects that have received approval from the CRD Board. These projects represent a total of 1,011 units with 229 to be rented at Shelter Rate. There is currently an open call for new projects with the next rolling submission review date of October 31, 2021.

Financial
These projects have been approved to receive a total of $67.6M in RHFP funding and represent a total value of $300.9M. In total, $72M of the RHFP funds have been committed as of September 30, 2021 with $48M remaining.

CONCLUSION

The Project Summary provides the Hospitals and Housing Committee with an update on the status of program implementation and high-level details of the 10 approved projects.

RECOMMENDATION

The Hospitals and Housing Committee recommends to the Capital Regional District Board:
That the Regional Housing First Program: Project Update, Third Quarter 2021 report be received for information.

Submitted by:	Don Elliott, BA, MUP, Senior Manager, Regional Housing
Concurrence:	Kevin Lorette, P. Eng., MBA, General Manager, Planning & Protective Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT

Appendix A – Regional Housing First Program: Project Summary, October 6, 2021

Description	Total Estimated Project Cost	RHFP Contribution	Partner Agency Funding RHFP	RHFP Units	Total Units	Operator	Funding Sources		HHC Approval Date	CRD Board Approval Date	Year Completed	Update
Cedar Grove (Victoria)	$19,318,000	$9,000,000	BC Housing	30	72	Victoria Cool Aid Society (VCAS)	BC Housing	Regional Housing Trust Fund $600,000	n/a	March 8, 2017 & November 13, 2019 (increase)	2022	Construction of the 210 Gorge project continues with all structural framing, wall, and roof framing now complete. At the end of August, the roof membrane and building envelope waterproofing were being applied and windows were being installed. Over the next few months interior work including drywall and finishes will proceed. The project is on time and on budget and the occupancy permit is expected in late February 2022.
Croftonbrook (Salt Spring)	$19,092,858	$3,300,000	BC Housing	11	56	Island Women Against Violence	BC Housing	Regional Housing Trust Fund $408,000	n/a	March 8, 2017 & November 13, 2019 (increase)	2020 and 2022	Phase III, a 34 unit apartment building broke ground on May 6, 2021. Occupancy in the spring of 2023. Site works - Perimeter drainage, under slab mechanical/ electrical. Waterproofing around walls and pre-fab wall framing complete. Office flooring, drywall, siding and finishes. 1st floor framing. Main building 2nd floor framing.
Drennan and Sooke (Sooke)	$45,622,950	$10,200,000	BC Housing	34	170	M'akola Housing Society	BC Housing	Regional Housing Trust Fund $765,000	June 13, 2018	June 13, 2018 & November 13, 2019 (increase)	2023	Site works – grubbing site prep commenced (under Development Permit). Foundations work ongoing. Retaining walls (lock-block walls) ongoing. Civil on-site works ongoing. Commissioning meeting scheduled to September 20. The Building Permit has been issued on June 28, 2021.
Charters (formerly called Throup) (Sooke)	$20,917,220	$3,375,000	BC Housing	15	75	M'akola Housing Society	BC Housing	Regional Housing Trust Fund $330,000	June 13, 2018	June 13, 2018	2022	Site works – Backfill around footings. Parking lot storm system in progress. Craning scheduled for the week of September 27. The construction will be concluded in January 2022, as we had a delay on the issuance of the Building Permit.
Spencer Road (Langford)	$38,263,972	$7,800,000	CMHC	26	130	CHRC	CMHC $7,800,000	n/a	June 13, 2018	June 13, 2018	Nov 2020	Project completed.
Treanor (Langford)	$45,215,533	$9,000,000	CMHC	30	132	CRHC	CMHC $9,000,000	n/a	n/a	November 14, 2018	2019	Project completed.

Description	Total Estimated Project Cost	RHFP Contribution	Partner Agency Funding RHFP	RHFP Units	Total Units	Operator	Funding Sources		HHC Approval Date	CRD Board Approval Date	Year Completed	Update
Hockley (Langford)	$32,775,610	$7,200,000	CMHC	24	120	CHRC	CMHC $7,200,000	n/a	n/a	November 14, 2018	March 2021	Project Completed.
West Park Lane (View Royal)	$41,673,485	$10,200,000	CMHC	34	152	CRHC	CMHC $10,200,000	Regional Housing Trust Fund $660,000	May 1, 2019	May 8, 2019	Nov 2020	Project Completed.
Michigan Square Building 1	$21,000,000	$4,500,000	CRHC	15	53	CRHC	CRHC $4,500,000	Regional Housing Trust Fund $570,000	July 29, 2020	August 12, 2020	2023	Construction Contracts will be procured throughout September/October 2021. Demolition will commence in January 2022.
Prosser Road (Central Saanich)	$16,981,555	$3,000,000	CMHC	10	51	CRHC	CMHC $3,000,000 BC Housing $3,250,000	Regional Housing Trust Fund $615,000	N/A	April 14, 2021	2022	Funds confirmed from RHFP and RHTF. BC Housing granted Final Project Approval in March 2021. Demolition is complete and excavation work currently underway. Assignment agreement between CRD and BCH have been executed. Foundation work is underway.
Total RHFP Units				229	1,011							
Total RHFP Investment	$300,861,183	**$67,575,000**										

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REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, SEPTEMBER 21, 2021

SUBJECT **Development Permit with Variance for Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132 – 6301 Quail Peak Place**

ISSUE SUMMARY

A request has been made for a Development Permit with Variance to authorize construction of a single family dwelling, reduce the front yard and side yard setback requirements, and permit that parking be located within the front yard setback of a residential parcel.

BACKGROUND

The 0.26 ha property is located at 6301 Quail Peak Place and is zoned Rural Residential 5 (RR-5) in the Juan de Fuca Land Use Bylaw No. 2040. The property is bounded by RR-5 zoned properties to the north and east, Quail Peak Place to the west, and Cole Road to the south (Appendix A).

An unnamed stream runs southwest to northeast, roughly bisecting the parcel. Portions of the property are designated as Steep Slopes, Riparian, and Sensitive Ecosystem development permit areas within in the East Sooke Official Community Plan, Bylaw No. 4000 (Appendix B). A development permit is required to authorize works in designated development permit areas. Site servicing requirements and building site preparations were completed on the northwest corner of the parcel as part of the subdivision that created the strata lot, and the new owner now wishes to construct a dwelling in that location (Appendices C and D).

In order to avoid the Streamside Protection and Enhancement Area (SPEA) associated with the stream, the owner is requesting variances to reduce the front yard setback requirement from 7.5 m to 5.5 m, the side yard setback requirement from 6 m to 2.5 m, and waive the requirement that no parking be located within the front yard setback of a parcel.

Development Permit with Variance DV000078 is included as Appendix F for consideration.

ALTERNATIVES

Alternative 1
The Land Use Committee recommends to the CRD Board:
That Development Permit with Variance DV000078 for Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132, to authorize construction of a single-family dwelling within a Riparian and Sensitive Ecosystem Development Permit Area, and to vary Juan de Fuca Land Use Bylaw No. 2040, as follows:

1. Part 2, Section 9.09(a) to reduce the front yard requirement from 7.5 m to 5.5 m;
2. Part 2, Section 9.09(b) to reduce the side yard requirement from 6 m to 2.5 m; and
3. Part 3, Section 6.0(3) to permit parking to be located within the required front yard

be approved.

Alternative 2
That the Development Permit with Variance DV000078 be denied.

Alternative 3
That the application be referred back to staff for additional information.

IMPLICATIONS

Legislative Implications

The East Sooke Official Community Plan, Bylaw No. 4000, designates development permit areas (DPAs) and outlines development permit guidelines. The property is located within the Steep Slopes, Riparian, and Sensitive Ecosystem DPAs and, unless an exemption applies, a development permit is required prior to subdivision or alteration of land. CRD Delegation of Development Permit Approval Authority Bylaw No. 3462, gives the General Manager, Planning and Protective Services, the authority to issue a development permit; however, the delegated authority does not include development permits that require a variance, as stated in Section 5(a) of the bylaw.

Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 9.09(a) and (b) specify that the minimum front and side yard setbacks be 7.5 m and 6 m respectively, and Part 3, Section 6.0(3) specifies that no parking area shall be located within the required front yard for the zone within which the lot is located. The proposed development does not meet these requirements; therefore, variances are being requested.

Public Consultation Implications

Pursuant to Section 499 of the *Local Government Act*, if a local government is proposing to pass a resolution to issue a development variance permit it must give notice to each resident/tenant within a given distance as specified by bylaw. Juan de Fuca Development Fees and Procedures Bylaw No. 3885, states that the Board at any time may refer an application to an agency or organization for their comment. In addition, it states that a notice of intent must be mailed to adjacent property owners within a distance of not more than 500 metres. Any responses received from the public will be presented at the September 21, 2021, Land Use Committee meeting. There is no requirement for public consultation if a local government is considering a development permit.

Land Use Implications

Development Permit:

A *Riparian Areas Protection Regulations* (*RAPR*) Assessment Report was submitted by Thomas Roy, R.P.Bio., of Cascadia Biological Services, dated May 30, 2021. The report reviews a stream that originates from several parcels located south of Cole Road and flows though the subject property towards Sooke Basin. The report addresses the CRD Riparian DP guidelines for the proposed development (Appendix E).

The Riparian Assessment Area is comprised predominantly of native vegetation. The biologist confirmed that a 10 m SPEA applies, and that an additional 5 m buffer for a total protected area of 15 m beyond the high water mark is required. The report confirmed that all services and the previously cleared building site are located beyond the 15 m boundary. No further clearing is proposed as a part of the development and development that is subject to the *RAPR* is exempt from the Sensitive Ecosystem development permit area.

Recommendations to protect the SPEA during construction are provided and include regular monitoring and a post construction report completed by a qualified environmental professional (QEP). The report was approved by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development in the RAPR Notification System on July 7, 2021. The professional report is attached to the proposed development permit (Appendix F).

Development Permit DP000287 authorizing site servicing for the parcels within Plan EPS6132 was issued as a part of subdivision. Construction of a dwelling under a valid Building Permit is exempt from Steep Slopes development permit area requirements as established by the East

Sooke Official Community Plan Bylaw no. 4000, Section 514(C), provided that no other part of the land in the Steep Slope DPA will be altered for other purposes. As proposed, the development meets the Steep Slope DP exemption criteria.

Variances:
The Rural Residential 5 (RR-5) zone regulations specify that front yard setbacks shall be a minimum of 7.5 m and that side yard setbacks shall be a minimum of 6 m. The owner has requested variances to reduce the front yard setback by 2 m to 5.5 m and to reduce the side yard setback by 3.5 m to 2.5 m for the proposed single family dwelling. The site plan indicates that the anticipated setbacks are 5.58 m (front) and 2.88 m (side); however, the owner has requested further reduced setbacks to provide a construction buffer.

The Location, Development and Maintenance Requirements for Public and Private Parking Areas regulations within Juan de Fuca Land Use Bylaw No. 2040 outlines parking requirements for residential development and specifies that no parking area shall be located in the required front yard of a zone. Two parking spaces are proposed in the front yard setback adjacent to the strata access road.

The minimum lot size specified by the RR-5 zone is 0.4 ha; however the subject property is only 0.26 ha, which was achieved through bareland strata lot averaging. The smaller lot size, combined with the required SPEA setback for the creek transecting the parcel places restriction on the buildable area and parking locations. Staff note that the requested side yard setback variance is adjacent to a vacant lot within the strata and that the reduced front yard setback and parking are adjacent to the internal strata access road.

Development Permit with Variance DV000078 has been prepared for consideration to authorize construction of a single-family dwelling within designated development permit areas and to grant variances to reduce the front yard setback requirement from 7.5 m to 5.5 m, the side yard setback requirement from 6 m to 2.5 m, and to permit parking within the front yard setback. Any residents that may be affected by the proposal will have an opportunity to come forward with their comments through the public notification process. Staff recommend approval of the development permit with variance subject to public notification.

CONCLUSION

The applicant has requested a development permit with variance for the purpose of constructing a single-family dwelling. The proposed variances are to reduce the front yard setback requirement from 7.5 m to 5.5 m, reduce the side yard setback requirement from 6 m to 2.5 m, and to allow that parking be located within the front yard setback of the parcel. Since feasible building locations are restricted by the topography of the site and the predominance of the Riparian development permit area, staff recommend approval of the development permit with variance subject to public notification. If the Permit is approved by the Board, the Corporate Officer will proceed to issue the Permit and register a Notice of Permit on Title.

RECOMMENDATION

The Land Use Committee recommends to the CRD Board:
That Development Permit with Variance DV000078 for Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132, to authorize construction of a single-family dwelling within a Riparian and Sensitive Ecosystem Development Permit Area, and to vary Juan de Fuca Land Use Bylaw No. 2040, as follows:

1. Part 2, Section 9.09(a) to reduce the front yard requirement from 7.5 m to 5.5 m;
2. Part 2, Section 9.09(b) to reduce the side yard requirement from 6 m to 2.5 m; and
3. Part 3, Section 6.0(3) to permit parking to be located within the required front yard

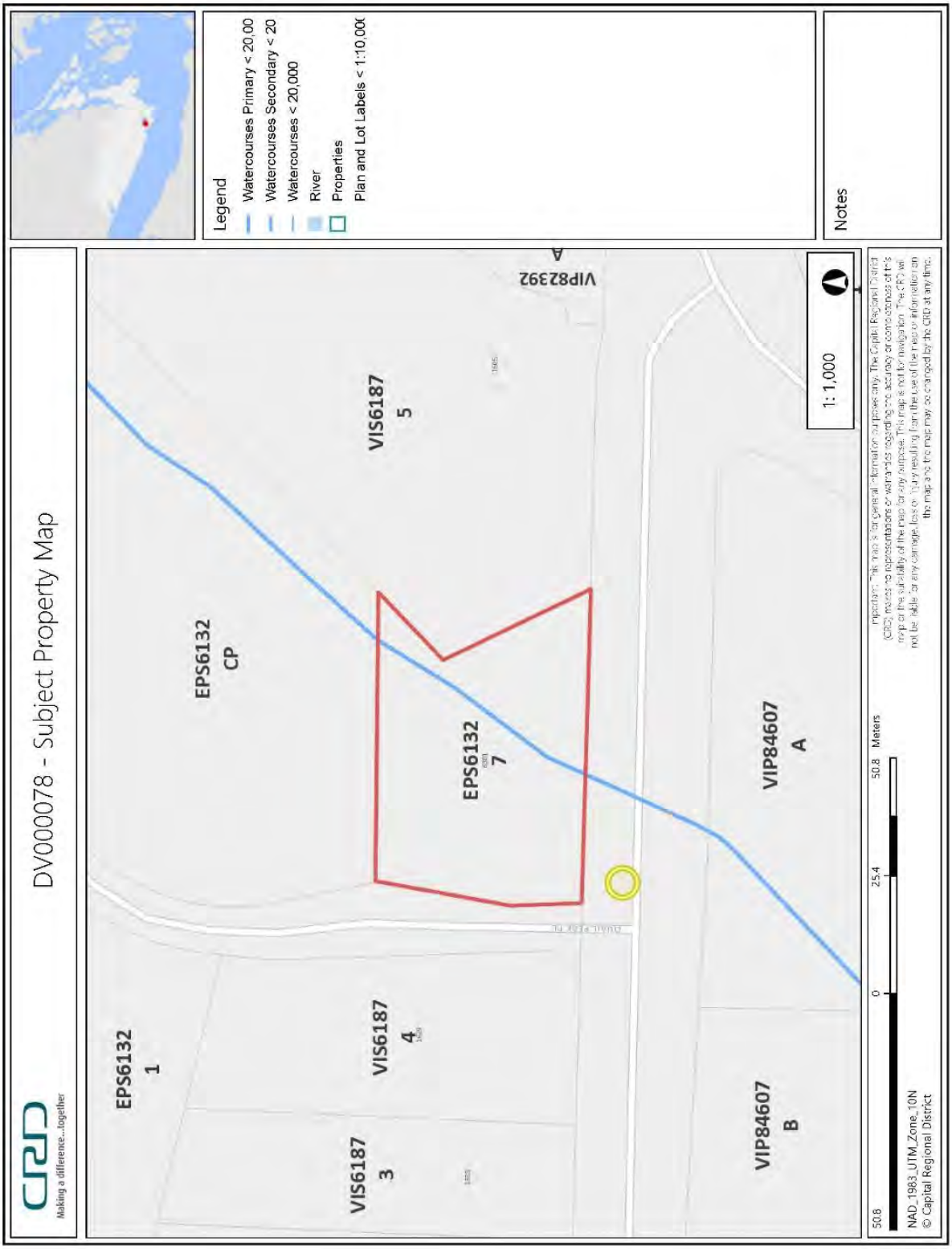
be approved.

Submitted by:	Iain Lawrence, MCIP, RPP, Manager, Juan de Fuca Community Planning
Concurrence:	Michael Barnes, MPP, Acting General Manager, Planning & Protective Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Acting Chief Administrative Officer

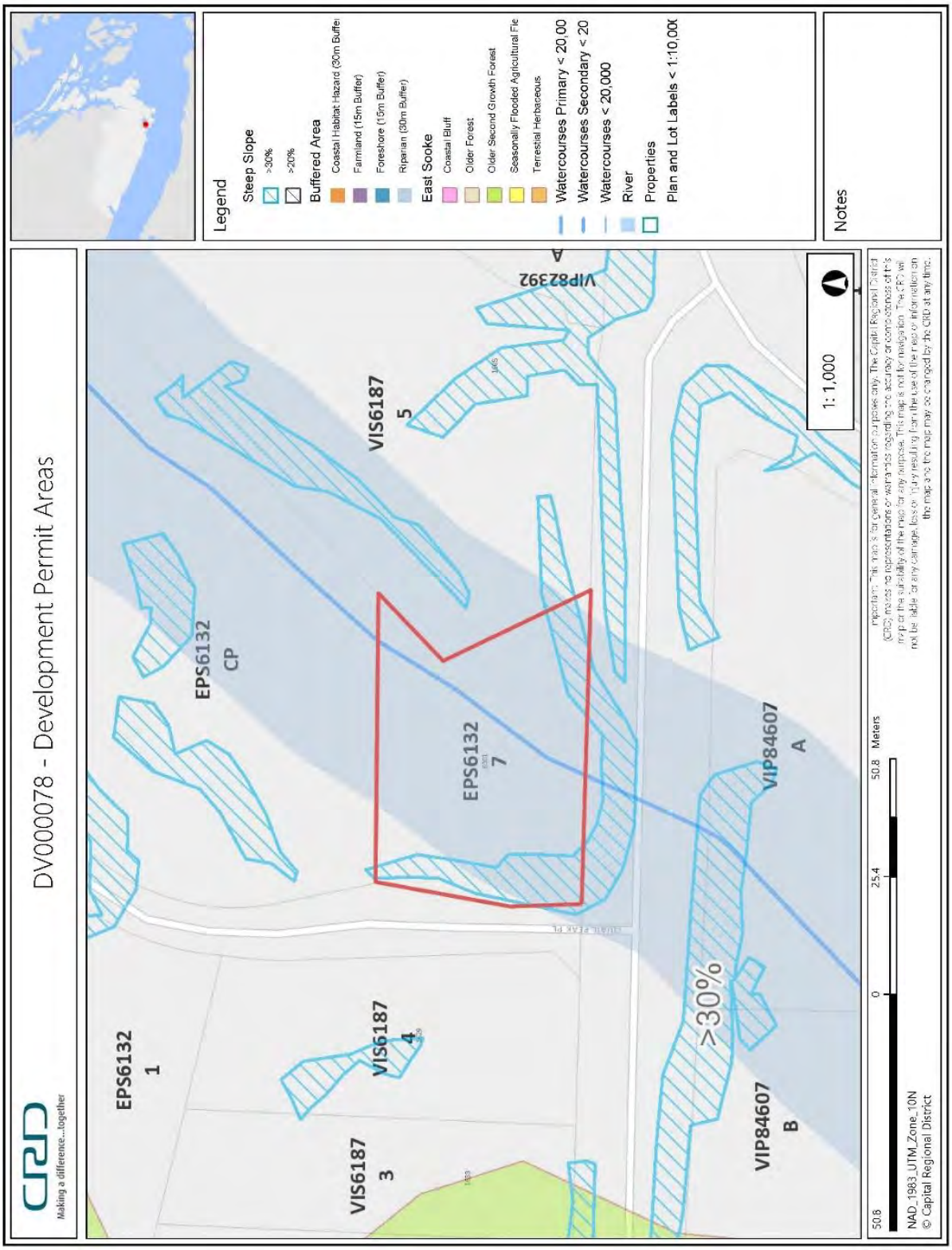
ATTACHMENTS

Appendix A: Subject Property Map
Appendix B: Development Permit Areas Map
Appendix C: Site Plan with Requested Variances
Appendix D: Building Elevation Drawings
Appendix E: Development Permit Guidelines
Appendix F: Permit DV000078

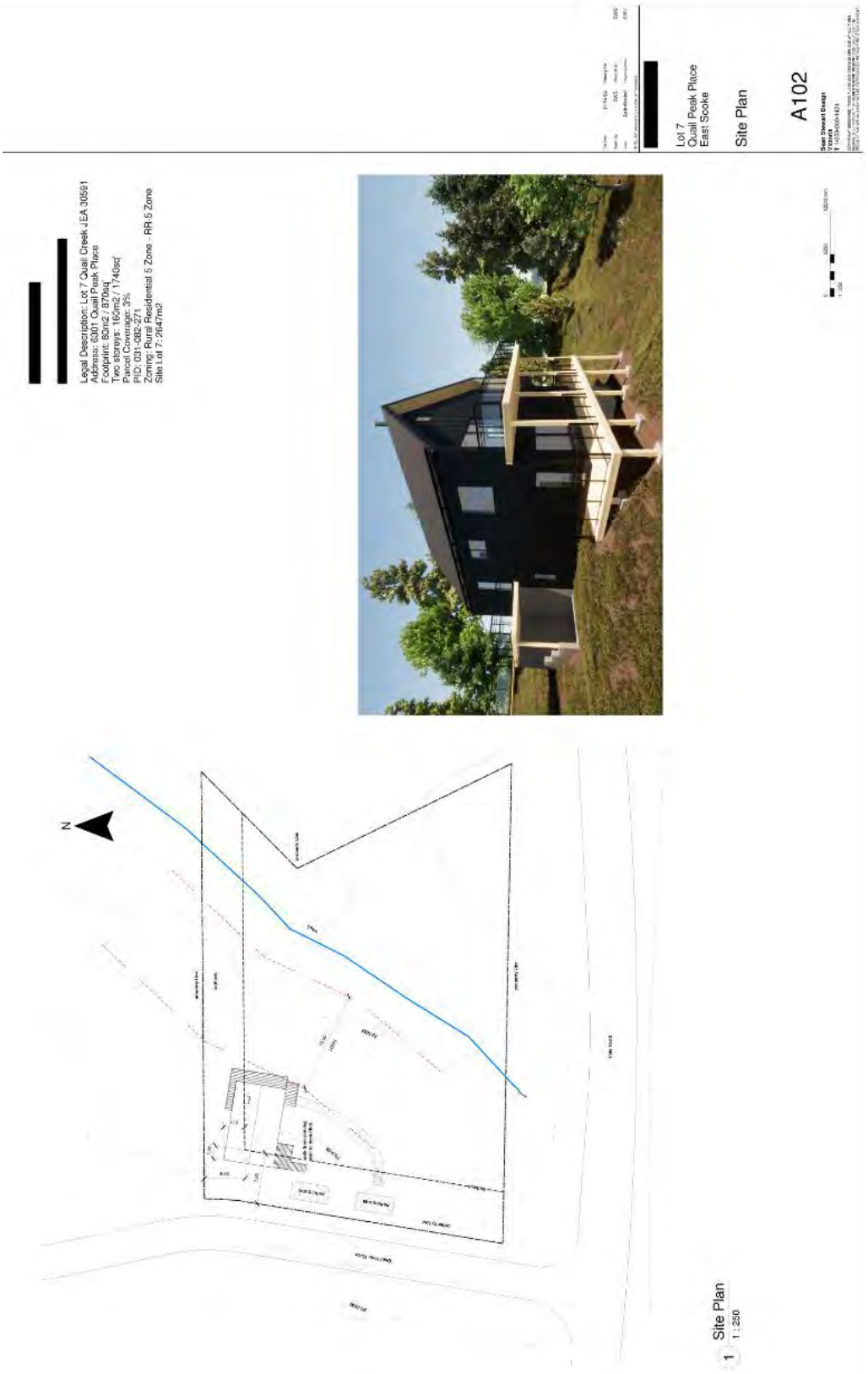
Appendix A: Subject Property Map

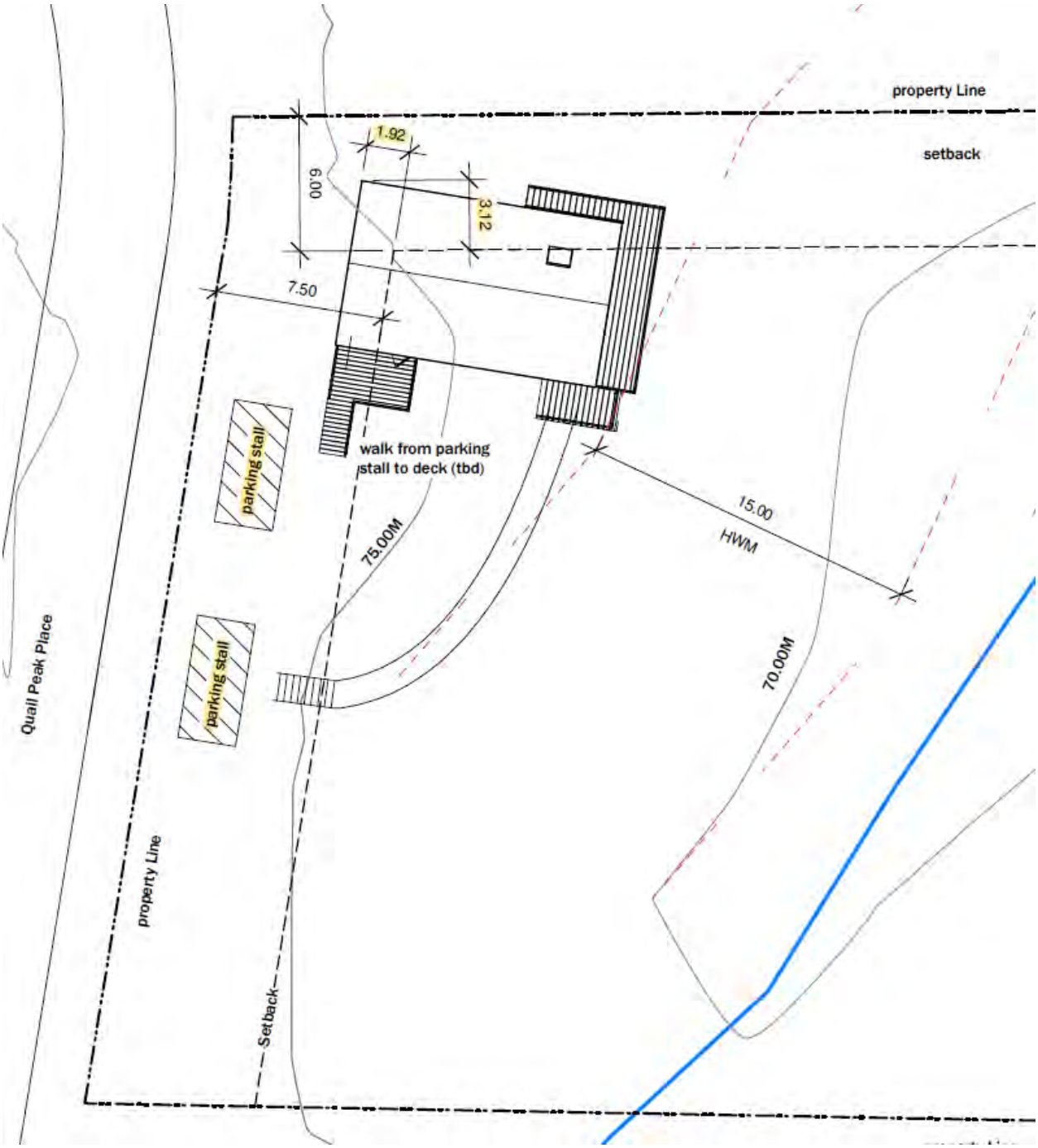


Appendix B: Development Permit Areas Map



Appendix C: Site Plan with Requested Variances




property Line
setback
1.92
6.00
3.12
7.50
walk from parking
stall to deck (tbd)
parking stall
parking stall
75.00M
15.00
HWM
70.00M
Quail Peak Place
property Line
Setback

Appendix D: Building Elevation Drawings

Appendix E: Development Permit Guidelines

Development permits for development in the Riparian DPA will be considered in accordance with the following guidelines:

A. Development or alteration of land will be planned to avoid intrusion into and minimize the impact on the Riparian DPA.
B. Modification of channels, banks or shores must not result in harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes within the Riparian DPA.
C. The removal of gravel and soil from *streams* is prohibited unless otherwise approved by the provincial or federal government.
D. Proposed plans of *subdivision* will avoid *stream* crossings where possible and demonstrate the presence of building areas outside of the SPEA.
E. *Stream* crossings will be avoided, but where this is not possible, bridges are preferred rather than culverts, and any works will be sited to minimize disturbance to banks, channels, shores and vegetative cover, and must be approved by the Province.
F. Culverts may be designed to encourage in-*stream* storage of water to allow the unrestricted movement of fish in both directions.
G. Construction at a certain time of year and using methods that minimize the impacts on rare and sensitive species may be required.
H. To minimize encroachments into the Riparian DPA, variances for the height and location of buildings and structures may be considered.
I. As a condition of the issuance of a development permit, compliance with any or all conditions recommended in a report by a *QEP,* prepared in accordance with the ***RAR***, will be considered by the CRD and may be included in a development permit.
J. Development permits may include requirements for environmental monitoring and when required, these monitoring reports must be prepared by a *QEP*.
K. All of the measures specified by a *QEP* necessary to maintain the integrity of a SPEA will be considered by the CRD for inclusion as a condition in a development permit.
L. Development permits will not be issued until the CRD has been notified by the Riparian Areas Regulation Notification System (RARNS) that the Province has received a riparian areas assessment report.
M. Where a *QEP* has required the planting of native vegetation to reduce the risk of erosion, restore the natural state of the site, improve water quality, or stabilize slopes and banks, a landscaping plan of the re-vegetation may be required.
N. In situations where a SPEA would reduce the density of development permitted by the zoning bylaw, a *QEP* is required to provide recommendations on how the permitted density of development could be accommodated with the least possible impact on fish habit.
O. An applicant may be required to provide an explanatory plan of a SPEA.
P. For all or part of land within a SPEA that has been identified by a *QEP*, property owners may wish to consider dedicating the land back to the Crown, gifting the land to a nature conservation organization or registering a conservation covenant.
Q. All new developments or modifications to existing developments including site works, gardening, landscaping and other related residential activities should be designed and implemented to maintain the quantity and quality of water and to avoid the entry of pollutants or nutrient rich water flowing into *streams* and wetlands.
R. Development will be designed to avoid any increase in the volume and peak flow of runoff and a drainage plan may be required in support of this guideline.
S. Plantings of native vegetation may be required to reduce the risk of erosion, restore the natural state of the site, improve water quality, or stabilize slopes and banks.
T. Where necessary or desirable, a buffer zone to remain free of development may be specified and protection measures for retention and management of vegetation in these areas may be established.
U. To avoid encroachment, fencing may be required prior to, during or after construction.

Appendix F: Permit DV000078

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CAPITAL REGIONAL DISTRICT

DEVELOPMENT PERMIT WITH VARIANCE NO. DV000078

1. This Development Permit with Variance is issued under the authority of Sections 490 and 498 of the *Local Government Act* and subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit with Variance applies to and only to those lands within the Regional District described below (legal description), and any and all buildings, structures, and other development thereon:

   PID: 031-082-271;
   Legal Description: Strata Lot 7, Section 97, Sooke District, Strata Plan EPS6132 (the "Land")
3. This development permit authorizes construction of a single family dwelling (the "development") on the Land, located within the development permit areas established under the East Sooke Official Community Plan, Bylaw No. 4000, 2018, Section 510 (Steep Slopes), Section 530 (Riparian), and Section 540 (Sensitive Ecosystem), in accordance with the plans submitted to the CRD and subject to the conditions set out in this Permit.
4. The conditions under which the development referred to in section 3 may be carried out are as follows:
   a) That the components of the development occur as identified on the Site Plan, prepared by Sean Stewart Design., dated April 24, 2021; and
   b) That the development comply with the report prepared by Thomas Roy, R.P.Bio., of Cascadia Biological Services, dated May 30, 2021 (the "Riparian Assessment Report").
5. The Capital Regional District's Juan de Fuca Land Use **Bylaw No. 2040** is varied under section 498 of the *Local Government Act* as follows:
   a) That Part 2, Section 9.09(a) be varied by reducing the front yard setback requirement from 7.5 m to 5.5 m;
   b) That Part 2, Section 9.09(b) be varied by reducing the side yard setback requirement from 6 m to 2.5 m; and
   c) That Part 3, Section 6.0(3) be varied to permit that parking be located within the required front yard.
6. Notice of this Permit shall be filed in the Land Title Office at Victoria as required by Section 503 of the *Local Government Act*, and the terms of this Permit (DV000078) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.
7. If the holder of a permit does not substantially start any construction permitted by this Permit within 2 years of the date it is issued, the permit lapses.
8. The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit, and any plans and specifications attached to this Permit which shall form a part hereof.
9. The following plans and specifications are attached to and form part of this Permit:
   Appendix 1: Site Plan
   Appendix 2: Riparian Assessment Report
10. This Permit is NOT a Building Permit.

RESOLUTION PASSED BY THE BOARD, THE __ day of _____, 2021.

ISSUED this _____ day of _____, 2021

_____
Corporate Officer
Kristen Morley

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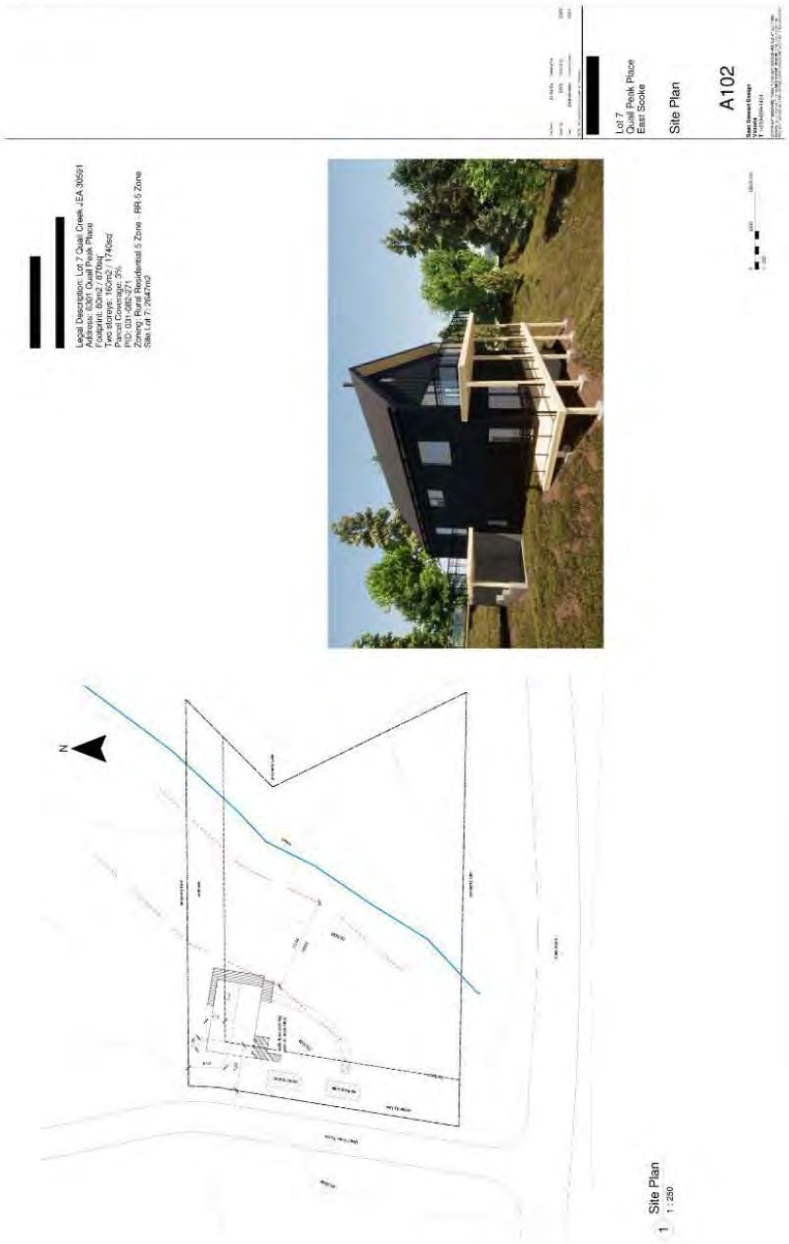
Appendix 1: Site Plan



2

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Appendix 2: Riparian Assessment Report

FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Riparian Areas Protection Regulations: Assessment Report

Please refer to submission instructions and assessment report guidelines when completing this report.

Date: 2021-05-30

I. Primary QEP Information

First Name	Thomas	Middle Name			
Last Name	Roy				
Designation	R.P. Bio	Company	Cascadia Biological Services		
Registration #	1089	Email	cascadiabiolgical@shaw.ca		
Address	772 Goldstream Ave PO Box 27034				
City	Victoria	Postal/Zip	V9B 5S4	Phone #	250 888-4864
Prov/state	BC	Country	Canada		

II. Secondary QEP Information (use Form 2 for other QEPs)

First Name		Middle Name			
Last Name					
Designation		Company			
Registration #		Email			
Address					
City		Postal/Zip		Phone #	
Prov/state		Country			

III. Developer Information

First Name	[redacted]	Middle Name			
Last Name	[redacted]				
Company					
Phone #	[redacted]	Email	[redacted]		
Address	6301 Quail Peak Place				
City	East Sooke	Postal/Zip	V9Z 1A9		
Prov/state	BC	Country	Canada		

IV. Development Information

Development Type	Construction: Single Family Residential		
Area of Development (ha)	0.0300	Riparian Length (m)	54
Lot Area (ha)	0.26	Nature of Development	New
Proposed Start Date	2021-06-15	Proposed End Date	2022-12-31

V. Location of Proposed Development

Street Address (or nearest town)	6301 Quail Creek Place						
Local Government	Juan de Fuca Electoral Area - CRD			City	East Sooke		
Stream Name	Unnamed Ocean Tributary						
Legal Description (PID)	031082271			Region	CRD		
Stream/River Type	Stream			DFO Area	South Coast		
Watershed Code	N/A						
Latitude	48	22	02	Longitude	123	41	27

Completion of Database Information includes the Form 2 for the Additional QEPs, if needed.
Insert that form immediately after this page.

Form 1 Page 1 of 22

3

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Table of Contents for Assessment Report

Page Number

1. Description of Fisheries Resources Values .....

2. Results of Riparian Assessment (SPEA width) .....

3. Site Plan .....

4. Measures to Protect and Maintain the SPEA
(detailed methodology only).
   1. Danger Trees.....
   2. Windthrow.....
   3. Slope Stability.....
   4. Protection of Trees.....
   5. Encroachment .....
   6. Sediment and Erosion Control.....
   7. Floodplain.....
   8. Stormwater Management.....

5. Environmental Monitoring .....

6. Photos .....

7. Assessment Report Professional Opinion .....

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Section 1. Description of Fisheries Resources Values and a Description of the Development proposal

(Provide as a minimum: Species present, type of fish habitat present, description of current riparian vegetation condition, connectivity to downstream habitats, nature of development, specific activities proposed, timelines)

6301 Quail Peak Place – East Sooke

The purpose of this Riparian Assessment Protection Regulations (RAPR) assessment is to determine RAPR assessment area boundaries as well as designated Streamside Protection and Enhancement Area (SPEA) zones for a single lot residential construction. The activities proposed within the RAA and outside of the designated SPEA include the residence, driveway and parking area as well as all other related ancillary development. The proposed ancillary development including water, hydro and other utilities will all be within the footprint of the residence. The subject lot is located off of Cole Road which is off of East Sooke Road. The goal of this assessment therefore is to identify the SPEA setbacks, the Riparian Assessment Area (RAA) and to determine what measures are required in order to protect the fish habitat which lies adjacent to the building site. As the house site footprint has already been cleared during previous subdivision phases, there are no trees proposed to be removed as part of this report. The housing footprint as shown is already in place including suitable bearing rock and compaction.

At the time of our assessment in May of 2021, there was one waterbody within the subject property. Located along the southeastern boundary of the lot, the waterbody travels west to east and is an unnamed second order ocean tributary. This watercourse meets the definition of a watercourse as identified by the Fish Stream Identification Guidebook (1998).

Stream #1
The unnamed second order creek flows from west to east originating from lots on the western side of Cole Road from this location. The canopy within the riparian area consists of Douglas fir, western red cedar, and alder with smaller concentrations of willow and maple. The canopy closure was 45% at the time of our survey. The understory is dense and consists of salal, sword fern with equal concentrations of introduced species including ivy and blackberry. The stream's average gradient is 7% and the morphological type is cascade-pool. The channel is only marginally incised with a substrate dominated by gravel with a subdominant substrate consisting of fines/cobble. The average channel width was 1.40m at the time of our survey.

There are no FISS reports for this unnamed ocean tributary. It is assumed to be fish bearing by default.

With a 10m SPEA calculated for the stream, the landowner has agreed to add another 5m in a sensitive fisheries management zone (SFMZ) so that the total protected area is 15m.

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Section 2. Results of Riparian Assessment (SPEA width)

2. Results of Detailed Riparian Assessment

Refer to Chapter 8 of Assessment Methodology

Date: 2021-05-30

Description of Water bodies involved (number, type): 1 stream

Stream	1
Wetland	
Lake	
Ditch	
Number of reaches	1
Reach #	1

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

	Channel Width(m)		Gradient (%)
starting point	1.78		
upstream	2.24	high	6
	0.45	low	
	2.12		
	1.65		
downstream	0.78		
	0.71		
	1.31		8
	1.23		
	1.98		
	1.08		
Total: minus high flow	12.59		
mean	1.40		7

	R/P	C/P	S/P
Channel Type		X	

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted].
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation

Site Potential Vegetation Type (SPVT)

	Yes	No	
SPVT Polygons		X	Tick yes only if multiple polygons, if No then fill in one set of SPVT data boxes

I, Thomas Roy, hereby certify that:
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted].
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report, and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Polygon No:	1			Method employed if other than TR
	LC	SH	TR	
SPVT Type			X	

Form 1 Page 4 of 22

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Polygon No:				Method employed if other than TR
	LC	SH	TR	
SPVT Type				
Polygon No:				Method employed if other than TR
SPVT Type				

Zone of Sensitivity (ZOS) and resultant SPEA

Segment No:	1	If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)	10							
Litter fall and insect drop ZOS (m)	10							
Shade ZOS (m) max	4.20	South bank	Yes		No	X		
Ditch	Justification description for classifying as a ditch (manmade, no significant headwaters or springs, seasonal flow)							
Ditch Fish Bearing	Yes		No		If non-fish bearing insert no fish bearing status report			
SPEA Maximum	10	(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA Maximum		(For ditch use table3-7)						

Segment No:		If two sides of a stream involved, each side is a separate segment. For all water bodies multiple segments occur where there are multiple SPVT polygons						
LWD, Bank and Channel Stability ZOS (m)								
Litter fall and insect drop ZOS (m)								
Shade ZOS (m) max		South bank	Yes		No			
SPEA maximum		(For ditch use table3-7)						

I, Thomas Fox, hereby certify that,
a) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*;
b) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted];
c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and
d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation.

Comments

Segment 1 represents the left bank facing downstream. Only one segment used for this report as development is along the left bank

Form 1 Page 5 of 22

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Section 3. Site Plan
Insert jpg file below

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Site Plan

Stream blue polyline represents the unnamed ocean tributary

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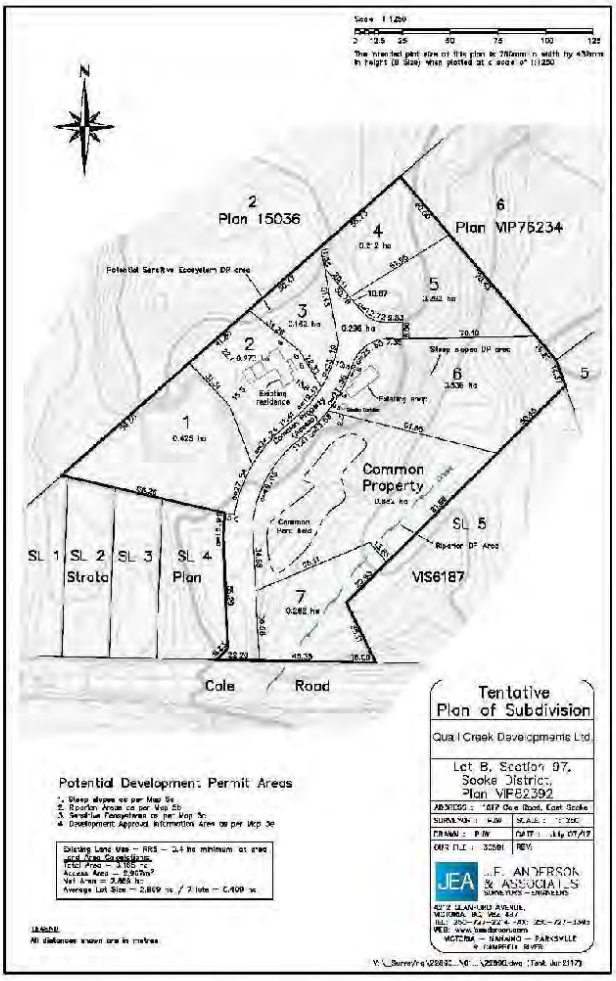
FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report



Lot 7 above represents the study area with civic address of 6301 Quail Peak Place

Form 1

Page 8 of 22

10

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Note: Blue polyline represents the High Water Mark (left bank). Green polyline represent the 10m stream SPEA (includes all three ZoS – 4.20m shade SPEA defaulted to 10m as it confuses landowners). Orange polylines represent the 15m STMZ. Purple polygon represents the building site and proposed disturbed area

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FORM 1

Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Note: Blue polyline represents the High Water Mark (left bank). Green polyline represent the 10m stream SPEA (includes all three ZoS 4.20m shade SPEA defaulted to 10m as it confuses landowners). Orange polylines represent the 15m SFMZ. Purple polygon represents the building site and proposed disturbed area

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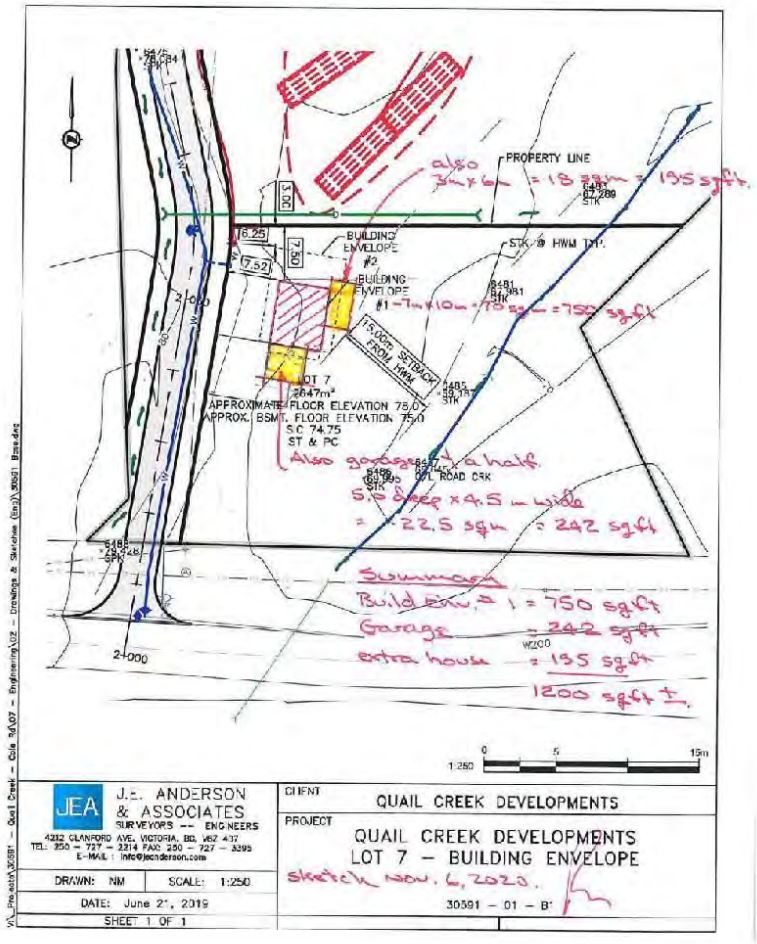
FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report



Form 1

Page 11 of 22

13

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Section 4. Measures to Protect and Maintain the SPEA

This section is required for detailed assessments. Attach text or document files, as noted, for each element discussed in chapter 1.1.3 of Assessment Methodology. It is suggested that documents be converted to PDF *before* inserting into the assessment report. Use your "return" button on your keyboard after each line. You must address and sign off each measure. If a specific measure is not being recommended a justification must be provided.

1. Danger Trees	No danger trees identified within the SPEA
I, Thomas Key, hereby certify that: e) I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; f) I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] g) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
2. Windthrow	No trees are proposed to be removed for the proposed single family residence and therefore, windthrow is not an issue at this site
I, Thomas Key, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
3. Slope Stability	No slope stability issues identified on-site. The new single-family residence will be built on a previously existing building pad
I, Thomas Key, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
4. Protection of Trees	No trees are proposed to be removed as a result of the proposed construction. Storm fencing and sediment control fencing will be installed at the 15m special fisheries management zone (SFMZ) located at 15m. Split cedar rail fence or alternate is mandated for the SPEA demarcation after construction activities are deemed complete (permanent fence)
I, Thomas Key, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
5. Encroachment	Same as #4
I, Thomas Key, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
6. Sediment and Erosion Control	Erosion and sediment control measures will include the installation of sediment control fencing at the 15m SFMZ demarcation
I, Thomas Key, hereby certify that:	

Form 1 Page 12 of 22

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
7. Stormwater Management	Stormwater will be collected from the residence into a rock pit (or equivalent) and disposed of to the stormwater catchment area along Quail Peak Place.
I, Thomas Kay, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] c. I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	
8. Floodplain Concerns (highly mobile channel)	N/A – no concerns on this site
I, Thomas Kay, hereby certify that: a. I am a qualified environmental professional, as defined in the Riparian Areas Regulation made under the *Fish Protection Act*; b. I am qualified to carry out this part of the assessment of the development proposal made by the developer [redacted] I have carried out an assessment of the development proposal, and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Regulation	

Form 1 Page 13 of 22

15

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Section 5. Environmental Monitoring

A fresh text or document files explaining the monitoring regimen. Use your "return" button on your keyboard after each line. It is suggested that all documents be converted to PDF *before* inserting into the PDF version of the assessment report. Include actions required, monitoring schedule, communications plan, and requirement for a post development report.

East Sooke, BC

6301 Quail Peak Place

May 30 2021

Works Outside of SPEA 15m buffer (SFMZ) and within 30m of designated waterbody

- Areas designated as the SPEA will be flagged with high visibility flagging tape and temporary fencing.
- Prior to construction, a sediment and erosion control plan will be developed to prevent the discharge of sediment laden water into the SPEA or the watercourse identified on-site. This will include the installation of sediment fencing/hay bales as determined by on-site biologist prior to the initiation of construction activities.
- No works shall be undertaken within areas designated as SPEA (refer to maps) or SFMZ.
- All works Scheduled Within 30m of a Watercourse and Outside of the SPEA will adhere to all recommendations as outlined in the BMP - Develop with Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia. As well:
    - Ensure construction will proceed smoothly without harmful alteration of habitat;
    - Provide long-term monitoring for disturbed sites until green-up is established and the soils at the site are stable.
- Heavy equipment (excavators etc.) working outside the SPEA and within 30m of the watercourse will be monitored for leaks (oil, hydraulic fluid etc.).
- Disturbed areas outside the SPEA and within 30m of a waterbody will be revegetated with native plants of a size that will quickly re-establish

Form 1 Page 14 of 22

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riparian cover when construction activities are deemed complete.

- Detailed direction to contractors will be given to ensure that no erosion or sediment movement will occur and that no silt will be released to the SPEA during the construction and post construction phase.
- The site will be monitored by the designated QEP (once every two weeks or as required due to high rainfall events - >30mm/24 hour period) during the construction period. Any contraventions of the RAR will be communicated to the developer as well as local municipal staff and RAR staff
- A post construction report generated by the designated QEP will be submitted to RAR and local municipal staff within 4 months after substantial completion.

Form 1 Page 15 of 22

17

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Section 6. Photos

Label	Plate 1 – Typical view of the existing building site

Form 1 Page 16 of 22

18

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FORM 1
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Label	Plate 1 – Typical view of the existing building site

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Label	Plate 3 – Typical view of the stream substrate and width

Form 1 Page 18 of 22

20

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FORM 1
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Label	Plate 3 – Typical view of the stream substrate and width

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Label	Plate 5 – Typical view of the existing canopy/vegetation within the SPEA

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Section 7. Professional Opinion

Qualified Environmental Professional opinion on the development proposal's riparian assessment.

Date 2021 05 30

1. I/WeThomas Roy

Please list name(s) of qualified environmental professional(s) and their professional designation that are involved in assessment.)

hereby certify that:

a) I am/We are qualified environmental professional(s), as defined in the Riparian Areas Protection Regulation made under the *Riparian Areas Protection Act*;
b) I am/We are qualified to carry out the assessment of the proposal made by the developer [redacted] which proposal is described in section 3 of this Assessment Report (the "development proposal").
c) I have/We have carried out an assessment of the development proposal and my/our assessment is set out in this Assessment Report; and
d) In carrying out my/our assessment of the development proposal, I have/We have followed the specifications of the Riparian Areas Protection Regulation and assessment methodology set out in the minister's manual; AND

2. As qualified environmental professional(s), I/we hereby provide my/our professional opinion that:

a) [N/A] the site of the proposed development is subject to undue hardship, (**if applicable, indicate N/A otherwise**) and
b) [X] the proposed development will meet the **riparian protection standard** if the development proceeds as proposed in the report and complies with the measures, if any, recommended in the report.

[NOTE: **"Qualified Environmental Professional" means an individual as described in section 21 of the Riparian Areas Protection Regulation**
(b) the individual's area of expertise is recognized in the assessment methods as one that is acceptable for the purpose of providing all or part of an assessment report in respect of the development proposal, and
(c) the individual is acting within that individual's area of expertise.]

Form 1 Page 21 of 22

23

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FORM 1
Riparian Areas Regulation - Qualified Environmental Professional - Assessment Report

Submission Instructions
Riparian Areas Regulation – Qualified Environmental Professional – Assessment Report
RAR-QEP-AR

Forms you will need to complete are

- Form 1 which has the database information, the description of the fisheries resources, development site plan, measures to protect and maintain the SPEA, and environmental monitoring.
- Form 2, if more QEPs are part of the project team.
- Either Form 3 the detailed assessment form(s) or Form 4 simple assessment form(s) which is for the results of the riparian assessment (SPEA width). Use enough copies of the form to complete the assessment of the site.
- Form 5 is the photo form(s). Duplicate for additional photos.

NB: See the Guidelines and the Assessment Methods for detailed instructions on the information required for completing the Assessment Report.

A complete Riparian Assessment Report based on the template forms must be converted to a *single* Portable Document Format PDF file prior to uploading onto the Notification System.

The Assessment Report must be complete, by submitting the information specified, and posted to provide notification to the local government, Ministry of Water, Land and Air Protection and the Department of Fisheries and Oceans Canada.

Tips for working with MS Word Template Forms
Using the forms

- Before beginning, print a hard copy of the form and the guidance files for reference
- Open the template
- Enter data into the shaded fields on the form
- Use TAB to move from one field to another; SHIFT-TAB to go in reverse
- Text and digital photos may be inserted from other applications
- The amount of text that can be entered in each box is limited and cannot be changed by the user; boxes with date information, for example, require input like: yyyy-mm-dd.

Saving the completed form

- Assign name to the completed form
- Save a word document (*.doc file)
- Do not overwrite the Template (*.dot file) with your completed form
- If you do overwrite the template, you can download a new copy from this web site

Form 1 Page 22 of 22

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REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, SEPTEMBER 21, 2021

SUBJECT **Development Permit with Variance for Section 4, Renfrew District, Except Those Parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011**

ISSUE SUMMARY

A request has been made for a development permit with variance to authorize subdivision on a parcel designated as Steep Slope, Riparian, and Sensitive Ecosystem Development Permit (DP) areas and to reduce the requirement that 10% of a parcel fronts onto a highway.

BACKGROUND

The subject property is a 145 ha parcel located at 12036 West Coast Road and is zoned Wildwood Terrace 4 (WT-4) and Commercial (C-1A) in Juan de Fuca Land Use Bylaw No. 2040 (Appendix A). That part of the subject property that is the subject of this application is bounded by French Beach Provincial Park and Resource Land (RL) zoned parcels to the west, Wildwood Terrace 1 (WT-1), Wildwood Terrace 2 (WT-2), and Wildwood Terrace 3 (WT-3) zoned parcels to the east, the remainder of Section 4 to the north, and West Coast Road to the south. The parcel is designated as Private Managed Forestry Land (PMFL) under the *Private Managed Forest Land Act*. The C-1A portion of Section 4 is located in the south east corner and is the subject of rezoning application RZ000267 to permit food and beverage processing and liquor lounge (brewery).

The rural residential areas of Section 4, including the WT-1, WT-2, WT-3 zoned areas, as well as the present subdivision proposal, are accessed via Trailhead Drive from West Coast Road. Access to the proposed subdivision, known as “Creekside Glen”, crosses Second Creek, which roughly forms the eastern boundary of the subject area (Appendix B).

The owner has submitted a subdivision application for the creation of 12 fee simple parcels (Appendix C). Portions of the area are designated as Steep Slope, Riparian, and Sensitive Ecosystem development permit areas; therefore, a development permit is required. The plans show a reduction to the required 10% minimum road frontage for several of the proposed lots; therefore, a variance is also requested.

ALTERNATIVES

Alternative 1
The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000081 for Section 4, Renfrew District, except those parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011 to authorize the subdivision of land designated as Steep Slope, Riparian, and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement from 10% to 1.5% for proposed Lot 1, 5% for proposed Lot 2, 1.1% for proposed Lot 5, 6.2% for proposed Lot 6, 0.9% for proposed Lot 7, 2.5% for proposed Lot 8, 0.5% for proposed Lot 11, and 0.7% for proposed Lot 12, as shown on the Tentative Plan of Subdivision, prepared by J.E. Anderson, dated August 23, 2021, be approved.

Alternative 2
That the Development Permit with Variance DV000081 be denied.

Alternative 3
That the application be referred back to staff for additional information.

IMPLICATIONS

Legislative Implications
The Shirley-Jordan River Official Community Plan, Bylaw No. 4001, designates development permit areas (DPAs) and outlines development permit guidelines (Appendix D). The property is located within the Steep Slopes, Riparian, and Sensitive Ecosystem DPAs; therefore, a development permit is required for subdivision. CRD Delegation of Development Permit Approval Authority Bylaw, 2009, Bylaw No. 3462, gives the General Manager, Planning and Protective Services, the power to issue a development permit; however, the delegated authority does not include development permits that require a variance, as stated in Section 5(a) of the bylaw.

The Juan de Fuca Land Use Bylaw No. 2040, Part 2, Section 3.10(4), specifies that road frontage shall be a minimum of 10% of the perimeter of a parcel. Variances to reduce the minimum frontage required is requested for proposed lots 1, 2, 5, 6, 7, 8, 11, and 12 in order to permit the subdivision.

Public Consultation Implications
Pursuant to Section 499 of the *Local Government Act*, if a local government is proposing to pass a resolution to issue a development variance permit it must give notice to each resident/tenant within a given distance as specified by bylaw. Juan de Fuca Development Fees and Procedures Bylaw No. 3885, states that the Board at any time may refer an application to an agency or organization for their comment. In addition, it states that a notice of intent must be mailed to adjacent property owners within a distance of not more than 500 metres. JdF Community Planning will provide notice accordingly. Any responses received from the public will be presented at the September 21, 2021, Land Use Committee meeting. There is no requirement for public consultation if a local government is considering a development permit.

Land Use Implications
Development Permit:
A Geotechnical report prepared by Jordan Gybels, EIT, and Andrew Jackson, P.Geo., P.L.Eng. of Ryzuk Geotechnical described the site and addresses the steep slope development permit guidelines relative to the proposal. The engineers confirmed that a safe building site exists for each parcel and provided Landslide Assessment and Flood Assurance Statements for the subdivision design. Any future development activities proposed within the designated development permit areas on the newly created parcels require a subsequent Development Permit application and accompanying professional report.

An Environmental Assessment report was prepared by Brent Rutley, BIT, B.Sc., and Julie Budgen, R.P.Bio., B.Sc., of Corvidae Environmental Consulting Inc., addressing the Riparian DP and Sensitive Ecosystem DP guidelines for the proposed subdivision. The Report described the site conditions and provided recommendations to protect riparian and sensitive ecosystem areas. The biologists' report included the CRD's Subdivision Referral Report to the Ministry of Transportation and Infrastructure as an appendix and specified that no further action was specified for the frontage condition; however, the referral report dated October 26, 2020 was prepared to address an earlier 14-lot strata subdivision proposal for the parcel and has since been updated to identify the frontage requirements for the new layout.

The Report noted that the property is designated as PMFL and has been modified by past logging activity. Three streams that drain into Second Creek were identified and the Streamside Protection and Enhancement Area (SPEA) for these streams was calculated to be 10 m. Two

ditches adjacent to historical logging roads were also identified. The SPEA for these watercourses was calculated to be 5 m.

Works associated with the subdivision include the installation of several culverts and instream restoration works, including the reconnection of a roadside ditch to Second Creek. These works were authorized under Section 11 of the *Water Sustainability Act (WSA)* by the Ministry of Forests, Lands, Natural Resource Operations, and Rural Development. The Report noted that the SPEAs have been calculated to adequately protect the streams in perpetuity; therefore, the SPEAs should be flagged on site and no clearing of vegetation or disturbance should occur within those areas. *Riparian Areas Protection Regulation* (*RAPR*) assessment reports and development permits will be required prior to the construction of driveways and buildings on Lots 2-6, 8-10 and 12.

The professional reports are attached to the proposed development permit with variance (Appendix E).

Variance:
The Juan de Fuca Land Use Bylaw requires that where a lot being created by a subdivision fronts on a public highway, the minimum frontage on the highway shall be one-tenth of the perimeter of the lot. Proposed Lots 3, 4, 9, and 10 meet this requirement; however, the applicant has proposed to reduce the minimum frontage requirement from 10% to 1.5% for proposed Lot 1, 5% for proposed Lot 2, 1.1% for proposed Lot 5, 6.2% for proposed Lot 6, 0.9% for proposed Lot 7, 2.5% for proposed Lot 8, 0.5% for proposed Lot 11, and 0.7% for proposed Lot 12.

In evaluating whether a frontage exemption is justified, the following technical criteria are normally considered:

- How does it relate to the topography of the area?
- Does it create any environmental impacts?
- Will reducing the frontage produce an awkward lot configuration?
- Will reducing the frontage eliminate future subdivision potential of the lot and of lots beyond?
- Will the exemption reduce road network and access options?
- Does the proposed reduction disturb existing residences?

The proposed lot boundaries are not conventional, but they follow the natural topography and are designed to minimize stream crossings through the use of panhandle driveways and shared access driveways. The proposed parcels meet the required minimum of 1 ha specified by the WT-4 zone. The subdivision layout is not expected to affect the road network, or neighboring properties since the development otherwise complies with the regulations of the zone in terms of overall density. Parcels are limited to a maximum lot coverage of 25% and permitted uses support a single-family dwelling and related accessory uses, including a secondary or detached accessory suite.

Development Permit with Variance DV000081 has been prepared for consideration to authorize a 12-lot subdivision in Steep Slopes, Riparian, and Sensitive Ecosystems Development Permit Areas and to grant a variance to reduce the 10% minimum frontage requirement for proposed lots 1, 2, 5, 6, 7, 8, 11, and 12 (Appendix E). Any residents that may be affected by the proposal will have an opportunity to come forward with their comments through the public notification process. Staff recommend approval of the development permit with variance subject to public notification.

CONCLUSION

The applicant has requested a development permit with variance for the purpose of authorizing a 12-lot subdivision and wishes to reduce the 10% minimum frontage requirement for several of the proposed parcels. Section 11 approvals were issued by the Province for works associated with the watercourses present on the property as they relate to land alteration and subdivision in accordance with the Riparian DP guidelines, and a geotechnical report has been received that addresses the Steep Slope DP guidelines. Therefore, staff recommend approval of the development permit with variance subject to public notification. If the Permit is approved by the Board, the Corporate Officer will proceed to issue the Permit and register a Notice of Permit on Title.

RECOMMENDATION

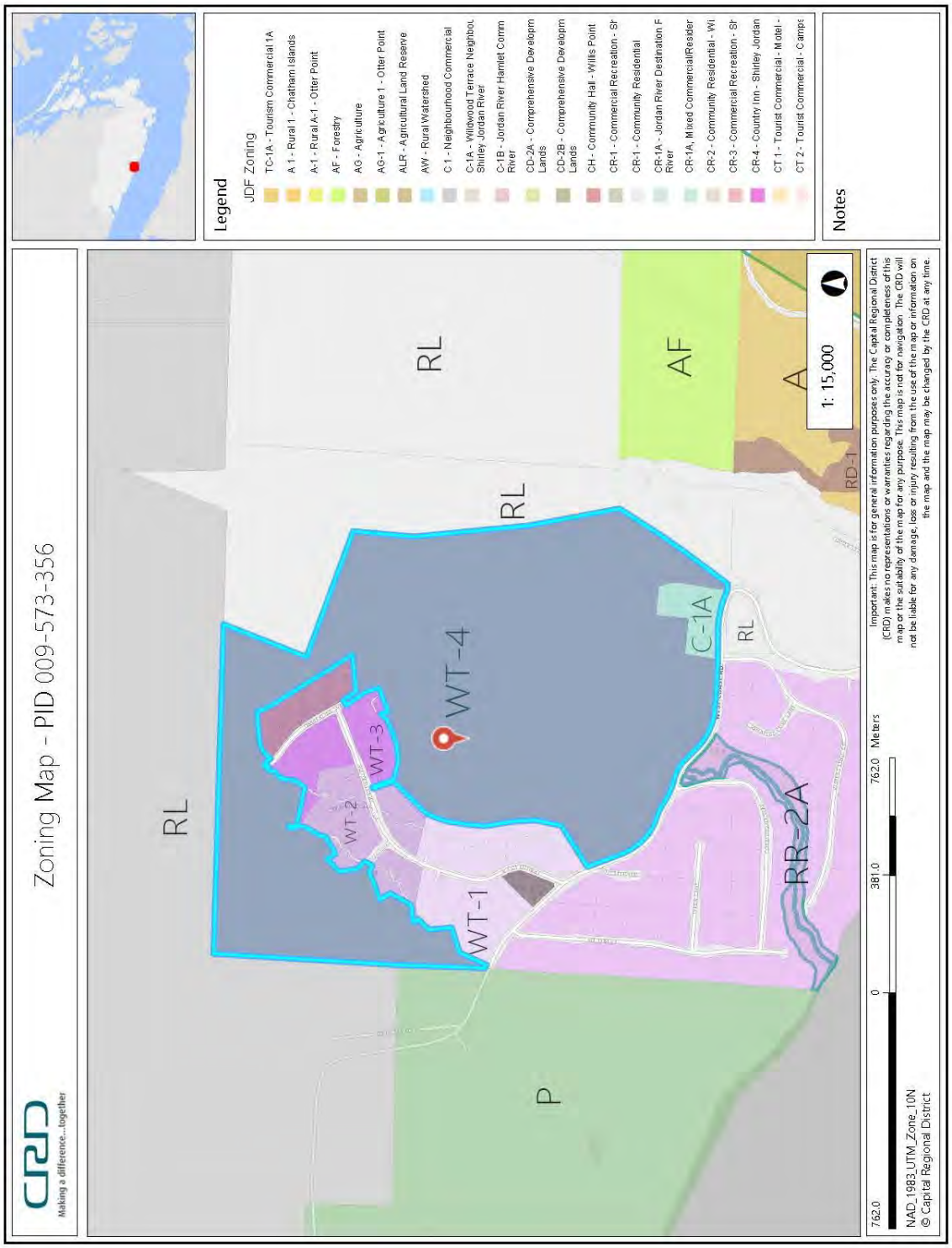
The Land Use Committee recommends to the Capital Regional District Board:
That Development Permit with Variance DV000081 for Section 4, Renfrew District, except those parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011 to authorize the subdivision of land designated as Steep Slope, Riparian, and Sensitive Ecosystems Development Permit Areas; and to vary Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040, Part 2, Section 3.10(4) by reducing the minimum frontage requirement from 10% to 1.5% for proposed Lot 1, 5% for proposed Lot 2, 1.1% for proposed Lot 5, 6.2% for proposed Lot 6, 0.9% for proposed Lot 7, 2.5% for proposed Lot 8, 0.5% for proposed Lot 11, and 0.7% for proposed Lot 12, as shown on the Tentative Plan of Subdivision, prepared by J.E. Anderson, dated August 23, 2021, be approved.

Submitted by:	Iain Lawrence, MCIP, RPP, Manager, Juan de Fuca Community Planning
Concurrence:	Emily Sinclair, MCIP, RPP, Acting General Manager, Planning & Protective Services
Concurrence:	Ted Robbins, B.Sc., C. Tech, Acting Chief Administrative Officer

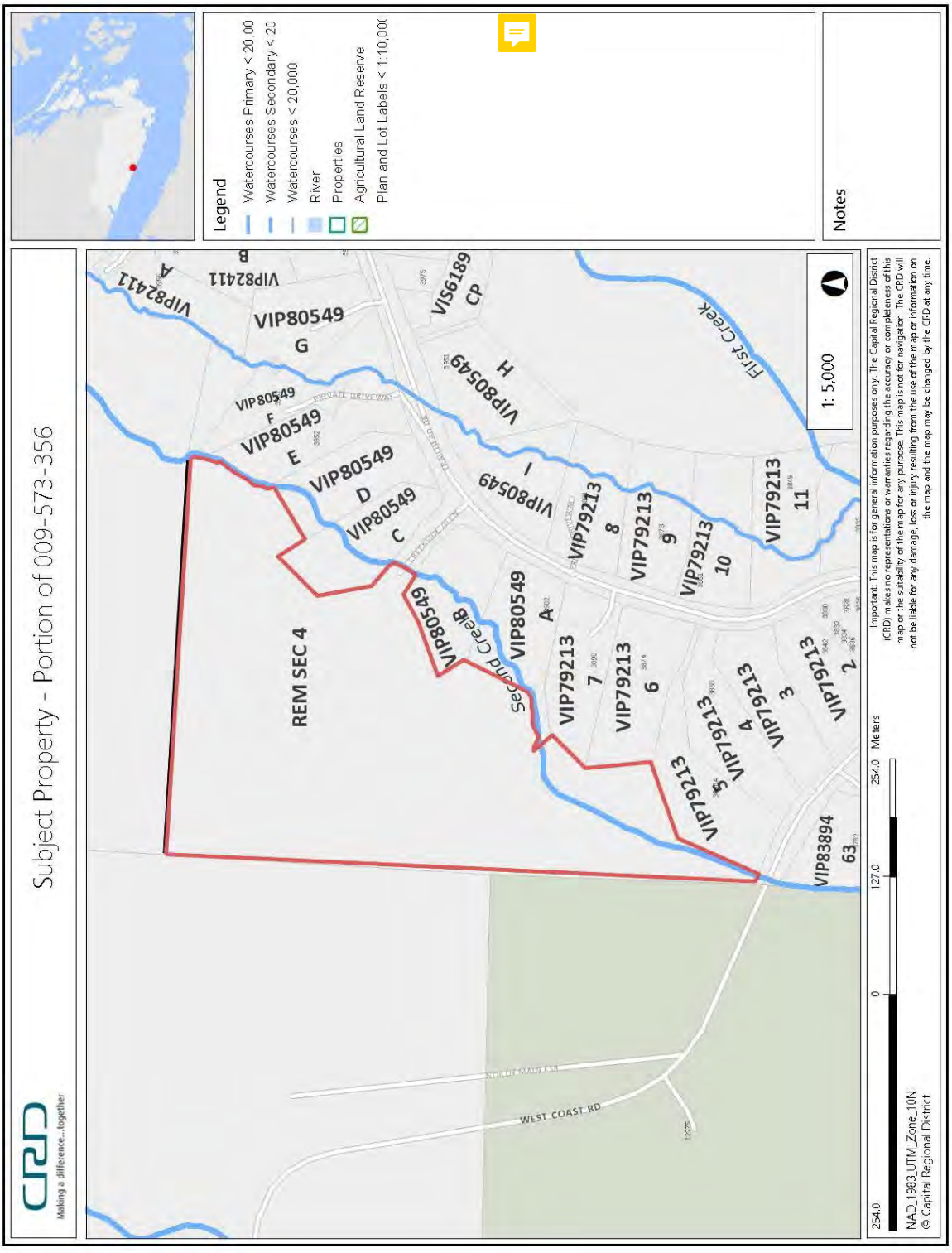
ATTACHMENTS

Appendix A: Subject Property Map
Appendix B: Subdivision Site Limit Map
Appendix C: Tentative Plan of Subdivision with Requested Frontage Variances
Appendix D: Development Permit Guidelines
Appendix E: Permit DV000081

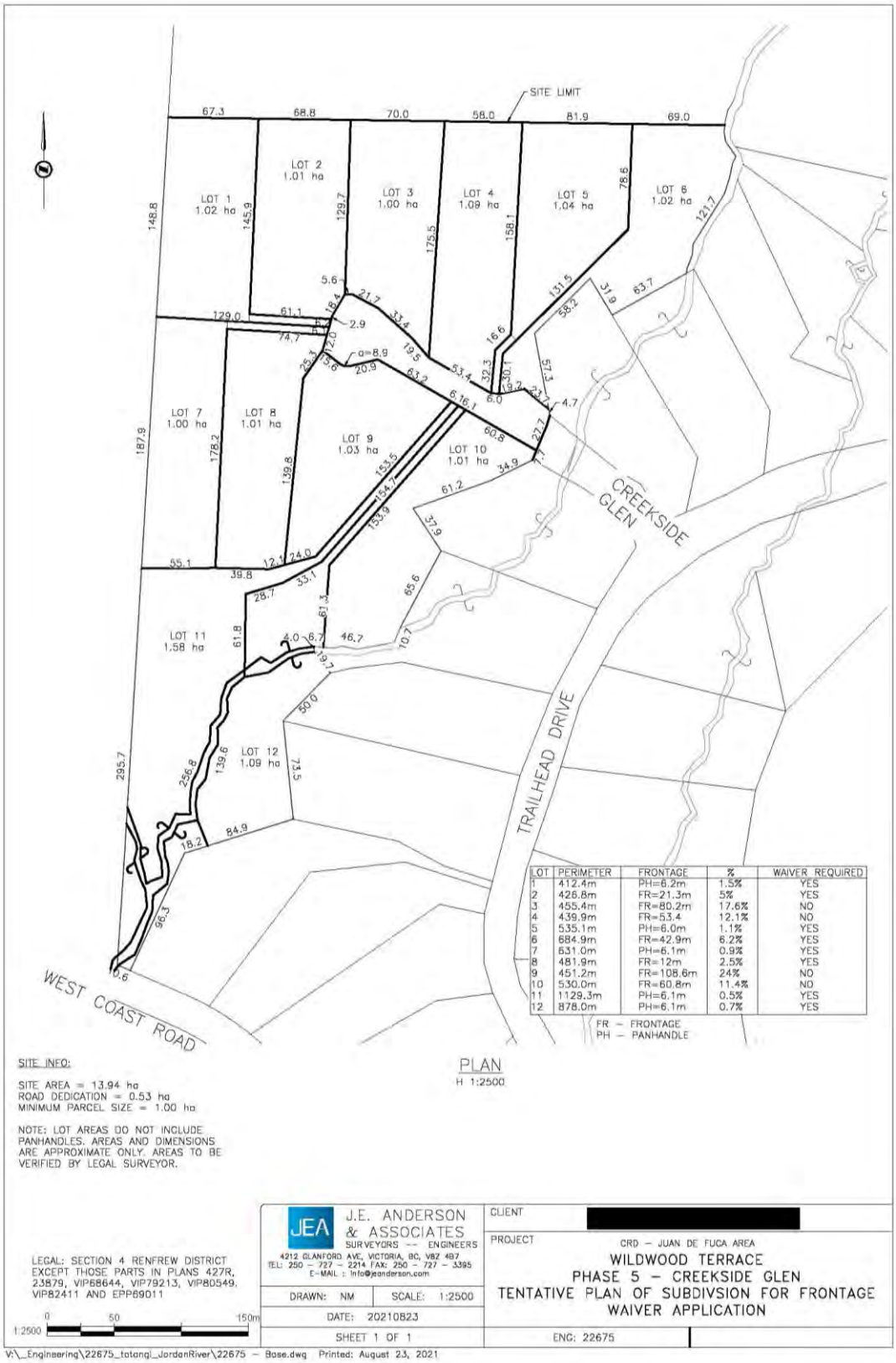
Appendix A: Subject Property Map



Appendix B: Subdivision Site Limit Map



Appendix C: Tentative Plan of Subdivision with Requested Frontage Variances



LOT	PERIMETER	FRONTAGE	%	WAIVER REQUIRED
1	412.4m	PH=6.2m	1.5%	YES
2	426.8m	FR=21.3m	5%	YES
3	455.4m	FR=80.2m	17.6%	NO
4	439.9m	FR=53.4	12.1%	NO
5	535.1m	PH=6.0m	1.1%	YES
6	684.9m	FR=42.9m	6.2%	YES
7	631.0m	PH=6.1m	0.9%	YES
8	481.9m	FR=12m	2.5%	YES
9	451.2m	FR=108.6m	24%	NO
10	530.0m	FR=60.8m	11.4%	NO
11	1129.3m	PH=6.1m	0.5%	YES
12	878.0m	PH=6.1m	0.7%	YES

Appendix D: Development Permit Guidelines

515 Guidelines for the Steep Slope Development Permit Area

Development permits for development in the Steep Slope DPA will be considered in accordance with the following guidelines:

A. Development and alteration of land will be planned to avoid intrusion into and minimize the impact on the Steep Slope DPA.
B. The removal of vegetation and impact to tree root zones will be minimized.
C. The placement of fill, disturbance to the soil, undercutting and blasting will be minimized.
D. Development should minimize alterations to steep slopes and the development should be designed to reflect the site rather than altering the site to reflect the development.
E. Changes in hydrology will be minimized.
F. Runoff from the development will not destabilize or cause damage to the subject *parcel* or neighbouring *parcels*.
G. Development will be designed to avoid erosion and sedimentation.
H. Erosion control measures and temporary fencing may be required during and after construction.
I. The planting of native vegetation in both disturbed and undisturbed areas may be required to reduce the risk of erosion and improve slope stability.
J. Heavy machinery cannot be used in circumstances where or when it might cause erosion or destabilize the slope.
K. The clustering of buildings and structures on less steep areas is encouraged and setbacks may be varied to accommodate this.
L. Variances to allow the siting of buildings and structures outside the Steep Slope DPA will be considered.
M. Over-steep driveways and sharp switchbacks are discouraged and will be minimized.
N. Shared driveways may be required where they will minimize the disturbance to steep slopes.
O. Large, single-plane retaining walls are discouraged and landscaping should follow the natural contours of the land.
P. As a condition of the issuance of a development permit, compliance with any or all conditions recommended in a report by a *QP* will be considered by the CRD and may be included in development permit.

535 Guidelines for the Riparian Development Permit Area

Development permits for development in the Riparian DPA will be considered in accordance with the following guidelines:

A. Development or alteration of land will be planned to avoid intrusion into and minimize the impact on the Riparian DPA.
B. Modification of channels, banks or shores must not result in harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes within the Riparian DPA.
C. The removal of gravel and soil from streambeds is prohibited unless approved by the provincial or federal government.
D. Proposed plans of *subdivision* will avoid *stream* crossings where possible and demonstrate the presence of building areas outside of the SPEA.
E. *Stream* crossings will be avoided, but where this is not possible, bridges are preferred rather than culverts, and any works will be sited to minimize disturbance to banks, channels, shores and vegetative cover, and must be approved by the provincial government.
F. Culverts may be designed to encourage in-*stream* storage of water to allow the unrestricted movement of fish in both directions.
G. Construction at a certain time of year and using methods that minimize the impacts on rare and sensitive species may be required.
H. To minimize encroachments into the Riparian DPA, variances for the height and location of buildings and structures may be considered.
I. As a condition of the issuance of a development permit, compliance with any or all conditions recommended in a report by a *QEP*, prepared in accordance with the ***RAR***, will be considered by the CRD and may be included in a development permit.
J. Development permits may include requirements for environmental monitoring and when required, these monitoring reports must be prepared by a *QEP*.
K. All of the measures specified by a *QEP* necessary to maintain the integrity of a SPEA will be considered by the CRD for inclusion as a condition in a development permit.
L. Development permits will not be issued until the CRD has been notified by the Riparian Areas Regulation Notification System (RARNS) that the Province has received a riparian areas assessment report.
M. Where a *QEP* has required the planting of native vegetation to reduce the risk of erosion, restore the natural state of the site, improve water quality, or stabilize slopes and banks, a landscaping plan of the re-vegetation may be required.

N. In situations where a SPEA would reduce the density of development permitted by the zoning bylaw, a *QEP* is required to provide recommendations on how the permitted density of development could be accommodated with the least possible impact on fish habit.
O. An applicant may be required to provide an explanatory plan of a SPEA.
P. For all or part of land within a SPEA that has been identified by a *QEP*, property owners may wish to consider dedicating the land back to the Crown, gifting the land to a nature conservation organization or registering a conservation covenant.
Q. All new developments or modifications to existing developments including site works, gardening, landscaping and other related residential activities should be designed and implemented to maintain the quantity and quality of water and to avoid the entry of pollutants or nutrient rich water flowing into *streams* and wetlands.
R. Development will be designed to avoid any increase in the volume and peak flow of runoff and a drainage plan may be required in support of this guideline.
S. Plantings of native vegetation may be required to reduce the risk of erosion, restore the natural state of the site, improve water quality, or stabilize slopes and banks.
T. Where necessary or desirable, a buffer zone to remain free of development may be specified and protection measures for retention and management of vegetation in these areas may be established.
U. To avoid encroachment, fencing may be required prior to, during or after construction.

545 Guidelines for the Sensitive Ecosystem Development Permit Area

Development permits for development in the Sensitive Ecosystem DPA will be considered in accordance with the following guidelines:

A. Development or alteration of land will be planned to avoid intrusion into and minimize the impact on the Sensitive Ecosystem DPA.
B. The removal of gravel and soil from *watercourses* is prohibited unless otherwise approved by the provincial or federal government.
C. Proposed plans of *subdivision* will avoid *watercourse* crossings where possible.
D. *Watercourse* crossings will be avoided, but where this is not possible, bridges are preferred rather than culverts, and any works will be sited to minimize disturbance to banks, channels, shores and vegetative cover, and must be approved by the provincial government.
E. Changes in the land surface, which could affect the health of vegetation or the biodiversity of any plant communities and disturbance of mature vegetation and understorey, will be minimized.
F. Disturbance to existing vegetation not directly affected by the footprint of buildings, ancillary uses and driveways will be minimized.
G. Planting of non-native vegetation or invasive species in designated sensitive ecosystem development permit areas is not supported.
H. The CRD may consider variances to siting or size regulations where the variance could result in the enhanced protection of an environmentally sensitive area.
I. As a condition of the issuance of a development permit, compliance with any or all conditions recommended in a report by a *QP* will be considered by the CRD and may be included in the development permit.
J. Those areas where existing vegetation is disturbed will be rehabilitated with appropriate landscaping and habitat compensation measures in a manner recommended in a report by a *QP*.
K. Development and associated drainage will be designed and constructed so that there is no increase or decrease in the amount of surface water or groundwater available to the sensitive ecosystem.
L. Culverts may be designed to encourage storage of water within the *watercourse*.
M. Where necessary, provision will be made and works undertaken to maintain the quality of water reaching the sensitive ecosystem.

N. All new developments or modifications to existing developments including site works, gardening, landscaping and other related residential activities should be designed and implemented to maintain the quantity and quality of water and to avoid the entry of pollutants or nutrient rich water flowing into *watercourses*, lakes, ponds and wetlands.

O. Development will be designed to avoid any increase in the volume and peak flow of runoff and a drainage plan may be required in support of this guideline.

P. Plantings of native vegetation may be required to reduce the risk of erosion, restore the natural state of the site, improve water quality, or stabilize slopes and banks.

Q. The planting of non-native vegetation or alien invasive species, as defined in the provincial ***Spheres of Concurrent Jurisdiction – Environment and Wildlife Regulation 144/2004***, is not supported.

R. Construction at a certain time of year and using methods that minimize the impacts on rare and sensitive species may be required.

S. Where possible, large tracts of wildlife habitat or continuous habitat corridors will be preserved, in order to facilitate movement of wildlife.

T. A buffer zone may be specified where land alteration or structures will be limited to those compatible with the characteristics of the sensitive ecosystem or those that can be mitigated in a manner recommended by a *QP*.

U. In order to ensure unnecessary encroachment does not occur into the sensitive ecosystem at the time of construction, permanent or temporary fencing measures may be required.

V. Development may be restricted during sensitive life-cycle times.

Appendix E: Permit DV000081

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CAPITAL REGIONAL DISTRICT

DEVELOPMENT PERMIT WITH VARIANCE NO. DV000081

1. This Development Permit with Variance is issued under the authority of Sections 490 and 498 of the *Local Government Act* and subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.

2. This Development Permit with Variance applies to and only to those lands within the Regional District described below (legal description), and any and all buildings, structures, and other development thereon:

   PID: **009-573-356;**
   Legal Description: **Development Permit with Variance for Section 4, Renfrew District, except those parts in Plans 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, and EPP69011 ("the Land")**

3. This development permit authorizes a 12 lot fee-simple subdivision ("the Development") on the Land, located within the development permit areas established under the Shirley – Jordan River Official Community Plan, Bylaw No. 4001, 2018, Section 510 (Steep Slopes), Section 530 (Riparian), and Section 540 (Sensitive Ecosystems), in accordance with the plans submitted to the CRD and subject to the conditions set out in this Permit.

4. The conditions under which the development referred to in section 3 may be carried out are as follows:

   a. That the components of the Development occur as identified on the Tentative Plan of Subdivision, prepared by J.E. Anderson & Associates dated August 23, 2021;

   b. That the development comply with the recommendations outlined in the report prepared by Jordan Gybels, EIT, and Andrew Jackson, P.Geo., P.L.Eng. of Ryzuk Geotechnical (the "Geotechnical Report") dated April 27, 2021;

   c. That the development comply with the recommendations outlined in the report prepared by Brent Rutley, BIT, B.Sc., and Julie Budgen, RP.Bio., B.Sc., of Corvidae Environmental Consulting Inc. (the "Environmental Assessment Report") dated September 2021;

   d. That the Streamside Enhancement and Protection Areas (SPEAs) be flagged and that any disturbed areas be properly revegetated using plant material indigenous to the site or other suitable non-invasive species designated as acceptable by the CRD; and

   e. That a final report be submitted from a qualified environmental professional confirming that the recommendations have been completed in accordance with the Environmental Assessment Report.

5. The Capital Regional District's **Bylaw No. 2040**, Part 2, Section 3.10(4), is varied under section 498 of the *Local Government Act* as follows:

   a. That the 10% minimum frontage requirement be reduced from 10% to: 1.5% for proposed Lot 1, 5% for proposed Lot 2, 1.1% for proposed Lot 5, 6.2% for proposed Lot 6, 0.9% for proposed Lot 7, 2.5% for proposed Lot 8, 0.5% for proposed Lot 11, and 0.7% for proposed Lot 12, as shown on the Tentative Plan of Subdivision, prepared by J.E. Anderson, dated August 23, 2021.

6. Notice of this Permit shall be filed in the Land Title Office at Victoria as required by Section 503 of the *Local Government Act*, and the terms of this Permit (DV000081) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.

7. If the holder of a permit does not substantially start any construction permitted by this Permit within 2 years of the date it is issued, the permit lapses.

8. The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit, and any plans and specifications attached to this Permit which shall form a part

hereof.

9. The following plans and specifications are attached to and form part of this Permit:
   i. Tentative Plan of Subdivision, prepared by J.E.Anderson & Associates, dated August 23, 2021;
   ii. Geotechnical Report prepared by Jordan Gybels, EIT, and Andrew Jackson, P.Geo., P.L.Eng., dated April 27, 2021;
   iii. Environmental Assessment Report prepared by Brent Rutley, BIT, B.Sc., and Julie Budgen, RP.Bio., B.Sc., of Corvidae Environmental Consulting Inc., dated September 2021.
10. This Permit is NOT a Building Permit.
11. In issuing this Development Permit, the CRD does not represent or warrant that the land can be safely developed and used for the use intended and is acting in reliance upon the conclusions of the Geotechnical Report regarding the conditions to be followed for the safe development of the land.

RESOLUTION PASSED BY THE BOARD, THE ____ day of _____, 2021.

ISSUED this _____ day of _____, 2021

_____
Kristen Morley
Corporate Officer

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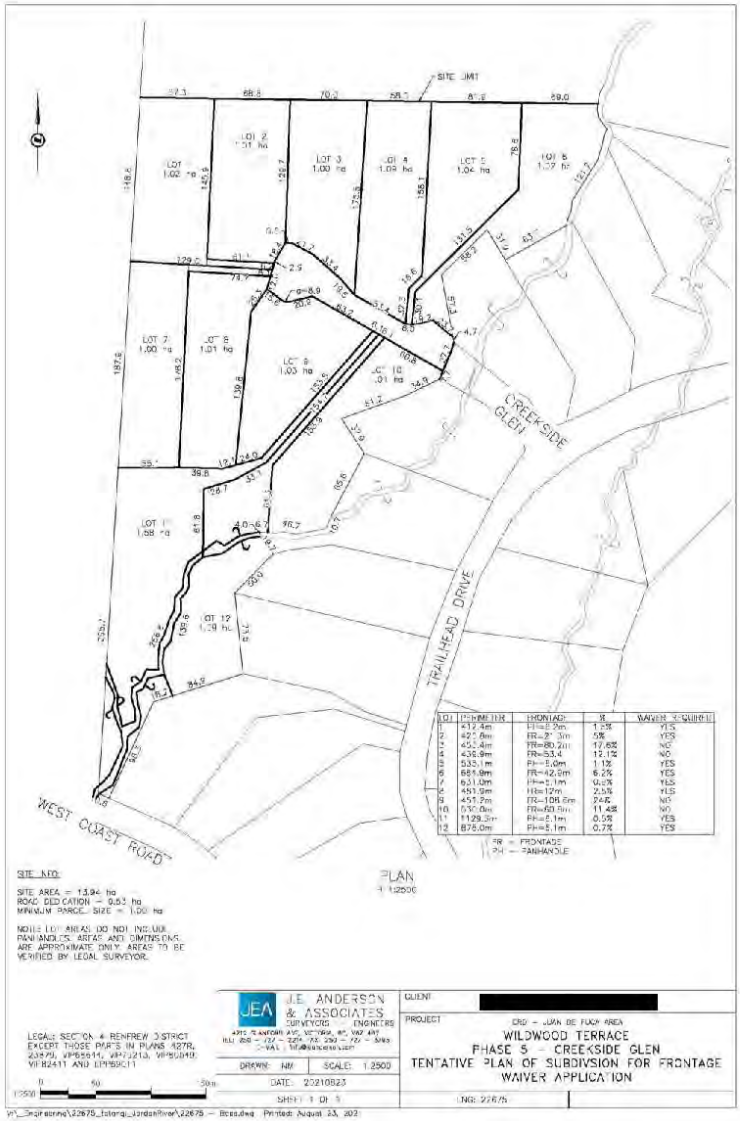
Attachment 1: Tentative Plan of Subdivision



LOT	DIMENSION	FRONTAGE	%	WAIVER REQUIRED
1	412.4m	FR=42.2m	1.2%	YES
2	427.6m	FR=37.3m	5%	YES
3	452.4m	FR=80.2m	17.6%	NO
4	436.9m	FR=53.4	12.1%	NO
5	533.1m	FR=5.0m	1.1%	YES
6	684.9m	FR=42.6m	6.2%	YES
7	651.0m	FR=5.1m	0.8%	YES
8	451.9m	FR=12m	2.5%	YES
9	451.7m	FR=196.6m	24%	NO
10	530.0m	FR=60.5m	11.4%	NO
11	1129.3m	FR=5.1m	0.5%	YES
12	878.0m	FR=5.1m	0.7%	YES

FR = FRONTAGE
PH = PANHANDLE

PLAN
1:2500

3

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Attachment 2: Geotechnical Report

RYZUK GEOTECHNICAL
Engineering & Materials Testing
28 Crease Avenue, Victoria, BC, V8Z 1S3 Tel: 250-475-3131 Fax: 250-475-3611 www.ryzuk.com

April 27, 2021
File No: 5869-3

[redacted]

Attn: [redacted]

Re: Proposed Twelve Lot Subdivision
Creekside Glen – Jordan River, BC

As requested, we have undertaken an assessment of the existing geotechnical conditions at the referenced site as such relates to the proposed subdivision. We understand that portions of the property within the northern limits of the development are designated as being part of Shirley and Jordan River's Steep Slope Development Permit Area (DPA), as per Shirley and Jordan River's Official Community Plan (OCP), Bylaw No. 4001. We further understand that the Ministry of Transportation and Infrastructure (MOTI) has specified that an assessment of potential geohazard(s) be carried out by a qualified professional as a condition of the subdivision Preliminary Layout Approval (PLA). In this regard, our assessment involved a review of available aerial imagery, geological mapping, groundwater well logs, subdivision/road plans, past projects in the surrounding area, as well as a site reconnaissance. Our assessment has been completed in accordance with current Engineers and Geoscientists British Columbia's (EGBC) guidelines for landslide and flood hazards. Accordingly, we have completed and attached both Appendix D: Landslide Assessment Assurance Statement, and Appendix E: Flood Assurance Statement. Our associated observations, comments, and recommendation in this regard are included herein, pursuant to Section 56 of the Community Charter. Our work has been carried out and is accordance with, and is subject to, the attached Terms of Engagement. MOTI is an approved users of this report and may rely on this information when considering the approval.

PROPOSED DEVELOPMENT

The subject site is located off Creekside Glen in Jordan River and is bounded by similar residential lots to the south and northeast, Trailhead Drive to the east, and resource land to the west. The site topography generally slopes down gently to moderately at an undulating gradient towards the south/southwest, with an overall relief of roughly 70 m, over a horizontal distance of approximately 650 m. A creek (Second Creek) extends approximately northeast to southwest

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roughly along the eastern property line of the site and intersects with the existing portion of Creekside Glen and extends through the southern limits of the of the proposed subdivision towards the southwest. Additionally, there are two main tributaries which feed into Second Creek, extending through the proposed development roughly north to south and northwest to southeast, respectively. The location of the development area, in addition to the surrounding creeks and tributaries are shown in Figure 1.

We understand that the proposed development consists of a twelve-lot fee simple subdivision, the extension of Creekside Glen towards the northwest, driveways/access roads, and drainage infrastructure. The proposed road and associated drainage infrastructure are shown in J.E. Anderson and Associates' (JEA) Proposed Road drawing, issued for MOTI review, dated February 9, 2021. Additionally, the twelve-lot subdivision plan/layout is shown in in JEA's Tentative Plan of Subdivision drawing, dated April 22, 2021. Both drawings have been attached to this report.

Figure 1: Location Plan

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[redacted] April 27, 2021
Creekside Glen – Jordan River, BC

SURFACE & SUBSURFACE CONDITIONS

Aerial imagery of the area indicates that the site is currently undeveloped, and that the surrounding area has been exposed to logging activities in the past. Our review of available geological mapping and past projects in the surrounding area indicate that soil conditions in this area generally consist of a veneer of surficial organics atop of dense gravelly sand (glaciofluvial soil). Furthermore, our review of several groundwater well logs, adjacent and to the east of the referenced site, suggest that soil conditions consist of sand and gravel, overlying sedimentary rock (likely of the Sooke Formation), consisting of sandstone and conglomerate, at depths ranging from approximately 7.5 m to 18 m below ground surface.

From our review of aerial photography, two additional nearby creeks were identified, First Creek and Uglow Creek, to the east and west of the subject site, respectively. Aerial photography of the area shows that both First Creek and Uglow Creek and their associated tributaries do not intersect with Second Creek and its associated tributaries, in addition to the land/watershed upslope of the proposed development. Furthermore, mapping shows that that the topography of the area to the east and west of the proposed development, in addition to the land upslope, generally slope down towards the southeast and southwest, respectively, away from the watershed surrounding the subject property. Accordingly, we do not consider First Creek or Uglow Creek to be within the watershed encompassing the proposed development and, as such, have not included both creeks in our hydrology assessment.

During our site reconnaissance, in addition to our recent site attendances to review subgrade conditions for extension of Creekside Glen, we have observed that soil conditions within the assessed areas consist of a veneer of organics, atop of dense well graded gravelly sand with some cobbles and trace boulders and silt (inferred glaciofluvial soil). We have traversed a portion of the development area, including the extension of Creekside Glen, and the access road within the southern limits of the site leading towards the proposed Lots 11 and 12. We have also assessed the surrounding area, up slope, and to the north of the development area via Trailhead Drive and adjacent logging roads. Accordingly, we have observed the terrain of the site to be gently to moderately sloping, and overlain with dense vegetation, including young to medium sized coniferous trees (third growth forest) and scattered brush undercover.

During our site attendance to review subgrade for the western limits of the proposed extension of Creekside Glen, we noted that Second Creek intersected with the existing portion of Creekside Glen via an existing culvert roughly 3 m below the existing road grade. Based on the provided drawings, we understand that strategically placed culverts (900 mm in diameter) are proposed for the intersections of the noted tributaries with proposed on-site infrastructure (driveways/access roads) to re-establish existing drainage routes. Additionally, we understand that 10 m streamline protection enhancement areas (SPEA) will be maintained on each side of the tributaries and Second Creek, and that all proposed residential construction will occur outside of such areas.

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6

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[redacted] April 27, 2021
Creekside Glen – Jordan River, BC

GEOTECHNICAL/GEOHAZARD ASSESSMENT

We understand that civil works will include overburden removal (excavation in the order of up to 3 m below existing grade) to expose suitable subgrade. Furthermore, based on the noted and expected soil conditions, we do not anticipate that rock excavation (blasting) will take place and therefore expect that no permanent rock faces will exist within the proposed subdivision. We expect that tree removal will take place within the subdivided lots as civil works progress and the lots are developed. However, we anticipate that tree removal will be limited within the steeper areas of the development, roughly within the northern limits of Lots 3, 4, 5, and 6 (as shown in Figure 1). Accordingly, we expect such would not result in a significant change to the existing slope stability conditions, provided ground disturbance is limited during removal, and the stumps and roots of trees outside of building areas within the steeper sloped areas are left in place. We further understand that at this time, no retaining wall construction is proposed/required.

During our site reconnaissance and subsequent site visits, no indication of deep seated or shallow translational instability was apparent in the assessed areas. However, locally steeper portions of terrain (sloping at roughly 30 to 45 degrees from the horizontal) were noted. Such areas were observed to be up to approximately 3 m in vertical height and surficial surface soils were observed to consist of up to roughly 0.3 m of surficial organics. We expect that such areas may be subject to periodic surficial instability as a natural condition due to steeper inclinations and soil conditions (loose surficial organics). However, it is important to note that we consider such areas to be a low hazard risk (minor thickness of loose surficial organics and limited potential energy). Furthermore, we expect that such areas will likely be stripped of all surficial organics as civil works progress and the proposed lots are developed. Accordingly, we consider the proposed development, including the subdivided lots and associated infrastructure, to not be subject to landslide hazard that would preclude safe development.

From the provided plans/drawings, we understand that grading plans for the proposed extension of Creekside Glen, in addition to driveways/access roads, include a minimum 2 % gradient to allow for surficial storm water drainage into proposed open drainage channels; the base of drainage channels will be a minimum of 575 mm below the top of the proposed road. Additionally, Creekside Glen will be sloped down towards the east, such that storm water drainage will occur both perpendicular and parallel to the road into drainage channels and Second Creek, respectively. We further understand ditchlines will be constructed along driveways, with culverts ranging from 400 mm to 600 mm in diameter. All collected storm water will be directed via the above drainage infrastructure towards the noted tributaries or Second Creek.

To assess flooding hazard, storm water modeling was carried out to review post development flow conditions for the Second Creek drainage channel. A 200-year storm was modeled using Intensity-Duration Frequency (IDF) values from nearby Jordan River Generating Station. Furthermore, the catchment area encompassing the proposed development was estimated to be

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7

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roughly 107 ha based on available mapping and aerial photography of the area. We modeled the projected flows using a software program, HydroCad, which applies conventional modeling to calculate discharge.

A 260-minute value for the time of concentration was estimated for the area of catchment based on the velocity method assuming upland conditions as 'Forest with Heavy Ground Litter and Meadow'. Accordingly, a rainfall intensity of 20 mm/hr was considered, estimated off Jordan River Generating Station's IDF values. A composite Rational Coefficient of 0.35 was calculated based on post development gently sloping light residential area, and gently sloping woodland/forest throughout the remaining watershed area upslope of the proposed development. Conservative channel geometry was applied with a minimum depth and base width of 0.5 m and 1 m, respectively, and 2H:1V (Horizontal to Vertical) side slopes, based on our field observations and JEA's Proposed Road drawing and Tentative Plan of Subdivision drawing. A channel slope of 7 % (average slope of Second Creek upslope and throughout the development area) was considered in the analysis.

The results of our analysis show combined peak flows on site associated with the theoretical storm event to be approximately 2.1 m^3/s; the capacity of the channel was calculated to be approximately 3.0 m^3/s. Furthermore, during a design event, the maximum level of the drainage channel was shown to be 0.41 m, roughly 82 % depth of flow during maximum conveyance. We note that the parameters used in our analysis are relatively conservative.

Based on the above, we consider the existing drainage channel (Second Creek) to be suitable for conveying flow generated during a design storm event. As such, given the results of our analysis and given that construction on the proposed lots will be a minimum of 10 m away from the noted riparian areas, we do not consider the proposed development to be subject to flooding hazard with a probability of occurrence of 1 in 200 years, assuming no land usage changes in the catchment.

CONCLUSION

In summary, we consider the proposed development to be free of significant risk of geohazard with respect to both slope instability and flooding. Our assessment considers a probability of occurrence of 1 in 475 years (10% probability in 50 years) for landslide hazards, as well as a probability of occurrence of 1 in 2475 years (2 % probability in 50 years) for seismically induced slope instability. Furthermore, we do not consider the site to be subject to risk of natural occurring catastrophic life-threatening hazardous events with a probability of occurrence with a 1 in 10,000-year return. As such, provided development is carried out as outlined in this report, it is our professional opinion that the land may be used safely for the use intended, pursuant to and in accordance with Section 56 of the Community Charter, and with Shirley and Jordan River's OCP, Bylaw No. 4001. Our assessment is provided in consideration with Section 86(d) of the Land Title Act, pursuant to the Guidelines for the Legislated Landslide Assessments for Proposed Residential Developments in BC and the Legislated Flood Assessments in a Changing Climate in BC

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[redacted]
Creekside Glen – Jordan River, BC

April 27, 2021

(Appendix D: Landslide Assessment Assurance Statement and Appendix I: Flood Assurance Statement are attached).

We trust the preceding is suitable for your purposes at present. If you have any questions or require anything further, please do not hesitate to contact us.

Best regards,
Ryzuk Geotechnical

Jordan Gybels, EIT
Advanced Junior Engineer

Andrew Jackson, P.Geo., P.L.Eng.
Project Manager

[redacted]

Attachments: Terms of Engagement
- Appendix D: Landslide Assessment Assurance Statement
- Appendix I: Flood Assurance Statement
- JEA's Proposed Road Drawing
- JEA's Tentative Plan of Subdivision Drawing

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APPENDIX D: *LANDSLIDE ASSESSMENT ASSURANCE STATEMENT*

Note: This Statement is to be read and completed in conjunction with the "*APEGBC Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia*", March 2006/Revised September 2008 ("*APEGBC* Guidelines") and the "2006 BC Building Code (BCBC 2006)" and is to be provided for *landslide assessments* (not floods or flood controls) for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the *APEGBC* Guidelines.

To: The *Approving Authority* Date: 2021/04/23

The Ministry of Transportation and Infrastructure

240-4460 Chatterton Way, Victoria,BC, V8X 5J2

Jurisdiction and address

With reference to (check one):

- ☑ Land Title Act (Section 86) – Subdivision Approval
- ☐ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption
- ☐ British Columbia Building Code 2006 sentences 4.1.8.16 (8) and 9.4.4.4.(2) (Refer to BC Building and Safety Policy Branch Information Bulletin B10-01 issued January 18, 2010)

For the Property: Section 4 Renfrew District Except Those Parts in Plans 427H, 23879, VIP66844, VIP80549, VIP82411 and EPP69011

Creekside Glen - Jordan River, BC

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer* or *Professional Geoscientist*.

I have signed, sealed and dated, and thereby certified, the attached *landslide assessment* report on the Property in accordance with the *APEGBC Guidelines*. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- ☑ 1. Collected and reviewed appropriate background information
- ☐ 2. Reviewed the proposed *residential development* on the Property
- ☑ 3. Conducted field work on and, if required, beyond the Property
- ☑ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☑ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a *landslide hazard analysis* or *landslide risk analysis* I have:
  - ☑ 6.1 reviewed and characterized, if appropriate, any *landslide* that may affect the Property
  - ☑ 6.2 estimated the *landslide hazard*
  - ☑ 6.3 identified existing and anticipated future *elements at risk* on and, if required, beyond the Property
  - ☑ 6.4 estimated the potential *consequences* to those *elements at risk*
- 7. Where the *Approving Authority* has adopted a *level of landslide safety* I have:
  - ☐ 7.1 compared the *level of landslide safety* adopted by the *Approving Authority* with the findings of my investigation
  - ☐ 7.2 made a finding on the *level of landslide safety* on the Property based on the comparison
  - ☐ 7.3 made recommendations to reduce *landslide hazards* and/or *landslide risks*
- 8. Where the *Approving Authority* has **not** adopted a *level of landslide safety* I have:

APEGBC ● Revised May 2010

Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia 55

10

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8.1 described the method of *landslide hazard analysis* or *landslide risk analysis* used
8.2 referred to an appropriate and identified provincial, national or international guideline for *level of landslide safety*
8.3 compared this guideline with the findings of my investigation
8.4 made a finding on the *level of landslide safety* on the Property based on the comparison
8.5 made recommendations to reduce *landslide hazards* and/or *landslide risks*

9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one
☐ the findings from the investigation and the adopted *level of landslide safety* (item 7.2 above)
☑ the appropriate and identified provincial, national or international guideline for *level of landslide safety* (item 8.4 above)

I hereby give my assurance that, based on the conditions[1] contained in the attached *landslide assessment* report,

Check one
☑ for subdivision approval, as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended"

Check one
☐ with one or more recommended registered covenants.
☑ without any registered covenant.

☑ for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".

☐ for a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended"

Check one
☐ with one or more recommended registered covenants.
☐ without any registered covenant.

☐ for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".

☐ for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".

Name (print) Andrew Jackson

Signature

Date April 23 2021.

[1] When seismic slope stability assessments are involved, *level of landslide safety* is considered to be a "life safety" criteria as described in the National Building Code of Canada (NBCC 2005), Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries, Part 4 of Division B. This states:

"The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse nor will its attachments break off and fall on people near the building. This performance level is termed 'extensive damage' because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse".

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40 Cadillac Ave #6, Victoria, BC
Address

V8Z 1T2

250-475-3131
Telephone

(Affix Professional Seal Here)

If the *Qualified Professional* is a member of a firm, complete the following.

I am a member of the firm RYZUK GEOTECHNICAL
and I sign this letter on behalf of the firm. (Print name of firm)

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FLOOD ASSURANCE STATEMENT

Note: This statement is to be read and completed in conjunction with the current Engineers and Geoscientists BC *Professional Practice Guidelines – Legislated Flood Assessments in a Changing Climate in BC* ("the guidelines") and is to be provided for flood assessments for the purposes of the *Land Title Act*, Community Charter, or the *Local Government Act*. Defined terms are capitalized; see the Defined Terms section of the guidelines for definitions.

To: The Approving Authority Date: 2021/04/23

The Ministry of Transportation and Infrastructure

240-4460 Chatterton Way, Victoria, BC, V8X 5J2

Jurisdiction and address

With reference to (CHECK ONE):

- ☑ *Land Title Act* (Section 86) – Subdivision Approval
- ☐ *Local Government Act* (Part 14, Division 7) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ *Local Government Act* (Section 524) – Flood Plain Bylaw Variance
- ☐ *Local Government Act* (Section 524) – Flood Plain Bylaw Exemption

Section 4 Renfrew District Except Those Parts in Plans 42JR, 83879, VIP69664, VIP80549, VIP82411 and EPP69071

For the following property ("the Property"):

Creekside Glen - Jordan River, BC

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a Qualified Professional and is a Professional Engineer or Professional Geoscientist who fulfils the education, training, and experience requirements as outlined in the guidelines.

I have signed, sealed, and dated, and thereby certified, the attached Flood Assessment Report on the Property in accordance with the guidelines. That report and this statement must be read in conjunction with each other. In preparing that Flood Assessment Report I have:

[CHECK TO THE LEFT OF APPLICABLE ITEMS]

☐ 1. Consulted with representatives of the following government organizations:

☑ 2. Collected and reviewed appropriate background information

☑ 3. Reviewed the Proposed Development on the Property

☐ 4. Investigated the presence of Covenants on the Property, and reported any relevant information

☑ 5. Conducted field work on and, if required, beyond the Property

☑ 6. Reported on the results of the field work on and, if required, beyond the Property

☑ 7. Considered any changed conditions on and, if required, beyond the Property

8. For a Flood Hazard analysis I have:
   - ☑ 8.1 Reviewed and characterized, if appropriate, Flood Hazard that may affect the Property
   - ☑ 8.2 Estimated the Flood Hazard on the Property
   - ☐ 8.3 Considered (if appropriate) the effects of climate change and land use change
   - ☐ 8.4 Relied on a previous Flood Hazard Assessment (FHA) by others
   - ☐ 8.5 Identified any potential hazards that are not addressed by the Flood Assessment Report

9. For a Flood Risk analysis I have:
   - ☑ 9.1 Estimated the Flood Risk on the Property
   - ☐ 9.2 Identified existing and anticipated future Elements at Risk on and, if required, beyond the Property
   - ☐ 9.3 Estimated the Consequences to those Elements at Risk

PROFESSIONAL PRACTICE GUIDELINES
LEGISLATED FLOOD ASSESSMENTS IN A CHANGING CLIMATE IN BC

VERSION 2.1 165

13

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FLOOD ASSURANCE STATEMENT

10. In order to mitigate the estimated Flood Hazard for the Property, the following approach is taken:
- ☐ 10.1 A standard-based approach
- ☐ 10.2 A Risk-based approach
- ☐ 10.3 The approach outlined in the guidelines, Appendix F: Flood Assessment Considerations for Development Approvals
- ☑ 10.4 No mitigation is required because the completed flood assessment determined that the site is not subject to a Flood Hazard

11. Where the Approving Authority has adopted a specific level of Flood Hazard or Flood Risk tolerance, I have:
- ☐ 11.1 Made a finding on the level of Flood Hazard or Flood Risk on the Property
- ☐ 11.2 Compared the level of Flood Hazard or Flood Risk tolerance adopted by the Approving Authority with my findings
- ☐ 11.3 Made recommendations to reduce the Flood Hazard or Flood Risk on the Property

12. Where the Approving Authority has not adopted a level of Flood Hazard or Flood Risk tolerance, I have:
- ☐ 12.1 Described the method of Flood Hazard analysis or Flood Risk analysis used
- ☐ 12.2 Referred to an appropriate and identified provincial or national guideline for level of Flood Hazard or Flood Risk
- ☐ 12.3 Made a finding on the level of Flood Hazard of Flood Risk tolerance on the Property
- ☑ 12.4 Compared the guidelines with the findings of my flood assessment
- ☐ 12.5 Made recommendations to reduce the Flood Hazard or Flood Risk

☑ 13. Considered the potential for transfer of Flood Risk and the potential impacts to adjacent properties

☐ 14. Reported on the requirements for implementation of the mitigation recommendations, including the need for subsequent professional certifications and future inspections.

Based on my comparison between:

[CHECK ONE]

☐ The findings from the flood assessment and the adopted level of Flood Hazard or Flood Risk tolerance (item 11.2 above);
☑ The findings from the flood assessment and the appropriate and identified provincial or national guideline for level of Flood Hazard or Flood Risk tolerance (item 12.4 above)

I hereby give my assurance that, based on the conditions contained in the attached Flood Assessment Report:

[CHECK ONE]

☑ For subdivision approval, as required by the *Land Title Act* (Section 85), "that the land may be used safely for the use intended":

[CHECK ONE]

- ☐ With one or more recommended registered Covenants.
- ☑ Without any registered Covenant.

☐ For a development permit, as required by the *Local Government Act* (Part 14, Division 7), my Flood Assessment Report will "assist the local government in determining what conditions or requirements it will impose under subsection (2) of this section [Section 491 (4)]".

☐ For a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended":

[CHECK ONE]

- ☐ With one or more recommended registered Covenants.
- ☐ Without any registered Covenant.

☐ For flood plain bylaw variance, as required by the *Flood Hazard Area Land Use Management Guidelines* and the *Amendment Section 3.5 and 3.6* associated with the *Local Government Act* (Section 524), "the development may occur safely".

☐ For flood plain bylaw exemption, as required by the *Local Government Act* (Section 524), "the land may be used safely for the use intended".

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LEGISLATED FLOOD ASSESSMENTS IN A CHANGING CLIMATE IN BC

VERSION 2.1 156

14

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FLOOD ASSURANCE STATEMENT

I certify that I am a Qualified Professional as defined below

April 23, 2021
Date

Andrew Jackson
Prepared by

Andrew Jackson
Name (print)

Signature

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Address
BC V8Z 1S3

250. 475-3131
Telephone

andrew@ryzuk.com.
Email

Laura Lessingham, P. Geo.
Reviewed by

Laura Lessingham, P. Geo.
Name (print)

L. Lessingham
Signature

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
A. F. JACKSON
38270
GEOSCIENTIST

(Affix PROFESSIONAL SEAL here)

If the Qualified Professional is a member of a firm, complete the following:

I am a member of the firm Ryzuk Geotechnical.
and I sign this letter on behalf of the firm: (Name of firm)

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Version 2.0 107

15

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Attachment 3: Environmental Assessment Report

ENVIRONMENTAL ASSESSMENT
FOR CREEKSIDE GLEN SUBDIVISION DEVELOPMENT PERMIT APPLICATION, JORDAN RIVER, B.C.

PREPARED FOR:

[redacted]

AND

CAPITAL REGION DISTRICT
3-7450 BUTLER ROAD
SOOKE, BC
V9Z 1N1

CORVIDAE PROJECT #2020-052
UPDATED SEPTEMBER 2021

CORVIDAE
ENVIRONMENTAL CONSULTING INC.
6526 WATER STREET, SOOKE, BC

SOLUTION ORIENTED. PROTECTION OF THE ENVIRONMENT. ABSOLUTE INTEGRITY. OPEN COMMUNICATION. RESPECT.

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TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 REGULATORY FRAMEWORK 3
2 SCOPE OF WORK 5
3 METHODS 5
3.1 DESKTOP REVIEW 5
3.2 FIELD ASSESSMENT 5
4 BIOPHYSICAL INFORMATION 6
4.1 CLIMATE AND BIOGEOCLIMATIC ZONE 6
4.2 TERRAIN AND SOILS 6
4.3 VEGETATION 6
4.4 WILDLIFE 7
4.5 SPECIES AT RISK 7
4.6 RIPARIAN AREAS AND FISHERIES 9
5 ENVIRONMENTAL IMPACTS 10
5.1 VEGETATION 10
5.2 INVASIVE SPECIES 10
5.3 WILDLIFE AND WILDLIFE HABITAT 10
5.4 RIPARIAN HABITAT 10
5.5 STEEP SLOPES 11
5.6 EROSION AND SEDIMENT 11
6 RECOMMENDED ENVIRONMENTAL PROTECTION MEASURES 11
6.1 PROTECTION OF SENSITIVE RIPARIAN ECOSYSTEMS 11
6.2 VEGETATION 12
6.3 INVASIVE SPECIES 12
6.4 WILDLIFE AND WILDLIFE HABITAT 13
6.5 EROSION AND SEDIMENT CONTROL 13
6.6 FRONTAGE 13
7 CONCLUSION 14
8 REFERENCES 15
APPENDIX A – PHOTOS 18
APPENDIX B – EROSION AND SEDIMENT CONTROL PLAN 20
APPENDIX C – CRD SUBDIVISION REFERRAL REPORT 21

LIST OF TABLES

Table 1. Plant species observed on site during field assessments. 6
Table 2. Wildlife species and sign observed within subject property during field visits. 7
Table 3. Species at risk that may occur in the vicinity of the property. 7
Table 4. Watercourses on or adjacent to the property. 9
Table 5. Recommended native vegetation to plant in disturbed areas. 12

Table 6. Removal and disposal methods for invasive species 12

LIST OF FIGURES

Figure 1. Creekside Watercourses and SPEAs, with culverts 2
Figure 2. Species at risk records within in the vicinity of the property 8

LIST OF PHOTOS

Photo 1.Culvert at Second Creek crossing on existing road (Creekside Glen). September 29, 2020. 16
Photo 2. View of southern access road to be upgraded south of Creekside Glen. February 3, 2021. 16
Photo 3. View of the trees looking south from the Creekside Glen Road. February 3, 2021 17
Photo 4. View of Stream 2, dry but shows pebbles to indicated seasonal flow. Sept. 29, 2020 17
Photo 5. View looking north from planned Creekside Glen Road at the vegetation found onsite. February 3, 2021 18
Photo 6. View of the top section of Stream 3. Sept. 29, 2020 18
Photo 7. View of Stream 1 crossing the old access road through underground flow due to obstructions. Sept. 29, 2020. 19
Photo 8. Pebbles indicative of seasonal flow at cross section where Stream 1 turns south. Sept. 29, 2020 19

CAVEAT

This Environmental Assessment (EA) has been prepared with the best information available at the time of writing, including the Official Community Plan, communications with the client and regulators, site visits, review of site plans and design drawings and other documentation relevant to the project. This EA has been developed to assist the project in remaining in compliance with relevant environmental regulations, acts and laws pertaining to the project and to identify and mitigate the expected impacts of the project and reclamation activities directly related to the project.

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1 INTRODUCTION

Corvidae Environmental Consulting Inc. (Corvidae) is pleased to provide this Environmental Assessment (EA) for the proposed development of the new Creekside Glenn residential subdivision in Jordan River (the property, PID 009573356). The subdivision is being constructed within the large preliminary approval property boundary from MOTI of 12036 West Coast Road which has historically been used for forestry. [redacted] has obtained pre-approval to develop residential lots in the area. The property is currently zoned as WT-4 – Wildwood Terrace 4.

[redacted] is proposing to subdivide the property into 12 lots which include one public roadway (Figure 1). The subdivision layout plan has not been finalized and may change. See Section 6 for details.

The property is currently primarily forested with remnants of historical forestry activities (e.g., roads). Existing forestry roads will be upgraded to the south and clearing of the Creekside Glen Road has been started (Figure 1). There are three watercourses onsite two of which are tributaries of Second Creek which runs north to south along the eastern edge of the property. Two of the watercourses are old roadside ditches from when it was previously logged, and they currently intersect the development area (see Figure 1). The watercourses have been included in a riparian assessment (See Section 5.4 for details). Three Section 11 Change Approval and Notifications have been completed for the re-routing the tributaries and all culvert installments (see Table 4 and Figure 1). As part of the Section 11 Approval, an Erosion and Sediment control plan was developed for the development of the property and is attached as Appendix B.

The property also falls under the Steep Slopes Development Permit Area. Ryzuk Geotechnical has completed an assessment of geotechnical conditions and concluded that the proposed development is free of significant risk of geohazards with respect to both slope instability and flooding. This report has been included in Appendix C.

This document addresses the requirements in Section 5 of the Official Community Plan for Shirley - Jordan River No. 4001 (2018) and provides an assessment on the environmental conditions on the property, potential impacts of the proposed development, and recommendations on the protection of environmentally sensitive features and methods to minimize impacts of the proposed development.

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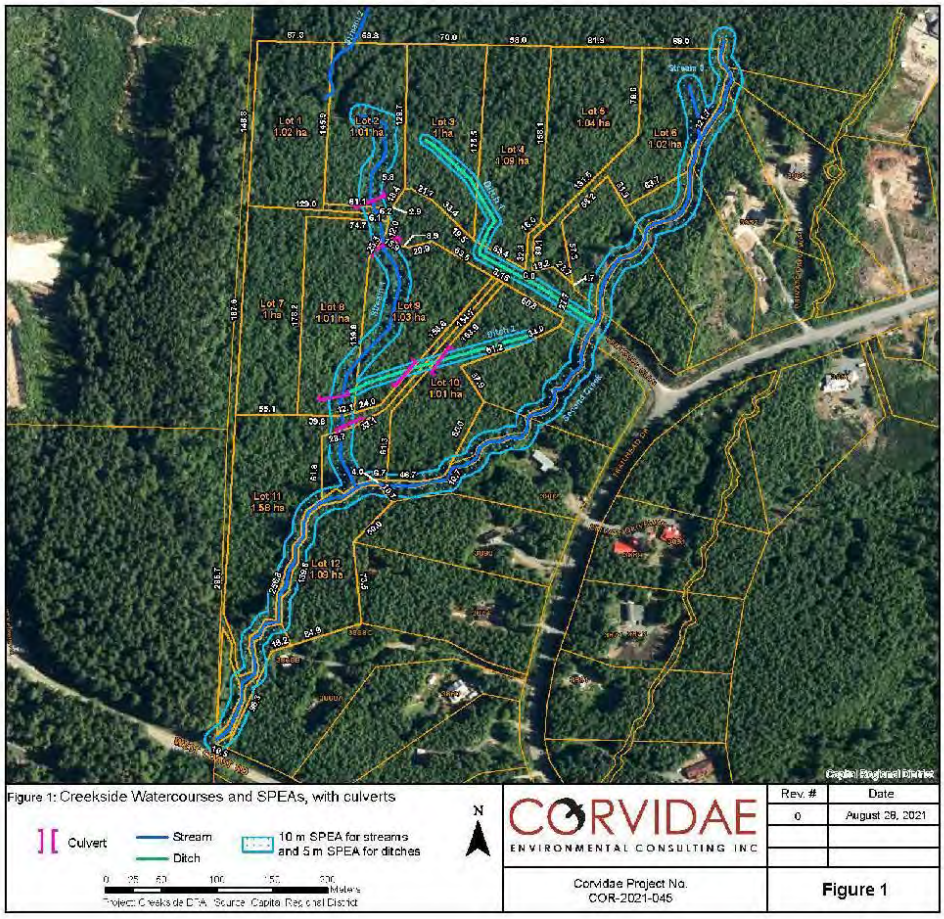

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1.1 REGULATORY FRAMEWORK

This environmental assessment is designed to comply with the provisions set out in the Shirley – Jordan River Official Community Plan (OCP) for development permit areas and for compliance with the provisions for environmental protection contained in the following relevant legislation:

Municipal

- Capital Regional District Bylaw 4001. 2018. Shirley – Jordan River Official Community Plan, Schedule A, 530 Riparian Area Development Permit Area

  That part of the Shirley – Jordan River Plan area indicated as Riparian DPA on Schedule D is designated as a development permit area pursuant to Sections 488(1)(a) and 488(1)(i) of the Local Government Act (LGA). The Riparian DPA established under this section also includes all lands entirely or partially within a riparian assessment area as defined by the Riparian Areas Regulations (RAR), which includes: (a) for a stream, the 30 metre strip on both sides of the stream, measured from the high water mark, (b) for a ravine less than 60 metres wide, a strip on both sides of the stream measured from the high water mark to a point that is 30 metres beyond the top of the ravine bank, and (c) for a ravine 60 metres wide or greater, a strip on both sides of the stream measured from the high water mark to a point that is 10 metres beyond the top of the ravine bank.

  535 Guidelines for the Riparian Development Permit Area

  b. Modification of channels, banks or shores must not result in harmful alteration, disruption or destruction of natural features, functions and conditions that support fish life processes within the Riparian DPA.

  f. Culverts may be designed to encourage in-stream storage of water to allow the unrestricted movement of fish in both directions.

  i. As a condition of the issuance of a development permit, compliance with any or all conditions recommended in a report by a QEP, prepared in accordance with the RAR, will be considered by the CRD and may be included in a development permit.

  AND

  510 Steep Slopes Development Permit Area:

- That part of the Shirley – Jordan River Plan area indicated as Steep Slope DPA on Schedule C is designated as a development permit area pursuant to Section 488(1)(b) of the Local Government Act (LGA). The Steep Slope DPA includes all those areas having slopes exceeding 30% or 16.7 degrees over a minimum 10 metre run.

  Capital Region District Bylaw 2040, 1992. Juan De Fuca Land Use Bylaw, 1992. Section 3.10 (4)

  (4) Where a lot being created by a subdivision front on a highway, the minimum frontage on the highway shall be the greater of:

  (a) one tenth of the perimeter of the lot that fronts on the highway;

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The guiding principle for the use of Development Permits is found within the Local Government Act. Development Permit Areas can be designated for purposes such as, but not limited to the following:

- Protects, enhances and restores the biodiversity and ecological values and functions of environmentally sensitive areas
- Fosters compatibility between development, existing land uses and environmentally sensitive areas
- Maintains connectivity between sensitive ecosystems; and
- Protects water quality and quantity.

Provincial

- Wildlife Act (1996)
- Invasive Species Council of BC
- Weed Control Act (1996, current as of October 2016)
- Riparian Areas Protection Regulation (2019)

The Riparian Area Protection Regulation (RAPR) applies to areas within 30m of an eligible watercourse. The objective of the RAPR is to preserve and enhance sensitive riparian ecosystems, including vegetation and coarse woody debris, shade and hydrogeological conditions that are vital for maintaining stream health and productivity.

In the RAPR, a Streamside Protection and Enhancement Area (SPEA) is defined as *"an area (a) adjacent to a stream that links aquatic to terrestrial ecosystems and includes both existing and potential riparian vegetation and existing and potential adjacent upland vegetation that exerts an influence on the stream, and (b) the size of which is determined according to this regulation on the basis of an assessment report provided by a qualified environmental professional in respect of a development proposal."*

Federal

- Migratory Birds Convention Act (1994)
- Species at Risk Act (SARA) (2002)
- Fisheries Act (2019)

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2 SCOPE OF WORK

Corvidae completed an environmental assessment for the property. The environmental assessment documented the ecological features on the property including the riparian area for the 3 identified streams. Background information was reviewed, including applicable databases. During the assessment the following features were documented in this report:

- Areas of sensitivity, habitat and biodiversity values;
- Plant communities and plant species on site;
- Potential wildlife presence and wildlife habitat;
- Soil types and properties;
- Terrain; and
- Surface water flow patterns and riparian areas

Following the field assessment, the biophysical features and cleared areas were mapped and buffer areas have been identified. Mitigations to minimize the impacts of the proposed residential development on the environment have been provided in Section 6.

In addition to the biophysical assessment, the steep slope were assessed by Ryzuk Geotechnical Engineers. The steep slope area will be avoided, details provided in Appendix D.

There is also the CRD Bylaw 2040, with frontage onto the highway. This has been assessed and addressed in Section 6.6.

3 METHODS

3.1 DESKTOP REVIEW

Baseline biophysical conditions were compiled by reviewing the best available data and information including existing reports for the area and conducting searches of online provincial and federal databases:

- BC Conservation Data Centre (BC CDC 2020a and 2020b);
- BC HabitatWizard (Province of BC 2020);
- Aerial photographs of the property (Google Earth 2020);
- CRD mapping system and database (CRD 2020); and
- Shirley – Jordan River Official Community Plan Bylaw No. 4001 (CRD 2018)

3.2 FIELD ASSESSMENT

Several field assessments of the property were completed in November 2020 and January to April 2021 by a Qualified Environmental Professional (QEP) from Corvidae. The assessment included characterization of vegetation and habitat types, wildlife sign and species observations, wildlife habitat, and assessed the current conditions of the property. Appendix A shows photos of the property. Areas mapped during the site assessment, including riparian areas and SPEA, are detailed on Figure 1.

Forest Lands and Natural Resources Officer (FLNRO), Grant Bracher, completed a site visit with Corvidae and [redacted] on May 4th to review the project plans, layout and stream locations. Mr. Bracher was satisfied with the plans and the site conditions (personal communication May 4th, Grant Bracher, Habitat Officer, FLNRO).

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4 BIOPHYSICAL INFORMATION

4.1 CLIMATE AND BIOGEOCLIMATIC ZONE

The property is located in the Coastal Western Hemlock, Very Wet Maritime (CWHvm1) biogeoclimatic zone (BC Conservation Data Centre 2020). It is a unique habitat that occurs on the southeastern section of Vancouver Island. The average rainfall is 3504 mm/annually. Growing seasons are long, and feature water deficits on zonal sites (Pojar and Klinka 1991).

4.2 TERRAIN AND SOILS

The topography on the property is undulating with the site overall sloping to the south. The soils on site are 60 percent well drained Duric Humer-Ferric Pozols, having a sandy loam texture with the HOLFORD soils association, 20 percent Duric Humer-Ferric Pozols with the QUATSINO soils association and 20 percent Orthic Humo-Ferric Pozols with the RUTLEY soil association.

4.3 VEGETATION

Coniferous forests in the CWHxm1 zone are dominated by Douglas-fir, western hemlock and western redcedar. Understory species include salal, dull Oregon-grape, red huckleberry, vanilla-leaf, sword fern, twinflower, and bracken, step moss, and Oregon beaked moss (Pojar and Klinka 1991).

The entire property is young, third growth forest, dominated by western redcedar and red alder and Douglas-fir. The property has been logged twice, once in 1920's and again in the 1990's. The understory consists of sword fern, salmonberry and salal. The trees onsite are very dense and slender, indicating that the area was planted in the 1990's. The topography has been altered by previous land use and roadbuilding. The development area has been logged in the past and there was an abundance of decaying stumps and woody debris. During the site assessment the species in Table 1 were found on the site.

The riparian habitat consists of red alder dominating the canopy with salmonberry, sword fern and skunk cabbage dominated the understory.

Table 1. Plant species observed on site during field assessments.

Common Name	Scientific Name	BC Provincial Status[1]
Big Red Stem	*Pleurozium schreberi*	Yellow
Bracken fern	*Pteridium equilinum*	Yellow
Common selfheal	Prunella vulgaris	Yellow
Deer fern	Struthiopteris spicant	Yellow
Douglas-fir	*Pseudotsuga menziesii*	Yellow
Flat moss	*Buckiella undulata*	Yellow
Fringecup	Tellima grandiflora	Yellow
Himalayan blackberry	*Rubus armeniacus*	Invasive; Exotic
Indian plum	*Oemleria cerasiformis*	Yellow
Lady fern	*Athyrium filix-femina*	Yellow
Leafy moss	*Mnium sp.*	Yellow
Ocean Spray	Holodiscus discolor	Yellow
Oregon beaked moss	*Kindbergia oregena*	Yellow
Red Alder	Alnus rubra	Yellow
Red Huckleberry	*Vaccinium parvifolium*	Yellow
Salal	*Gaultheria shallon*	Yellow
Salmonberry	*Rubus spectabilis*	Yellow
Scotch broom	Cytisus scoparius	Invasive; Exotic

Common Name	Scientific Name	BC Provincial Status[1]
Sedge sp.	*Carex sp.*	-
Sitka spruce	Picea sitchensis	Yellow
Skunk cabbage	*Lysichiton americanus*	Yellow
Sword fern	*Polystichum munitums*	Yellow
Thimbleberry	*Rubus parviflorus*	Yellow
Trailing blackberry	*Rubu ursinus*	Yellow
Western Hemlock	*Tsuga heterophylla*	Yellow
Western redcedar	*Thuja plicata*	Yellow

[1] BC CDC 2020a
[2] Government of Canada 2020

4.4 WILDLIFE

The forested habitat is found in the Coastal Western Hemlock biogeoclimatic zone is home to many wildlife species. Black-tailed deer, black bear, marten and gray wolf are the most common large mammals in this zone on Vancouver Island. For bird species in this zone, the following typically occur: great horned owl, barred owl, ruffed grouse, band-tailed pigeon, northern flicker, hairy woodpecker, common raven, Steller's jay, chestnut-backed chickadee, red-breasted nuthatch, varied thrush, red-tailed hawk, Townsend's warbler. The following amphibians may occur in this biogeoclimatic zone: western toad, Pacific treefrog, western redbacked salamander (Pojar et al. 1991).

The property provides habitat for wildlife, including nesting habitat for birds, roosting habitat in cedar snags, and cover for small mammals, amphibians and reptiles in the coarse woody debris. During the site assessments there were no active nests or dens found on site. As the assessment was completed in November and February few wildlife species were observed on the site.

Table 2. Wildlife species and sign observed within subject property during field visits.

Common Name	Scientific Name	BC Provincial Status[1]	*SARA* Schedule 1 Status[2]
Chestnut-backed Chickadee	*Poecile rufescens*	Yellow	--
Dark-eyed Junco	*Junco hyemalis*	Yellow	--
Downy woodpecker	Dryobates pubescens	Yellow	
Red breasted nuthatch	*Sitta canadensis*	Yellow	--
American black bear (scat)	*Ursus americanus*	Yellow	--
Rabbit scat	--	--	--

4.5 SPECIES AT RISK

A query of the BC CDC iMap tool yielded occurrences of the following 1 species at risk within a two-kilometer radius of the property (BC CDC 2020). Species are listed in Table 3 and shown in Figure 2.

Table 3. Species at risk that may occur in the vicinity of the property.

Common Name	Scientific Name	BC Provincial Status[1]	*SARA* Schedule 1 Status[2]
Wandering Salamander	*Aneides vagrans*	Blue	Special Concern

[1] BC CDC 2020a
[2] Government of Canada 2020

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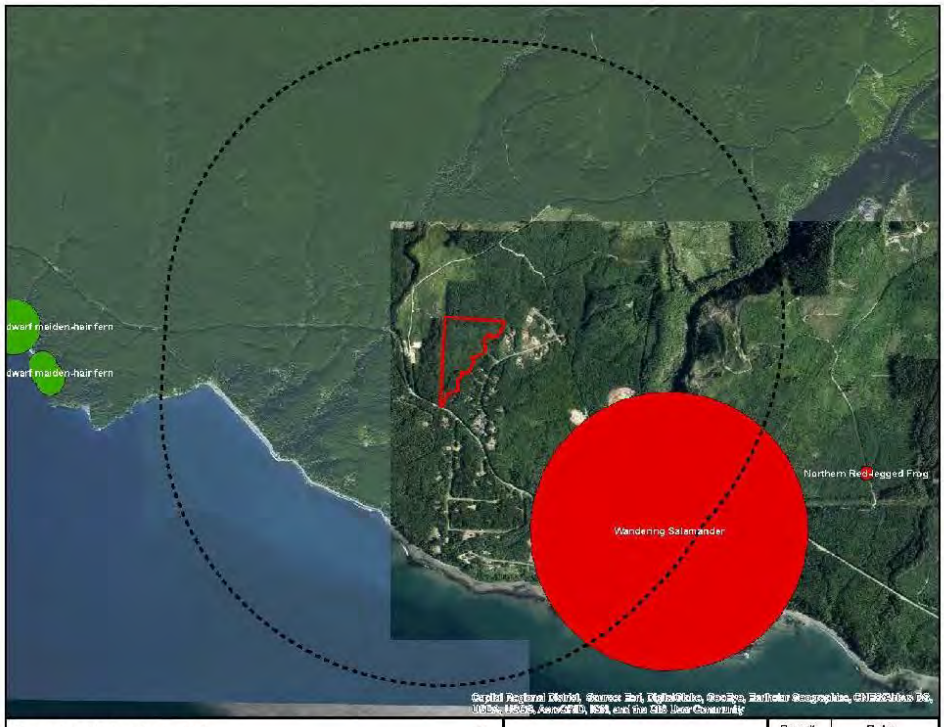

Figure 2: CDC Species at Risk

N

Site Boundary
2 km radius around site boundary
Invertebrate
Vertebrate

0 250 500 1,000 1,500 2,000 Meters

Project Coordinate
Source: Capital Regional District

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Figure 2

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4.6 RIPARIAN AREAS AND FISHERIES

A search of the BC HabitatWizard database (Province of BC 2021) indicated that there were no fish occurrences in Second Creek. The unnamed tributaries on the property are not on the mapping system. It is unlikely that there would be fish occurrences in these streams as they are dry during the summer months of the year, have areas of undefined channel, and there are several potential barriers to fish passage due to historical logging activities on the property.

During the initial survey of the property, five watercourses were identified (Figure 1 and Table 4). The property has been modified historically due to logging activities and streams were modified and drainage ditches were formed through the construction of logging skid roads. There are four unnamed tributaries to Second Creek (Figure 1). An additional stream (Stream 2) was identified on future Lot 1 and 2, but it terminates in a fallen tree root hole. As this stream has no connectivity to fish habitat and is seasonally dry with no pools, it is not eligible for the RAPR. The Riparian Areas Protection Regulation (RAPR) methodology was followed to determine that a SPEA of 10 m will be applied to Streams 1 & 3 and a SPEA of 5m will apply to the roadside Ditches 1 & 2.

Section 11 notifications and applications were submitted for the establishment of the new roadside ditch and reconnection of the ditch to Second Creek, re-establishment of ditch flow, and for the installation and modification of culverts on the property (Table 4). The changes were presented to Grant Bracher, Habitat Officer, during the FLNRO site visit and the plans were deemed acceptable. All activities were completed following the receipt of official approval from FLNRO.

Table 4. Watercourses on or adjacent to the property

Watercourse	2021 SPEA	Completed Activity	Permit	Future Requirements*
Second Creek	10 m	Headwall addition to existing culvert	Section 11 Notification (#100356723)	Future access and buildings on Lots 6, 10, and 12 will require Riparian DPs, including RAPR assessments.
Stream 1	10 m	Culvert installation	Section 11 Notification (#100344421)	Future access and buildings on Lots 2, 8, and 9 will require Riparian DPs, including RAPR assessments.
Stream 2	None	n/a	n/a	Currently no connectivity, however, this should be double-checked at the time of development building on Lot 1 and 2.
Stream 3	10 m	n/a	Section 11 Notification (#100344421)	Future access and buildings on Lot 8 will require Riparian DPs, including RAPR assessments.
Ditch 1	5 m	Re-route along new road	Section 11 Application (#100339286)	Future access and buildings on Lots 3, 4, 5 and 8 will require Riparian DPs, including RAPR assessments.
Ditch 2	5 m	Culvert installation	Section 11 Notification (#100339286)	Future access and buildings on Lots 9 and 10 will require Riparian DPs, including RAPR assessments.

*Note: due to seasonal and annual changes in water flow on the property, and potential changes in local hydrology due to this and other nearby developments, it is recommended that all purchasers re-assess their properties for potential riparian permitting needs.

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5 ENVIRONMENTAL IMPACTS

The potential impacts of the proposed development of the property on the environment are:

- Infringement on sensitive ecosystem areas, such as riparian habitat,
- Loss of existing vegetation,
- Spread of invasive plant species,
- Change in wildlife habitat availability and wildlife mortality risk,
- Alteration of soil stability, and
- Sediment movement in the project area, particularly into associated streams.

The residual environmental impacts of the activities on the property will be reduced by the implementation of the mitigation and restoration measures recommended in Section 6 of this report.

5.1 VEGETATION

The effects of tree and vegetation removal may include loss of biodiversity of plant species and increased susceptibility to invasive plants not only in the cleared area but also in adjacent plant communities. Vegetation immediately adjacent to cleared areas may experience changes to the canopy structure and understory plant species due to windthrow and increased light and moisture penetration.

5.2 INVASIVE SPECIES

Invasive plants are particularly adept at colonizing degraded plant communities and disturbed soils in high traffic areas, such as the margins of roads, trails and parking areas. Invasive plants establish readily in disturbed areas as they have a wide ecological tolerance and grow and propagate quickly. The effects of invasive plant establishment may be the reduction or displacement of native species by capturing resources and occupying habitats.

5.3 WILDLIFE AND WILDLIFE HABITAT

Habitat loss due to forest clearing can cause mortality or displacement of wildlife, use of less suitable habitat, reduced foraging ability, increased energy expenditure and lower reproductive success. Reduced habitat effectiveness can occur as a result from the creation of habitat edges, habitat fragmentation, or reduction in habitat connectivity that may create barriers to wildlife movement. Many wildlife species avoid crossing openings or move more slowly in open areas.

5.4 RIPARIAN HABITAT

The removal of trees and vegetation adjacent to the riparian area may result in the loss of features, functions and conditions that are vital for maintaining slope stability and fish habitat conditions. Vegetation in the riparian area controls surface water run-off from the upland areas, preventing excessive silt and surface run-off pollution from entering the aquatic environment.

The SPEAs have been calculated to adequately protect the streams in perpetuity. The SPEA width calculations are to absorb and slow water flow during flooding conditions and to protect the sensitive habitat during dry, summer conditions.

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5.5 STEEP SLOPES

Steep slope areas, as defined in CRD Bylaw 4001, will be avoided. Refer to Appendix D for details.

5.6 EROSION AND SEDIMENT

The removal of vegetation and paved surfaces will result in changes to surface water flow through the site. See Section 6 for recommendations to ensure hydrologic inputs to the associated stormwater system are not impacted by the project.

Removal of vegetation and ground disturbance may expose soils to erosion and can result in the movement of sediment on the property. Damage or degradation of soil surfaces during construction can include loss of soil structure, increased erosion, and soil compaction which can negatively affect post-construction reclamation efforts.

6 RECOMMENDED ENVIRONMENTAL PROTECTION MEASURES

The mitigation measures provided in this report are designed to protect sensitive ecosystems and were developed in accordance with:

- Capital Regional District Bylaw 3109, 2019, Shirley – Jordan River Official Community Plan,
- Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures) (BC Ministry of Environment [MOE] 2014a),
- Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (Government of BC 2014), and
- Environmental Best Management Practices for Urban and Rural Land Development in British Columbia (BC Ministry of Water, Land and Air Protection 2004).

6.1 PROTECTION OF SENSITIVE RIPARIAN ECOSYSTEMS

The access routes will follow existing access for the most part, with re-establishment of existing drainages. Creekside Glen road has culverts installed for crossings that meet BC Provincial standards and 1 in 200-year flood events. These details have all been submitted as part of the Section 11 Application and Notifications, and approved by the provincial government.

For the subdivision, the lots have been re-configured to address the existing watercourses that Corvidae mapped on site. The lot boundaries run along the watercourses to permanent protect the SPEAs (see Figure 1). Therefore, no clearing of vegetation or disturbance should occur within the SPEA (10 m on either side for Stream 3 and 5 m on either side for Ditches 1 and 2) with the exception of culverts for roads (included in the mapping, ESCP and Section 11 Application).

The Section 11 Application includes plans for improvement of riparian areas, with clearing out large, downed woody debris that is blocking the stream and ditch areas. When reviewed by the Habitat Officer on site, it was agreed that the drainages (1 and 2) are ditches and this is the best action moving forward to help establish defined channels. (Personal Communication, Grant Bracher, Habitat Officer, site visit May 4, 2021.)

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6.2 VEGETATION

During future construction it is recommended that only the building and access construction envelope be cleared. As much native vegetation should remain in place to compete with invasive species and protect the area from erosion. The SPEAs should be flagged on site, and absolutely must remain vegetated and protected in perpetuity.

For disturbed areas on the property, native plants are recommended. Table 5 provides recommend species that regularly occur in the area. Two years of irrigation is recommended following planting. After a two year period the native species have generally become established and do not need irrigation. In addition to the native plants, a cover crop of native clover or Quick Grow Revegetation Mix by Premier Pacific Seeds (or similar) is recommended to compete with weed species, fix nitrogen and provide slope stabilization.

Table 5. Recommended native vegetation to plant in disturbed areas

Common Name	Species
Salal	*Gaultheria shallon*
Salmonberry	*Rubus spectabilis*
Sword fern	*Polystichum munitum*
Nootka rose	*Rosa nutkana*
Red currant	*Ribes sanguineum*
Red Huckleberry	*Vaccinium parvifolium*
Western red cedar	*Thuja plicata*

6.3 INVASIVE SPECIES

Invasive weed control is difficult for established populations. Immediate eradication of new and small infestations should be a high priority. A fair amount of scotch broom and himalayan blackberry were observed on the property that should be controlled.

Species should be removed using the most appropriate methods, at the correct time of year, and plant material must be disposed of correctly to avoid re-establishment or spread. Following removal, re-seed bare soil with desirable, competing vegetation. For some species, chemical control is possible but not recommended due to the sensitive riparian ecosystems on the property. Details of removal methods for the invasive species on the property are below in Table 6.

Table 6. Removal and disposal methods for invasive species

Species	Removal Method	Removal Timing	Plant Disposal
Himalayan blackberry	Himalayan blackberry can be removed by the root system. Using equipment is the easiest to get to the main roots.	Early spring or fall/winter when not flowering or bearing fruit.	Bagged and disposed of properly in a landfill. Do not 'recycle' garden debris or compost.
Scotch broom	Small broom plants can be pulled easily from the ground by hand. Larger plants should be cut below the root crown using loppers or a pruning saw. Avoid disturbing the soil which can stimulate dormant broom seeds to sprout.	Scotch broom removal should occur in late summer, after native wildflowers have gone dormant but before its seed pods begin to open.	Bagged and disposed of properly in a landfill. Do not 'recycle' garden debris or compost.

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6.4 WILDLIFE AND WILDLIFE HABITAT

The following measures should be taken to minimize impacts on wildlife and wildlife habitat:

- Vegetation and tree clearing should be completed outside of the migratory bird window (prior to March 15th or after August 15th; Environment and Climate Change Canada 2020). In the event that clearing is to occur during the sensitive timing window, a QEP should perform a pre-clearing survey for nesting birds and should implement the appropriate mitigation for any active nests.
- Where suitable, retain habitat that provides shelter for wildlife, such as standing dead trees.
- Avoid additional removal of established trees or shrubs, where possible.

6.5 EROSION AND SEDIMENT CONTROL

The primary focus of erosion and sediment control planning is erosion control; if there is no erosion then there is no sediment. Erosion control is far more cost effective to implement and manage than sediment control. A detailed Erosion and Sediment Control Plan (ESCP) has been provided. Corvidae is working closely with [redacted] to implement the ESCP and have ongoing protection measures in place to minimize sediment into any of the watercourses.

The following mitigation measures should be implemented to minimize the potential effects of the project on the natural environment:

- In order to minimize exposure of underlying soils to erosion, minimize amount of time soils are exposed, plant native vegetation and landscaping materials within the growing season following removal of non-native vegetation and landscaping.
- Install silt fencing on the windthrow buffer edge, downslope from the construction area to prevent sediment laden runoff from entering the SPEA.
- Install mulch berms near the edges of the disturbed areas to filter runoff.
- Store materials and soils in dry, flat areas at least 10m from the edge of the SPEA.

A comprehensive Erosion and Sediment Control Plan is attached as Appendix B. The engineered drawings are included here as well.

6.6 FRONTAGE

The 12 proposed residential lots will have frontage on the new MOTI road dedication (Creekside Glen). Lots 1, 2, 5, 7, 8, 11 and 12 do not meet the 10% frontage requirement per Bylaw No. 2040 Section: 3.10(4) and the applicant requires a Development Variance Permit to waive the 10% frontage. Lots 1, 5, 7, 11, and 12 will be accessed by 6 m wide panhandles fronting on Creekside Glen. Lot 11 has additional frontage on West Coast Road but access will be provided by the panhandle off of Creekside Glen (Figure 1). CRD referral SU000728 Section 2: Frontage, located in Appendix C indicates that although the proposed lots do not meet the 10% minimum frontage requirement, the lots are not fronting onto the highway (West Coast Road) and therefore no further action is required.

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7 CONCLUSION

During the construction and site preparation at the proposed Creekside Glen subdivision, implementation of the mitigation and restoration measures recommended in this report, including the protection of sensitive riparian areas, minimization of tree removal, the eradication of invasive species and erosion control, will minimize the impacts of the proposed development on the environment.

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8 REFERENCES

British Columbia Conservation Data Centre (CDC). 2020a. BC Species and Ecosystems Explorer. Available at: http://a100.gov.bc.ca/pub/eswp/. Accessed: December 2020.

British Columbia Conservation Data Centre: CDC iMap [web application]. 2020. Victoria, British Columbia, Canada. Available: http://maps.gov.bc.ca/ess/sv/cdc/ (Accessed December 2020).

British Columbia Ministry of Environment (MOE). 2014a. Procedures for Mitigating Impacts on Environmental Values (Environmental Mitigation Procedures) Version 1.0.

British Columbia Ministry of Environment (MOE). 2014b. Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resourcestewardship/natural-resource-standards-and-guidance/best-managementpractices/develop-with-care.

British Columbia Ministry of Environment. 2004. *Environmental Best Management Practices for Urban and Rural Land Development*

British Columbia Ministry of Environment. 2006. *British Columbia Approved Water Quality Guidelines 2006*

British Columbia Ministry of Environment. 2009. *A User's Guide to Working In and Around Water.*

Capital Regional District. 2020. CRD Regional Map. https://maps.crd.bc.ca/Html5Viewer/?viewer=public. Accessed: April 2020.

Capital Region District. 2018. Shirley- Jordan River Official Comminity Plan. Bylaw Number 4001 Available at: https://www.crd.bc.ca/docs/default-source/crd-document-library/bylaws/juandefucaelectoralarea/3717—official-community-plan-for-shirley-jordan-river-bylaw-no-1-2010B.pdf. Accessed February 2021.

Capital Region District. 1992. Juan De Fuca Land Use Bylaw, 1992. Bylaw Number 2040. Available at: Schedule "A" of Capital Regional District Bvale No. 3705 "A" of Capital Regional District Bvale No. 3705 (crd.bc.ca). Accessed May 2021.

Environment and Climate Change Canada. 2020. General nesting periods of migratory birds. Available at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html#toc1 . Accessed December 2020.

Government of British Columbia. 2021. British Columbia Soil Information Tool. Available at: British Columbia Soil Information Finder Tool (arcgis.com). Accessed February 2021.

Government of Canada. 2020. Species at Risk Public Registry. Website: https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html (accessed December 2020).

Ministry of Environment. 1985. Soils of Southern Vancouver Island, MOE Technical Report 17.

Pojar, J., K. Klinka, and D.A. Demarchi. 1991. Coastal Western Hemlock Zone. In Ecosystems of British Columbia. D. Meidinger and J. Pojar (editors). BC Ministry of Forestry, Victoria, B.C. Spec. Rep. Ser 6. pp 95-111.

Province of British Columbia. 2020. HabitatWizard. Available at: http://maps.gov.bc.ca/ess/hm/habwiz/. Accessed December 2020.

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APPENDIX A – PHOTOS

Photo 1.Culvert at Second Creek crossing on existing road (Creekside Glen). September 29, 2020.

Photo 2. View of southern access road to be upgraded south of Creekside Glen. February 3, 2021

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Photo 3. View of the trees looking south from the Creekside Glen Road. February 3, 2021.

Photo 4. View of Stream 2, dry but shows pebbles to indicated seasonal flow. Sept. 29, 2020

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Photo 5. View looking north from planned Creekside Glen Road at the vegetation found onsite. February 3, 2021.

Photo 6. View of the top section of Stream 3. Sept. 29, 2020

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Photo 7. View of Stream 1 crossing the old access road through underground flow due to obstructions. Sept. 29, 2020.

Photo 8. Pebbles indicative of seasonal flow at cross section where Stream 1 turns south. Sept. 29, 2020.

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APPENDIX B – EROSION AND SEDIMENT CONTROL PLAN

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EROSION AND SEDIMENT CONTROL PLAN
FOR CREEKSIDE GLEN SUBDIVISION, JORDAN RIVER, B.C.

PREPARED FOR:

[redacted]

AND

CAPITAL REGION DISTRICT
3 – 7450 BUTLER ROAD
SOOKE, BC
V9Z 1N1

CORVIDAE PROJECT #2020-052
FEBRUARY 2021

CORVIDAE
ENVIRONMENTAL CONSULTING INC.
6526 WATER STREET, SOOKE, BC

SOLUTION ORIENTED. PROTECTION OF THE ENVIRONMENT. ABSOLUTE INTEGRITY. OPEN COMMUNICATION. RESPECT.

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TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 SCOPE 3
1.2 WATERCOURSE DETAILS 3
2 PROJECT PERSONNEL AND RESPONSIBILITIES 4
3 EROSION AND SEDIMENT CONTROL MEASURES 4
3.1 STREAM RECONNECTION 4
3.2 DITCH CONSTRUCTION AND RE-ESTABLISHMENT ALONG SOUTHERN ROADWAY 5
3.3 RUNOFF AND STORMWATER MANAGEMENT 5
3.4 POLLUTION CONTROL, FUELING, AND SPILL RESPONSE 6
4 ENVIRONMENTAL MONITORING 8
4.1 MONITORING FREQUENCY 8
4.2 REPORTING FREQUENCY 8
4.3 ENVIRONMENTAL INCIDENTS 8
APPENDIX A – ESC TYPICAL DRAWINGS 9
APPENDIX B – SPILL RESPONSE PLAN/ ENVIRONMENTAL INCIDENT REPORTING 12
APPENDIX C – ENGINEERED DRAWINGS 16

LIST OF TABLES

Table 1. Details the roles and responsibilities of the personnel involved in the Project 4

LIST OF FIGURES

Figure 1. Lot Boundary Layout and Culvert Locations 2
Figure 2. Wattles – Typical Installation Drawing 9
Figure 3. Check Dam Typical 10
Figure 4. Sediment Fencing – Typical Installation Drawing 11

CAVEAT

This Erosion and Sediment Control Plan (ESCP) has been prepared with the best information available at the time of writing, communications with the prime contractor, site visits, review of design drawings and other documentation relevant to the project. This ESCP has been developed to assist the prime contractor in remaining in compliance with relevant environmental regulations, acts and laws pertaining to the project and to identify and mitigate the expected impacts of construction, operation and reclamation activities directly related to the project. The ESCP has been prepared as a resource tool for use specifically by the project construction team; subcontractors to the prime contractor are responsible for complying with the measures detailed in the ESCP. Any use of this ESCP by other parties is done so exclusively at their risk. The author assumes no responsibility for: [i] this ESCP or iterations of this ESCP that are unsigned by the author, [ii] any changes made to this document other than those made or endorsed by the author, [iii] day-to-day construction compliance, or (iv) the success of this ESCP as presented.

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1 INTRODUCTION

[redacted] has retained Corvidae Environmental Consulting Inc. (Corvidae) to provide this Erosion and Sediment Control Plan (ESCP) as part of a Section 11 Change Approval and Notification for the works and to provide environmental monitoring during the project (as detailed in Section 3).

[redacted] is developing a residential subdivision in Jordan River which is composed of 13 lots, two roadways, a cul-de-sac and a common property area. A sewage disposal area will also be incorporated into the development to the southwest within the project area (Figure 1).

In general, the site slopes from north to south with undulating ground moving down slope. There are three unnamed drainages that all eventually drain into Second Creek. Much of drainage areas are old ditches from when it was previously logged, and they currently intersect the development area (see Figure 2). Corvidae conducted a riparian assessment on the streams and concluded that a 10 meter Stream Protection Enhancement Area (SPEA) has been implemented (Figure 1); the SPEA will be a protected, no disturbance zone.

Unnamed Stream 1 will be re-established by unblocking areas that have being altered. There is still some water draining into this historical stream area, but there is also diversion from the old access road and associated gravel and soil. The blockage has created a drainage that flows south into Stream 2. Once the existing drainage is re-established it runs east and eventually connects to Second Creek. Unnamed Stream 1 will be contoured to allow for flow southeast, with on 600mm culvert installation under a proposed driveway between lot 6 and 7 (Figure 1).

Unnamed stream 2, which is an existing ditch, is located along the second roadway that will allow access to the sewage disposal area and lot 13. Removal of debris within the ditch will allow flow to occur west into unnamed stream 3 (Figure 1).

Unnamed Stream 3, running north-south at the west end of Creekside Glen Road and draining into Second Creek at the bottom of lot 12 will have two culverts installed. A 600mm culvert installation under a proposed driveway for lot 1 and a 900mm culvert installation for the access road leading to lot 12 (see Figure 1).

There will also be 4 culvert installations in the ditch along Creekside Glen Road, sized appropriately for 200-year flood events. JE Anderson has completed detailed engineered drawings (Appendix C) for the plan and surface water management. Figure 1 indicates all culvert lengths and sizes to be used.

During construction, surface water flow will follow the natural gradient of the site flowing south. Any surface water run-off that touches exposed soils will be directed away from the existing waterbodies and sediment will be managed using sediment fencing, vegetated buffers left in place and erosion control seeding to ensure that sediments are not entering the 3 unnamed streams and Second Creek. The ditches will be constructed to hold flood events (see Appendix C – ditch profile drawings). Check dams will be added to the ditches and set intervals to slow flow and catch sediment.

In order to prevent erosion and the introduction of sediment into the watercourses that cross the property, this ESCP will be implemented by [redacted]. This ESCP has been designed for the current and future development activities and will be updated, as necessary. This plan includes drawings of the project area showing locations of erosion and sediment control (ESC) measures.

This plan has been prepared by Qualified Environmental Professionals, following current environmental standards and best management practices. With the current plans, the measures provided in this report should be followed to minimize impact to the environment throughout construction.

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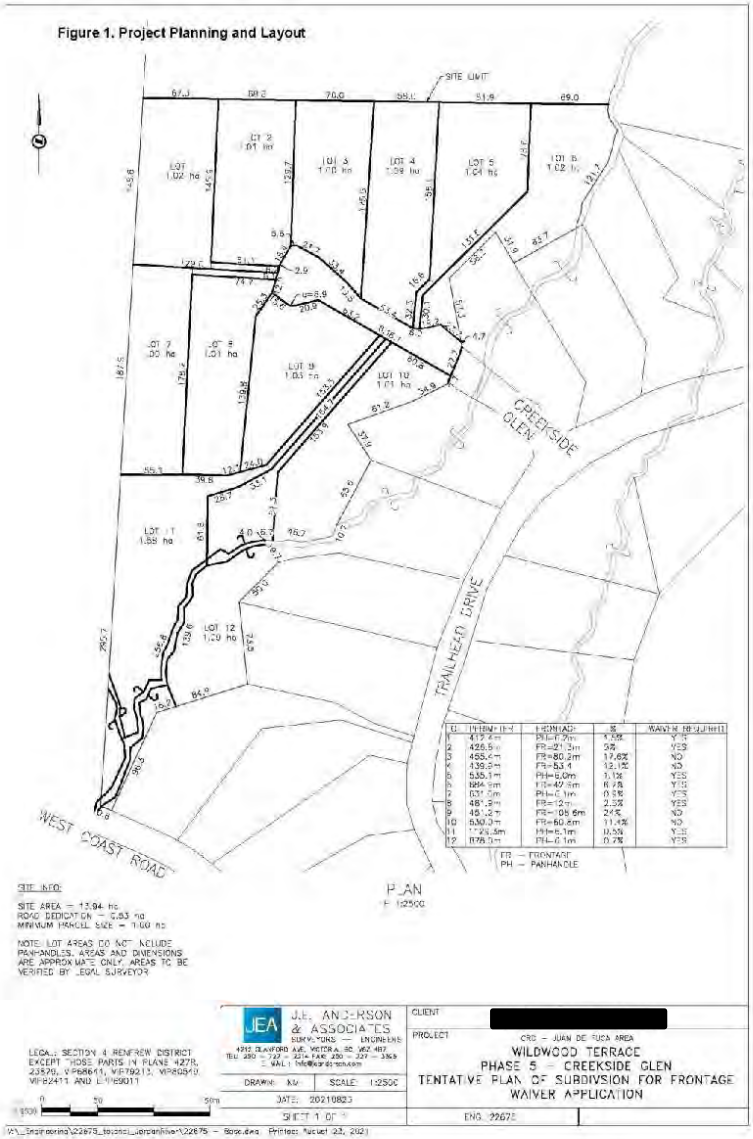
Figure 1. Project Planning and Layout



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1.1 SCOPE

The activities that will be included in the re-routing and re-establishment of the streams are as follows:

- Installation construction fencing and wattles or sediment fencing along the SPEA.
- Equipment mobilization;
- Falling of trees in the access to lots;
- Timber removal;
- Re-connection of unnamed stream 1 during dry conditions and in the allowable fisheries work window;
- Re-establishment of the ditch along the Creekside Glen roadway;
- Culvert installations under all driveway access;
- Construction of the engineered stormwater management.
- Landscaping.

The site location is shown in Figure 1, the project area and environmental features and ESC measures are also shown in Figure 2.

1.2 WATERCOURSE DETAILS

The three unnamed streams are seasonal tributaries to Second Creek. The streams cross the development area (Figure 1). The streams are dry during the summer season. The plans for stream reconnection include clearing of debris and construction of deeper ditches at all areas where there are blockages (see photos). The new streambed sections will be designed to mimic the existing conditions (e.g. grade, substrate, structure). For re-establishment of the southern stream, a ditch line will be constructed along the Creekside Glen roadway following the historic channel location of the stream. The ditch will be approximately 150 m long and will be designed for 1 in 200-year flood events. For details see the engineered design in Appendix C.

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2 PROJECT PERSONNEL AND RESPONSIBILITIES

Table 1. Details the roles and responsibilities of the personnel involved in the Project.

Name	Organization	Role	Contact Information
[redacted]	[redacted]	[redacted]	[redacted]
Julie Budgen	Corvidae Environmental Consulting Ltd	Environmental Planner	[redacted]
Matt Johnson	Corvidae Environmental Consulting Ltd	Environmental Technician	[redacted]
Brent Rutley	Corvidae Environmental Consulting Ltd	Environmental Monitor (EM)	[redacted]
EMERGENCY NUMBERS			
Emergency Dispatch (Fire, Ambulance, Police, Hazmat)			**911**
Emergency Management BC			800-663-3456
Hospital – Victoria General Hospital (1 Hospital Way, Victoria, B.C.)			250-727-4212

3 EROSION AND SEDIMENT CONTROL MEASURES

The implementation of the ESC measures provided in this Section will minimize the introduction of sediment from the project area into the nearby watercourse (the unnamed streams, Second Creek) The recommended locations for ESC measures are shown in Figure 2. Installation best practices for ESC measures are included in Appendix B. All ESC measures will be field fit during installation to be the most effective in that area, slope, aspect and situation.

3.1 STREAM RECONNECTION

- All works are to be conducted in dry conditions.
- Sediment fencing will be installed along specific areas, upslope along the access routes adjacent to the existing watercourse. Corvidae is working closely with the project team to address erosion and prevent sedimentation into the watercourses.
- To keep sediment from entering the newly connected downstream channels all work will be done during dry conditions where there is no water flow.
- Secondary barriers (check dams) will be placed in the newly cleared areas to allow for settlement of fine textured sediments and minimize the introduction of sediments into the existing watercourse.
- Following ditch contouring, the ditches should be seeded and lined with straw or wood mulch to reduce rainfall erosion.

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3.2 DITCH CONSTRUCTION AND RE-ESTABLISHMENT ALONG SOUTHERN ROADWAY

- All works should be conducted in dry conditions.
- Sediment fencing will be installed along the entire length of the edge of the SPEA for the existing drainage following tree clearing, prior to construction of site access.
- Secondary barriers (check dams) will be placed in the newly cleared areas to allow for settlement of fine textured sediments and minimize the introduction of sediments into the existing watercourse.
- Following ditch contouring, the ditches should be seeded and lined with straw or wood mulch to reduce rainfall erosion.
- Until final revegetation, any exposed areas should be covered with coarse wood mulch (chips) to a minimum depth of 5 cm. This mulch should extend a minimum of 1 metre past the crest of the slope.

3.3 RUNOFF AND STORMWATER MANAGEMNT

- Activities on site should cease if greater than 10 mm of rain is forecasted within a 24-hour period.
- Store soils and stockpiled material in dry, flat areas, at least 30 m from the watercourses.
- Install sediment fencing, mulch berms, and check dams in designated locations (detailed above) in order to mitigate sedimentation (see subsections below for details).
- The Contractor shall have sufficient materials, such as clean rock, granular material, straw wattles, wooden stakes, and filter fabric available on-site for emergency protection measures when required.
- The Contractor shall regularly maintain sediment and drainage control measures, such that they function as designed. Immediate action shall be taken by the Contractor to correct any deficiency observed in the operation of erosion and sediment control measures. In the event that a deficiency in any sediment or drainage control measures is directly or in directly creating an adverse environmental impact, the Contractor shall initiate the necessary action to correct the problem within one hour of observing or being informed of the situation. In the event that a deficiency in any sediment or drainage control measures poses the potential to create an adverse environmental impact, the Contractor shall take action within two days of observing or being informed of the situation.
- To protect erodible surfaces adjacent to SPEAs, cover small areas of exposed soil with tarps, hog fuel or seed to prevent erosion and sediment transport if soil is exposed to prolonged periods of rainfall adjacent to downslope drainage areas.
- To minimize surface saturation and mobilization of fine textured sediments tree mulch, straw or rolled erosion control blankets may be spread across larger surfaces. Mulch from clearing should be stockpiled onsite for use as an erosion protection ground cover. Ensure that straw is sourced from clean sources to reduce the spread of invasive species.

SEDIMENT FENCING

- Install sediment fencing in the upslope location, at the edge of clearing and the SPEA to prevent sediment laden runoff from entering the aquatic environments. If suitable, wattles can be used in-lieu of sediment fences.
- Proper methods for sediment fencing installation are provided in Appendix A.
- To prevent water breaking through at a concentrated low point, no length of sediment fence should exceed 30 m before being turned uphill.
- Sediment fences should be maintained, checked twice a week and re-installed if sagging. They are to be cleaned out if more than 30% full of sediment.

CHECK DAMS

- Check dams may be sandbags (Figure 4, Appendix A), clean rock or 9" wattle rolls (Figure 3, Appendix A). The wattle will be cut to size and ends re-closed with tie wire. Roll will be held in place with stakes (adapt from Figure 3, Appendix A).
- Retain existing ditch vegetation where possible to slow flow and filter fine textured sediments.
- Intact straw bales are not to be used as check dams or other structures in flowing water as they quickly degrade and break down, become saturated and embedded with fine textured sediment and break apart when removed releasing sediment into the environment.

3.4 POLLUTION CONTROL, FUELING, AND SPILL RESPONSE

Report spills immediately to the site superintendent and the Environmental Monitor (EM). See Appendix B for further details.

Sediment laden runoff is considered a deleterious material and is not to be discharged directly to surface water.

If a spill exceeds any of the specified amounts in the Environmental Management Act – Spill Reporting Guideline it must also be reported to Emergency Management BC at 1-800-663-3456 and, if it may affect fish bearing waters, to DFO's Observe, Record and Report Hotline 1-800-465-4336.

Fuel and other hazardous materials will be secured so that they may not be emptied or upset by vandals when left overnight in the project area and will be permanently stored no closer than 30 m from any watercourse; watercourses include ditches/drainages.

All equipment on site is to be well maintained and leak free to minimize the potential for spills (see Appendix B for Spill Response Plan). Leaking equipment will be flagged and placed 'out of service' until it is repaired. Spills to ground will be identified by GPS waypoints, photographed and tabulated with yes/no of cleanup. Manifesting of compiled loads of contaminated material will completed by contractor and reviewed by EM. Reporting of equipment leaks and spills to ground will be included in the Environmental Monitoring Reports (EMRs).

All heavy equipment and personal vehicles will be checked daily for leaks and repair requirements.

Repairs or other mechanical services required when a piece of machinery cannot be moved due to break down may be done on site. The ground surface will be protected from fluids generated during repairs by an impervious membrane or drip pan.

For any hazardous materials brought to the project site, the Safety Data Sheets (SDS) will be compiled in a binder and kept at the project trailer in a clearly labeled and easily visible location.

In the event of a major spill, work shall be stopped, and all required personnel devoted to spill containment and clean-up. Timely and effective action shall be taken to stop, contain and clean-up all spills as long as the site is safe to enter. For further details, see Appendix B – Spill Response Plan.

All hazardous materials will be stored in their original containers and properly labeled as per Workplace Hazardous Materials Information System 2015 (WHMIS 2015) requirements.

The containment, storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the use of any hazardous or toxic products shall be in accordance with all applicable federal and provincial legislation.

FUEL HANDLING AND STORAGE

Fueling of equipment will be completed by certified bulk fuel carriers or from slip tanks that remain in the transport vehicle at all times. Fueling personnel shall maintain presence at and immediate attention to fueling operations.

Fuel and service trucks will have a spill kit with a minimum of 50 absorbent pads, 5 kg of dry, loose absorbent material, 2 pairs of impermeable gloves, a 3 m x 3 m impervious ground sheet and two 2-inch x 6-foot-long sections of absorbent boom. Spill kits will be available at all re-fueling, lubrication and repair locations and will be capable of dealing with 110% of the largest potential spill and shall be maintained in good working order on the construction site. Site staff shall be informed of the location of the spill response kits and be trained in their use.

All heavy equipment will contain spill kits and fire extinguishers. Spill kits will have a minimum of 20 absorbent pads, a 3 m x 3 m impermeable tarp, impermeable gloves and 1 large heavy-duty garbage bag. Equipment operators will be trained in spill response protocols.

All standalone fuel tanks, portable fuel containers and other potential spill sources located within the project will have secondary containment with a capacity of 110% of the volume of the substance of concern. This includes generators, welders, light plants, etc. Portable hand-held gas cans will not require secondary containment as long as they are stored with caps on, upright and out of the way of traffic at all times they are not in use.

4 ENVIRONMENTAL MONITORING

Corvidae recommends the application of the mitigation measures discussed above for the duration of the project, to completion. An experienced Environmental Monitor (EM) will oversee the application of ESC measures identified above, providing technical advice on environmental issues, and evaluating the effectiveness of mitigation measures throughout construction.

4.1 MONITORING FREQUENCY

The project activities will be monitored during the initial site visit to ensure all erosion control measures are in place. Additional monitoring will be at project commencement and during the first incident of inclement weather. Inclement weather refers to rain events forecast to exceed 10 mm of rain within 24 hours, in which monitoring would occur to review erosion and sediment control measures, and/or conduct water quality testing, if necessary.

4.2 REPORTING FREQUENCY

The EM will prepare Environmental Monitoring Reports (EMRs) for each visit. The report will include records of construction activities undertaken since the last site visit, current site activities and conditions, site photographs, communications with onsite crew, environmental incidents, impacts and corrective actions taken, as well as what work plan modifications or mitigations are required. Water quality monitoring results will be included if applicable. Any non-compliances to the ESCP will be included in the EMR and discussed with the Contractor responsible to address.

4.3 ENVIRONMENTAL INCIDENTS

[redacted] will suspend any activities or operations which are in contravention of any environmental legislation, regulation or act that are causing or have the potential to cause significant environmental damage. In the event that such activities occur, and no corrective action is initiated by the Contractor, the environmental monitor, Project manager or their designate may issue a Stop Work Order directing the immediate suspension of all or a portion of the activity causing the environmental impact.

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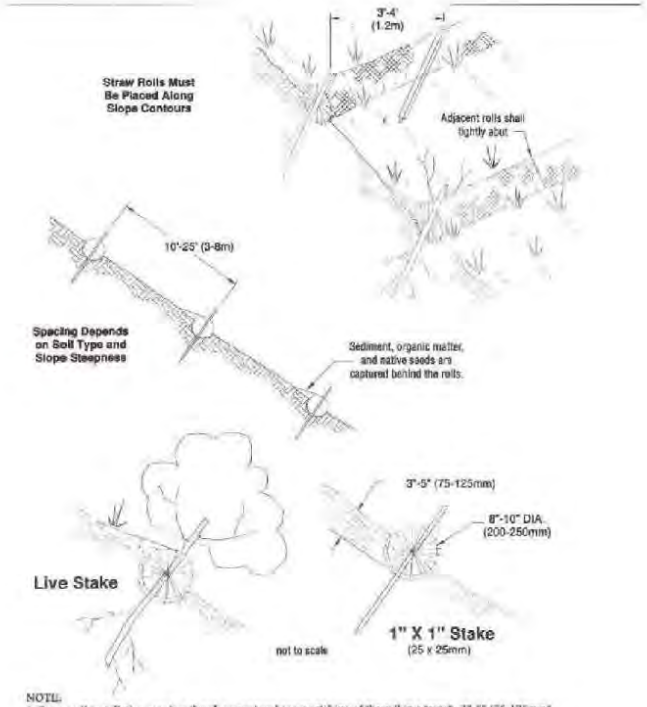
APPENDIX A – ESC TYPICAL DRAWINGS

Figure 2. Wattles – Typical Installation Drawing



NOTE:
1. Straw roll installation requires the placement and secure staking of the roll in a trench, 3"-5" (75-125mm) deep, dug on contour. runoff must not be allowed to run under or around roll.

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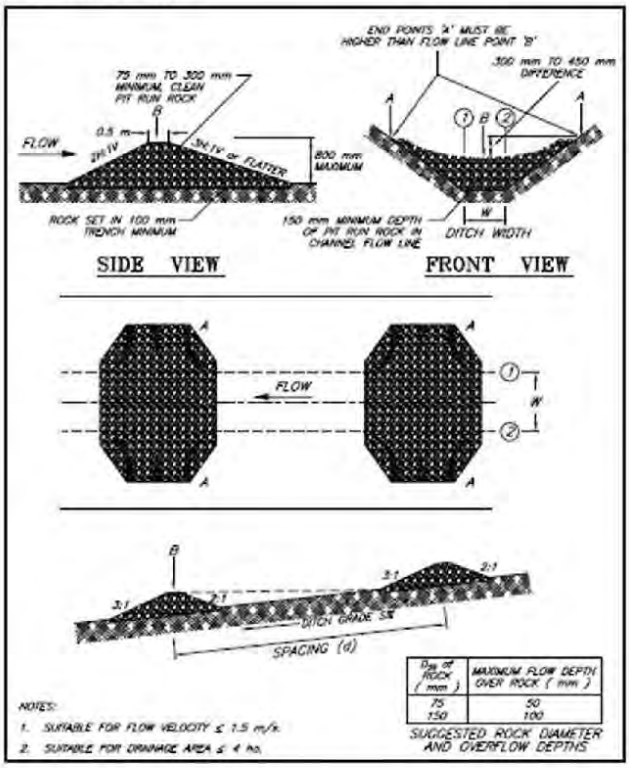
Figure 3. Check Dam Typical



D_{50} of ROCK (mm)	MAXIMUM FLOW DEPTH OVER ROCK (mm)
75	50
150	100

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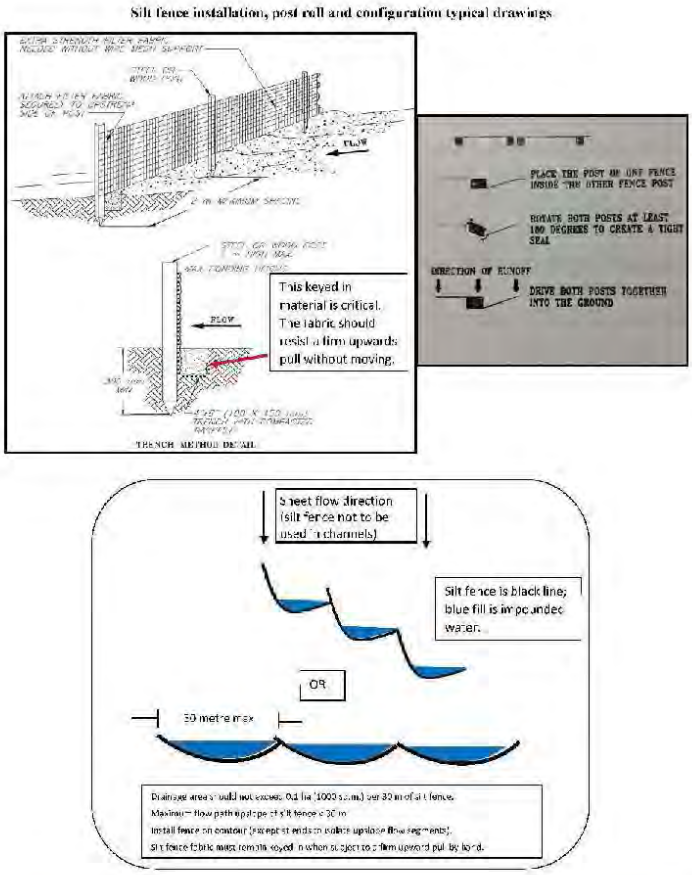
Figure 4. Sediment Fencing – Typical Installation Drawing



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APPENDIX B – SPILL RESPONSE PLAN/ ENVIRONMENTAL INCIDENT REPORTING

Spills are reportable if:

- It has caused, is causing or may cause an adverse effect to the environment or people.
- The amount exceeds the quantities or emission levels set out in the relevant legislation, guideline, approval or code of practice. For this project any release of petroleum hydrocarbons or allied products is to be reported to the EM.
- The release is into a groundwater or surface water body.

All spills of deleterious materials to be reported to the site superintendent and the EM (sediment laden runoff is considered a deleterious material). If spill exceeds 100 litres of fuel report to Emergency Management BC (EMBC) at 1-800-663-3456. Spills less than 100 litres will be reported internally, this includes reporting to the EM. When reporting a spill by phone expect to provide the following information:

- the contact information:
- for the individual making the report,
- the responsible person in relation to the spill, and
- the owner of the substance spilled.
- the date and time of the spill;
- the location of the spill site;
- a description of the spill site and the surrounding area;
- a description of the source of the spill;
- the type and quantity of the substance spilled;
- a description of the circumstances, cause and adverse effects of the spill;
- details of action taken or proposed to comply with section 91.2 (2) [responsible persons – spill response 1 of the Environmental Management Act;
- the names of the government, federal government, local government and first nation government agencies at the spill site;
- the names of other persons or government, federal government, local government or first nation government agencies advised about the spill.

A spill report form will be completed, and copies of the documentation generated as soon as possible or within 24 hours of the event. Copies of the documentation will be kept on file in hard copy format at the [redacted] site trailer.

The Contractor will provide a report on impact as per statutory requirements ("Duty to Notify provisions in the Fisheries Act) where those impacts include water quality discharges.

The spill report form will contain the following information (see form below bulleted list):

- reporting person's name and phone number;
- name and phone number of person(s) who caused the spill;
- date, time, location, duration and rate of release;
- type and quantity of release;
- detailed description of circumstances leading up to the spill and the effect of the spill;
- description of equipment involved, e.g. leak in machine, compromised equipment;
- procedures used to control, minimize and stop the release;

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- disposal methods for contaminated materials, and
- measures taken to prevent further releases.

After a spill is contained and cleaned up, [redacted] will be responsible for ensuring that disposal follows all applicable legislation. Manifests documenting proper disposal will be kept on file in hard copy format at the [redacted] site trailer.

The containment, storage, security, handling, use and disposal of empty containers, surplus product or waste generated in the use of any hazardous or toxic products shall be in accordance with all applicable federal and provincial legislation.

A copy of the complete Emergency Contact List (Table 1) will be posted in site trailers and other common construction areas.

A copy of the Spill Response Plan will be distributed to all superintendents and foremen on site. On-site superintendents and foremen must understand the Spill Response Plan procedures and know the appropriate authorities to contact in the event of a spill.

For any hazardous materials brought to the project site, the Safety Data Sheets (SDS) will be compiled in a binder and kept at the project trailer in a clearly labeled and easily visible location.

All hazardous materials will be properly labeled, as per Workplace Hazardous Materials Information System 2015 (WHMIS 2015) requirements.

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Environmental Incident Report

Reported by (name and phone #)	Title	Date Reported: YY MM DD
Location (office, field, geographic location)	Date of Incident yyyy/mm/dd	Time (24-hr clock)
Project	Responsible party name	Responsible party phone #
Incident		
What happened – include duration of release	Location – surrounding features (waterbodies, drainage patterns etc)	
Magnitude of potential impact	Remedial action taken – include disposal details	
What steps can be taken to avoid future incidents	Remedial action still required	
If a release which substance: _____ Amount: _____ kg / L / m³ Circle one.	Environment substance was released into: land / water / air Describe:	
Reporting		
Has the incident been reported to any regulatory authority? Circle one. Yes No		
Detailed Description of Incident		
Include all related events leading up to incident and a description of equipment, property damage or loss. Attach any diagrams, photographs or other pertinent information. Attach extra sheets as required.		
Name of person making report	Signature	Date: YY MM DD
Name of responsible party	Signature	Date: YY MM DD

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Spill response protocol

[redacted] will immediately respond to the spill and ensure the safety of site personnel. Once it is determined that personnel are safe, and the area is safe to access the following general procedures will be followed:

If the spill is fuel based, remove ignition sources

- Shut off equipment and don't allow other sources of ignition (cutting torches, vehicles, smoking, etc.) near the area. Keep a fire extinguisher on hand but keep it a safe distance away so it is accessible in case of a fire.

Stop the flow

- Immediately take action to stop the spill: close valves, crimp and / or plug hoses, apply stop leak compound, etc.

Contain the spill

Once the spill has been stopped take action to protect waterbodies, watercourses or wetlands by creating berms, diverting water, capping storm drain inlets, installing ditch blocks, etc.

Enlist the help of personnel on site

- Notify site superintendent or foreman as soon as possible.
- Mechanic to be dispatched to scene if appropriate.
- Appropriate parties are to be notified of the spill – [redacted] site superintendent and EM. If the release will affect a fish bearing water body the Department of Fisheries and Oceans must be notified.
- See Table 4 Emergency Contact List in this Spill Response Plan for contact numbers.

Remediate spill

- [redacted] will be responsible for ensuring that proper clean up and disposal is undertaken in a timely manner and in compliance with all applicable legislation. Copies of manifests documenting proper disposal will be kept on file in hard copy format at the [redacted] site trailer and available for review by the EM.

Reporting

- A spill report form will be completed, and copies of the documentation generated within 48 hours of the event. Copies of the documentation will be kept on file in hard copy format at the [redacted] site trailer.
- The spill report form will contain information as outlined in the fourth paragraph of this Spill Response Plan.

Procedure review

- [redacted] will review the spill report form and determine if enhancements to the procedure are required and implement any required changes.

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APPENDIX C – CRD SUBDIVISION REFERRAL REPORT

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Juan de Fuca Community Planning
3 – 7450 Butler Road
Sooke, BC V9Z 1N1
T: 250.642.1500 | F: 250.642.5274 | Web: www.crd.bc.ca

SUBDIVISION REFERRAL REPORT

MoTI File: 2020-04468 **CRD File:** SU000728
Date: October 26, 2020

PROPERTY INFORMATION

Purpose:	14-lot, strata subdivision.			
Owners:	[redacted]			
Legal Description:	SECTION 4 RENFREW DISTRICT EXCEPT THOSE PARTS IN PLANS 427R, 23879, VIP68644, VIP79213, VIP80549, VIP82411, AND EPP69011			
Civic Address:	12036 West Coast Road			
Land Use and Subdivision Bylaw:	Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040			
Current Zone:	Wildwood Terrace 4 (WT-4)			
Official Community Plan (OCP):	Shirley-Jordan River Official Community Plan, Bylaw No. 4001			
Current Land Use Designation (LUD):	Pacific Acreage (PA)			
Agricultural Land Reserve (ALR) Status	☐	In ALR – An application to subdivide land within the ALR in accordance with the *Agricultural Land Commission Act* is required.	☒ ☐	Outside ALR Along boundary of ALR
Fire Protection Service Area	☐	Within Fire Protection Service Area	☒	Outside Fire Protection Service Area
PMFL Status	☒	In Private Managed Forest Lands (PMFL)	☐ ☐	Outside PMFL Along boundary of PMFL
Development Permit Areas:	☒	Steep Slopes		
	☐	Shoreline Protection		
	☒	Riparian		
	☒	Sensitive Ecosystems		
	☐	Commercial/Industrial		

CRD SUBDIVISION REQUIREMENTS

JDF PLANNING

Contact: Regina Robinson, 250-642-8101, rrobinson@crd.bc.ca

	Requirement	Description and Action
1.	**Lot Size** Bylaw No. 2040 Section: 6E.02	**Description:** The WT-4 zone establishes an average parcel size of 2 ha with no parcel being less than 1 ha, to a maximum number of 54 parcels. All proposed lots appear to meet the minimum lot size through parcel averaging within a strata.
		Action: No further action required.

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2.	**Frontage** Bylaw No. 2040 Section: 3.10(4)	**Description:** Bylaw No. 2040 requires that for each proposed lot, the minimum frontage on the highway shall be 10% of the perimeter of the lot that fronts on the highway. All proposed lots do not meet the minimum frontage requirement; however, the proposed plan of subdivision indicates that the lots do not front on a highway.
		Action: No further action required.
3.	**Development Permits** Shirley - Jordan River Official Community Plan, Bylaw No. 4001, Part Five	**Description:** Land that is the subject of this application is designated as a Steep Slopes Development Permit Area; a Riparian DP Area; and a Sensitive Ecosystem DP Area by the Shirley – Jordan River OCP. A development permit must be issued prior to the disturbance of land or subdivision.
		Action: The applicant is required to obtain a development permit prior to the disturbance of land or subdivision. The applicant is advised to contact JdF Planning staff prior to the preparation of any professional reports. This may be addressed as part of the associated 2-lot subdivision.
4.	**Potable Water** Bylaw No. 2040 Part 6, Section 6.02	**Description:** Bylaw No. 2040 requires that where a subdivision is not served by a community water system, each lot shall be required to have a proven source of potable water of at least 1,400 L/day.
		Action: The applicant is required to provide well logs or flow test results, as well as water quality test results confirming that each proposed lot has a proven source of potable water of at least 1,400 L/day. Wells are to be constructed in accordance with the *Groundwater Protection Regulation* of the *Water Sustainability Act*.
5.	**Fire Protection** Shirley – Jordan River Official Community Plan, Bylaw No. 4001, 2018 Part 3, Section 367	**Description:** The subject property is located outside a fire protection local service area. With large tracts of forested lands, interspersed with residential development, the potential for wildland-rural intermix fires is a concern.
		Action: A covenant requiring the installation of fire sprinklers in accordance with NFPA 1042 and NFPA 13, at the time of residential building construction to protect structures and prevent spread to the forest and neighbouring dwellings is recommended.
6.	**Adjoining Body of Water** Bareland Strata Regulation, Section 9	**Description:** 9 (1) Where the land intended to be included in a bare land strata plan adjoins a lake, river, stream or other body of water, the approving officer may refuse to approve it unless the owner-developer has provided by dedication without compensation a strip of land not exceeding 7 m in width along the bank or shore

SU000728 2

58

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		for the purpose of providing public access, if, in his opinion, it is in the public interest to do so. (2) Land dedicated under this section shall be measured from (a) the high water mark, (b) the controlled high water mark, or (c) the natural boundary of the lake, river, stream or other body of water as defined by the *Land Act*, whichever is applicable. (3) The amount of land provided for public access under this section shall not exceed 5% of the land in the bare land strata plan. (4) This section does not apply where the smallest strata lot intended to be created by the bare land strata plan exceeds 2 ha.
		Action: Dedication of Second Creek along the boundary of Lot 13 and through the common property area is supported.

JDF COMMUNITY PARKS AND RECREATION

Contact: Don Closson, Manager, JdFEA Community Parks and Recreation; Tel: 250.642.8108

	Requirement	Description and Action
1.	**Park Land Dedication** *Local Government Act* Section 510 Shirley – Jordan River Official Community Plan, Bylaw No. 4001, Part 430	**Description:** The CRD provides a community park service for the Juan de Fuca Electoral Area and the Shirley – Jordan River OCP contains policies and designations regarding the location and type of future parks. Since the proposed subdivision involves the creation of 3 or more additional lots and the smallest parcel being created is less than 2 hectares, the provision of park land in accordance with Section 510 of the *LGA* is required.
		Action: No further action required. The requirement for provision of park land was satisfied by Cash-in-Lieu for all future subdivisions of Section 4 in 2006.

CRD BUILDING INSPECTION

Contact: Mike Taylor, Manager, CRD Building Inspection; Tel: 250-360-3230

	Requirement	Description and Action
1.	**Geotechnical Review** *Community Charter* Section 56	**Description:** Section 56 of the *Community Charter* specifies that where a building inspector considers that the construction of buildings would be on land that is subject to or likely to be subject to flooding, mud flows, debris flows, debris torrents, erosion, land slip, rockfalls, subsistence or avalanche, the building inspector may require the owner of land to provide the building inspector with a report certified by a qualified professional that the land may be used safely for the use intended.
		Action: No further action required at this time. A geotechnical report may be required at the time of building construction.

SU000728 3

59

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CRD INTEGRATED WATER SERVICES

Contact: Joseph Marr, Manager, Water Distribution Engineering and Planning; Tel: 250.474.9600

	Requirement	Description and Action
1.	Community Water Service	**Description:** The property is not located within a water distribution local service area.
		Action: See comments above regarding provision of potable water.

[redacted]

SU000728 4

60

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REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE
MEETING OF TUESDAY, SEPTEMBER 21, 2021

SUBJECT **Radio Communication and Broadcasting Antenna Systems Application for District Lot 175, Renfrew District – Cedar Coast Road**

ISSUE SUMMARY

An application has been received from Rogers Communications for a 57 metre (m) radio communication tower with attached antennas and satellite dishes for the purpose of expanding telecommunications services.

BACKGROUND

Rogers Communications has requested a statement of concurrence from the Capital Regional District (CRD) to construct a 57 m radio communication tower on the subject property to increase their telecommunications service west of Sooke as part of an initiative to expand service between Sooke and Port Renfrew. The approximately 66 hectare (ha) subject property is located on Cedar Coast Road in Shirley (Appendix A). The proposed tower is a 50 m tri-pole with an antenna extending an additional 7 m higher (Appendix B). A 112.5 m^2 fenced equipment compound would be located at the base of the tower. The property owners have granted permission to the applicant to pursue this development.

The subject property is designated as Coastal Upland in the Shirley-Jordan River Official Community Plan (OCP), Bylaw No. 4001, and is zoned Resource Land (RL) in the Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040. The parcel is outside the Shirley Fire Protection Service Area and outside of a community water service area. Portions of the property are designated as steep slope, sensitive ecosystems and riparian development permit areas in Bylaw No. 4001.

The RL zone permits residential, resource extraction, agriculture and outdoor recreation uses. At this time, proposed Bylaw No. 4413 is being considered by the CRD Board to delete *outdoor recreation* as a permitted use from the RL zone. The Bylaw will be considered by the Board for 1st and 2nd Reading at their meeting on September 8, 2021. Charges registered on title include a BC Hydro right-of-way, undersurface rights, access easements and rights-of-way.

Staff undertook public consultation for the proposed tower application between July 22 and August 23, 2021. No comments were received from members of the public or CRD departments. As the land use authority for the application, the CRD Board is required to provide a statement of concurrence or non-concurrence on the application.

ALTERNATIVES

Alternative 1
The Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:
That a statement of concurrence be provided to Rogers Communications for the proposed 57 m radio communication and broadcasting antenna system on District Lot 175, Renfrew District.

Alternative 2
The Juan de Fuca Land Use Committee recommends to the CRD Board:
That a statement of non-concurrence be provided to Rogers Communications for the proposed 57 m radio communication and broadcasting antenna system on District Lot 175, Renfrew District.

Alternative 3
That the application be referred back to staff for more information.

IMPLICATIONS

Legislative
Section 5 of the *Radiocommunication Act* states that the Minister may, taking into account all matters the Minister considers relevant for ensuring the orderly development and efficient operation of radio communication in Canada, issue radio authorizations and approve each site on which radio apparatus, including antenna systems, may be located. Further, the Minister may approve the erection of all masts, towers and other antenna-supporting structures. Accordingly, proponents must follow the process outlined in Industry Canada's *Spectrum Management and Telecommunications Client Procedures Circular* when installing or modifying an antenna system.

Part of the process includes contacting the land use authority and following the required consultation process. The CRD is the land use authority for the Juan de Fuca Electoral Area where the subject property is located.

The CRD Board approved Bylaw No. 3885, the Juan de Fuca Development Fees and Procedures Bylaw No. 3, 2018, and the Juan de Fuca Radiocommunication and Broadcasting Antenna Systems Application Policy (the "Policy") in 2019, which establishes a public consultation process and procedures.

Public Consultation
In accordance with the Policy, a notice was published in the newspaper and a notice delivered to property owners and occupants within 500 m of the subject property advising the public of the application and the opportunity to provide written comments and questions. The notice was published on July 22, 2021, and submissions were to be received by 4:00 pm on August 23, 2021. A request for comment was also circulated to relevant CRD departments. No questions or comments were received on the application.

In advance of the September 21, 2021, Land Use Committee meeting, notices were sent to property owners and occupants within 500 m of the subject property advising of the opportunity to be heard and provide comment at the meeting.

The public consultation process is to be complete within 120 days from initial contact with the applicant. The application was received on July 8, 2021, and the public consultation process is to be complete by November 5, 2021. A recommendation from the Land Use Committee along with any public comments is anticipated to be considered by the CRD Board on October 13, 2021. The Board resolution will be forwarded to the applicant and Industry Canada.

Land Use
The RL zone does not expressly permit radio communication towers; however, it is considered a use permitted in all zones in accordance with Part 1, Section 4.15 of Bylaw No. 2040, which states: "Except where specifically excluded, the following uses shall be permitted in any zone: public utility poles, pipelines, radio, television, and transmission towers and wires; traffic control devices; and underground or submarine utility systems, the installation of which may be sited on any portion of a lot."

The subject property was selected by the proponent based on consideration for meeting service coverage objectives along Highway 14, the ability to connect to the existing telecommunications network, proximity to end users while being distanced from residences, having an agreeable property owner, existing access and electrical infrastructure, and the feasibility of construction.

Development of the site will involve improving the existing access road and clearing land for erecting the tower and installing a cement pad and fenced compound. Prior to site alteration, issuance of a development permit may be required to address the development permit guidelines in the Shirley-Jordan River OCP. CRD Building Inspection has indicated that a building permit is not required for the tower.

Evaluation criteria to be considered by the CRD when reviewing an application for a radio communication and broadcasting antenna system is outlined in the Policy and included in Appendix C.

Rationale for proposed location: Rogers Communications states that the service coverage objectives to provide strong and reliable service along the Highway 14 corridor and the surrounding community require a site with appropriate elevation, a clear line of site to other towers in the networks, plus proximity to customers while being distanced from residences. The location also requires good site conditions such as electrical service, access, and minimal environmental impacts. The subject property offers many of these requirements compared to other sites in the area. The applicant has also received permission from the subject property owner to submit the application to pursue approval for the tower.

Proximity to residential uses, institutions, and public lands: The proposed tower site is adjacent to Crown land to the north, a RL zoned property with one residence to the east, vacant Forestry AF zoned land to the south and vacant RL zoned land to the west. The closest residence to the proposed tower is approximately 325 m which is greater than the CRD Policy guideline of 171 m (three times the height of the antenna system) from adjacent dwellings.

Visibility and measures to integrate the tower into local surroundings: The applicant mentions the proposed tower location is surrounded with mature trees that will partially screen views of the tower. Further, the applicant has selected a tower design with a small footprint, and a structure that is self-supporting rather than being supported with guy wires and anchors.

Security measures: The applicant proposes to install perimeter fencing at the base of the tower to restrict public access to the tower.

Alternatives/mitigation measures: Other locations in the vicinity were considered, but did not meet the applicant's technical requirements for providing coverage or did not have an agreeable property owner.

Hazardous areas: Portions of the property are designated as steep slope development permit areas in the Shirley-Jordan River Official Community Plan Bylaw No. 4001. A development permit may be required for the alteration of land in these areas.

Environmentally sensitive areas: Portions of the property are designated as riparian and sensitive ecosystem development permit areas in the Shirley-Jordan River Official Community Plan Bylaw No. 4001. A development permit may be required for the alteration of land in these areas.

Aeronautical safety requirements: Transport Canada confirmed that no lights are required for the proposed tower.

Impact on community: The proposed project is part of a larger initiative supported by the Province to provide reliable telecommunications service along the Highway 14 corridor and to surrounding communities between Sooke and Port Renfrew.

Designs that address the guidelines: The proposed tower is to be located amongst an already cleared area surrounded by mature forest in order to minimize visibility from surrounding properties. The CRD policy recommends that the proximity of the proposed tower to adjacent residences be greater than 171 m, which is three times the 57 m tower height. In this case, the closest residential building is located 325 m away.

Based on a review of the application and comments received, the proposed tower satisfies the evaluation criteria outlined in the CRD policy. The proponents have presented their rationale for the proposed location and demonstrated consideration of alternatives and mitigation measures. No comments have been received for this application. Therefore, staff recommend that a statement of concurrence for the proposed 57 m telecommunications tower be provided.

CONCLUSION

An application has been received from Rogers Communications to construct a 57 m telecommunications tower for the purpose of expanding telecommunications coverage in the Shirley-Jordan River area, and as part of a larger initiative to improve service along Highway 14 to Port Renfrew. The proposal addresses the evaluation criteria in the CRD's Juan de Fuca Radiocommunication and Broadcasting Antenna Systems Application Policy. No concerns were raised through the public consultation process. Staff recommend that a statement of concurrence be provided for the application.

RECOMMENDATION

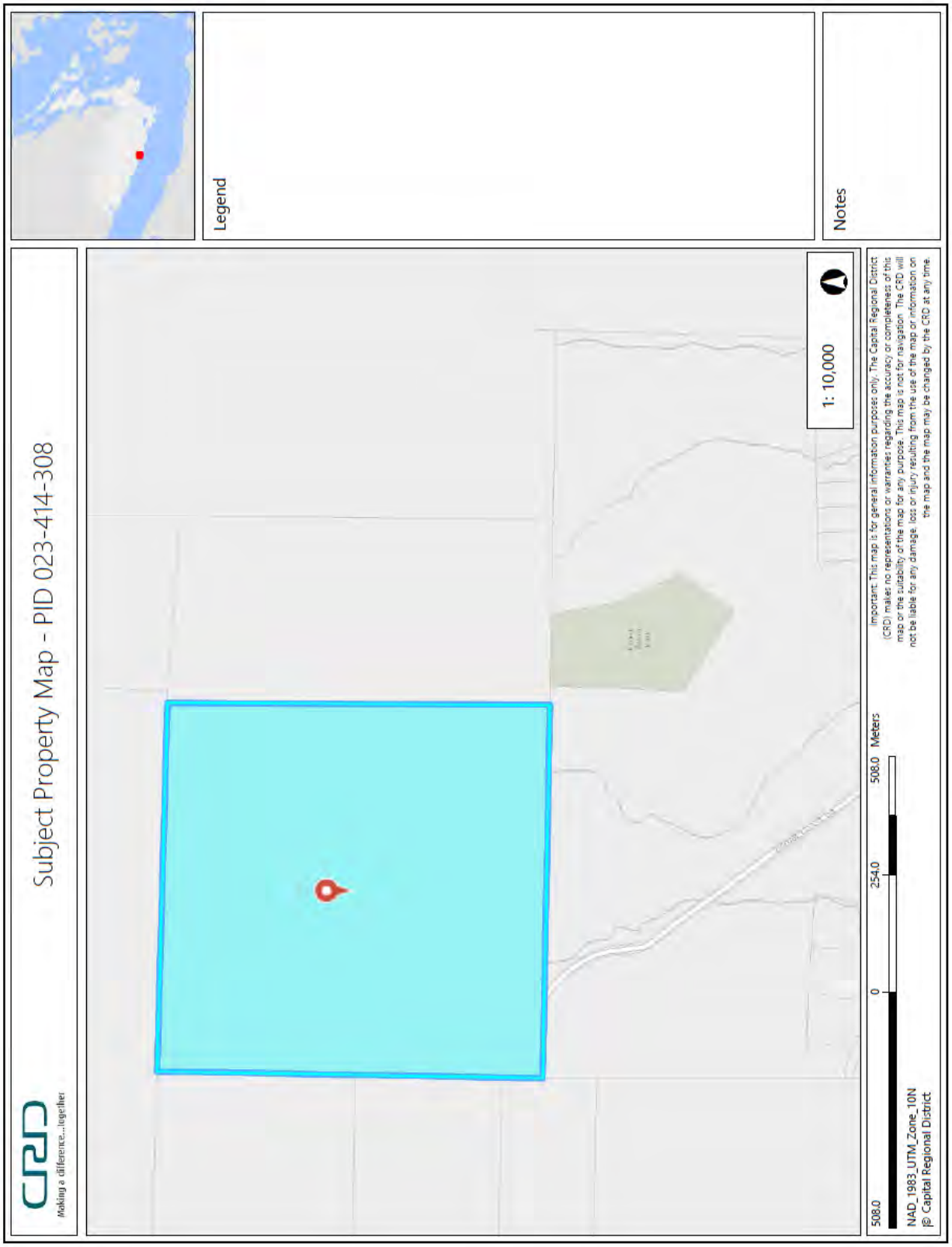
The Juan de Fuca Land Use Committee recommends to the Capital Regional District Board:
That a statement of concurrence be provided to Rogers Communications for the proposed 57 m radio communication and broadcasting antenna system on District Lot 175, Renfrew District.

Submitted by:	Iain Lawrence, MCIP, RPP, Manager, Juan de Fuca Community Planning
Concurrence:	Emily Sinclair, MCIP, RPP, Acting General Manager, Planning & Protective
Concurrence:	Ted Robbins, B.Sc., C.Tech., Acting Chief Administrative Officer

ATTACHMENTS

Appendix A: Subject Property Map
Appendix B: Development Proposal
Appendix C: Evaluation Criteria

Appendix A: Subject Property Map



Appendix B: Development Proposal

ROGERS™

SITE NAME: SHIRLEY

SITE ID: W2780

LOCATION: 1.25km NORTH (341.8°) OF HWY 14 AND CEDAR COAST DR JUNCTION

SITE TYPE: 50m SELF-SUPPORT TOWER - WIC

DRAWING LIST:

S101 TITLE PAGE
S301 SITE PLAN
S302 ENLARGED SITE PLAN
S303 COMPOUND LAYOUT
S401 NORTH ELEVATIONS

KEY MAP

APPROXIMATE GPS COORDINATES
LATITUDE: 49.407944° N
LONGITUDE: 123.961684° W

SITE

N

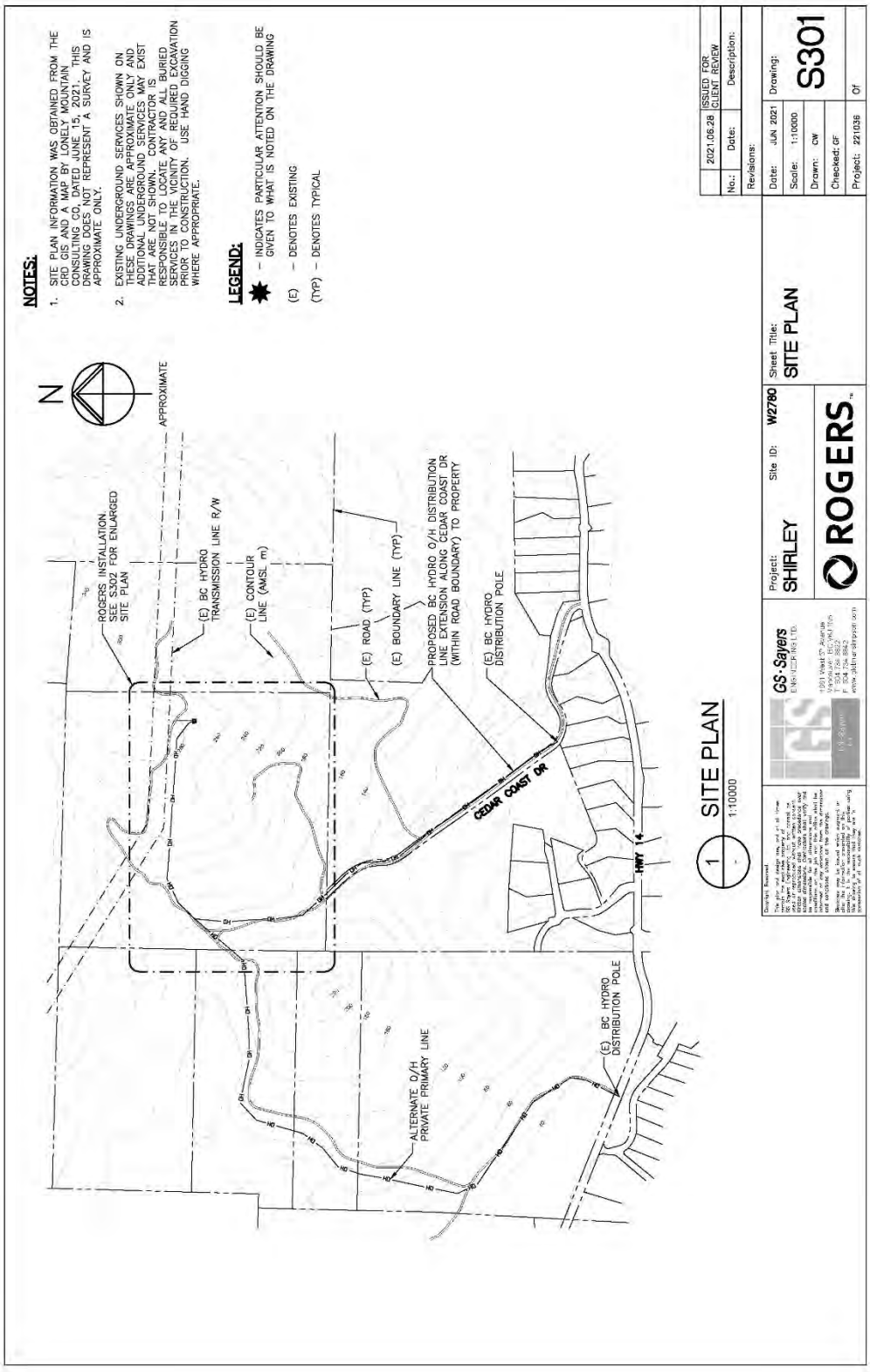
Project: SHIRLEY
Site ID: W2780
Sheet Title: TITLE PAGE

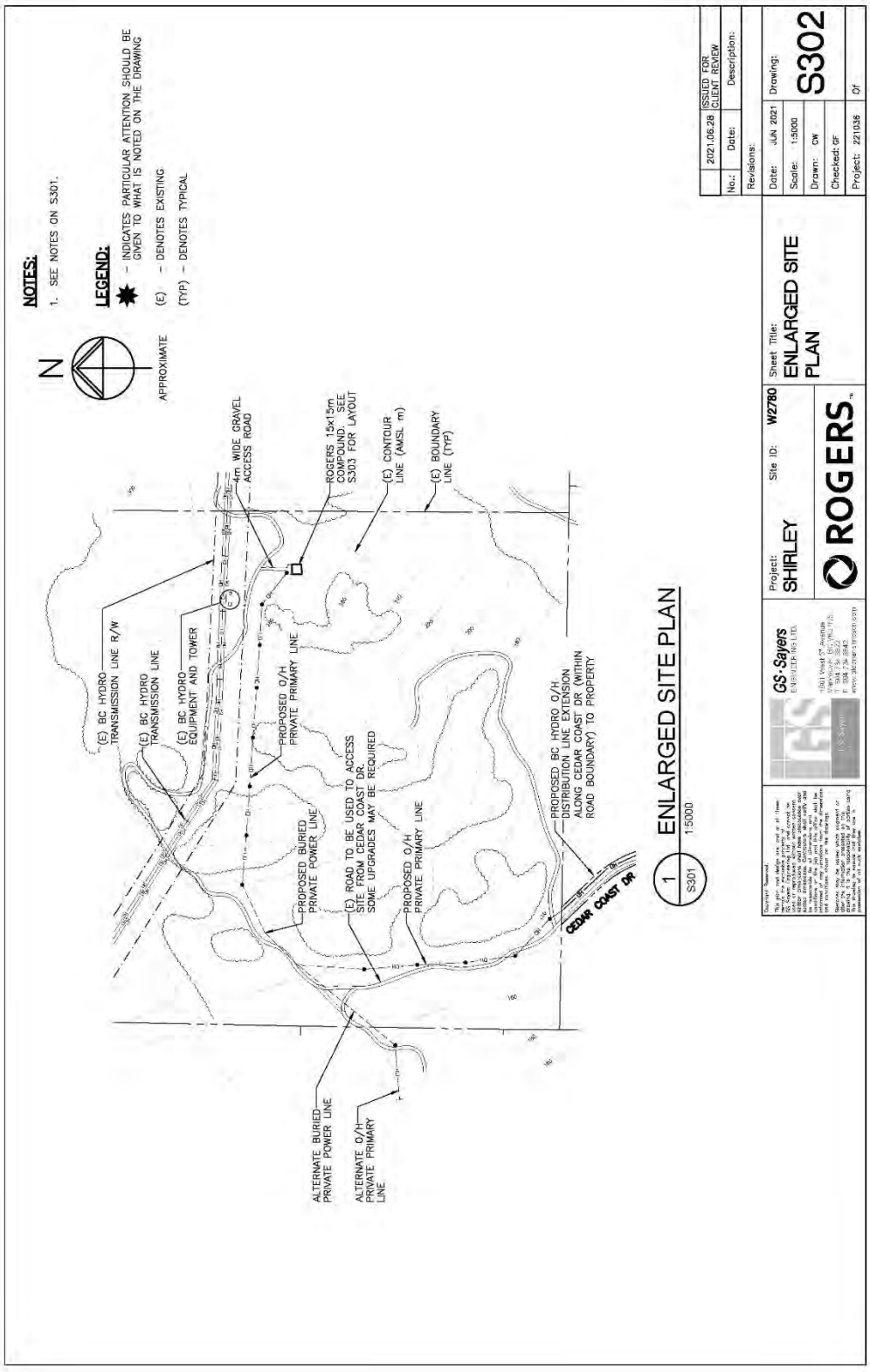
GS-Sayers ENGINEERING LTD
1601 West 5th Avenue
Vancouver, BC V6J 1N5
T 604 734 9822
F 604 734 9823
www.gsthomsenson.com

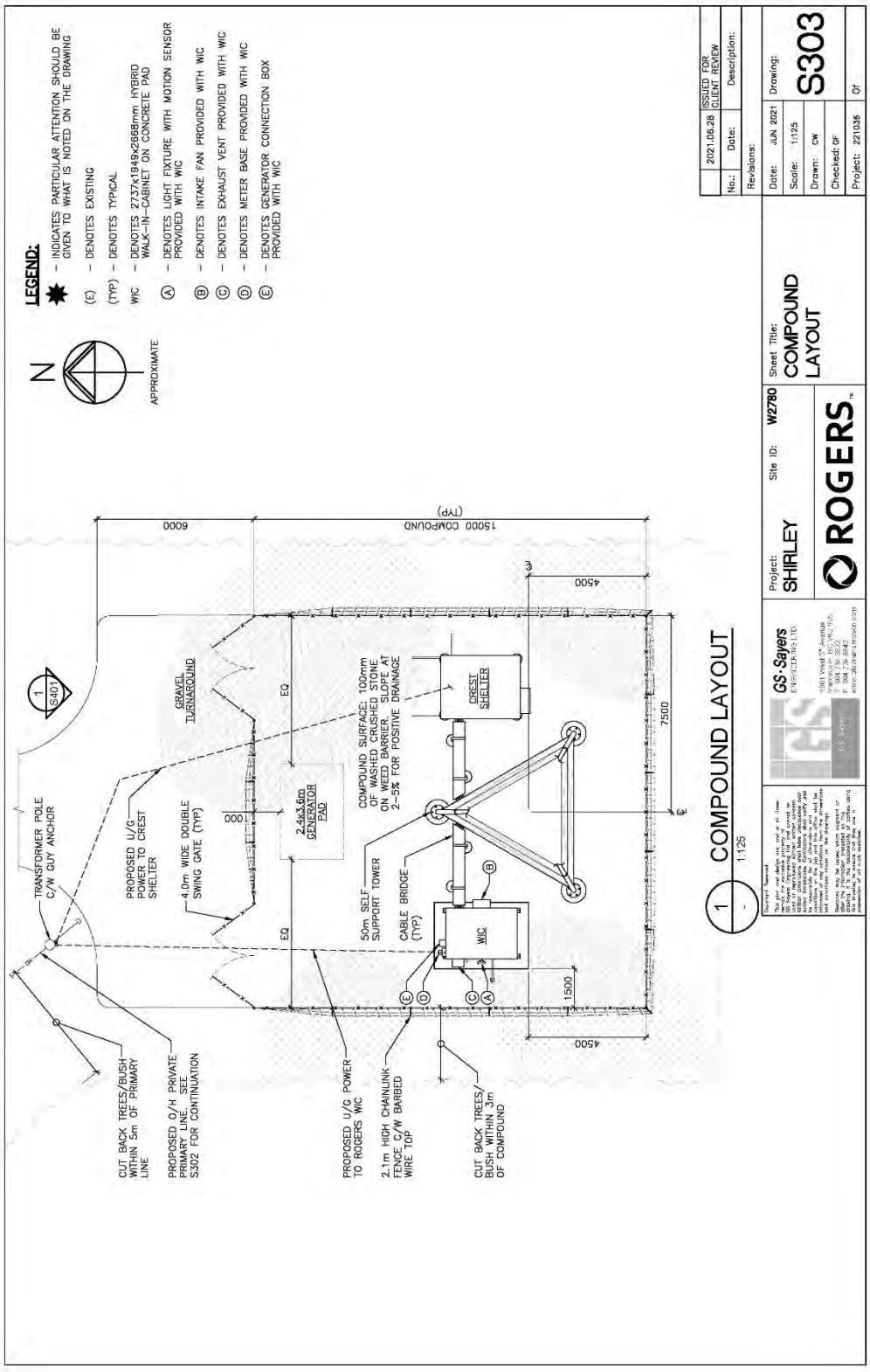
ROGERS™

No.:	Date:	Description:
	2021.06.28	ISSUED FOR CLIENT REVIEW

Revisions:
Date: JUN 2021
Scale: NA
Drawn: CW
Checked: GF
Project: 221036
Drawing: S101
Of


NOTES:
1. SITE PLAN INFORMATION WAS OBTAINED FROM THE CPD TOPOGRAPHIC MAP BY MOUNTAIN CONSULTING CO. DATED JUNE 15, 2021. THIS DRAWING DOES NOT REPRESENT A SURVEY AND IS APPROXIMATE ONLY.
2. EXISTING UNDERGROUND SERVICES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY AND ADDITIONAL UNDERGROUND SERVICES MAY EXIST THAT ARE NOT SHOWN. CONTRACTOR IS RESPONSIBLE TO LOCATE AND AVOID ALL BURIED SERVICES IN THE VICINITY OF REQUIRED EXCAVATION PRIOR TO CONSTRUCTION. USE HAND DIGGING WHERE APPROPRIATE.
LEGEND:
– INDICATES PARTICULAR ATTENTION SHOULD BE GIVEN TO WHAT IS NOTED ON THE DRAWING
(E) – DENOTES EXISTING
(TYP) – DENOTES TYPICAL
N
APPROXIMATE
ROGERS INSTALLATION SEE S302 FOR ENLARGED SITE PLAN
(E) BC HYDRO TRANSMISSION LINE R/W
(E) CONTOUR LINE (AMSL m)
(E) ROAD (TYP)
(E) BOUNDARY LINE (TYP)
PROPOSED BC HYDRO O/H DISTRIBUTION LINE EXTENSION ALONG CEDAR COAST DR (WITHIN ROAD BOUNDARY) TO PROPERTY
(E) BC HYDRO DISTRIBUTION POLE
CEDAR COAST DR
HWY 4
ALTERNATE O/H PRIVATE PRIMARY LINE
(E) BC HYDRO DISTRIBUTION POLE
1 SITE PLAN
1:10000
GS·Sayers
ENGINEERING LTD.
Project: SHIRLEY
Site ID: W2780
Sheet Title: SITE PLAN
ROGERS
2021.06.28 ISSUED FOR CLIENT REVIEW
No.: Date: Description:
Revisions:
Date: JUN 2021
Scale: 1:10000
Drawn: CW
Checked: GF
Project: 221936
Drawing: S301
Of


NOTES:
1. SEE NOTES ON S301.
LEGEND:
- INDICATES PARTICULAR ATTENTION SHOULD BE GIVEN TO WHAT IS NOTED ON THE DRAWING
(E) - DENOTES EXISTING
(TYP) - DENOTES TYPICAL
N
APPROXIMATE
(E) BC HYDRO TRANSMISSION LINE R/W
(E) BC HYDRO TRANSMISSION LINE
(E) BC HYDRO EQUIPMENT AND TOWER
4m WIDE GRAVEL ACCESS ROAD
ROGERS 15x15m COMPOUND. SEE S303 FOR LAYOUT
(E) CONTOUR LINE (AMSL m)
(E) BOUNDARY LINE (TYP)
PROPOSED O/H PRIVATE PRIMARY LINE
PROPOSED BURIED PRIVATE POWER LINE
(E) ROAD TO BE USED TO ACCESS SITE FROM CEDAR COAST DR. SOME UPGRADES MAY BE REQUIRED
PROPOSED O/H PRIVATE PRIMARY LINE
PROPOSED BC HYDRO O/H DISTRIBUTION LINE EXTENSION ALONG CEDAR COAST DR (WITHIN ROAD BOUNDARY) TO PROPERTY
CEDAR COAST DR
ALTERNATE BURIED PRIVATE POWER LINE
ALTERNATE O/H PRIVATE PRIMARY LINE
1 ENLARGED SITE PLAN
S301 1:5000
2021.06.28 ISSUED FOR CLIENT REVIEW
No.: Date: Description:
Revisions:
Project: SHIRLEY
Site ID: W2780
Sheet Title: ENLARGED SITE PLAN
ROGERS
GS·Sayers
Date: JUN 2021
Scale: 1:5000
Drawn: CW
Checked: GF
Project: 221036
Drawing: S302
Of


LEGEND:
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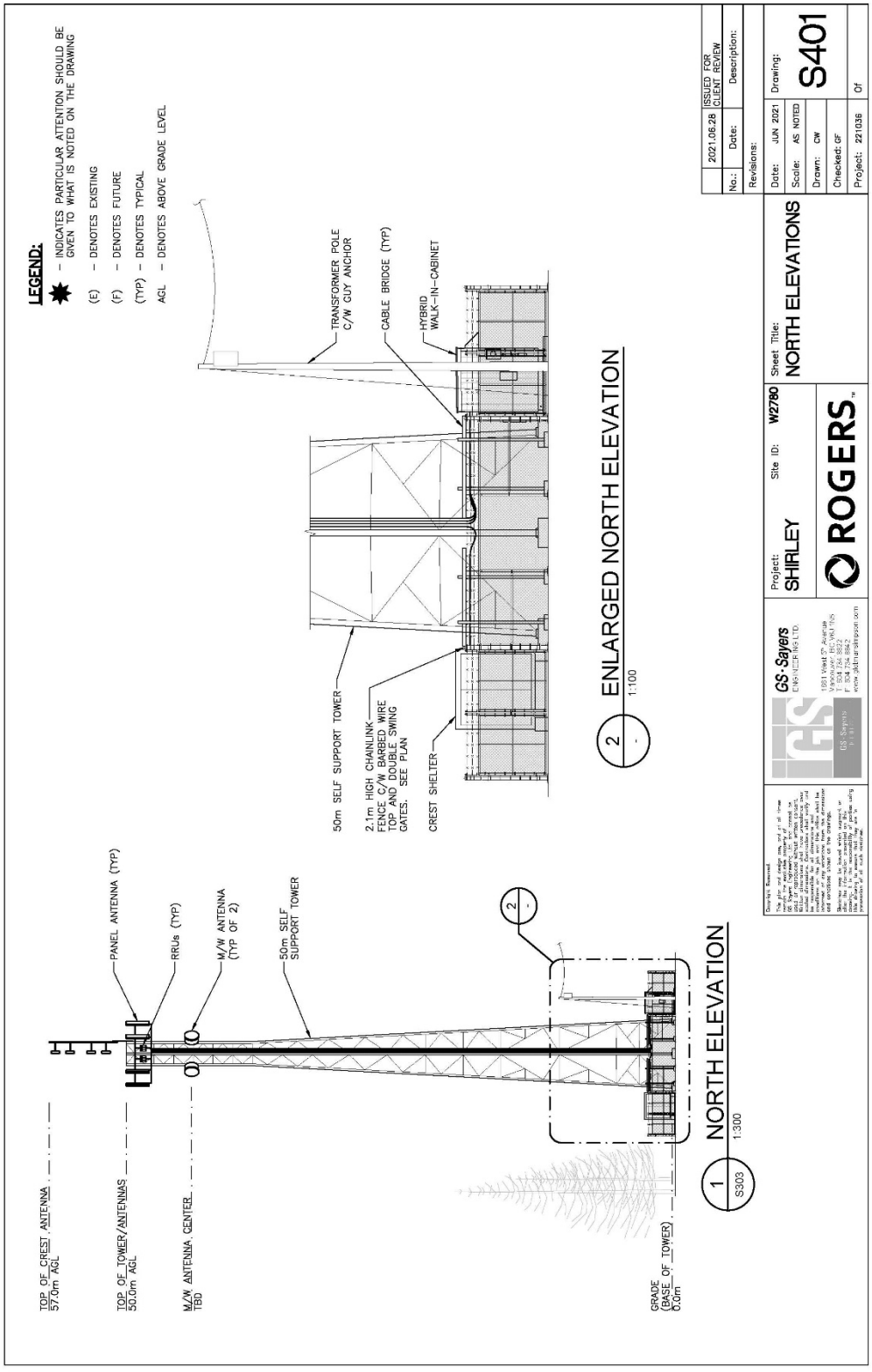
(TYP) – DENOTES TYPICAL
WIC – DENOTES 2737x1949x2668mm HYBRID WALK-IN-CABINET ON CONCRETE PAD
(A) – DENOTES LIGHT FIXTURE WITH MOTION SENSOR PROVIDED WITH WIC
(B) – DENOTES INTAKE FAN PROVIDED WITH WIC
(C) – DENOTES EXHAUST VENT PROVIDED WITH WIC
(D) – DENOTES METER BASE PROVIDED WITH WIC
(E) – DENOTES GENERATOR CONNECTION BOX PROVIDED WITH WIC
N
APPROXIMATE
1 S401
TRANSFORMER POLE C/W GUY ANCHOR
PROPOSED U/G POWER TO CREST SHELTER
4.0m WIDE DOUBLE SWING GATE (TYP)
GRAVEL TURNAROUND
2.4x3.6m GENERATOR PAD
COMPOUND SURFACE: 100mm OF WASHED CRUSHED STONE ON WEED BARRIER. SLOPE AT 2-5% FOR POSITIVE DRAINAGE
50m SELF SUPPORT TOWER
CABLE BRIDGE (TYP)
CREST SHELTER
WIC
6000
15000 COMPOUND (TYP)
4500
7500
1500
EQ
CUT BACK TREES/BUSH WITHIN 5m OF PRIMARY LINE
PROPOSED O/H PRIVATE PRIMARY LINE SEE S302 FOR CONTINUATION
PROPOSED U/G POWER TO ROGERS WIC
2.1m HIGH CHAINLINK FENCE C/W BARBED WIRE TOP
CUT BACK TREES/ BUSH WITHIN 3m OF COMPOUND
1 COMPOUND LAYOUT
1:125
2021.06.28 ISSUED FOR CLIENT REVIEW
No.: Date: Description:
Revisions:
Project: SHIRLEY
Site ID: W2780
Sheet Title: COMPOUND LAYOUT
ROGERS
GS Sayers ENGINEER No LTD.
Date: JUN 2021
Scale: 1:125
Drawn: CW
Checked: GF
Project: 221035
Drawing: S303
Of


LEGEND:
– INDICATES PARTICULAR ATTENTION SHOULD BE GIVEN TO WHAT IS NOTED ON THE DRAWING
(E) – DENOTES EXISTING
(F) – DENOTES FUTURE
(TYP) – DENOTES TYPICAL
AGL – DENOTES ABOVE GRADE LEVEL
TRANSFORMER POLE C/W GUY ANCHOR
CABLE BRIDGE (TYP)
HYBRID WALK-IN-CABINET
50m SELF SUPPORT TOWER
2.1m HIGH CHAINLINK FENCE C/W BARBED WIRE TOP AND DOUBLE SWING GATES, SEE PLAN
CREST SHIELTER
2 ENLARGED NORTH ELEVATION
1:100
TOP OF CREST ANTENNA 57.0m AGL
TOP OF TOWER/ANTENNAS 50.0m AGL
M/W ANTENNA CENTER TBD
GRADE (BASE OF TOWER) 0.0m
PANEL ANTENNA (TYP)
RRUs (TYP)
M/W ANTENNA (TYP OF 2)
50m SELF SUPPORT TOWER
1 NORTH ELEVATION
1:300
S303
GS·Sayers
ENGINEER'ING LTD.
Project: SHIRLEY
Site ID: W2780
Sheet Title: NORTH ELEVATIONS
ROGERS
No.: Date: Description:
2021.06.28 ISSUED FOR CLIENT REVIEW
Revisions:
Date: JUN 2021
Scale: AS NOTED
Drawn: CW
Checked: GF
Project: 221036
Drawing: S401
Of

Appendix C: Evaluation Criteria

Evaluation Criteria:
The CRD Board may consider the following when reviewing an application for an antenna system:

1. Rationale for proposed location;
2. Proximity to residential uses, institutions and public lands;
3. Visibility and measures to integrate the antenna system into the local surroundings;
4. Security measures;
5. Alternatives and/or mitigation measures;
6. Hazardous areas;
7. Environmentally sensitive areas;
8. Transport Canada's aeronautical safety requirements;
9. Referral responses including compliance with BC Building Code, if applicable;
10. Comments received through public notification;
11. Potential impact on the community if the application is approved.
12. Designs that address the following guidelines:

    i) antenna systems are as unobtrusive and inconspicuous as possible;

    ii) the visual aesthetic impacts on the community is minimized;

    iii) landscaping or screening is incorporated;

    iv) displays of any type of lighting are avoided except where required by Transport Canada. Where lighting is proposed for security reasons, it shall be shielded from adjacent properties and kept to a minimum intensity by being of capped, downward facing and motion-sensory designs;

    v) antenna systems are set back at least three times the height of the antenna system from adjacent dwellings. The CRD may request a different setback due to factors such as buffering topography and vegetation, transportation and utility corridors, watercourses, or public comments.

Making a difference...together

REPORT TO REGIONAL PARKS COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 22, 2021

SUBJECT **Regional Trails Widening and Lighting Project**

ISSUE SUMMARY

To provide the outcomes from the public engagement process on the proposed 6.5 metre separated use pathway design with lighting for priority sections of the Galloping Goose and Lochside regional trails and to confirm next steps for securing funding through grant opportunities, partnerships, and reallocation of resources for project assessments, design and construction.

BACKGROUND

The Regional Trails Management Plan (RTMP) provides direction to conduct a comparative study to assess the engineering feasibility and cost/benefits of widening and separating the urban portions of the Galloping Goose and Lochside regional trails (Appendix A) and to study whether to install lighting along the corridors. The Capital Regional District (CRD) retained consultant services in 2019 to conduct the Regional Trails Widening Study (Report). The Report was received by the Regional Parks Committee at its meeting of January 27, 2021.

The Report recommends, and trail user numbers support, a 6.5 m wide separated use pathway design with lighting (Appendix B) and implementation priorities (Appendix C) to address many of the issues on the regional trails noted in the 2013 and 2019 Visitor Use Surveys and the 2016 RTMP, including high user volumes and speed differentials, lack of separation between trail users, poor trail etiquette, lack of lighting, safety concerns at intersections, and crime. The proposed facility design also considers forecasted use trends, changes in technology, best practices and trail design standards, and would enhance access to active transportation options in the region to reduce greenhouse gas emissions (GHGs), which is a current Board priority.

At its February 10, 2021 meeting, the CRD Board directed staff to expedite public engagement on the proposed separated use pathway design, lighting and implementation priorities, including consideration of low-intensity lighting in the trail segment adjacent to Swan Lake, aiming for balance between wildlife and public safety considerations. The Board further directed that public engagement and detailed designs be expedited, with a view toward having a shovel-ready project. Staff delivered an engagement process in spring 2021 for the Regional Trails Widening and Lighting Project that included opportunities for public, government and First Nations input and involvement, and that complied with COVID-19 safety protocols. Feedback highlights strong support for the separated use pathway design, proposed lighting scheme, and the priority sequence for implementation. The report of public engagement is included as Appendix D. Staff have also actively pursued partnerships with provincial and municipal agencies to determine funding options and to advance the project.

ALTERNATIVES

Alternative 1

The Regional Parks Committee recommends to the Capital Regional District Board:
That staff be directed to actively develop partnerships and pursue grant funding opportunities, including submission to the federal Active Transportation Fund, to support implementation of the separated use pathway design with lighting.

Alternative 2

That this report be referred back to staff for additional information.

IMPLICATIONS

Financial Implications

The total construction cost estimate provided in 2020 by the consultant of constructing the separated use pathway for the entire 6.6 km study area is estimated at $14.2 million, including $1.2 million for lighting and a 33% contingency. The order of magnitude 'Class D' cost estimates were derived in 2020 costs, assuming total removal of existing pathway and stripping to design width of new pathway. Staff estimated the total project cost at $17.8 million, when all other costs are included, such as detailed design work, permits, assessments and project management. Staff and the consultants examined opportunities for cost reduction, such as reduced lighting and trail narrowing, and determined an overall project cost of as low as $13.2 million.

Feedback from the engagement process indicates strong support for full implementation of the separated use pathway design with lighting concept. While cost saving measures are available, compromises to the overall facility design do not align with public feedback received.

The federal Active Transportation Fund is a $400 million, five-year investment to fund projects in Canada that support active transportation infrastructure. The Fund will contribute up to 60% of municipal capital projects (40% where the asset is provincial), with the remaining funds sourced by other levels of government. Application intake is expected to open in fall 2021. Funding opportunities of this significance are not anticipated to be available beyond this five-year investment. Staff seek direction to submit a funding application for the project.

At this time, this project is not considered in the capital plan and there is no opportunity to fund the project through the CRD Regional Parks capital program, as the budget is fully subscribed on asset renewals to address critical infrastructure and public safety. To advance the project, reallocation of resources and innovative cost-sharing approaches are required to support implementation of the project in a phased approach over a number of years.

Service Delivery Implications

At its meeting of July 14, 2021, the Board advanced implementation of priority active transportation actions, including upgrading heavily-used urban sections of regional trails. User volumes continue to increase, with over 800,000 recorded cyclists on the Galloping Goose at Selkirk Trestle so far in 2021, and with average daily user volumes over 3,700 in August 2021, compared to 2,600 for the busiest months over the past five years. Development of a shovel-ready regional trail improvement project is within scope of the existing CRD service; however, additional staff and financial resources would be required to support the increased service level.

Critical infrastructure on the regional trails within the 6.6 km study area identified for improvement in the next five years include: $20,000 for repairing the Interurban Bridge and $80,000 for repairs to the Lochside trail at Borden Street in 2022; and $4.45 million for assessment, design and replacement of the Swan and Brett trestles between 2023-2026. Where existing infrastructure requires repair or replacement, opportunities to integrate the proposed facility design should be considered. Planned improvements by Regional Parks or other agencies with jurisdiction in the trail corridors offer opportunity for efficiencies by aligning project work; however, flexibility in the sequence for implementation of the separated use pathway is required. Examples of project synergies determined through stakeholder discussions include: City of Victoria's cycling network

improvements on Gorge Road in 2022 and underground utility replacement within the Galloping Goose corridor in 2023, and Saanich's planned mobility hub improvements at Uptown.

Intergovernmental Implications

Implementation of the separated use pathway design with lighting requires collaboration and coordination among government agencies and community partners. The segments of regional trails in the study area are owned by the Province (Ministry of Transportation & Infrastructure - MOTI) and road crossings are within the City of Victoria and District of Saanich jurisdictions. Staff-level discussions with government agencies to date indicate strong support for advancing the project.

The CRD, MOTI and the BC Transportation Financing Authority have established an agreement to collaborate on providing input on design and implementation of the Regional Trails Widening and Lighting Project, with an aim to achieve active transportation targets and implement design standards.

First Nations with an interest in the project area wish to provide further input should the project be implemented. Comments on the proposed project were received from the W̱SÁNEĆ Leadership Council and Esquimalt and Songhees Nations. This feedback indicates interest in understanding any archaeological and environmental implications, in having cultural monitors present during land altering activities, and in any economic development opportunities arising from the project. An archaeological assessment would be required as a next step to inform development of the project.

Social Implications

The public engagement process for this project included an online survey, virtual open houses, meetings with stakeholders, and a variety of communications materials (Appendix D). In total, 1,784 online surveys were completed between May 25 and June 13, 2021. Overall, the majority of respondents support or strongly support the separated use pathway design (90% for Section A Selkirk – Switch Bridge; 88% for Section C Switch Bridge – McKenzie Avenue; and 87% for Section B Switch Bridge – Grange Road). With regards to the proposed sequence for implementation, 83% of respondents indicated support or strong support. The majority of respondents also indicated support or strong support for lighting the three sections of regional trails (87% for Section A Selkirk to Switch Bridge; 84% for Section C Switch Bridge – McKenzie Avenue; and 83% for Section B Switch Bridge – Grange Road), with 79% supporting or strongly supporting low-intensity lighting options adjacent to Swan Lake Nature Sanctuary between Darwin Avenue and Quadra Street. Of the 239 responses objecting to low-intensity lighting in this section of trail, the majority indicated preference for no lighting. An additional 904 comments were received from survey respondents relating to lighting, trail etiquette, trail widening, ecological values, wildlife and habitat, facility design, separation of users, opposition and concern for project costs. Similar themes were identified in the 10 email submissions received about the project.

Overall, public feedback received indicates strong support for the proposed separated use pathway design with lighting and implementation sequence. Should the separated use pathway with lighting improvements be implemented, ongoing monitoring and evaluation of the success of the facility could be assessed through future Visitor Use Surveys, trail counter data, and analysis of regional multi-modal transportation targets.

Environmental & Climate Implications

The CRD Board declared a climate emergency in 2019, and Board Priorities for 2019-2022 identify green and affordable multi-modal transportation and reduced greenhouse gas emissions as desired outcomes. The Regional Trails Widening and Lighting Project aligns with these priorities and with the CRD Regional Trails Management Plan, Regional Climate Action Strategy, Regional Transportation Plan and Regional Growth Strategy, and with policies from other agencies, such as the National Active Transportation Strategy, Clean BC, Move, Commute, Connect, and the South Island Transportation Strategy.

Potential impacts of widening and lighting the regional trails was raised during the engagement process. Environmental and geotechnical assessments would be required as next steps to inform preparation of detailed design drawings. Opportunities for natural areas restoration, removal of invasive species and stormwater management could be realized through the project. In addition, efficiencies can be gained where the new facility design can be incorporated into planned projects.

CONCLUSION

Public engagement on the Regional Trails Widening and Lighting Project was conducted in spring 2021. Results indicate strong support for the separated use pathway design and lighting concept, as well as for the proposed implementation sequence. Municipal and provincial partners are also in support of advancing the project by identifying project synergies, collaborating on design and pursuing funding. A significant amount of funding for active transportation projects is being released by federal and provincial programs, including the Active Transportation Fund. The CRD will continue to pursue partnerships and grant funding opportunities to support the project.

RECOMMENDATION

The Regional Parks Committee recommends to the Capital Regional District Board:

That staff be directed to actively develop partnerships and pursue grant funding opportunities, including submission to the federal Active Transportation Fund, to support implementation of the separated use pathway design with lighting.

Submitted by:	Jeff Leahy, Senior Manager, Regional Parks
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

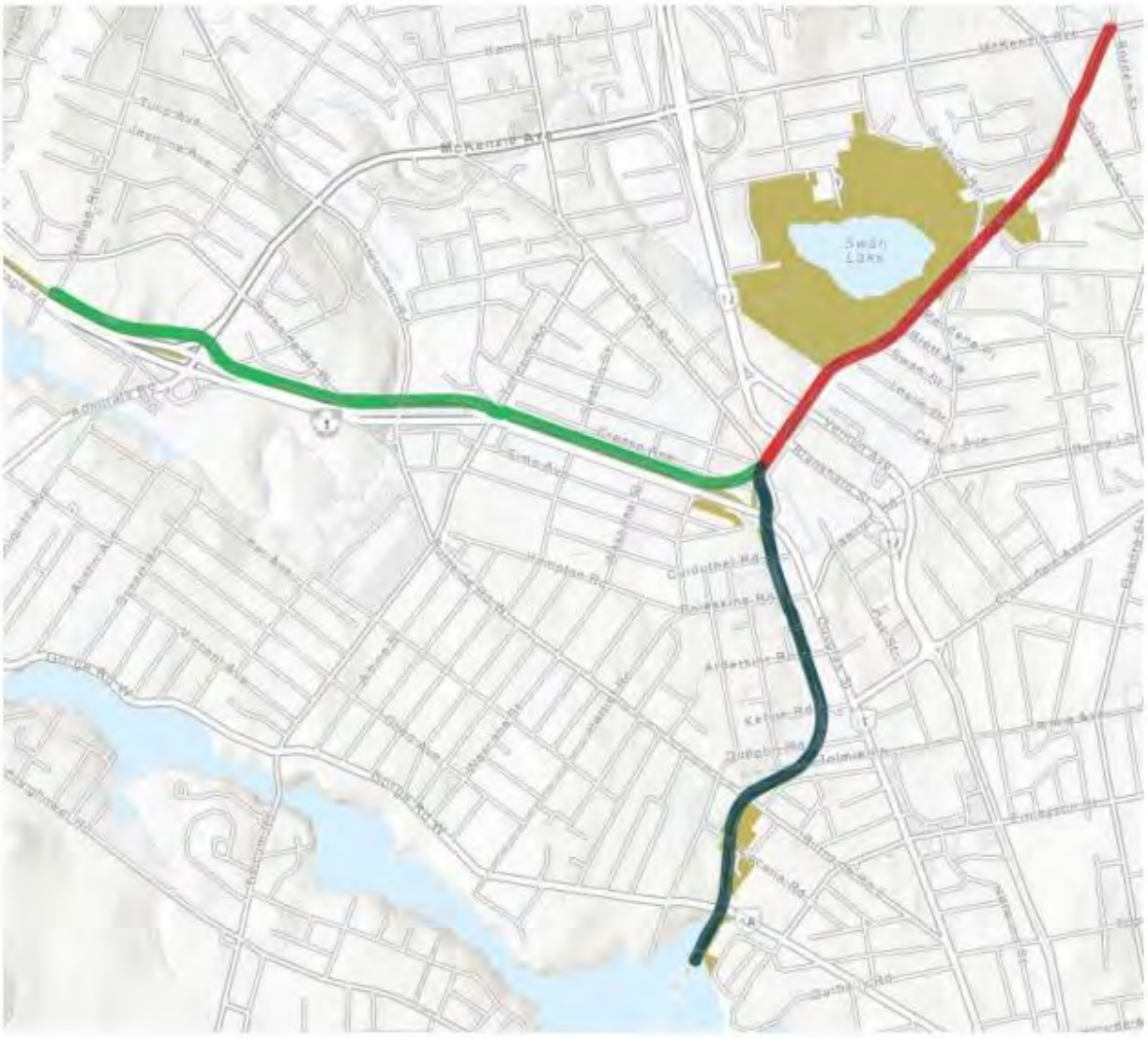
ATTACHMENTS

Appendix A: Regional Trails Widening Study Area – Map
Appendix B: Separated Use Pathway Design
Appendix C: Implementation Priorities
Appendix D: Regional Trails Widening and Lighting Project – Report of Public Engagement

APPENDIX A

REGIONAL TRAILS WIDENING STUDY AREA MAP

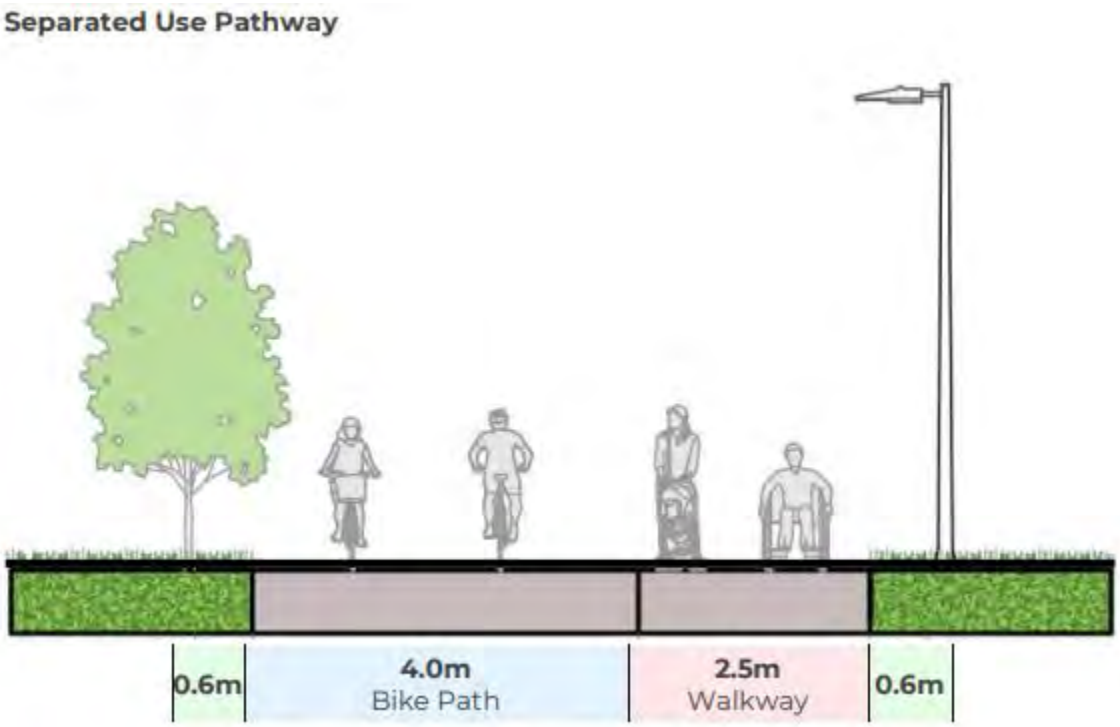
September 2021



APPENDIX B

SEPARATED USE PATHWAY DESIGN

September 2021



APPENDIX C

IMPLEMENTATION PRIORITIES

September 2021

Regional Trails Widening and Lighting Project

Making a difference...together

Regional Parks

Capital Regional District | September 2021

Table of Contents

1.0 Introduction 2

2.0 Purpose of the Report 4

3.0 Engagement Period 4

4.0 Focus of Engagement 4

5.0 Who Was Engaged 4

6.0 Engagement Methods 6

7.0 Responses 7

8.0 Limitations 8

9.0 Conclusion 9

Appendix A: Online Survey Methodology 10

Appendix B: Online Survey Responses 12

Appendix C: Virtual Open House Comments 27

Appendix D: Advertisement 30

Appendix E: Posters 31

1.0 Introduction

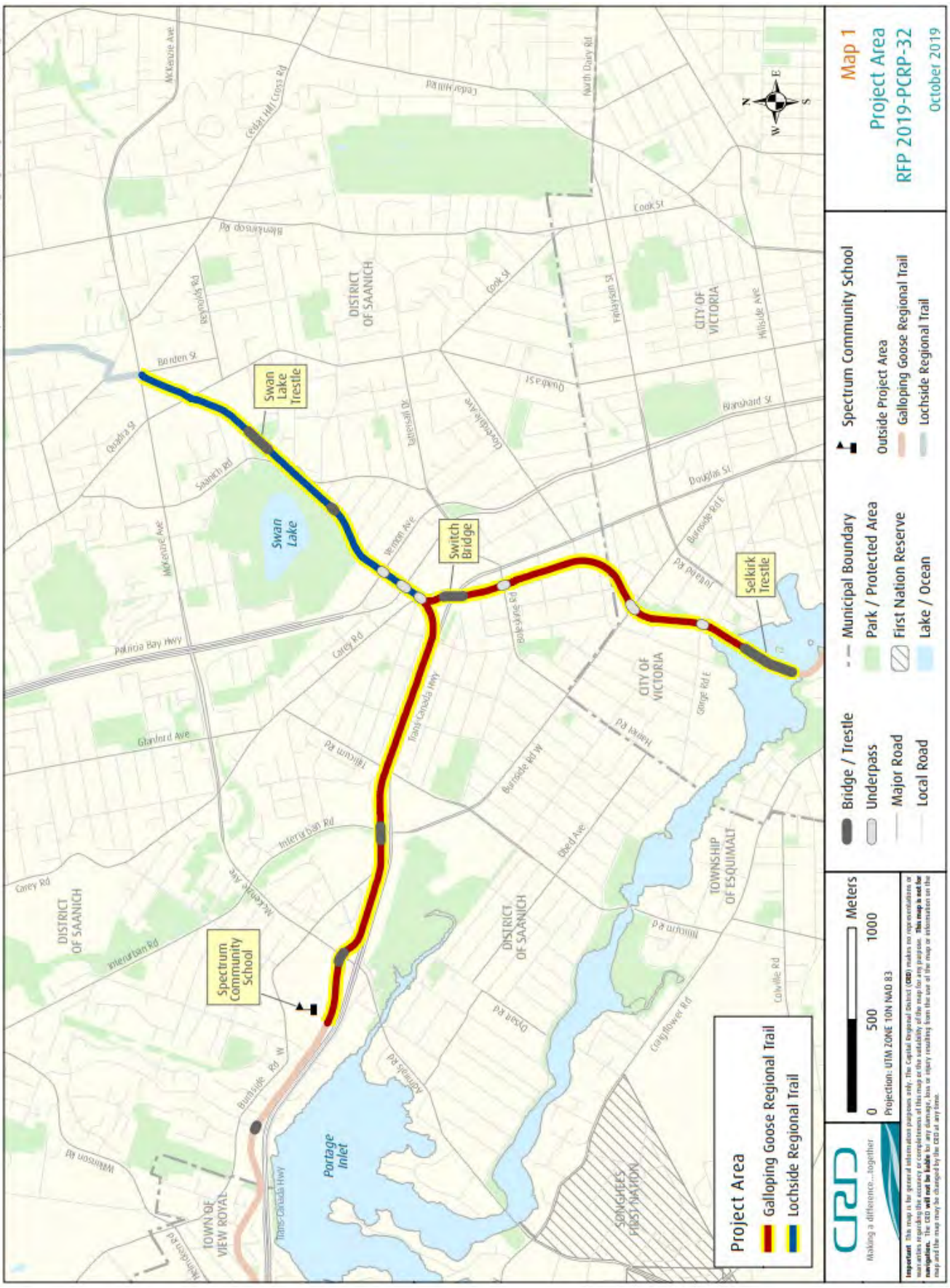
The Galloping Goose and Lochside regional trails have steadily increased in popularity since being constructed in the late 1980s (Galloping Goose) and early 2000s (Lochside) and now average over 3 million visits per year. The increase in user volumes, types of users and safety concerns in urban trail sections have been identified as challenges for years.

The 2016 Regional Trails Management Plan (RTMP) identifies assessing the feasibility of separating or widening the Galloping Goose between the Selkirk Trestle and Grange Road at McKenzie Avenue/Highway 1, as well as to assess widening the Lochside between the Switch Bridge and McKenzie Avenue. The RTMP also identifies the need to study the possibility of adding lighting along regional trails.

The Capital Regional District (CRD) retained consultant services in 2019 to conduct the Regional Trails Widening Study. The Study considered options to widen and separate trail users and potentially light the 6.6 km portions of the Galloping Goose and the Lochside regional trails identified in the RTMP (Map 1).

Urban Systems and PBX Engineering were retained to conduct the study and submitted a report with recommendations and conceptual design drawings in 2020. The report was received by the Regional Parks Committee and the CRD Board in February 2021. Staff were directed to conduct expedited public engagement on the 6.5 m separated use pathway design with lighting and implementation priorities as recommended, including consideration of low-intensity lighting in the trail segment adjacent to Swan Lake, aiming for balance between wildlife and public safety considerations.

Map 1: Project Area



2.0 Purpose of the Report

The purpose of this report is to summarize the expedited engagement process conducted in spring 2021 and to highlight responses and key themes received by the general public related to supporting/opposing the proposed Regional Trails Widening and Lighting Project.

3.0 Engagement Period

The expedited engagement process was launched from May 25 to June 13, 2021 and included the following opportunities to participate:

- Two virtual open houses held on June 4 and June 7, 2021;
- An online survey available on the project website from May 25 to June 13, 2021;
- Meetings with staff from government and agencies; and
- Invitations to First Nations to provide input.

A project webpage and communication materials were published and circulated in May and June 2021. This report includes a summary of the expedited engagement activities completed and responses received until the end of June 2021.

4.0 Focus of Engagement

The CRD is committed to involving First Nations, stakeholders and the public in the development of regional trails. The aim of this expedited engagement process is to inform First Nations, stakeholder groups and the public about the Regional Trails Widening Study and to determine the level of support for the proposed 6.5 m separated use pathway design with lighting and implementation priorities from interested and affected individuals.

Other goals of the engagement process included information sharing, dialogue and discussion, building ongoing relationships and developing regional trail facilities that reflect organizational needs and public interests.

5.0 Who Was Engaged

5.1 First Nations

First Nations with traditional territory within the project area were invited to provide input on the proposed project. Letters and emails were sent to Songhees Nation, Esquimalt Nation, Pauquachin Nation and to the W̱SÁNEĆ Leadership Council in May and June 2021.

5.2 Government & Agencies

Meetings with staff from agencies and government departments with direct or related jurisdiction over the regional trails were held between May and June 2021, which included: the City of Victoria, District of Saanich, Ministry of Transportation & Infrastructure and the Saanich and Victoria Police departments. A meeting was also held with staff from Swan Lake Nature Sanctuary who expressed interest in the project as being adjacent to the Lochside Regional Trail.

These government and agencies were notified by email about the project and requested to provide input related to their jurisdictional role and interest in the project. Information sharing about potential project synergies, mutual interests and cost-sharing was encouraged.

5.3 Interest Groups

Interest groups with general interest or expertise in the project were notified by email about the engagement process and opportunities for input through the online survey and virtual open houses.

Thirty-seven interest groups were identified from a larger contact list used by Regional Parks for engagement processes. These interest groups included: the Greater Victoria Cycling Coalition, South Island Mountain Bike Society, Victoria Pathfinders Walking Club, Southern Vancouver Island Nature Trails Society, Garden City Horseman's Club, Capital Region Equestrians, Victoria Disability Resource Centre, Eccentrics, Wheelhouse Society, Victoria Wheelers, Xtreme Eccentrics, Victoria Club Tread, Wednesday Wanderers, Run Victoria, UVic Student Society, UVic Campus Planning and Sustainability, Vancouver Island University Student Union, Camosun College Student Society, Tripleshot Cycling Club, Victoria Club Tread, SHIFT collaborative, GoByBike Week, Saanich Community Association Network, Greater Victoria Placemaking Network, Boys and Girls Club of Victoria, Tourism Victoria, Walk On Victoria, Better Transit Alliance, Swan Lake Nature Sanctuary, Habitat Acquisition Trust, The Nature Conservancy, Canadian Forces Base Esquimalt, Dirty Girlz Bike Club, Marigold School Parent Advisory Committee, Spectrum School Parent Advisory Committee, School District 61 and St. Joseph's Victoria School.

Adjacent owners and occupants of the trail corridor were not directly notified as part of this process but were targeted through the broader notification to community interest groups described above. Also, individuals and stakeholders with tenure agreements within the trail corridor were not directly notified as such agreements are between the Ministry of Transportation & Infrastructure as the property owner and not the CRD.

5.4 General Public

The general public in the region were notified of the project and opportunities on how to provide input through the CRD website, social media, advertising campaigns, video, email notification, and posters on the trails.

6.0 Engagement Methods

A number of tools and approaches were used to engage First Nations, the public, interest groups and agencies in the project. The following sections describe in more detail the engagement methods used to inform the public about the project; to gather information, views and opinions; and to discuss stakeholder interests.

6.1 Website

A project webpage was established on the CRD website in March 2021 and is updated for the duration of the project (www.crd.bc.ca/TrailsProject). The webpage includes an overview of the project; materials summarizing the proposed separated use pathway design with lighting and rationale; information about the engagement process; and frequently asked questions with answers. There were 2,902 visits to the project webpage during the engagement period from May 25 to June 13, 2021.

6.2 Online Survey

An online survey was made available through a link on the project webpage from May 25 to June 13, 2021. The survey included 13 questions with both quantitative and qualitative responses. A map of the project area and links to the Regional Trails Widening Study accompanied the survey to provide additional context about the proposed project. Options were made available for completing the survey by phone or in writing. Survey methodology is included in Appendix A. In total, 1,784 online surveys were filled out by participants. Results of the online survey are summarized below and included in Appendix B. In addition, 10 email submissions were received and the results are also included in Appendix B.

6.3 Virtual Open Houses

Two virtual open houses were held using the CRD's Zoom webinar platform to provide information about the project and to respond to questions and comments from participants (Appendix C). The virtual open houses were held on June 4 from 7-8 pm and on June 7 from 12-1 pm. The CRD project manager and the lead consultant for the Regional Trails Widening Study delivered a twenty minute presentation and responded to questions and comments. There were 44 participants in total. Recordings of the virtual open houses are posted on the project webpage. Participants were able to remain anonymous to ensure their privacy.

6.4 Video

A short video was produced to highlight the project rationale and details of the separated use pathway design with lighting. A link to the video was available on the project website and hosted on CRD's YouTube account at: https://www.youtube.com/user/CRDVictoria/videos.

6.5 Advertising

A media release was issued by the CRD on May 25, 2021 outlining the project and engagement process and encouraging the public to complete the online survey. Multiple news outlets received the media release and published articles during that week.

A print ad was published in the Black Press newspapers on May 26, 2021. An online ad was published in the Times Colonist on May 28, 2021. The ads directed readers to the project webpage to complete the online survey (Appendix D).

Posters were placed at various key points along the project area notifying trail users about the project and engagement process, and directing them to the webpage and online survey (Appendix E).

6.6 Social Media

Social media posts were made on the CRD's Facebook and Twitter accounts during May and June 2021, directing people to the project webpage and online survey. These posts went out to 7,126 followers on Twitter and 3,899 followers on Facebook.

Facebook ads were boosted throughout the survey process, with a link to the project webpage to complete the online survey. The targeted demographic for these ads were people living in the region aged 18-65+. Table 1 outlines the level of engagement with the Facebook ads.

Dates	Reach	Post Engagements*	Link Clicks
June 8-12, 2021	15,021	909	616

Table 1: Facebook Ads

*Post engagements refer to someone liking, sharing, commenting on or otherwise engaging with the post.

7.0 Responses

The following is a summary of the responses received through the initial engagement process.

7.1 First Nations

Comments were received from WSÁNEĆ Leadership Council, Esquimalt Nation and Songhees Nation. Feedback indicated an interest in the archaeological implications of the project; in having cultural monitors present during land altering activities; in understanding any potential environmental impacts of the project; in any economic development opportunities; and concern for infringements on Douglas Treaty Rights.

7.2 Government & Agencies

Comments were received from staff at the District of Saanich, City of Victoria, Ministry of Transportation & Infrastructure, Victoria and Saanich Police departments and Swan Lake Nature Sanctuary. Feedback received from municipal and provincial government departments indicated strong support for the project and a commitment to pursue partnerships and/or align initiatives to achieve efficiencies and positive outcomes. Both Victoria and Saanich Police departments offered insight into safety along the trails and expertise in Crime Prevention through Environmental Design should the project advance to detailed designs. As an adjacent property owner and conservation organization, Swan Lake Nature Sanctuary stated concern for potential environmental impacts from the proposed trail widening and lighting, suggesting the CRD focus on improving trail etiquette, and expressed interest in future partnerships to minimize impacts, remove invasive species and restore the area should the project move forward.

7.3 Interest Groups & General Public

Responses to the online survey were submitted by members of the public who may or may not represent special interest groups in the region. Similarly, the identity of participants in the virtual open houses was not disclosed.

A total of 1,784 online surveys were completed between May 25 and June 13, 2021 (Appendix B). The majority of respondents were residents of Saanich and Victoria and between 35-44 years old. Survey responses indicate strong support for the separated use pathway design and for the priority sequence for implementation. Strong support was also indicated for lighting the trails and for low-intensity lights adjacent to Swan Lake Nature Sanctuary between Darwin Avenue and Quadra Street. Of the 239 respondents who oppose low-intensity lights adjacent to Swan Lake Nature Sanctuary, the majority indicated a preference for no lighting in that section. Responses to the open-ended survey question asking for comments about the project relate to trail lighting, trail etiquette, widening, ecological values, wildlife and habitat, design suggestions, separation and cost. In addition to the qualitative survey responses, email submissions and virtual open house questions/comments largely related to trail lighting, ecological values, wildlife and habitat, and trail etiquette (Appendix C).

8.0 Limitations

Feedback about the Regional Trails Widening and Lighting Project was gathered through an expedited engagement process, which limited the extent and depth of engagement. Nevertheless, the data collected through the expedited engagement process can be strengthened through the insights obtained in the 2013 and 2019 Regional Trails surveys, both of which lead to this project.

Participants may have provided input related to other issues related to the regional trails (i.e., trail etiquette, motorized vehicles), yet those comments cannot be directly considered as part of the Regional Trail Widening and Lighting Project.

Significant limitations to in-person engagement were experienced due to COVID-19 public safety measures. Because of the quick turnaround of this project, there was no opportunity to develop a COVID-19 Safety Plan outlining protocols for in-person engagement. Hence, typical community events such as in-person open houses were not feasible.

Technological tools were heavily relied on during this engagement process due to COVID-19 public safety measures. Lack of access to, and knowledge of, technology can be a limitation to those wishing to participate.

Finally, the project timeline and allocated resources constrain the project to an extent. The timeline for engagement was limited to 20 days between May and June 2021. Project financial expenditures were kept minimal by primarily focusing expenses on advertising, support from the consultant and printing materials.

9.0 Conclusion

Staff were directed by the CRD Board in February 2021 to conduct an expedited public engagement on the 6.5 m separated use pathway design with lighting and implementation priorities, including consideration of low-intensity lighting in the trail segment adjacent to Swan Lake. Public engagement was conducted on the Regional Trails Widening and Lighting Project between May 25 and June 13, 2021. First Nations, government and agencies were also invited to provide input. A number of tools and approaches were used to provide information about the project, to gather views and opinions, and to discuss stakeholder interests which included: a project webpage, video, posters, advertisements, social media, an online survey and virtual open houses.

A total of 1,784 online surveys were completed, 10 email submissions received, 44 participants attended the virtual open houses, and approximately 18,000 people viewed the project webpage or social media posts. Survey responses indicate strong support for the separated use pathway design and for the priority sequence for implementation. Strong support was also indicated for lighting the trails and for low-intensity lights adjacent to Swan Lake Nature Sanctuary between Darwin Avenue and Quadra Street. Three First Nations provided comment about potential environmental and archaeological impacts. Staff from Swan Lake Nature Sanctuary expressed concern for environmental impacts of widening and lighting. Staff representing government agencies expressed support for the project and willingness to align initiatives or partner, where possible.

Appendix A: Online Survey Methodology

A survey, with 13 questions focused on support and opposition toward the Regional Trails Widening and Lighting Project, was available on the CRD website from May 25 to June 13, 2021. The questionnaire was designed to take 5-8 minutes to complete.

Close-ended questions were measured through a five-point rating scale ranging from strongly support to strongly oppose or by offering pre-determined categories. Close-ended questions were used to reduce the response burden for participants. An open-ended question was included at the end of the survey to allow respondents to offer additional comments and clarify their responses, if they wished. Questions about participants' demographic characteristics (i.e., age, residency) were also added to the questionnaire.

Analysis

The Statistical Package for the Social Sciences version 25.0 (IBM 2017) was used to analyze descriptive statistics, which are reported as a percentage for all quantitative questions of the survey. To analyze the qualitative comments provided by participants in a replicable and systematic manner, content analysis was performed. Specifically, all qualitative data were categorized using codes, which allowed identifying code themes and response patterns. Both dimensions of a content analysis, quantitative (focused on counting and measuring) and qualitative (focused on interpreting and understanding) were used to offer insights on respondents' opinions about the Regional Trails Widening and Lighting Project. Content analysis was also used to analyze the emails received by CRD staff from the public and the questions posed by participants during the open houses.

Rationale

It is important to acknowledge that the aim of the survey was to offer an easy-to-access venue for the public to voice their opinions about the Regional Trails Widening and Lighting Project. The information obtained through this participation tool is not intended to be representative of the whole population of the island or the capital region. Hence, the data reported in this document will not be generalized to the broader population.

The survey was used to ensure that respondents' support/opposition toward the Regional Trails Widening and Lighting Project are documented and considered. The information retrieved through this participatory tool complement the insights provided by the other engagement approaches reported in this document. The data in the following appendices should therefore be interpreted in conjunction with the overall engagement process outcomes.

Freedom of Information and Protection of Privacy Act and Privacy Impact Assessment

All responses in the survey were voluntary, thus participants had the freedom to skip any question they did not wish to answer. All information was collected in compliance with the *Freedom of Information and Protection of*

Privacy Act. A Privacy Impact Assessment (CRD PIA #21-016) was developed for this project to ensure research involving humans was conducted in compliance with ethics and local legislation.

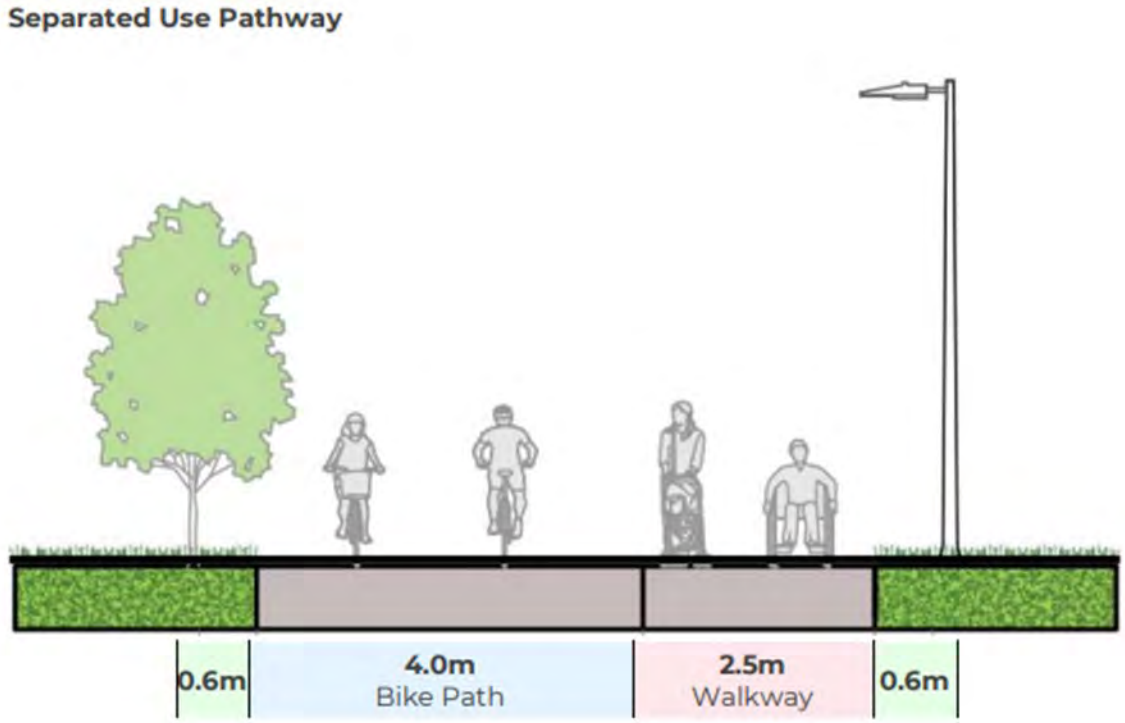
Appendix B: Online Survey Responses

A total of 1,784 online surveys were filled out by participants to the survey between May25 and June13, 2021 (Figure 1). Below is a summary of the online survey responses.

Figure 1: Regional Trails Widening and Lighting Surveys filled by participants during the engagement period.

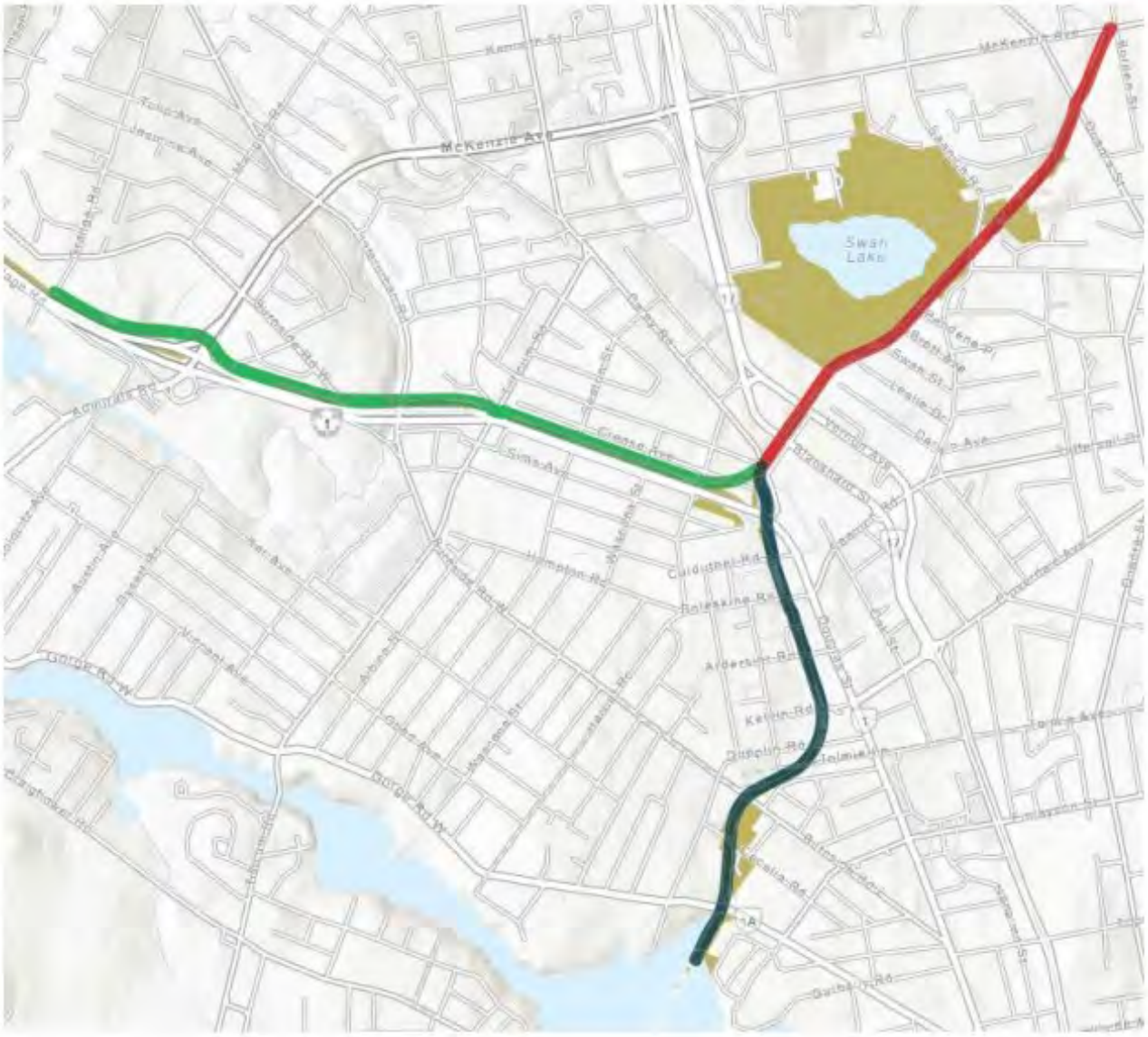
Section 1: Widening Design

A conceptual design was recommended for widening and lighting three sections of the Galloping Goose and Lochside regional trails. To accommodate increased trail use, the design would widen the paved surface to 6.5 m and create a cycling path (4.5 m wide, dual direction) and an adjacent pedestrian path (2 m wide, dual direction), separated by a painted line.



Support and opposition toward the possibility of widening the trails was explored for:

- the Galloping Goose Regional Trail between the Selkrik and Switch Bridge (2.0 km);
- the Lochside Regional Trail between the Switch Bridge and McKenzie Avenue (2.0 km); and
- the Galloping Goose Regional Trail between the Switch Bridge and Grange Road (2.6 km).



QUESTION 1-3: DO YOU SUPPORT OR OPPOSE THE RECOMMENDED WIDENING DESIGN PROPOSED FOR THE GALLOPING GOOSE REGIONAL TRAIL BETWEEN THE SELKRIK AND SWITCH BRIDGE (2.0KM), THE LOCHSIDE REGIONAL TRAIL BETWEEN THE SWITCH BRIDGE AND MCKENZIE AVENUE (2.0KM), AND THE GALLOPING GOOSE REGIONAL TRAIL BETWEEN THE SWITCH BRIDGE AND GRANGE ROAD (2.6KM)?

There were 1,784 responses. The majority of respondents supported the widening designed proposed for the three sections of the regional trails.

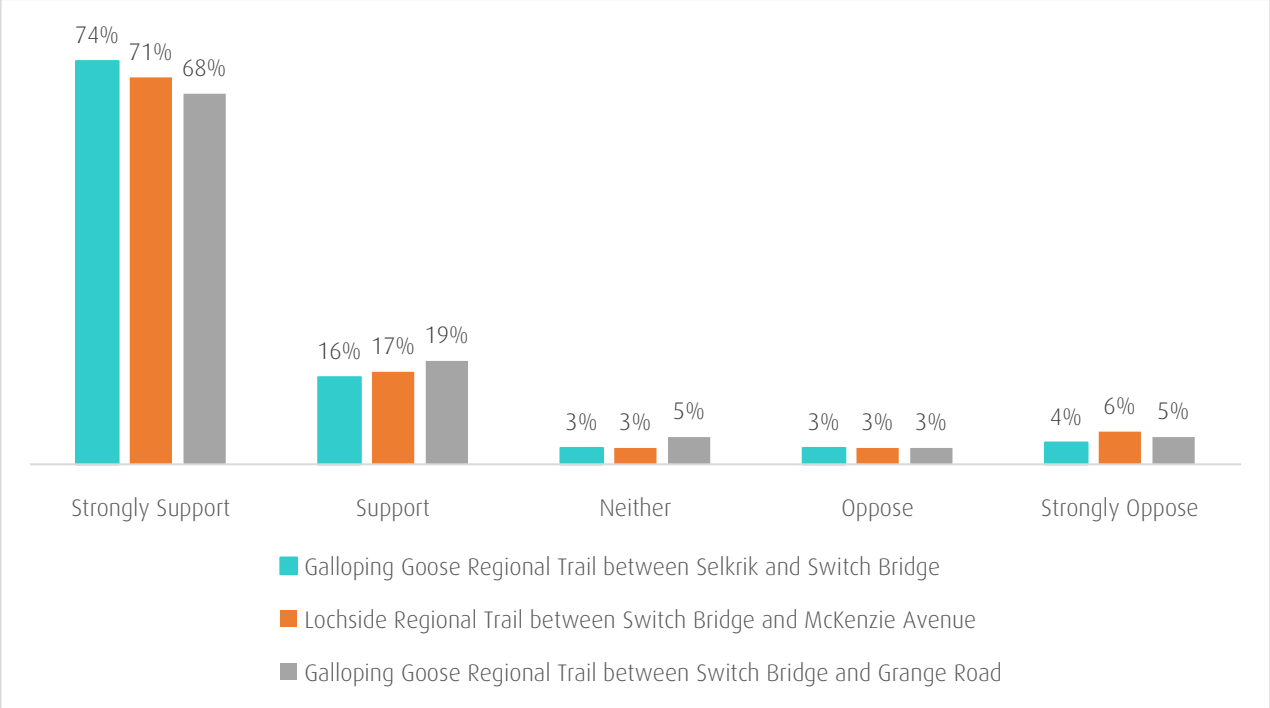


Figure 2: Support/opposition expressed by participants to the survey in regard to the widening design proposed for the three sections of the regional trails.

Section 2: Phases

Support/opposition toward the recommended phased sequence to implement the project was explored. The sequence proposed was:

1. Galloping Goose between Selkirk Trestle and Culduthel Road – 1,600 m
2. Galloping Goose between Culduthel Road and trail junction (including Switch Bridge), and Lochside Trail between trail junction and Darwin Avenue – 700 m
3. Lochside Trail, Darwin Avenue to McKenzie Avenue – 1,600 m
4. Galloping Goose between Lochside Trail junction and Tillicum Road – 950 m
5. Galloping Goose between Tillicum Road and Grange Road – 1,600 m

QUESTION 4: DO YOU SUPPORT OR OPPOSE THE RECOMMENDED PHASED SEQUENCE?

There were 1,784 responses. The majority of respondents supported the recommended phased sequence proposed for the three sections of the regional trails.

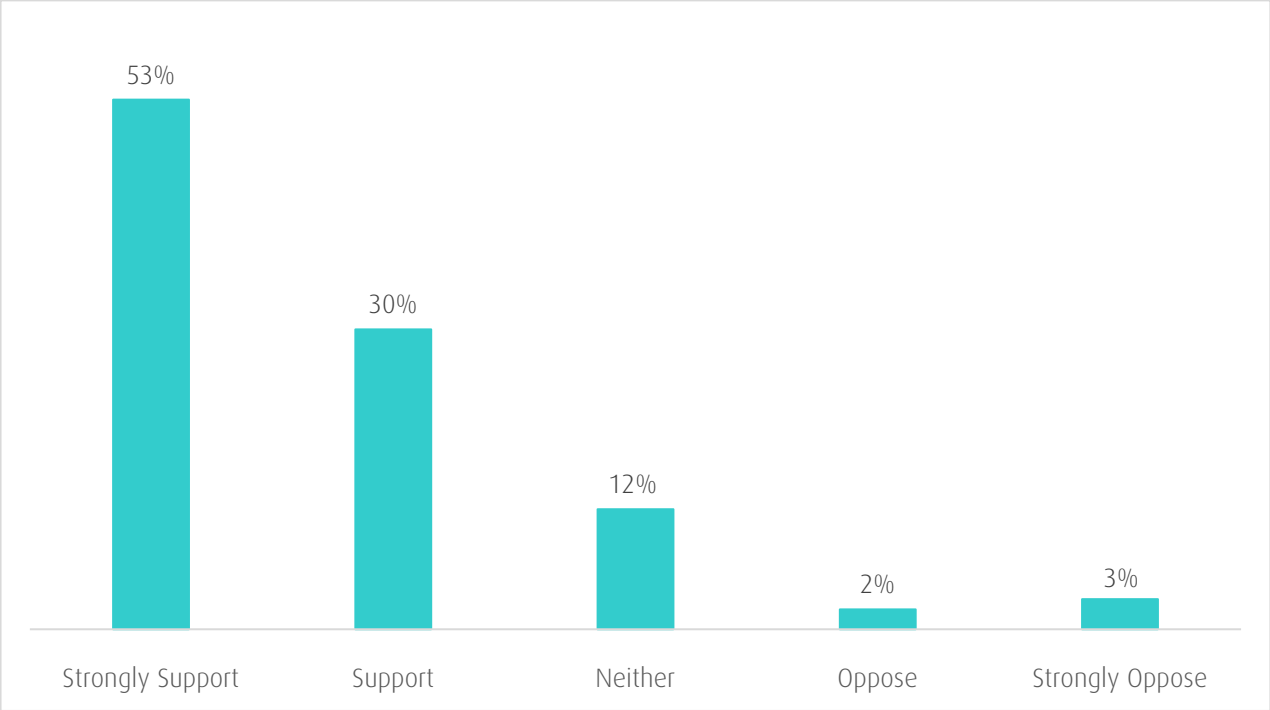
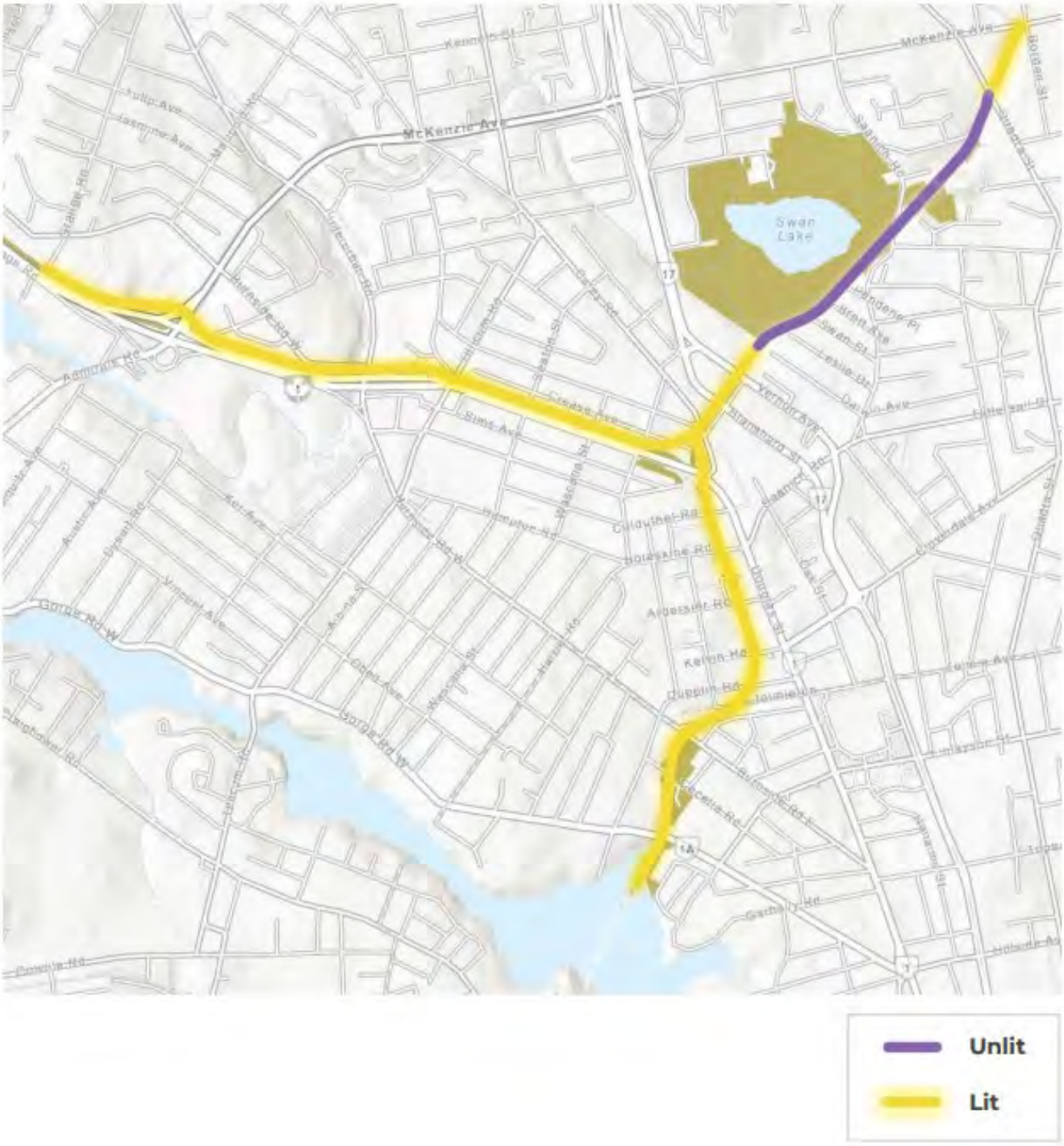


Figure 3: Support/opposition expressed by participants to the survey in regard to the recommended phased sequence proposed for the three sections of the regional trails.

Section 3: Lighting

Lighting is recommended for most of the 6.6 km of the Galloping Goose and Lochside regional trails sections described in the study. Low-intensity lighting is recommended adjacent to Swan Lake Nature Sanctuary that aims for balance between wildlife and public safety considerations in this area. Support/opposition for lighting the three sections of the regional trails was explored through the following questions.



QUESTION 4-6: DO YOU SUPPORT OR OPPOSE LIGHTING THE GALLOPING GOOSE REGIONAL TRAIL BETWEEN THE SELKRIK TRESTLE AND SWITCH BRIDGE (2.0KM), THE GALLOPING GOOSE REGIONAL TRAIL BETWEEN THE SWITCH BRIDGE AND GRANGE ROAD (2.6KM) and THE LOCHSIDE REGIONAL TRAIL BETWEEN THE SWITCH BRIDGE AND DARWIN AVENUE AND BETWEEN QUADRA STREET AND MCKENZIE AVENUE (700M)?

There were 1,784 responses. The majority of respondents supported the lighting of the three sections of the regional trails.

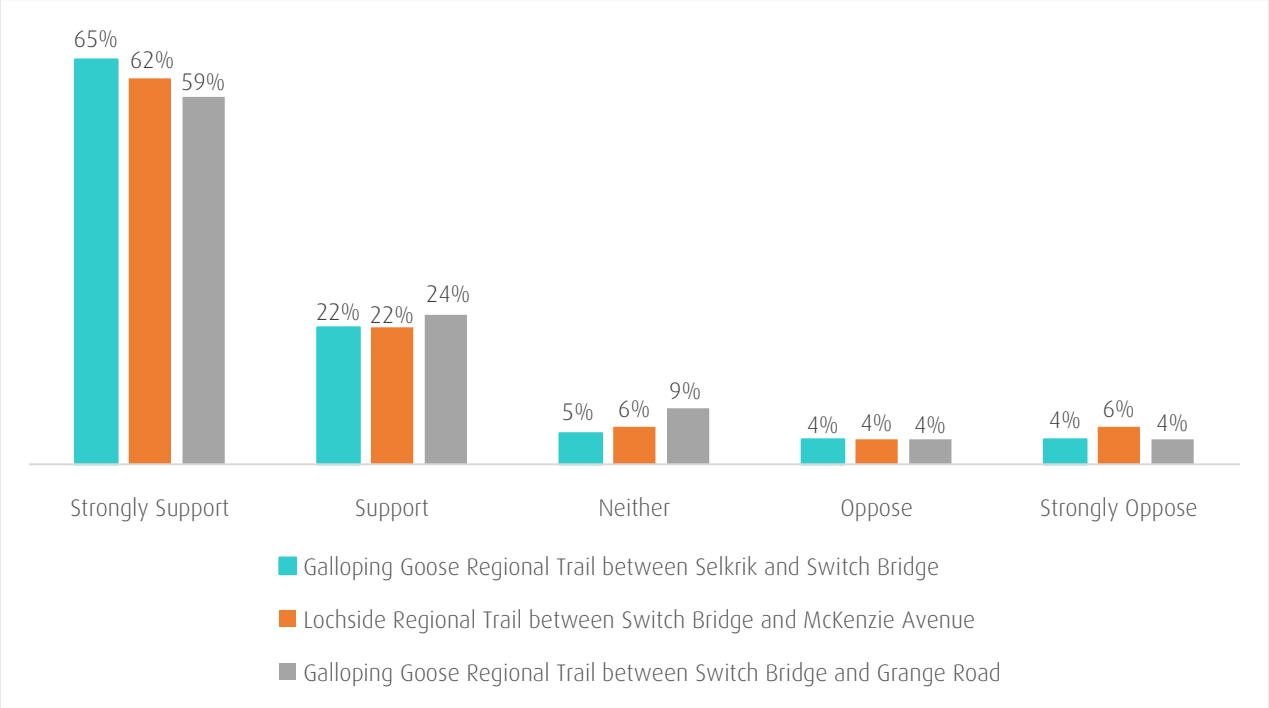


Figure 4: Support/opposition expressed by participants to the survey in regard to lighting the three sections of the regional trails.

QUESTION 7: DO YOU SUPPORT OR OPPOSE LOW-INTENSITY LIGHTING ON THE LOCHSIDE REGIONAL TRAIL ADJACENT TO SWAN LAKE NATURE SANCTUARY BETWEEN DARWIN AVENUE AND QUADRA STREET (1.3KM)?

There were 1,784 responses. The majority of respondents supported the lighting of the Lochside Regional Trail adjacent to Swan Lake Nature Sanctuary between Darwin Avenue and Quadra Street with low-intensity lighting.

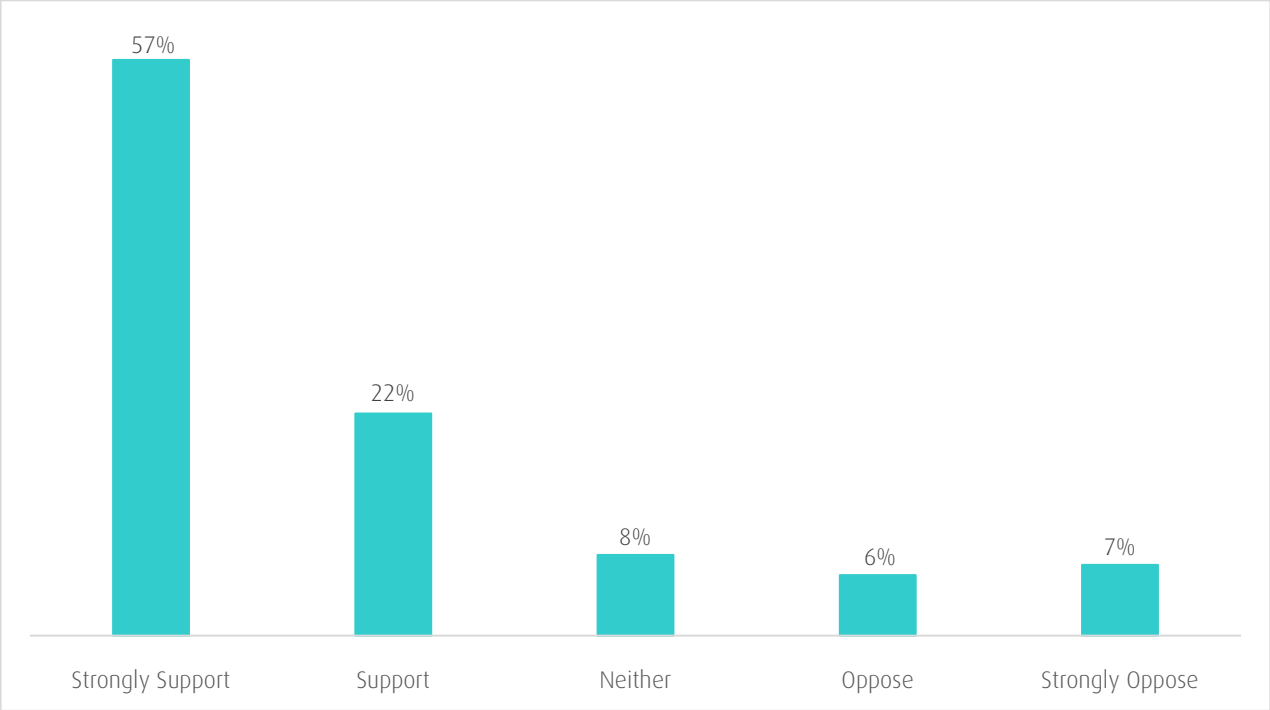


Figure 5: Support/opposition expressed by participants to the survey in regard to lighting of the Lochside Regional Trail adjacent to Swan Lake Nature Sanctuary between Darwin Avenue and Quadra Street with low-intensity lighting.

QUESTION 8: IF NOT, WHAT WOULD YOU SUPPORT FOR THE SWAN LAKE SECTION?

There were 239 responses. The majority of respondents suggested no lights for the Swan Lake Nature Sanctuary section.

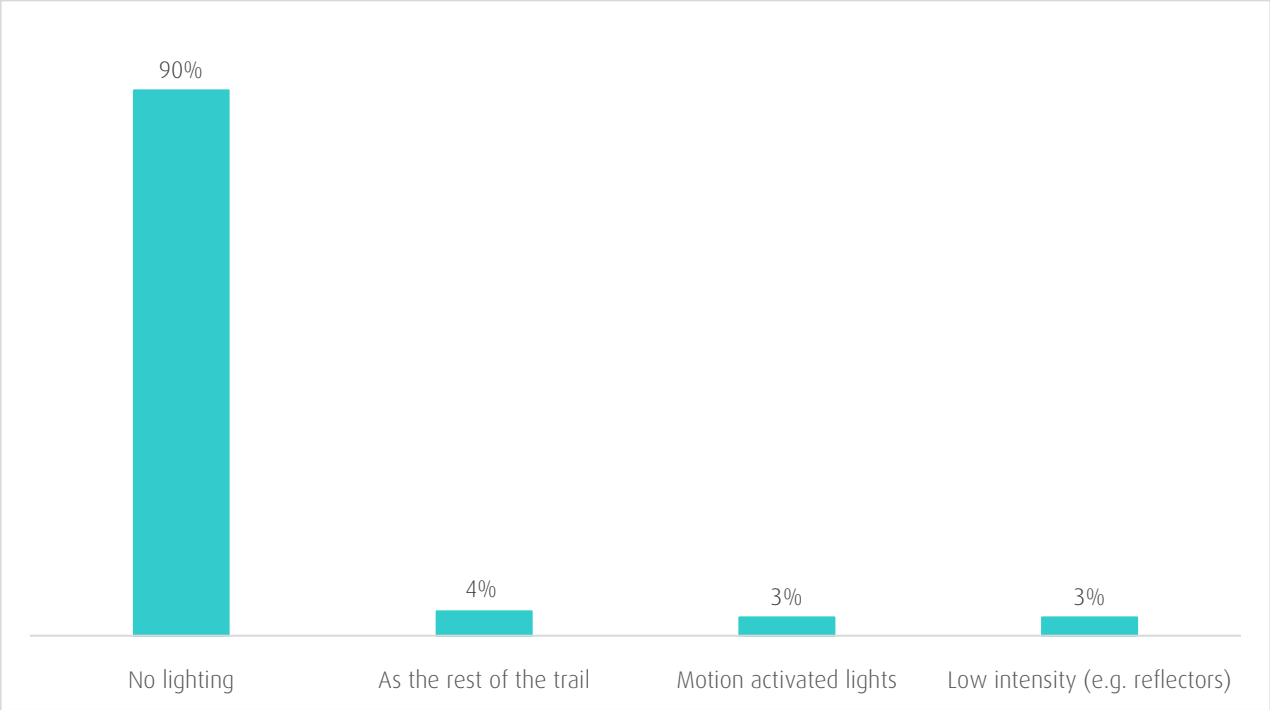


Figure 6: Suggestions of alternative illumination options by participants against the lighting of the Swan Lake Nature Sanctuary section.

Section 4: Other Comments

A total of 904 qualitative comments were provided by respondents to the open-ended question asking: **DO YOU HAVE ANY OTHER COMMENTS ABOUT THE TRAIL WIDENING AND LIGHTING PROJECT?** Each comment entailed multiple themes. The qualitative responses were coded to identify emerging themes and quantified to evaluate such themes relevance.

The most mentioned themes were:

- Lighting (n= 323; 36%): participants mentioned support for lighting in general (n=139), and/or suggested minimal lighting (n=94), no lighting at all (n=44) or full lighting (n=46) for all the trail sections proposed in the project. Often preference for minimal lighting and no lighting were discussed in association with concern for light pollution and impacts to the natural environment and species along the trail sections intersected by the project. Lighting in general and full lighting were often associated with improving personal security on the trails, especially at night, as well as, extending the time the trails could be used, especially during winter months.
- Etiquette (n-246; 27%): participants referred to the need for improved trail etiquette (n=100), mentioned issues around different speeds on the trails (n=86) and e-bikes (n=30), and the need for more enforcement along the regional trails (n=30).
- Widening (n=144; 16%): participants expressed general support for widening the trails (n=121), with fewer suggesting even wider paths (n=4) or no separation at all (n=19).
- Ecological value, wildlife and habitat (n=99; 11%): participants commented on the impacts the proposed project could have on the environment and species along the trail, especially in relation to widening and lighting the trails. Participants were concerned about losing trees and the natural habitat along the trails, as well as disturbing wildlife, especially along the Swan Lake Nature Sanctuary area.
- Design suggestions (n=63; 7%): several participants offered insights on how to improve the proposed design or expressed a preference for the other options suggested in the report. Many comments focused on how to reduce light pollution with alternative lighting designs.
- Separation (n=62; 7%): participants expressed a preference for separation, including having a physical barrier between cyclists and pedestrians (n=35).
- Opposition (n=45; 5%): some participants used this section to reiterate their opposition toward the project.
- Cost (n=42; 5%): participants mentioned the high costs of the project as a reason of concern, specifying the project was too costly and finances should be used for more important projects.

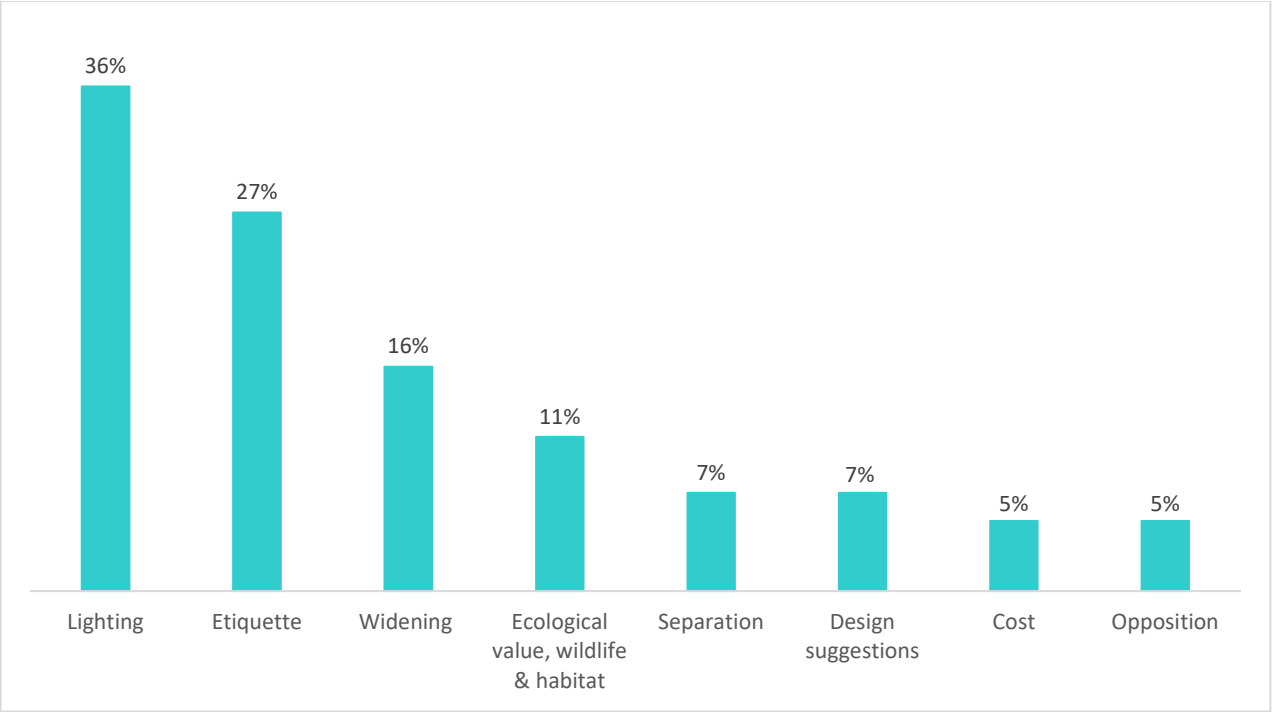


Figure 7: Qualitative comments offered by respondents to the survey.

This open-ended question was also used by respondents to reiterate support for the project and provide thanks for the opportunity to participate in the survey (n=285, 32%), and to offer other comments (n= 259; 28%). Participants used this section to offer suggestions about other locations where trail widening, lighting and separation should be considered (n=88), in regard to facilities along the trails (n=61), discuss topics not related to the trails (n=52), stress the CRD move faster on the proposed project (n=33), and to suggest how to enhance the trail network beyond the three regional trails (n=22).

Section 5: Demographics

QUESTION 9: WHERE DO YOU LIVE?

There were 1,784 responses. Most respondents lived in Saanich and Victoria, the municipalities most affected by the project.

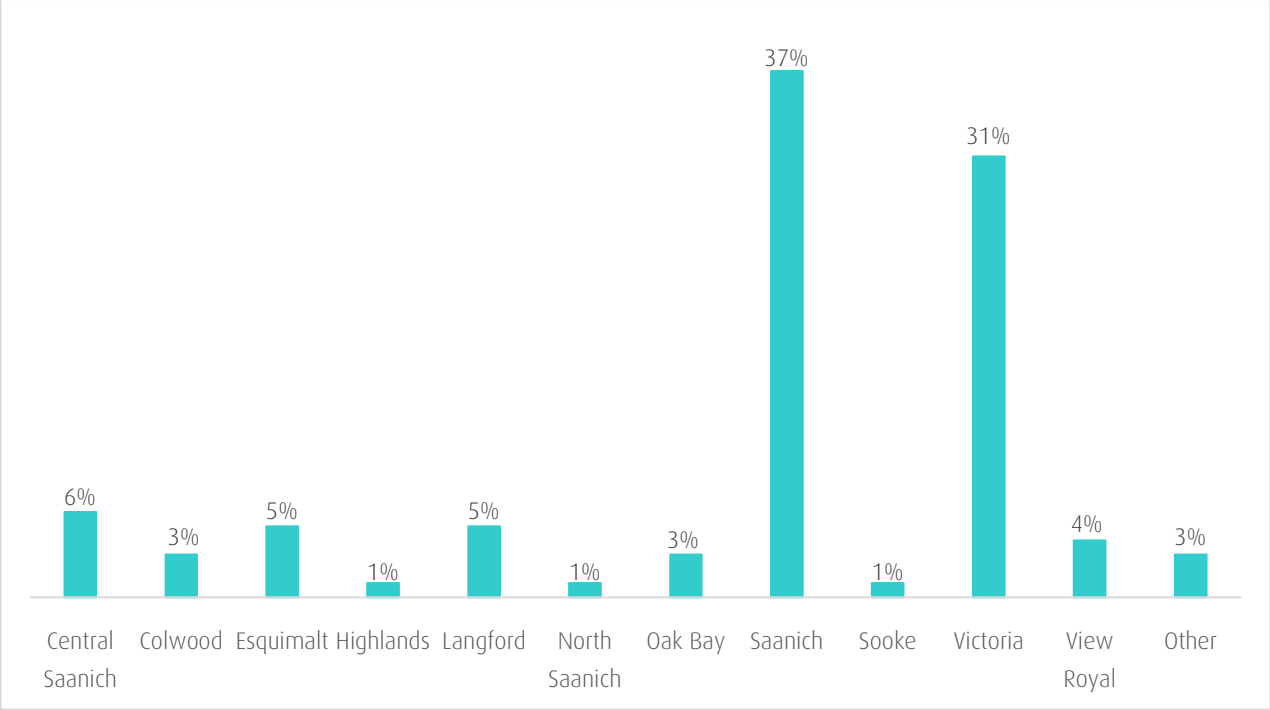


Figure 8: Breakdown of where visitors live.

QUESTION 10: IN WHICH AGE CATEGORY DO YOU FALL?

There were 1,784 responses. Respondents to the survey were distributed similarly between the age categories 25-65+, with a slight majority of respondents aged 35-44 years old.

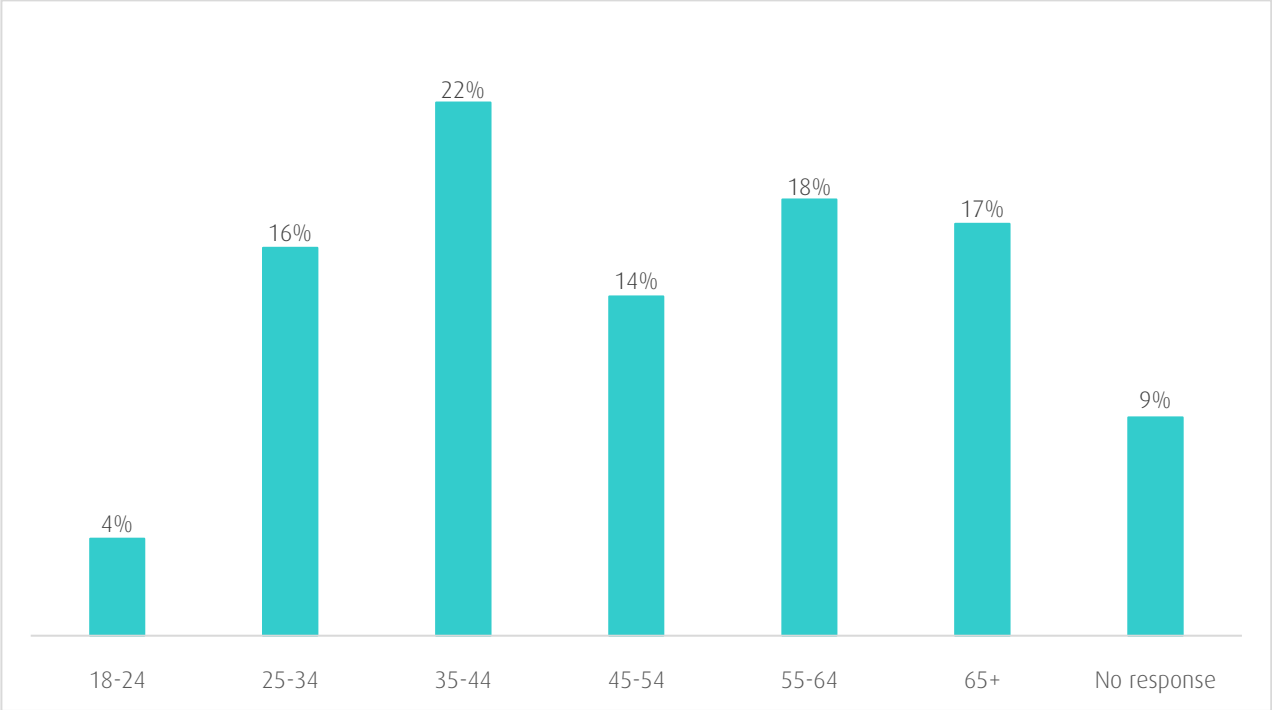


Figure 9: Age distribution of respondents.

QUESTION 11: HOW DID YOU HEAR ABOUT THIS SURVEY?

There were 1,940 responses. Respondents to the survey heard about the survey mostly through the CRD Facebook page, newspaper and word of mouth.

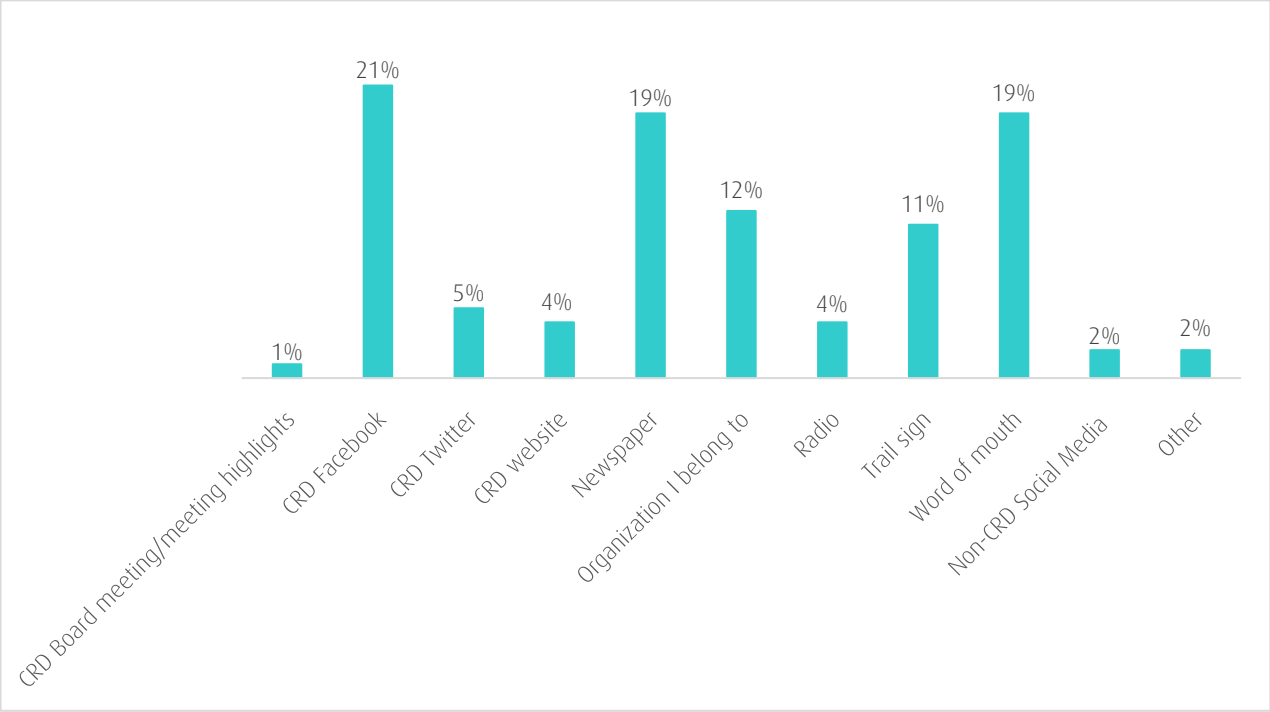


Figure 10: Information sources used by respondents.

Section 6: Emails

Regional Parks received additional comments through email from 10 members of the public. Each submission entailed multiple themes. The qualitative emails were coded to identify emerging themes and quantified to evaluate such themes relevance. The qualitative comments in the emails paralleled the topic emerged in the qualitative comments of the survey. Specifically, participants expressed their concern about lighting (n=4) and the impact the project will have on the ecological values, wildlife and habitats along the trails (n=4). Etiquette was another common theme mentioned by participants (n= 5), especially in relation to speed, e-bikes and bylaw enforcement. Suggestions were offered on improving other areas along the three regional trails (n=2) and about other ways to design the project (n=1). General comments about widening and separating the trails were also offered (n=2). Two emails offered background information and data and another three suggestions on how to improve the survey.

Appendix C: Virtual Open House Comments

A total of 44 participants attended the virtual open houses on June 4 and 7, 2021. Questions and comments posed by the attendants mainly focused on lighting, environmental values, wildlife and habitats protection, and trail etiquette. These themes align with those received through the online survey.

Below is a list of questions posed by participants at the virtual open houses:

- What are you doing to preserve urban forest along the routes you are widening?
- Did projections include the completion of the E&N rail trail?
- Could a barrier be installed afterwards if cyclists are using the pedestrian lane?
- Will the Selkirk Trestle be lit as well, as it is dangerous in the dark between bike riders and walkers?
- Priority 1 (switch bridge to Selkirk) is convergence of two trails into one: Galloping Goose and Lochside. There is another convergence ("Hells Gate"). This is Galloping Goose and E&N from Langford to View Royal. When will this be widened for pedestrians?
- How will you discourage pedestrians from walking in the section of the trail dedicated to cyclists?
- Light spillover is really light trespass and causes increased sky glow. Light at night is linked to adverse health effects. Have the factors been considered?
- Will the big trail maps be updated to include all recent trail developments (E&N Millstream) and these widening sections?
- Could consideration be given to using option 1 for some areas of the trail, where loss of shrub cover and trees would be significant with the wider option 2? Particularly Swan Lake and Swan Trestle to Quadra.
- I didn't notice mopeds in your presentation. They are increasing in numbers and going very fast. What will be done about their increased numbers with regards to safety for walkers?
- Has the effect of dark adaption and changes to visual ability due to slow visual adaption to light changes been considered, particular at cycling speeds?
- South of the Selkirk Trestle, I often see walkers in the bike lanes as there are no obvious signs telling users where to walk. Will there be some way of showing users where they should be?
- Can you try to design segments with generous right of way to accommodate further expansion or elements of option 3 separation? Average volumes projected for 2040 are not much higher than numbers recorded on high use days in summer months, and capacity should accommodate maximum expected trip volumes more so than average numbers of trips.
- What design lighting levels are being considered? Dimming and motion sensor activated lighting would be best, particularly if a late night and low traffic volume curfew was used.
- As work is being conducted, will measures be taken to address trail offshoots that people have created (unmarked side paths) as shortcuts in order to deter collisions? Lighting would definitely decrease this possibility as a first step.

- Has an analysis been considered to ascertain the number of irregular non-compliant motorized scooters etc. that are a growing danger to legitimate trail users?
- Has it been considered that lighting will likely result in an increase in cycling speeds with increased danger of collisions and injury?
- I think it's 'tourists' who move between bike lanes and walking lanes as they take in the view and take photos. Will there be any signage?
- It seems unsafe to leave the Swan Lake section of the trail unlit. Why is that not included in the lighting plan? Is there a way to mitigate impacts that would allow for lighting?
- Will you install warning signage when the 3 lanes come back down to 2 (loss of pedestrian section)? I expect conflicts in these areas.
- When you design and complete the last section of the E&N Rail Trail to West Hills, would you please widen and construct the separated pedestrian lane as well?
- As a long time lighting professional and dark sky advocate for the Royal Astronomical society, would it be possible to have a direct discussion on the more complex technical lighting technical issues with your lighting experts?
- Are there plans to increase the proposed areas of interest? The stretch of the Galloping Goose past Grange Road is currently unlit due to the huge wall constructed as part of the MacKenzie interchange project.
- What kind of time line would that you be looking at for that (referring to the project implementation)?
- Are you planning any buffer planting along the boundary of Swan Lake?
- Have behavioural considerations been considered? For example, prioritizing bikes at high commuting times, so that the overall trail width could remain the same and preserve the most green space by the Nature Sanctuary (a place that represents some of critical last contiguous space for rare, threatened and endangered plants and animals in the region)?
- Will we have further opportunities to have input when implementation studies are being done to look at environment, geological and archeological studies are being done as you mentioned?
- While you have touched on it briefly, and based on my extensive experience over many years biking, perhaps the biggest issue we face is around appropriate behaviour and expectations for trail users, as not following simple rules lead to conflict and concerns. If trail users were considerate and polite, followed the same etiquette, some of the design features being presented would not be necessary. Could not some of the money being proposed to be spent here be better used on informing and educating people about how to use the trail?
- Is there a possibility of involving a defined local group of concerned citizens when the time comes for looking at the segment between the Swan Lake Bridge to Quadra? There are a lot of people in the area who are strongly opposed to any vegetation change and are anxious to prevent it.
- Can you address what the plans might be for the Swan Lake trestle should the plan be to widen the trail?
- Is anything being considered to improve ease and safety of road crossings along the trail?

Additionally, the following comments were made by participants:

- Selkirk trestle lighting would need to consider impact on the migratory salmon that use the gorge waterway.
- A safety measure that could be implemented immediately on all the trails would be to have pedestrians walking on the left so that they can see approaching traffic as current etiquette proposals do not work.
- I have been biking the trails for years and can say steadfastly that the incentives that are being handed out work on a very temporary basis. I see many users who attend Go by Bike events, who are delivered safety info and then within a few weeks are the same people who dismiss the measures. Perhaps some educational sessions sharing experiences resulting from the lack of safety skills.
- There are a lot of concerns about how you plan to widen the section of Lochside between the Switch Bridge and Quadra, especially between the creek bridge and Quadra where there are either trees close to the trail or steep hillside on the other side.
- While I agree with most of the plan, I do not like that the section around Swan Lake will be widened. This is a wonderful natural area, and the one size fits all is NOT appropriate for Option 2 here. This area could also be used as "park area" for users, as well as for the park itself. Modification of user behaviour could be taught in this area. I have lots more I want to say about this, and other issues - what is the best way for my voice to be heard on this? I have ridden my bike for 50 years, and am on my bike every day, including lots of use on all areas of the trail sections is question. And yes I have completed the survey, but I don't feel that my detailed comments can be presented adequately. How can I submit detailed comments?
- Thank you for this Zoom meeting to review and discuss these opportunities to improve the bike and pedestrian trails. My concern is outside of the areas being redesigned but want to voice my concern regarding the redevelopment project at 4590 Lochside (at Royal Oak, Lochside and Lochside Elementary School), which will increase vehicular traffic on the Lochside Trail. I want CRD and Saanich Municipality to seriously consider the safety of this particular intersection of the trail.
- Trail widening between Quadra and Saanich Rd will have significant impact on wildlife values in the riparian zone of the Blenkinsop Creek. The trail is constricted between rocky outcrops and steep banks down to the stream. Significant disruption and loss of habitat will occur only to have a choke point at the trestle. Why widen this section where the habitat loss is most critical for so little gain with the trestle constriction.

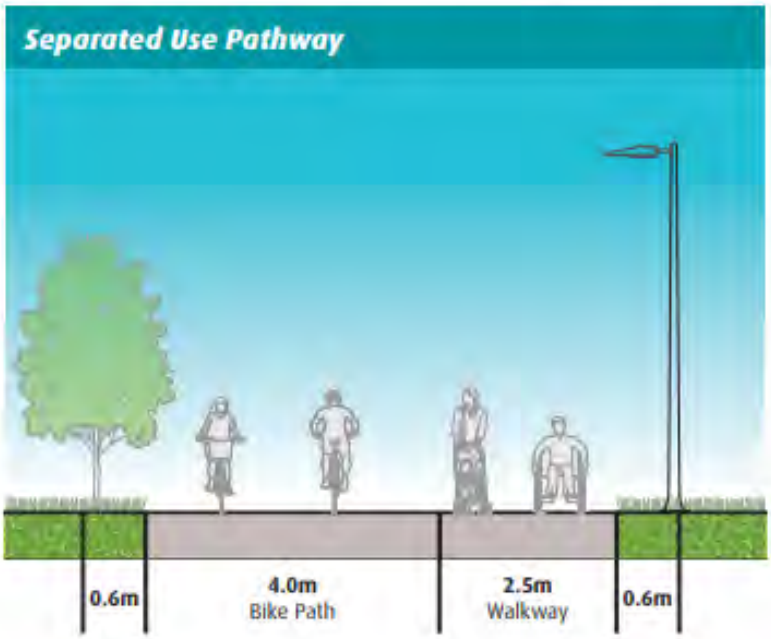
Appendix D: Advertisement

Appendix E: Posters

CRD - Regional Trails

Widening and Lighting Project

The CRD is considering a Separated Use Pathway design with lighting for sections of the Galloping Goose and Lochside regional trails.



Objectives for separated use pathway:

- create safer, more comfortable trail conditions for all users
- accommodate a predicted increase in trail use over the next 20 years
- help the region meet its targets for reducing greenhouse gas emissions and promote healthy lifestyles

CRD - Regional Trails

Widening and Lighting Project

Changes would be made over time, with the busiest sections of trail being given priority.

Objectives for trail lighting:

- improve safety and visibility at key locations such as trail junctions and underpasses (the following could be priority locations for new lighting along the trails):
  - underpasses
  - bridges and trestles
  - trail junctions and street crossings
  - areas of safety concern
- use efficient LED technology that requires minimal maintenance
- minimize potential impacts on wildlife near natural areas, such as Swan Lake, by using low-intensity lights or reflectors

Provide your input!

The Capital Regional District (CRD) is seeking feedback on a proposed design to widen and light sections of the Galloping Goose and Lochside regional trails.

HELP SHAPE THE FUTURE OF REGIONAL TRAILS !

Visit the CRD's website:

www.crd.bc.ca/TrailsProject

Scan to provide your feedback:

CRD

Making a difference...together

REPORT TO THE CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **CAO Quarterly Progress Report No. 3, 2021**

ISSUE SUMMARY

To provide the Board with a quarterly update on Corporate Activities and Initiatives, progress made on the 2019-2022 Board and Corporate Priorities, Corporate Climate Action Initiatives, Capital and Operating Variances, and Human Resources and Corporate Safety up to October 1, 2021.

BACKGROUND

The Board and Corporate Priorities Dashboard provides quarterly updates on progress related to Board and Corporate priority initiatives, actions, and advocacy as well as variances in financial performance and human resources trends. Following the approval of the Board Strategic Plan in March, 2019 staff prepared a Corporate Plan 2019-2022 to identify potential initiatives to advance Board and Corporate priorities. The Board completed an annual check-in on priorities on May 12, 2021 and the priorities were confirmed and staff was directed to continue to progress the initiatives and actions as developed in the Corporate Plan.

Service plans are prepared annually in alignment with Board and Corporate Priorities, service mandates and other approved plans, with corresponding KPIs and other service information that is approved by the Board. The 2021 service and financial planning process is currently underway, and staff are providing recommendations on service levels, timing and the funding of core services and new initiatives for 2021 by way of Commission, Committee and Board review. The Capital Regional District (CRD), Capital Regional Hospital District (CRHD) and Capital Region Housing Corporation (CRHC) Financial Plans are reviewed and approved annually by the respective Boards' of these corporations.

This report presents quarterly progress on priorities, initiatives, actions and advocacy for the third quarter of 2021, however the capital and operating variances and human resources trends are for the second quarter in 2021. The quarterly Capital Variance Report highlights differences between budget and actual expenditures on capital projects over $500,000. The quarterly Operating Variance Report provides results and forecasts for services with an annual operating budget over $1.5 million, which comprise approximately 85% of the combined CRD, CRHD and CRHC budgets for the year. The quarterly update on non-confidential human resources matters is provided to highlight workforce trends.

ALTERNATIVES

Alternative 1:
That the CAO Quarterly Progress Report No. 3 - 2021 be received for information.

Alternative 2:
That the CAO Quarterly Progress Report No. 3 - 2021 be referred back to staff for additional information.

DISCUSSION

Corporate Activities and Initiatives

Appendix A highlights corporate activities and initiatives in the last quarter and a number of photographs have been included to present announcements and events that occurred in this quarter.

On July 30, the Minister responsible for the Canada Mortgage and Housing Corporation, Minister of Transportation and Infrastructure and the CRD announced $11.3 million to create an estimated 46 new affordable homes for individuals and families in the CRD through the Cities Stream under expanded Rapid Housing Initiative. The Rapid Housing Initiative. These housing units will support Canadians who are in uncertain housing situations, experiencing or at risk of homelessness, or living in temporary shelters because of the pandemic.

As of July 30 the section of the E&N Rail Trail between the railway crossing on Atkins Avenue and Savory School in Langford is substantively complete and now open for public use. This newest section creates a continuous 13 kms of trail between Jacklin Road in Langford and Esquimalt Road in Victoria. The CRD received a $1 million dollar grant, through the BC Active Transportation program (formerly BikeBC) towards its completion. The regional trail provides an important active transportation and recreation link between Victoria and the western communities.

The CRD in partnership with the Province of BC and the Capital Region Housing Corporation has started construction of 58 new affordable homes at 2782 Spencer Road in Langford. Located near Langford's urban centre, 2782 Spencer will be a 5-storey wood-framed building with a mix of unit sizes from studio to 2-bedroom, providing homes for low to moderate income seniors, individuals and families, including those with disabilities. BC Housing is providing $5.9 million through the Community Housing Fund towards the $19.9 million project. 2782 Spencer Rd is part of a larger redevelopment that includes the Tri-Way Mobile Home Park lands and a mixed-use commercial area along the Trans-Canada Highway. The CRHC will operate the building. Construction is anticipated to be complete in fall 2022.

On September 23, 2021, it was announced that the Estate of Francis Gordon Ainsworth bequeathed $518,000 to the CRD Animal Shelter. Mr. Ainsworth and his partner, Mr. Carter who predeceased him learned about the work of the CRD at a community outreach event where the animal shelter was promoting its work. Inspired by staff's passion for animal welfare, they became annual donors.

September 30, 2021 marks the first federal statutory holiday called the National Day for Truth and Reconciliation. This day provides an opportunity to recognize and commemorate the legacy of residential schools.

The new Regional Water Supply disinfection facility upgrades were fully commissioned and operational in April. The $9.5 million project replaced the aging chlorine and ammonia gas disinfection equipment with new liquid chlorine and ammonia disinfection equipment and post disaster buildings with modern monitoring and control systems. The project took several years to complete and was commissioned successfully without any water quality impacts or interruption to the water supply.

Employees working at the CRD recreation centres (Panorama Recreation Centre, Salt Spring Island PARC, and SEAPARC) have had to adapt to rapidly changing situations. They are now managing the new proof of vaccine policy and addressing concerns from members of our community on all ends of the spectrum. The steadfast efforts and professionalism that they continue to show while working with the public should be commended. Panorama and PARC have

all facilities fully operational with slightly reduced hours compared to fall 2019. Some activities such as fitness classes and arena activities continue to operate by reservation with drop-in if space is available. SEAPARC is operating at full capacity with the exception of reduced hours in the pool on the weekends due to staffing constraints. With the closing of the vaccination clinic, fitness classes will resume at SEAPARC this fall. Staff at all three recreation centres continue to implement marketing strategies to increase attendance and registration.

The COVID-19 provincial state of emergency declared under the Emergency Program Act ended July 1, 2021. On the same day, the Province moved to Step 3 of its four-step Restart Plan. During Step 3, as with other organizations, the CRD transitioned from a COVID-19 Safety and Exposure Control Plan to a new Communicable Disease Plan following guidelines released by WorkSafeBC. Vaccination rates on Vancouver Island have increased with 90% of people having received at least one vaccination and 87% having received both as of September 29, 2021.

Based on advice from emergency management and wildfire officials, the BC provincial state of emergency enacted to support provincial wildfire response ended on September 15. As of September 13, 1,585 fires burned 868,619 hectares in the province.

Board Priorities and Corporate Plan Initiatives

Progress on the Board Priorities and Corporate Plan initiatives from January 2019 to date is reflected in Progress Report Q3, 2021, as Appendix B. The “Comments” section provides a summary of completed actions as well as any issues or problems that have arisen that may impact progress on the priority. The “Next Steps” section identifies future planned actions and associated timing. Attached as Appendix C is the Board Priorities Dashboard Summary of Completed Actions.

Corporate Climate Change Initiatives

A quarterly update on corporate climate change initiatives tracking progress on programs, projects, education, incentives, grants, measures, studies and monitoring work is included as Appendix D. This work is also compiled and reported as an annual report in conjunction with Climate Action Revenue Incentive Program (CARIP) reporting requirements related to our commitment to the Community Climate Action Charter.

Board Advocacy

An Advocacy Dashboard has been prepared which tracks the ongoing advocacy work being done by the CRD Board, municipalities, partners and staff. Progress on advocacy is reflected in the Advocacy Dashboard Progress Report Q3, 2021 as Appendix E.

Operating Variance Report – Q2, 2021

The Operating Variance Report outlines the quarterly operating variance, providing actual results and annual forecasts for services with an annual operating budget over $1.5 million which comprise approximately 85% of the combined CRD, CRHD and CRHC budgets for the year. The report also includes the CRHD budget, and starting this quarter, includes the CRHC budget.

The forecasts have been compiled by staff to determine estimates for how services are expected to perform fiscally for the year, as at the end of the first quarter. Determining these forecasts includes looking at prior year results, planned and actual changes in activity, and considering service level delivery and associated funding impacts.

The amount of budget used to the end of the first quarter will vary from service to service, based on the individual services' planned spending, seasonality, and timing of transactions. For example, services funded by requisition receive their funding in the third quarter, and water supply and distribution services receive more sales revenue over the summer months.

The quarterly Operating Variance Report, attached in Appendix F, highlights how much of the annual budget has been used, in comparison to prior year, and what the annual forecast is expected to be based on information available to the end of the first quarter. This is outlined for both expenditures and revenue.

Spending to the end of the first quarter, as a percentage of actual budget, is largely in line with the same period and timeframe as 2020 for both revenue and expenses. Effects of the current COVID-19 pandemic event on operations has been limited to specific services, primarily recreation and some demand driven services such as landfill.

Capital Regional District

The annual forecast highlights that the majority of services will still track in line with the annual budget. Many of these services are providing essential services to our communities, such as delivery of water, wastewater management, and solid waste. Forecasts for the recreation services incorporate estimated impact on business activities as a result of current health guidelines in response to the pandemic. The forecasts for SEAPARC and Panorama Recreation Centre services are not materially different from budget in the second quarter, as budget for these services reflected a gradual return to some recreational programming. Furthermore, Panorama Recreation also recognizes in the forecast the addition of new child care services, to be added in the third quarter.

Capital Regional Hospital District (CRHD)

The annual forecast highlights some minor savings expected due to temporary staff vacancy, but otherwise the CRHD operations are forecasted to continue as planned.

Capital Region Housing Corporation (CRHC)

CRHC variance reporting has now been incorporated into this this quarter's report. Previously, CRHC variance reporting was provided in the annual financial planning process and in the annual audited financial statements. The variances for CRHC is provided by portfolio, reflecting forecasted performance by agreement/division. The variance report reflects the forecasted cost savings and revenue shortfalls forecasted for the various CRHC portfolios at the end of the second quarter. These variances have since been incorporated into a budget amendment as approved by the CRHC Board on July 14, 2021.

Specific details on CRD, CRHD and CRHC expense and revenue forecasts are outlined in Appendix F.

Capital Variance Report – Q2, 2021

The Capital Variance Report, attached in Appendix G, highlights variances on actual expenditures from the quarterly and annual capital budgets for all three entities (CRD, CRHD, and CRHC) including impact on the total project. The Capital Variance Report is current to the end of the second quarter and covers all capital projects with budgeted spending in 2021 greater than $0.5 million.

The capital plan is budgeted quarterly based on scope and schedule of projects. In addition, forecasts are updated quarterly to provide periodic revisions and oversight on outcomes. As

quarters progress through the year and tenders complete, the expectation is that accuracy will improve.

Capital Regional District
Capital expenditures on projects greater than $0.5 million totaled $95.0 million in the second quarter of 2021, 12% lower than a forecast of $108.1 million. Of the $13.1 million variance, $10.9 million is related to timing of potential closeout costs of the residual treatment facility being deferred to the third and fourth quarter. Other notable projects include timing differences on the Juan de Fuca AC Pipe Replacement, Magic Lake Sewer Wastewater Improvements, and delays in beginning the NW Trunk Sewer Rehabilitation.

Capital Regional Hospital District (CRHD)
Capital expenditures on projects greater than $0.5 million totaled $0.7 million in the second quarter of 2021, 52% lower than a forecast of $1.4 million. The variance is mainly due to a minor delay in the hazardous waste removal of Oak Bay Lodge. Project completion has been revised to early 2022, with the overall project forecasted to be under budget due to a favourable RFP result.

Capital Region Housing Corporation (CRHC)
Capital expenditures on projects greater than $0.5 million totaled $1.1 million in the second quarter of 2021, 14% lower than a forecast of $1.3 million. The variance is mainly due to timing on consultant and contractor tendering for the Michigan Redevelopment project. These costs will be deferred with demolition proceeding through the fourth quarter.

Human Resource Trends and Corporate Safety

Appendix H provides an analysis of current and emerging trends in workforce composition, turnover, promotions, absenteeism and occupational health and safety. The CRD continuously monitors Human Resource organizational health, and proactively modifies and adapts Human Resource programs and systems where trends may show challenges arising.

As with 2020 metrics, the 2021 Quarter 2 metrics information is reflective of the impact from the COVID-19 Pandemic, most particularly with regard to illness duration and Occupational Health and Safety resourcing, policies, and programs. The CRD is a defined essential service, and as such is closely monitoring the impact of COVID-19 on service delivery and our people, and is taking appropriate measures as needed to ensure the essential operations are maintained and staff receive supports as may be needed.

The CRD continues to experience increased pressures associated with a highly competitive labour market and a steady number of retirements. Local governments, and especially those delivering highly essential services, are becoming increasingly more complex as our role and responsibilities continue to evolve, and this continues to place more demand to secure more specialized labour. To this end, the CRD continues its significant efforts in workforce planning, organizational development initiatives, and impactful recruitment and outreach strategies.

The CRD's proactive and positive focuses on workplace health and safety remain top of priority, and the CRD's comprehensive occupational health and safety (OHS) strategy, which is aligned with OHS best practice standards, meets or exceeds requirements of the WorkSafeBC approved municipal Certificate of Recognition (CoR) program. The CRD continues to experience a positive (merit) situation with WorkSafeBC resulting in a 20.2% better-than-industry-average Employer Rating Assessment and an equally reflected reduction in premiums.

CONCLUSION

As part of staff's commitment to enhanced quarterly reporting to the Board, the CAO Quarterly Progress Report No. 3 - 2021 provides a status update of Progress on Board and Corporate Priorities, Activities and Initiatives, Capital Project Variances, and Human Resource Trends across the organization.

RECOMMENDATION

That the CAO Quarterly Progress Report No. 3 - 2021 be received for information.

Submitted by:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Photographs of Corporate Activities and Initiatives
Appendix B: Board Priorities Dashboard Progress Q3, 2021
Appendix C: Board Priorities Dashboard – Summary of Completed Actions
Appendix D: Corporate Climate Change Initiatives
Appendix E: Advocacy Dashboard Progress Q3, 2021
Appendix F: Operating Variance Report Q2, 2021
Appendix G: Capital Variance Report Q2, 2021
Appendix H: Human Resources Trends and Corporate Safety Q2, 2021

RHI Funding Announcement

E&N Rail Trail Atkins Opening

Spencer Road Construction

Animal Shelter Will Bequeath

National Day for Truth & Reconciliation

Chlorination Plant

Rec Centre PHO updates

Emergency Management

The CRD Board will advocate, collaborate and form partnerships to address the affordable housing and transportation needs of the region's diverse and growing population.

Community Wellbeing
Transportation & Housing

Board Priorities Dashboard > Progress Report No. 11 – Q3 2021

Making a difference...together

CONDITION LEGEND: No issues / Proceeding as planned | Potential or emerging issue/problem | Problem/issue has arisen | Timing has changed

Board Initiatives	Status & Condition			Resolutions	Comments	Next Steps	
	Not Started	In Progress	Completed			Action	Timing
1a Work with government/community partners to plan for and deliver an effective, long-term regional multi-modal transportation system and to increase use of public transit, walking and cycling.		✓		▸ ***Board July 14, 2021***	The CRD Board endorsed Transportation Committee recommendations to form an advisory group for transportation matters requiring coordination, to take on a mandate to fill identified transportation priority gaps and to implement advocacy and other implementation actions to advance regional transportation priorities. Staff provided letters of support for five of the seven projects that received BC Active Transportation Infrastructure Grants, representing $2.03M of grant funding received in the region.	▸ Staff to bring forward a Terms of Reference for a transportation working group ▸ Board and staff to advance advocacy and other implementation on priority areas through appropriate channels (e.g. meetings with Minister of Transportation, participation in project and policy working groups)	▸ *Q4 2021* ▸ *Ongoing*
1b Protect the E&N Corridor as a transportation corridor and participate in a Provincial working group to come to agreement on the future use of the E&N corridor.			✓		**Operationalized.** The Province's South Island Transportation Strategy considered the E&N corridor in its findings and will continue to protect it as a transportation corridor. The Board approved an advocacy motion on May 12, 2021 to plan for the long term need by maintaining and upgrading the E&N right of way for future use as a transportation corridor. Reviewing implications of the recent BC Supreme Court decision related to the ongoing use of the E&N corridor on the Board priority		
1c Create and deliver more affordable housing across the region in a manner aligned with the Regional Growth Strategy in order to address the needs of a diverse and growing population, including vulnerable residents.		ⓘ			CRD completed the distribution of $3.2M though the Reaching Home COVID-19 Emergency Response Program and issued Requests for Proposals for an additional $1.8M though the Designated Funding Stream and $1.2M though the Indigenous Finding Stream for projects in 2021/22. Round 2 of the Rapid Housing Initiative committed an additional $11.3M of funding to help address the needs of vulnerable residents of the Capital Region. CRHC, in partnership with the CRD and Province of B.C., began construction of 58 new units of affordable housing under the Community Housing Fund. Construction is anticipated to be complete in Fall 2022. The SGI Electoral Area Housing Strategy continues to advance and the strategy is expected to be completed in Q4 2021. Actions will be considered in the 2023 service planning process. ***Media Release***: Canada announces support for rapid housing in CRD (July 31, 2021) ***Media Release***: New affordable housing underway in Langford (July 19, 2021)	▸ Continue to implement Regional Housing First Program ▸ Staff to agree partnership agreement for Rapid Housing round two ▸ Staff to report to Hospital & Housing committee on capital investment projects ▸ Staff develop a housing strategy for the Southern Gulf Islands Electoral Area ▸ Staff to consider implementation of actions from the SGI housing strategy to the 2023 service planning process	▸ *Ongoing* ▸ *Q4 2021* ▸ *Q4 2021* ▸ ~~*Q3*~~ Q4 *2021* ▸ ~~*Q3*~~ Q2 *2022*

Standing Committee Legend

- EAC = Electoral Area Committee
- EC = Environment Committee
- FNRC = First Nations Relations Committee
- GFC = Governance & Finance Committee
- HHC = Hospitals & Housing Committee
- PEC = Parks & Environment Committee
- PPSC = Planning & Protective Services Committee
- RAFSC = Regional Arts Facilities Select Committee
- RPC = Regional Parks Committee
- TC = Transportation Committee

The CRD Board will encourage and implement bold action on climate change by enhancing its natural and built assets to achieve environmental resilience, food security and continued wellbeing of our current and future residents.

Climate Action & Environmental Stewardship

Board Priorities Dashboard > Progress Report No. 11 – Q3 2021

Making a difference...together

CONDITION LEGEND

- No issues / Proceeding as planned
- Potential or emerging issue/problem
- Problem/issue has arisen
- Timing has changed

Board Initiatives	Status & Condition			Resolutions	Comments	Next Steps	
	Not Started	In Progress	Completed			Action	Timing
2a Declare a Climate Emergency and take a leadership role to pursue regional carbon neutrality by 2030.		✓			Staff continue to work with utilities, municipal, provincial and federal staff on policy and programming initiatives. Staff completed a draft renewed Climate Action Strategy. ***Advocacy***: Climate Action Revenue Incentive Program (CARIP) (July 21 , 2021)	▸ CRD Climate Action Strategy to be presented to Board for approval	▸ *Q4 2021*
2b Work with local governments to further reduce emissions from buildings, transportation and solid waste.		✓			Hosted both Climate Action Inter-Municipal Working Group and Task Force quarterly meeting. Completed both phases of the regional retrofit program business case. Led co-application for Natural Resources Canada Zero Emission Vehicle Awareness Initiative Continue to support promotion of provincial home heating fuel switching rebate programs with municipal partners. Support Bring It Home 4 the Climate Program.	▸ Host CRD Climate Action Inter-Municipal Working Group and Task Force meetings ▸ Present regional retrofit program business case to Board for information ▸ Complete next phase design study for potential financing offer as part of retrofit program	▸ *Quarterly* ▸ *Q4 2021* ▸ *Q4 2021*
2c Explore additional opportunities for resource recovery and identify best practices to further reduce waste, increase recycling and find beneficial uses for waste.		✓		▸ ***Board, July 14, 2021*** ▸ ***ESC July 21, 2021***	Staff submitted the final draft Solid Waste Management Plan to the Province for approval in August and determined priority areas for the first three years of the plan. The short-term solid waste work plan was presented to Environmental Services Committee in September. The BC Utilities Commission approved the Terms of Agreement for the Renewable Natural Gas Initiative with FortisBC in June. After shortlisting industry submissions, staff will now initiate an invitational Request for Proposals process for the design, construction and operation of a new facility that will upgrade the biogas generated at Hartland Landfill to renewable natural gas beginning in 2023. ***Advocacy***: Short-Term Management of CRD Biosolids (July 30 , 2021)	▸ Present short-term solid waste work plan to the Board ▸ Begin implementation of the short term work plan according to priority area timeline ▸ Award the contract to design, build, operate and maintain (for a 5 year period) a biogas upgrading facility	▸ *Q4 2021* ▸ *Q4 2021* ▸ *Q2 2022*
2d Ensure appropriate funding for parks and trails infrastructure, improvements and maintenance by updating the Regional Parks Strategy with consideration to ecological, recreation and reconciliation principles, land acquisition capacity, and expanded partnerships with First Nations and parks user groups.		✓		▸ ***Board, July 14, 2021***	Engaging First Nations through the Land Altering Works MOU with the WSANEC Leadership Council. Contract awarded for design and construction of the oxygenation system at Elk and Beaver Lakes. ***Media Release***: E&N Rail Trail Atkins Avenue and Savory School Complete (July 30, 2021)	▸ Commence review and update process for Regional Parks Strategic Plan 2021-2024 ▸ Award contract for detailed design and construction of the oxygenation system at Elk and Beaver Lakes ▸ Report back on the short-term actions to support the Mountain Biking Advisory Committee report	▸ ~~*Q3*~~ *Q1 2022* ▸ *Q3 2021* ▸ *Q4 2021*
2e Develop model bylaws and best practices for use by municipalities and electoral areas.		✓			Shared results of Regional Electric Vehicle (EV) Charging Roadmap with Board and hosted stakeholder webinar.	▸ Host Zero Emission Vehicle Transportation workshop ▸ Support local policy coordination on GHG intensity in new development (as related to BC Energy Step Code) ▸ Develop guidance documents to support public and multi-unit building EV charging	▸ *Q4 2021* ▸ *Q2 2022* ▸ *Q2 2022*

The CRD Board will take measurable steps toward developing respectful government-to-government relationships and partnerships with First Nations to foster shared prosperity for all.

Board Priorities Dashboard > Progress Report No. 11 – Q3 2021

Making a difference...together

CONDITION LEGEND: No issues / Proceeding as planned | Potential or emerging issue/problem | Problem/issue has arisen | Timing has changed

First Nations Reconciliation

Board Initiatives	Status & Condition			Resolutions	Comments	Next Steps	
	Not Started	In Progress	Completed			Action	Timing
3a Look to First Nations for leadership in understanding how to create new regional planning and decision-making systems together on their Traditional Territories.		✓			Staff are continuing with outreach to local First Nations that may have interest in participating on CRD committee tables. The Tsartlip First Nation has nominated a Councillor and Alternate to join the CRD committee tables. Discussions with First Nations are ongoing regarding how to further government-to-government decision-making and planning systems. There are now bi-annual meetings between the Pacheedaht First Nation, Board Chair, and staff. Staff distributed a survey to CRD Directors to assist in the development of an Intercultural Skills Training session to support the creation of a program to build positive, respectful and reciprocal working relationships with First Nations that participate in CRD Board committees. Staff have reached out to established Cultural Training providers to obtain quotes and program outlines for the development of a Cultural Safety Training Program for both CRD staff and CRD Directors.	▸ Continue to meet with First Nations to address requests for new decision-making systems ▸ Contract a facilitator to provide intercultural skills training for CRD Directors ▸ Contract a provider to establish a Cultural Confidence Training Program for CRD staff ▸ Organize Nation-specific cultural awareness events for staff, Directors and commissioners	▸ *Q3 & Q4 2021* ▸ *Q4 2021* ▸ *Q4 2021* ▸ *Q1 2022*
3b Seek partnerships, share information and deliver fair and equitable services in working with First Nations on achieving their economic goals.		ℹ			Ongoing work in progress, as recommended by the Economic Partnership Model from The Indigenomics Institute, to establish a First Nations Economic Opportunity Portal, advance procurement opportunities for First Nations, and support First Nations employment through an Indigenous Internship Program. Staff have revised the approach to the Indigenous internship program, based on lessons learned from similar programs. Staff anticipate retaining a consultant to scope a program that will support cultural safety for Indigenous interns, meet the needs of the local First Nations, and support service delivery, and that aligns with requirements of the collective agreement. The resulting scenarios will be assessed and brought forward for 2023 service planning.	▸ Create web content outlining requirements and process for 'working with the CRD', to support Indigenous-led businesses to bid on CRD projects ▸ Contract a provider to scope and recommend scenarios for a CRD Indigenous Internship Program ▸ Continue to meet with First Nations to update service agreements	▸ ~~*Q3*~~ *Q4 2021* ▸ *Q4 2021* ▸ *Ongoing*
3c Work with First Nations on taking care of the land and water while providing space for cultural and ceremonial use, food and medicine harvesting, traditional management practices and reclaiming Indigenous place names.		✓		▸ ***FNR Sept. 22, 2021***	Corporate wide training to support the new Protection and Conservation of Heritage Sites Policy, and the BC Archaeology Branch's Remote Access to Archaeological Data (RAAD) tool are underway including additional archaeology and cultural awareness training opportunities offered to SGI Commissioners. ***Statement***: National Day for Truth & Reconciliation (Sept. 23 , 2021)	▸ Coordinate regular corporate wide training to support the Protection and Conservation of Heritage Sites Policy, Chance Find Training and the BC Archaeology Bran's Remote Access to Archaeological Data (RAAD) training	▸ *Ongoing*
3d Prepare an ecological asset management plan that includes natural infrastructure, First Nations guiding principles, First Nations language and place names, historical uses and invasive species management.		✓		▸ ***FNR Sept. 22, 2021***	Recommendation approved at First Nations Relations Committee that staff proceed with ongoing, existing projects and activities that identify and proactively value ecological features in the region and support strategic engagement of First Nations regarding ecosystem values, taking care of land and water, Indigenous languages and place names.	▸ Ask First Nations if they would like to share Indigenous understandings of ecological values and guiding principles for taking care of land and water at the next Forum of All Councils	▸ *Q1 2022*

The CRD Board will advocate for infrastructure, regulatory, legislative, financial and operational support, focus its governance and Committees/Commissions on transparently and efficiently advancing regional, sub-regional and local priorities, and work to resolve issues that the CRD may not have the direct mandate to address.

Advocacy, Governance & Accountability

CONDITION LEGEND: No issues / Proceeding as planned | Potential or emerging issue/problem | Problem/issue has arisen | Timing has changed

Board Initiatives	Status & Condition			Resolutions	Comments	Next Steps	
	Not Started	In Progress	Completed			Action	Timing
4a Develop an advocacy strategy to ensure all occupied properties have the opportunity to access high-speed internet services.			✓		**Operationalized.** The SGI Connectivity Plan was completed in April. The report summarizes current levels of connectivity in the region and provides a vision for the future that is mindful of the challenges and opportunities for improving broadband service for the SGI. The report describes alternatives and provides recommendations and cost estimates. SGI EA Administration continues to support third party proposals for internet service infrastructure improvements and consider partnerships agreements with Connected Coast.		
4b Develop a comprehensive strategy and operational review to reflect the unique needs and governance of each electoral area.			✓		**Operationalized.** The SSI Water Optimization Study is complete. The water improvement district is now considering options. Provincial direction may be sought in due course.		
4c Explore more comprehensive regional coordination of emergency services, including an assessment of regional hazards, risks and vulnerabilities.		✓			The training for super users will be completed by end of Q3. The software roll out is expected to be finalized by end of October, in line with plans. The CRD has been issuing notices through the new Public Alert Notification system since May 2021, the system has been performing as expected. ***Media Release***: Salt Spring Island Fire Protection District and CRD announce new working relationship (July 2, 2021)	▸ Emergency Management Software roll-out ▸ Transition to new Fire Dispatch provider ▸ Administer EOC and training grant	▸ *Q4 2021* ▸ *Q4 2021* ▸ *Q2 2022*
4d Achieve sustainable budgets through innovation and streamlining while recognizing the need for infrastructure revitalization and accountability to taxpayers.			✓		**Operationalized.** Reserve guidelines established and reported back through Finance Committee to CRD Board on July 14th, 2021. The Guideline establishes a practice to assess capital reserve health and appropriate levels of borrowing better balancing costs of service delivery over time and over asset lifecycles.		
4e Facilitate a discussion of the region's art facility needs and explore partnerships to support 100% participation in the CRD arts function.		✓		▸ ***PAFSC, Sept. 8, 2021*** ▸ ***Board Sept. 8, 2021***	The Performing Arts Facilities Select Committee reviewed an establishing bylaw for a new region-wide Performing Arts Facilities Service and approval processes. PAFSC recommended the new service to the CRD Board with an accompanying region-wide Alternative Approval Process. The CRD Board passed motions to approve the establishing bylaw, but defeated a motion to proceed by way of region-wide Alternative Approval Process. ***Media Release***: Creativity and resilience of regional arts sector highlighted in Arts & Culture Progress Report (July 14, 2021)	▸ Staff to review the outcomes of the CRD Board decisions and report back to the CRD Board with options on how to proceed.	▸ *Q4 2021*
4f Explore how the CRD can best contribute to regional economic development.			✓		**Operationalized.** Continue to advance advocacy initiatives identified by the SGI and SSI community economic development commissions. SSI EA Administration contract with REIP is ongoing and regular reporting to the commission will take place as work progresses The SGI Economic Recovery and Resiliency Program worked through community partners to share information, identify challenges, and identify resources to support businesses and non-profit organizations to navigate the challenges of COVID-19 closures.		

Accountability

CONDITION LEGEND

- No issues / Proceeding as planned
- Potential or emerging issue/problem
- Problem/issue has arisen
- Timing has changed

Corporate Initiatives	Status & Condition			Resolutions	Comments	Next Steps	
	Not Started	In Progress	Completed			Action	Timing
Business capacity & continuity: Advance our workforce planning & Organizational Health & Safety programs to support organizational capacity & resilience.			✓		**Operationalized.** The Organization Development Plan continues to be implemented and actions rolled out annually to advance work. CRD has implemented its Communicable Disease Plan, in accordance with regulatory requirements		
Fiscal responsibility: Integrate asset management & risk analysis into our capital planning processes to strengthen our fiscal management practices & support resource sustainability.		✓			Life-cycle policy and procedures work on track and expected to be completed within scheduled timeline.	▸ Develop life-cycle policy & procedures	▸ *Q4 2021*
Transparency: Streamline our service planning tools & establish KPIs to effectively track & report progress on Board Priorities, Corporate Projects & operational service activities, thereby enhancing accountability.			✓		**Operationalized.** Executing service planning and annual check-in program.		
Efficiency & collaboration: Develop a partnership directory & guidelines document to guide staff & existing potential partner groups & enable greater collaboration.			✓		**Operationalized.** Partnerships directory and guidelines in place. Continue to advance existing initiatives under inter-governmental MOUs for Regional Housing First, Regional Emergency Management, Wildfire response and First Nations and identify new partnerships to advance priorities and initiatives.		
Customer service: Enhance our systems and policies to respond to evolving best practices, adhere to legislative requirements, and provide efficient, accessible, customer service.		✓			Website, social media and media channels fully engaged to report out information as the COVID-19 pandemic evolves. Signage and other measures taken to convey updated health and safety requirements. Launched new engagement platform ***getinvolved.crd. bc.ca*** to provide more ways for the public to participate in consultation opportunities virtually.	▸ Progress on implementation to be reviewed quarterly by the Executive Leadership Team ▸ Hartland webcam installation to better inform the public about public area wait times	▸ *Quarterly* ▸ *Q4 2021*

For a summary of completed actions on progress visit: ***www.crd.bc.ca/reporting***

For more information on advocacy, including the CRD advocacy strategy and detailed correspondence list visit: ***www.crd.bc.ca/about/board-committees/board-advocacy***

The CRD Board will advocate, collaborate and form partnerships to address the affordable housing and transportation needs of the region's diverse and growing population.

Community Wellbeing
Transportation & Housing

Board Priorities Dashboard

Summary of Completed Actions

Making a difference...together

Board Initiatives	Resolutions	Comments
1a Work with government/community partners to plan for and deliver an effective, long-term regional multi-modal transportation system and to increase use of public transit, walking and cycling.	▸ *TC Feb. 27, 2019* ▸ *Board March 13, 2019* ▸ *EAC June 12, 2019* ▸ *Board June 12, 2019* ▸ *TC July 24, 2019* ▸ *COW Jan. 29, 2020* ▸ *PTPSC Oct. 21, 2002* ▸ *Board Nov. 18, 2020* ▸ *PTPSC Dec. 9, 2020* ▸ *Board Dec. 9, 2020* ▸ *Board Jan. 13, 2021* ▸ *TC Apr. 21, 2021* ▸ *Board May 12, 2021*	***Advocacy:*** Letter sent by the Board Chair to the Minister of Transportation requesting participation in the South Island Transportation Planning study. Letter sent advocating for a scope change to include a governance model and also the Electoral Areas under the South Island Transportation Strategy Plan. Requested and received presentation from BC Transit to Committee to input on Transit Planning. EAC advanced SGI transportation feasibility planning. Staff directed to include the establishment of an SGI transportation service in service and budget planning for 2020. Met with Ministry staff July 2019 on South Vancouver Island Multi-Modal Transportation Plan. Transportation Committee Chair provided updates on transportation issues after meeting with Minister of Transportation and a presentation was delivered at the July Transportation Committee. A follow-up meeting was held in November 2019. MOTI presented the draft Southern Vancouver Island Transportation Plan to the January 2020 Committee of the Whole. Release of the final Southern Vancouver Island Multi-Modal Transportation Plan in summer 2020. Change of direction related to Southern Gulf Islands transportation service and budget planning. MOTI's South Island Transportation Strategy was published on September 18, 2020. Staff brought a report on gaps in regional transportation functions and options to address them to COW. Board directed staff to work with partners to prepare a list of transportation priorities for Board prioritization and begin process to consider governance options.Staff continue to provide technical support to a number of working and steering groups, including for the Uptown Exchange, Highway 17 improvements, Westshore Transit Plan, Island Highway Transit Priority, Victoria Regional Transit System 5-10 Year Plan and Inter-Municipal Business License for Ride-Hailing Discussion Group. ***Advocacy***: Speed enforcement on the Malahat (July 13, 2020). ***Media Release***: CRD Board moves forward with regional transportation priorities (Dec. 10, 2020). Progress report on Ready Step Roll active school program was presented to PTPSC to mark the fifth year of the program. The goal of the initiative is to improve commutes for students and families by providing actionable solutions for partners that can be integrated into local plans. The CRD Board approved the terms of reference establishing a Transportation Committee on January 12, 2021. Since then, staff have been working with municipal, electoral area and agency partners on identifying priority transportation initiatives to inform advocacy with the province and prioritize resources. Ready Step Roll 2021/22 cohort has been confirmed. This year, the program supported schools in Langford, Colwood and Esquimalt. The Transportation Committee endorsed a recommendation on June 21, 2021 for the CRD to take on a mandate to fill identified transportation priority gaps and to implement advocacy strategies to advance partner led priorities. ***Advocacy***: Regional Transportation Priorities (Jun. 2 , 2021) ***Media Release***: CRD Board confirms Transportation Priorities (May 14, 2021).
1b Protect the E&N Corridor as a transportation corridor and participate in a Provincial working group to come to agreement on the future use of the E&N corridor.	▸ *GFC July 3, 2019*	**Operationalized.** Active Board member as Island Corridor Foundation representative. E&N Corridor is identified as a transportation corridor and is part of the multi-modal network in the 2014 Regional Transportation Plan. ***Bike BC 1M grant*** awarded May 2019 for phase 3 of the E&N rail trail. ***Media Release***: CRD Recognizes Funders and Partners of E&N Rail Trail to acknowledge over $20 million in grants towards development. The province released the Island Rail Corridor Condition Assessment Report in April 2020. It provided estimated cost and potential phasing scenarios to reinstate rail along the island corridors, including the E&N corridor. The South Island Transportation Strategy considered the E&N corridor in its findings and will continue to protect it as a transportation corridor.
1c Create and deliver more affordable housing across the region in a manner aligned with the Regional Growth Strategy in order to address the needs of a diverse and growing population, including vulnerable residents.	▸ *Board Feb.13, 2019* ▸ *Board Sept. 11, 2019* ▸ *Board Jan. 8, 2020* ▸ *Board Mar. 11, 2020* ▸ *Board June 10, 2020* ▸ *HHC Nov. 4, 2020* ▸ *Board Nov. 18, 2020* ▸ *HHC Dec. 2, 2020* ▸ *Board May 12, 2021*	In December 2018, the Board approved, in partnership with the BC government, the acquisition of two properties, one located at Spencer Road and the other at Hockley Avenue. Board rise and report on acquisition for Millstream Ridge (Treanor Avenue properties). ***Media Release***: West Park Lane mixed-income housing development project announced with Province. ***Media Release***: Reaching Home Strategy funding from Federal Government secured. ***Media Release***: New affordable homes for seniors coming to Salt Spring Island. Successful consent of electors approval to raise additional funding for Regional Housing First Program. ***Media Release***: CRD Moves Forward with Bylaw Amendments for the Regional Housing First Program. ***Media Release***: CRD Board Approves Bylaw Amendments for the Regional Housing First Program. COVID-19 addtional reaching home funding update received by Board in June 2020. Westview officially opened, creating 73 new affordable housing units. Residents began moving into their new homes mid-May 2020. ***Media Release***: CRD Continues to Provide Support for Vulnerable Populations during COVID-19 (April 6, 2020). ***Media Release***: Over 70 New Affordable Homes Opening in Saanich (May 13, 2020). ***Media Release***: Reaching Home Program Continues Focus on Community's Unhoused During COVID-19 Crisis (June 10, 2020). ***Media Release***: Regional Housing First Program Partners Announce Additional Matching Contributions (June 18, 2020). Ministry of Municipal Affairs & Housing and BC Housing ***announcement***, in partnership with CRHC on the Community Housing Fund, securing 58 new units in Langford. Groundwork for SGI Housing Strategy will start in Q4 2020 to pave the way for strategy development in early 2021. Actions from the strategy will be brought forward through service planning next year. ***Media Release***: Housing and Transportation Cost Estimate Study Reveals Impact of Transportation Costs on Household Affordability (July 29, 2020). ***Media Release***: Island Health, Capital Regional Hospital District welcome seniors to The Summit (July 9, 2020). ***Media Release***: 2020 Greater Victoria Point in Time Count Results Announced (July 31, 2020). Initial discussions about the SGI Housing Strategy have been held with stakeholders. Plans for a proposed multi-round engagement and consultation on the future of the Oak Bay Lodge property were presented to the Hospitals & Housing Committee. The CRD received $1.9m Fall 2020, in additional COVID-19 emergency response funding from Reaching Home to support the region's response capacity for those experiencing homelessness. ***Media Release***: Nearly 300 New Affordable Housing Units Open on the Westshore (Dec. 7, 2020). ***Media Release***: CRD makes land contribution request for Rapid Housing program (November 2, 2020). ***Media Release***: Grants approved for construction of over 100 affordable rental housing units (Oct. 14, 2020). ***Advocacy***: Letter to support Aboriginal Coalition to End Homelessness Society (Mar. 24, 2021). ***Media Release***: Hockley House opens in Langford with 120 new affordable homes (Mar. 26, 2021). ***Media Release***: More than 190 new supportive homes underway in Victoria (Mar. 24, 2021). ***Media Release***: Government of Canada announces support for Rapid Housing Initiative in Capital Regional District (Mar. 24, 2021). ***Media Release***: New homes coming for people in Sooke (Feb. 17, 2021). ***Media Release***: New Housing Relief Fund and Rent Bank Launched in Greater Victoria to help renter households struggling to maintain their housing (Feb. 16, 2021). Three grants ($615,000 Regional Housing Trust Fund grant, $3M Regional Housing First Program grant and $3.25M BC Housing grant) were approved to support the development of 41 affordable and 10 shelter rate rental housing units at 1909 Prosser Road in Central Saanich. The timeframe for the SGI electoral area housing strategy has been adjusted to allow for more time to undertake components related to strategy and engage consultants. ***Media Release***: Capital Region Housing Corporation Board approves 2020 Annual Report (May 13, 2021) ***Media Release***: More than 190 new supportive homes underway in Victoria (Jun. 9, 2021) ***Media Release***: More than 50 new affordable homes coming to Central Saanich (Jun. 9, 2021) ***Media Release***: New homes under construction in Sooke (Jun. 11, 2021).

The CRD Board will encourage and implement bold action on climate change by enhancing its natural and built assets to achieve environmental resilience, food security and continued wellbeing of our current and future residents.

Climate Action & Environmental Stewardship

Board Priorities Dashboard

Summary of Completed Actions

Making a difference...together

Board Initiatives	Resolutions	Comments
2a Declare a Climate Emergency and take a leadership role to pursue regional carbon neutrality by 2030.	▸ ***Board Feb 13, 2019*** ▸ ***Board April 10, 2019*** ▸ ***Board, April 8, 2020*** ▸ ***Board May 13, 2020*** ▸ ***COW Oct. 28, 2020*** ▸ ***Board Oct. 28, 2020*** ▸ ***Board Nov. 18, 2020***	***Advocacy***: On February 25, 2019 the Board Chair wrote letters to the Federal and Provincial Ministers of the Environment to request that the federal government strengthen progressive partnerships and direct funding, and provide additional support to regional and local governments to achieve accelerated federal and local climate action goals related to both mitigation and adaptation. Letter sent advocating the federal government deliver on climate commitments. Letter sent advocating the provincial government deliver on climate commitments. Resolution declaring a climate emergency at February meeting. Received response from Provincial Minister of Environment on March 29, 2019 advising their commitment to constructive collaboration and looking forward to a continued partnership with the CRD. Advocacy strategy completed. Provided supportive funding and Chair Plant participated in the BC Coalition Institute – Planetary Health: Local and Global event held August 8 – 11, 2019 at the University of Victoria. Submitted detailed feedback in response to the Province of BC's proposed Zero-Emissions Vehicles Act Regulations that will regulate the future sale of zero emission vehicles in the CRD, and BC more broadly. The approach and timeline for the regional neighbourhood pilot program with Transition 2050 partners was being reassessed due to the COVID-19 health emergency. The report on communicating the climate emergency was distributed to local government staff. CRD Residential (Energy) Retrofit Acceleration Strategy was completed with an increase in the number of retrofit rebates offered. The Climate Action program will continue to support promotion of the Provincial rebate program with municipal partners to encourage residents to switch to heat pumps. 2019 Climate Action Annual Report received for information and completed Climate Action Revenue Incentive Program reporting and submitted to the Province June 2020. Completed regional GHG inventory and associated municipal study. Study results shared with municipalities. The Climate Action Program continues to support promotion of the Provincial home heating fuel switching rebate program with municipal partners to encourage residents to switch to heat pumps. Board approved 2021 service plan (community need) related to Climate Action & Adaptation priority at October 28, 2020 meeting.
2b Work with local governments to further reduce emissions from buildings, transportation and solid waste.	▸ ***PEC May 22, 2019*** ▸ ***Board June 12, 2019***	***Advocacy***: On February 26, 2019 the CRD Board Chair wrote a letter to each CRD Municipality advising of the CRD Board's climate emergency declaration and urging member municipalities to place the letter on an upcoming meeting agenda for council's consideration. Met with Climate Action Program Inter-Municipal Working Group (April 2019) to prioritize new regional initiatives. Presented Corporate and Community Climate Action Annual Reports (June). Meeting schedule increased for the CRD Climate Action Inter-Municipal Task Force. Additional meetings to determine appropriate format, scope interest and ability to support a regional Forum of Community Associations on Climate Change/Climate Emergency event in 2020. Delivered an educational workshop on 'Communicating Climate Change' with Climate Change expert. Hosted Climate Action Inter-Municipal Working Group meeting. Forgoing a regional forum of community associations on climate change/climate emergency and instead plan to support a regional pilot program with Transition 2050 partners to enable neighbourhood leaders take climate action at home. Hosted Climate Action Inter-Municipal Working Group meeting to review current projects and discuss priorities and lessons learned related to accessing grants for efficiency programs. Hosted Climate Action Inter-Municipal Working Group quarterly meeting, and inter-municipal meeting to share implementation lessons regarding BC Energy Step Code implementation. Launched neighbourhood Transition 2050 'Bring It Home 4 Climate Program (wrapping December 2020) to encourage residentialenergy retrofits. ***Media Release:*** Homeowners Can Access Energy Retrofit Support Through New Climate Program (August 11, 2020). Submitted a FCM Community Efficiency Funding grant application for a regional energy retrofit design study. Hosted 4th annual Walk and Wheel to School week to encourage active travel. Implemented neighbourhood Transition 2050 'Bring It Home 4 Climate' Program to encourage residential energy retrofits. Collaborated with Saanich and Victoria to execute a social media campaign to increase electric vehicle (EV) awareness and uptake across the capital region. ompleted first phase of regional residential energy retrofit program business case. Received FCM Community Efficiency Financing program grant to undertake detailed design study. Led a co-application for Natural Resources Canada's Zero Emission Vehicle Infrastructure Program grant. With City of Victoria and District of Saanich, supported 40 regional Grade 4-6 classrooms in participating in BC Sustainable Energy Association's Cool It! Program.

The CRD Board will encourage and implement bold action on climate change by enhancing its natural and built assets to achieve environmental resilience, food security and continued wellbeing of our current and future residents.

Climate Action & Environmental Stewardship

Board Priorities Dashboard

Summary of Completed Actions

Making a difference...together

Board Initiatives	Resolutions	Comments
2c Explore additional opportunities for resource recovery and identify best practices to further reduce waste, increase recycling and find beneficial uses for waste.	***Board Mar. 13, 2019*** ***Board May 8, 2019*** ***Board June 12, 2019*** ***PEC Sept. 4, 2019*** ***Board Sept. 11, 2019*** ***Board Feb. 12, 2020*** ***ESC July 15, 2020*** ***Board Aug. 12, 2020*** ***Board Sept. 9, 2020*** ***ESC Sept. 16, 2020*** ***Board Aug. 12, 2020*** ***ESC July 15, 2020*** ***Board Sept. 9, 2020*** ***ESC Sept. 16, 2020*** ***Board Oct. 14, 2020*** ***Board, Nov. 18, 2020*** ***ESC, Jan. 2021*** ***Board Feb. 10, 2021*** ***ESC, Feb. 17, 2021*** ***Board, Mar. 10, 2021***	Solid Waste Management Plan proposed strategies and targets approved by Board (Summer 2019). Staff conducted first round of public consultation on the proposed strategies and targets for the new Solid Waste Management Plan (Fall 2019). ***Media Release***: CRD Seeks Input for a New Solid Waste Management Plan. Solid Waste Management Plan 'What We Heard' report was presented to the Solid Waste Advisory Committee June 2020 and will be sent to Committee and Board in July 2020. Pending Board approval, staff will proceed with community and local government consultation on the draft Solid Waste Management Plan in 2021, including targeted engagement with residents in the areas of Hartland Landfill, Prospect Lake, Willis Point and Highlands. Findings from the Hartland Traffic Study will also be incorporated into future consultation efforts on this draft plan. Staff proceeded with community and local government consultation on the draft Solid Waste Management Plan in November 2020, including targeted engagement with residents in the area of Hartland Landfill. ***Media Release***: CRD seeks feedback on draft Solid Waste Management Plan (Nov. 18, 2020). Staff completed community and local government consultation on the draft Solid Waste Management Plan in February 2021, including targeted engagement with First Nations groups and residents in the area of Hartland Landfill. This input has informed the final draft plan that will be considered by the Board in Q2 2021. ***Media Release***: CRD Board to Consider Final Draft Solid Waste Management Plan in May (Mar. 31, 2021). Staff presented the final Solid Waste Management Plan to the Board for approval in May 2021. The Board endorsed this final draft as well as next steps for implementation, including submitting the plan to the Province in July 2021 and immediately beginning work on priorities for the first three years of the plan. ***Media Release***: CRD Board Approves Solid Waste Management Plan (May 12, 2021). Staff issued a Request for Qualifications seeking submissions for the design and construction of a new facility that will upgrade the biogas generated at Hartland Landfill to renewable natural gas. CRD staff and FortisBC have executed a supply contract that will be submitted to the British Columbia Utilities Commission for approval this spring. ***Media Release*** CRD seeks proposals for landfill gas upgrade project (Mar. 22, 2021). On April 30, 2020 the CRD provided the required short-term biosolids contingency plan to the Ministry of Environment & Climate Change Strategy. Announced approval in principle of an agreement where FortisBC will purchase Renewable Natural Gas (RNG) generated from Hartland Landfill for beneficial use in its natural gas distribution system April 2020. ***Media Release***: Renewable Natural Gas Project Proposed for Hartland Landfill (April 22, 2020). Staff submitting CRD Terms of Agreement for Renewable Natural Gas Initiative (RNGI) at Hartland Landfill to Fortis BC October 2020. FortisBC will add their Terms for a coordinated submission to the BC Utilities Commission in 2021. The Ministry has approved the Biosolids contingency plan and the CRD announced it's MOU with K'ENES Transportation in October 2020. ***Media Release***: CRD partners with new First Nations business on biosolids trucking contract (Nov. 12, 2020).
2d Ensure appropriate funding for parks and trails infrastructure, improvements and maintenance by updating the Regional Parks Strategy with consideration to ecological, recreation and reconciliation principles, land acquisition capacity, and expanded partnerships with First Nations and parks user groups.	***Board April 10, 2019*** ***PEC Oct. 23, 2019*** ***COW Oct. 30, 2019*** ***Board Oct. 30, 2019*** ***Board Nov. 13, 2019*** ***Board Mar. 11, 2020*** ***Board Mar. 18, 2020*** ***Board April 8, 2020*** ***Board May 13, 2020*** ***Board June 10, 2020*** ***Board June 24, 2020*** ***RPC Sept. 30, 2020*** ***RPC Jan 27, 2021*** ***Board Feb. 10, 2021*** ***RPC Feb. 24, 2021*** ***Board Mar. 10, 2021***	***Advocacy***: advocating the protection of Sooke Hills Regional Park. ***Media Release***: CRD Board Approves Extension of the Land Acquisition Fund. Decision to renew the Land Acquisition Fund for an additional 10 years (2020-2029) at a levy of $20/household and that land acquisitions be funded with an averaged contribution from community partners at an additional 25% and that an additional $925,000 be requisitioned each year for capital reserves to fund the refurbishment and replacement of existing assets. Financial Plans approved with several amendments, including a new approach to administering the highly successful Parks Land Acquisition Fund, with an additional $925,000 each year for capital reserves to fund the refurbishment and replacement of existing assets. ***Media Release***: CRD and CRHD Boards Approve 2020 Financial Plans. ***Media Release***: CRD Acquires 30 Hectares of Land Near Money Lake on Saturna Island. Regional Parks 2020 to 2021 Land Acquisition Criteria approved. Regional Parks management planning underway for Mount Work, East Sooke and Matheson Lake/Roche Cove Regional Parks. Staff directed to report back on options to improve capacity of the Parks Acquisition Fund. Mount Work Regional Park Management Planning report received for information June 2020. Terms of Reference approved for the Mountain Biking Advisory Committee and committee members appointed. ***Media Release***: Public encouraged to complete surveys for park management plans (August 18, 2020) Parks Acquisition Fund options presented as part of 2019-2022 Parks & Natural Resource Management Service Planning. Facilitator hired for the Mountain Biking Advisory Committee and Fall meeting schedule confirmed. 2019-2022 Parks & Natural Resource Managment service planning approved. ***Media Release***: CRD and Habitat Acquisition Trust to acquire park land in Saanich (Dec. 1, 2020). ***Media Release***: CRD Regional Parks acquires addition to Mount Parke Regional Park (Oct. 23, 2020). ***Media Release***: Restoration of Todd Creek Trestle on Galloping Goose Regional Trail complete (Oct. 19, 2020). ***Media Release***: CRD Regional Parks acquires addition to Mount Work Regional Park (Dec. 16, 2020). ***Advocacy***: Park Land Acquisition (Dec.14, 2020). CRD Regional Parks and Trails 2020 year in review submitted to Board. The Regional Trails Widening Study was received by Board for information and staff directed to conduct public engagement. The Board endorsed the appropriateness of the property tax requisition as the primary revenue source for operating costs and staff directed to report back on additional options for parking revenues as part of the Parks strategic planning process. Mountain Biking Advisory Committee completed final report. ***Media Release***: CRD Regional Parks rolls revenue generation into Strategic Plan (Mar. 11, 2021). Public survey and virtual open houses completed to get feedback on the Regional Trails Widening and Lighting project. Sustainable Funding Model for Future Land Acquisitions approach approved by Board. ***Media Release***: CRD Regional Parks Presents Mountain Biking Guidelines to Board (April 23, 2021. ***Media Release***: New life to be breathed into Elk and Beaver lakes (May 4, 2021)**.** ***Media Release***: CRD Regional Parks acquires addition to Mount Work Regional Park (May 17, 2021. ***Media Release***: CRD Seeks Public Feedback on Regional Trails Widening and Lighting (May 25, 2021)
2e Develop model bylaws and best practices for use by municipalities and electoral areas.	***PEC July 24, 2019*** ***Board Aug. 14, 2019*** ***COW Oct. 30, 2019*** ***Board Oct. 30, 2019*** ***PEC Nov. 27, 2019*** ***ESC July 15, 2020*** ***Board Aug. 12, 2020*** ***RPC Oct. 28, 2020*** ***Board Nov. 18, 2020***	Initiated residential retrofit acceleration project. Notice of motion to reduce expanded Polystyrene Foam Waste presented to committee and Board. Staff reported back on the notice of motion to reduce expanded Polystyrene Foam Waste with options and implications for creating a model bylaw to ban single use expanded polystyrene waste items including cups and containers. Staff reported on the Province's recent Order-in-Council amending the BC Recycling Regulation as a result of feedback received on its Plastics Action Plan consultation paper. Once in effect, these changes will provide residents with new recycling alternatives and help address issues associated with a variety of single-use items. Staff submitted a response to the Province's Recycling Regulations Policy Intentions Paper on November 19 providing feedback on a range of opportunities to expand product regulation and the EPR program. Initiated Capital Region Coastal Flood Inundation Mapping Project to provide future sea level rise mapping that may inform local government flood construction level-related policies. Capital Region Coastal Flood Inundation Mapping Project data collection work completed. Results and associated data shared with municipalities and First Nations. Completed the regional analysis to understand electric vehicle (EV) charging performance to coordinate local government bylaws and results shared with local governments in April 2020. Completed first phase of a regional forest carbon sequestration analysis. Completed Regional Electric Vehicle Charging Roadmap.

The CRD Board will take measurable steps toward developing respectful government-to-government relationships and partnerships with First Nations to foster shared prosperity for all.

Board Priorities Dashboard

Summary of Completed Actions

First Nations Reconciliation

Board Initiatives	Resolutions	Comments
3a Look to First Nations for leadership in understanding how to create new regional planning and decision-making systems together on their Traditional Territories.	▸ *Board June 12, 2019* ▸ *FNRC Feb. 26, 2020* ▸ *Board March 11, 2020* ▸ *Board, Oct. 14, 2020* ▸ *COW Oct. 28, 2020* ▸ *Board Oct. 28, 2020* ▸ *Board Nov. 18, 2020* ▸ *Board Jan. 13, 2021* ▸ *FNR May 26, 2021* ▸ *Board, Jun. 9, 2021*	Ministers responded to formal request from Board to form a working group and staff met with senior ministry staff to initiate discussions. Provincial government staff responded to formal request from Board to form a working group and staff met with senior ministry staff to initiate discussions. Discussions with ministry staff ongoing. Suggestion to also engage via UBCM in addition to continued dialogue between CRD staff and ministry staff. Forum of All Councils event explored the opportunity to support more inclusive decision-making with First Nations as outlined in CRD Statement of Reconciliation. Forum of All Councils event summary and recommendations submitted to the First Nations Standing Committee. Staff reports prepared for First Nations inclusion on CRD Board standing committees and remuneration to support increased First Nations participation. Amended CRD Procedures Bylaw to include First Nations elected officials in identified CRD decision-making structures. Draft amendments to CRD Board Remuneration and Travel Reimbursement Policy and a draft First Nations Remuneration Policy presented to the First Nations Relations Committee in November 2020. Draft amendments to the CRD Board Procedures Bylaw and the identified Board Standing Committee and Advisory Committee Terms of Reference to include First Nations' elected representatives in CRD governance presented to the First Nations Relations Standing Committee Board for approval. Staff were instructed by the Board to further engage the Nations for feedback, and provide the drafted Terms of Reference and Bylaw amendments to the Nations. The CRD Board Chair, and CRD CAO have been meeting with the various Nations' Chiefs and Councils to present this information and receive feedback from the Nations. Terms of Reference approved for all CRD Standing Committees be amened to allow for First Nation Member participation at their pleasure in accordance with CRD Procedures Bylaw, where the Nation has an interest in matters being considered by the committee. All closed matters will be directed to the Regional Board, where First Nation Member participation can be determined no an item-by-item basis. Amendments to the CRD Board Remuneration And Travel Expense Reimbursement Policy include First Nation Members, including all standing committees and set remuneration rates for First Nation Members. CRD First Nations Relations staff are supporting CRD Parks staff in park planning efforts. ***Media Release***: CRD Board approves inclusion of First Nations in regional governance and decision-making (Jan. 13, 2021). The WSÁNEC Leadership Council has nominated a Tsartlip First Nation Councillor and alternate to join the CRD committee tables. Staff have provided an initial orientation session and will continue to provide any further assistance that the Nation Members may require to attend meetings. Staff are continuing with outreach to other local Nations that may have interest in participating on CRD committee tables. The CRD Board endorsed Intercultural Skills Training in June 2021, which will support CRD Directors in building positive, respectful and reciprocal working relationships with First Nations participating in CRD Board standing, advisory, select committees and commissions. CRD First Nations Relations staff continue to support CRD Parks staff in park planning efforts.
3b Seek partnerships, share information and deliver fair and equitable services in working with First Nations on achieving their economic goals.	▸ *FNRC Sept. 18, 2019* ▸ *Board, Jan. 13, 2021* ▸ *FNR May 26, 2021* ▸ *Board, Jun. 9, 2021*	First Nations Relations Service Plan and budget amendment to include resources for Economic Development Feasibility Study. Feasibility Study of First Nations Economic Development Model process started. CRD is working with Victoria Native Friendship Program IMDEES by offering job shadow opportunities for individuals that have had challenges entering the workforce. CRD, along with Canada Summer Jobs, has engaged an Indigenous community member as Recycling Outreach Assistant through Summer/Fall 2019 to build accountable relationship with communities and better understand needs and barriers related to waste management. IWS working towards water and wastewater service agreements with local First Nations. Completed First Nations Economic Development Partnership Model Feasibility Study. Through the Economic Partnership Model from The Indigenomics Institute the First Nations Relations Division formulated three initiative business cases to begin implementation in 2021: First Nations Economic Opportunity Portal, First Nations Internship Program and Cultural Confidence Training Program. Ongoing work in progress, as recommended by the Economic Partnership Model from The Indigenomics Institute, to establish a First Nations Economic Opportunity Portal, advance procurement opportunities for First Nations, and support First Nations employment through an Indigenous Internship Program. Board motion approving participation in the Coastal Communities Social Procurement Initiative. December 2020 letters were sent to local First Nations informing them of additional Reaching Home COVID-19 Funding that was available, detailed information on how to apply was provided. To date there are three First Nations with projects underway to support providing temporary and long term housing, and basic needs such as groceries, transportation, and personal hygiene supplies. Integrated Water Services continue to work towards water and wastewater service agreements with local First Nations. he CRD Board endorsed the First Nations Honorarium Policy on June 9th which establishes consistency, and appropriate recognition for First Nations when they provide voluntary service such as sharing traditional knowledge, blessings, welcomes, and cultural ceremonies, in support of CRD projects and activities. Ongoing work in progress, as recommended by the Economic Partnership Model from The Indigenomics Institute, to establish a First Nations Economic Opportunity Portal, advance procurement opportunities for First Nations, and support First Nations employment through an Indigenous Internship Program. Panorama Rec Center is working with Tsawout First Nation to facilitate lifeguard training for seven youth from their community.

Board Priorities Dashboard

Summary of Completed Actions

Board Initiatives	Resolutions	Comments
3c Work with First Nations on taking care of the land and water while providing space for cultural and ceremonial use, food and medicine harvesting, traditional management practices and reclaiming Indigenous place names.	▸ ***Board Mar. 13, 2019*** ▸ ***Board June 12, 2019***	Board received information report on archaeology policy and procedures. Amendment to Capital Regional Board Procedure Bylaw to add Territorial Acknowledgment. Archeology services retained through creation of Standing Offer List to support CRD-led projects. Meetings with WSANEC leadership and cultural monitors to develop archaeology protocol. Archaeology protocol policy approved. Promoted the celebration of National Indigenous History Month and Indigenous Peoples Day in June 2020 and June 2021. Supported and promoted Orange Shirt Day, Every Child Matters on September 30th, 2020. Corporate wide training to support the new Protection and Conservation of Heritage Sites underway with bi-annual training opportunities moving forward. The Land Altering Works MOU between the WSANEC Leadership Council (WLC) and the CRD has been approved in its draft form by the Board to begin engaging in quarterly discussions between the WLC and CRD project managers to review upcoming land altering works taking place in WSANEC territory, and receive feedback from the Nations on the proposed works. Ongoing liaison support through the First Nations Relations Division for Parks staff and Southern Gulf Island Commissioners to support their requests for the inclusion of Indigenous language, place names and territorial acknowledgment in parks signage when possible. The CRD is working with the Nations to renew water and wastewater servicing agreements. The WSÁNEC Leadership Council (WLC) and the CRD through the approved draft WSÁNEC Land Altering Works MOU continue meeting quarterly to review upcoming works taking place in WSÁNEC Territory, and receive feedback from the Nations on the proposed works. Regional Parks working with First Nations to include language and perspectives on new park kiosks.
3d Prepare an ecological asset management plan that includes natural infrastructure, First Nations guiding principles, First Nations language and place names, historical uses and invasive species management.		Ecological Asset Management Plan project scoping ongoing with multiple CRD divisions.

The CRD Board will advocate for infrastructure, regulatory, legislative, financial and operational support, focus its governance and Committees/Commissions on transparently and efficiently advancing regional, sub-regional and local priorities, and work to resolve issues that the CRD may not have the direct mandate to address.

Advocacy, Governance & Accountability

Board Priorities Dashboard

Summary of Completed Actions

Making a difference...together

Board Initiatives	Resolutions	Comments
4a Develop an advocacy strategy to ensure all occupied properties have the opportunity to access high-speed internet services.	▸ *EAC Mar. 13, 2019* ▸ *EAC July 10, 2019* ▸ *Board July 10, 2019* ▸ *EAC Jan. 8, 2020* ▸ *Board, Jan. 8 2020* ▸ *Board Feb. 12, 2020*	**Operationalized.** CRD staff have been in discussion with SRD staff on the connected coast project since Fall 2018. Sites identified as eligible in the ***Connected Coast project proposal***. Inclusion in various programs is greatly enhanced with a Board endorsed broadband strategy. Staff directed by EAC March 2019 to advance all correspondence on rural definition issue to MLA Olsen to advocate for increased access to grant funding for EAs. Correspondence sent by CRD Board Chair on March 2019 to MLA Olsen. Advancing Southern Gulf Island Phase 1 connectivity strategy through community and stakeholder engagement. Staff meeting with citizen services to investigate pilot opportunities for connectivity on Southern Gulf Islands. Stakeholder engagement underway throughout Fall/Winter 2019. ***Media Release***: CRD Seeks Feedback for Internet Connectivity Plan for the Southern Gulf Islands In July 2019 Board authorized the submission of an application to the BC Rural Dividend Program for Southern Gulf Islands Connectivity Design Strategy and confirmed support for this project through its duration. In October 2019 the Provincial government canceled this grant opportunity. Staff presented results of Southern Gulf Island Phase 1 Connectivity Strategy community and stakeholder engagement. Received a grant from the Provincial Government to advance Phase 2 of the Connectivity Design Plan. Funding secured and engineering firm engaged to conduct broadband infrastructure design plan for SGI. Internet service providers have been consulted and are supporting the process with technical advice and review. The CRD Board has supported two requests by Internet Service Providers for federal funding aimed at improving service in the Southern Gulf Island electoral area. ***Advocacy***: Letter to Innovation, Science and Economic Development Canada (Mar. 15, 2021). The SGI Connectivity Plan was completed in April. The report summarizes current levels of connectivity in the region and provides a vision for the future that is mindful of the challenges and opportunities for improving broadband service for the SGI. The report describes alternatives and provides recommendations and cost estimates. SSI EA Administration continues to support for third party proposals for internet service infrastructure improvements and consider partnerships agreements with Connected Coast.
4b Develop a comprehensive strategy and operational review to reflect the unique needs and governance of each electoral area.	▸ *Board Jan. 9, 2019* ▸ *EAC Mar. 13, 2019* ▸ *EAC April 10, 2019* ▸ *EAC July 10, 2019* ▸ *Board July 10, 2019* ▸ *EAC Sept. 11, 2019* ▸ *Board Sept. 11, 2019* ▸ *Board Feb. 12, 2020* ▸ *Board Sept. 9, 2020*	Resolution supporting the submission of a grant application for $25,000 to the UBCM Community Emergency Preparedness Fund – Evacuation Planning Stream for Evacuation Route Planning, as well as a grant application for $100,000 to the UBCM Community Resiliency Investment Program to fund FireSmart initiatives in the Electoral Areas. EAC directed staff to bring back service establishment amendments to remove JDF EA from livestock kill compensation. EAC directed staff to consult with community groups BC Transit, and BC Ferries to define a service model that would best serve the transportation needs of the Southern Gulf Islands. Establishment of a Southern Gulf Islands transportation service in service and budget planning for 2020. ***Advocacy:*** Correspondence sent regarding the application for Salt Spring Island Water Service Optimization Study (July 17, 2019). ***Advocacy***: Inclusion of the Southern Gulf Islands in Community Futures (October 7, 2019). ***Advocacy***: Request for Order in Council - CRD Electoral Areas (November 13, 2019). ***Media Release***: Salt Spring Island water study receives provincial support. Salt Spring Water Optimization Study Terms of Reference completed and contractor selected to carry out study. Bylaw No. 4325 Bylaw to establish community safety service on Salt Spring Island introduced and staff directed to conduct an alternative approval process for Bylaw 4325. ***Media Release:*** Alternative Approval Process Begins for Salt Spring Island Community Safety Service. At the close of the deadline date of December 9, 2019 for receipt of elector responses, it was determined that more than 910 elector response forms had been received and therefore elector approval by alternative approval process was not obtained. Submitted a letter of support for the application by TELUS to the Province of British Columbia Network BC Connecting British Columbia program and to the Canadian Radio-television and Telecommunications Commission Broadband Fund for a funding contribution towards the transport and last mile project for Jordan River - Port Renfrew. ***Advocacy***: Electoral Areas Rural Status (January 31, 2020) ***Advocacy***: Telus Resolution (February 13, 2020) North Ganges Transportation project tendered in March 2020 with construction started in June 2020. ***Advocacy***: Electoral Areas Rural Status (July 17, 2020). ***Advocacy***: Investing in Canada Infrastructure Program (Sept. 20, 2020) Service planning and business case modeling underway to create a new SGI Transportation service that will address public transit, active transport and inter-island water travel needs. Submitted a UBCM grant application for active transportation route mapping. SSI Transportation Committee conducted a Strategic Planning session to set direction for annual capital priorities and the Salt Spring Island Water Optimization Study draft has been finalized with the province and Improvement District. Contract for the Rural Dividend grant project to establish a shared business services model has been awarded to Rural Island Economic Partnership. Contract for the SGI Transportation Integration Plan has been awarded. ***Media Release***: CRD and North Salt Spring Waterworks District Release Water Optimization Study (Mar. 31, 2021) The development of the terms of reference has been deferred until the SSI water optimization consultation is complete (timing still to be determined). May require Provincial direction. ***Media Release***: CRD Initiates Study to Support Transportation Options in the Southern Gulf Islands (Apr. 28, 2021)

The CRD Board will advocate for infrastructure, regulatory, legislative, financial and operational support, focus its governance and Committees/Commissions on transparently and efficiently advancing regional, sub-regional and local priorities, and work to resolve issues that the CRD may not have the direct mandate to address.

Advocacy, Governance & Accountability

Board Priorities Dashboard

Summary of Completed Actions

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Board Initiatives	Resolutions	Comments
4c Explore more comprehensive regional coordination of emergency services, including an assessment of regional hazards, risks and vulnerabilities.	▸ *EAC July 8, 2020* ▸ *Board July 8, 2020* ▸ *PTPSC July 15, 2020* ▸ *EAC Nov. 4, 2020* ▸ *Board, Nov. 18, 2020* ▸ *EAC Feb. 10, 2021* ▸ *Board, Feb. 10 2021* ▸ *EAC May 12, 2021* ▸ *Board May 12, 2021*	The Regional Emergency Management Partnership (REMP) Strategic Plan and work plan was reviewed and approved with work on a Regional Concept of Operations and Hazard Vulnerability analysis to continue. Successful in grant applications of $25,000 for the UBCM Community Emergency Preparedness Fund – Evacuation Planning Stream for Evacuation Route Planning, as well as $100,000 for the UBCM Community Resiliency Investment Program to fund FireSmart initiatives in the Electoral Areas. Policy group meeting held with Board Chair and Federal Minister. Shared concept operations papers with several First Nations about how to work to advocate to work together in the case of a regional emergency. Regional concept of operations circulated to municipal CAOs to approve Memorandum of Understanding on operational protocol. Currently have 12 of 13 municipalities and two First Nations confirmed. Coordinated response to proposed new modernization of the BC Emergency Act submitted January 2020. Participated through the Regional Emergency Management Partnership in a Regional Hazard, Risk and Vulnerability Assessment (HRVA) exploring three regional hazards of snow storm, extreme heat, and earthquake along with multiple stakeholders from multiple-sectors from across the capital region identifying disaster risk reduction strategies. Submitted Regional Emergency Management Partnership overview, 2019 highlights and role in COVID-19 report. Received $25,000 grant for the Electoral Areas Emergency Operating Centre Supplies Procurement Project. Province released its ***'What we heard' report***. The feedback period for the report ran until September 30, 2020. SEOC continues to facilitate coordination of actions and resources in the Electoral Areas and regionally. The Corporate Emergency Management Plan has been updated and shared with EMC. As part of the Firesmart project, submitted a UBCM grant application to update Community Wildfire Resiliency Plans. The CRD advocated to CREST to urgently find alternative method of providing emergency telecommunication in the Juan de Fuca area. Electoral Area Volunteer Fire Service Regulatory Review reported on and staff directed to report back with operational, administrative, and governance strategies to meet and sustain regulatory compliance and funds be reallocated from operational reserves for 2021 to be available for a temporary increase in staff resources to support fire services to attain compliance. Public Alert Notification System RFQ process complete and contract awarded. Successful applications submitted to UBCM for the FireSmart initiative and for the Emergency Operations Centres and Training Grants. The Emergency Management Software contract has been signed and now moving to implementation. The new Public Alert Notification System contract was signed and the service has been transitioned to the new provider. The RFP for Fire Dispatch Services has been finalized for Bylaw 3854 participants.
4d Achieve triple bottom-line sustainable budgets through innovation and streamlining while recognizing the need for infrastructure revitalization and accountability to taxpayers.	▸ *GFC, Oct. 7, 2020* ▸ *Board, Oct. 14, 2020* ▸ *COW Oct. 28, 2020* ▸ *Board, Oct. 28, 2020* ▸ *Board Mar. 24, 2021* ▸ *Board May 12, 2021*	Staff working to develop process for transparent, multi-criteria decision making on Initiative Business Case (IBC) review to drive service planning and ultimately financial budgets. Also working to develop measures for adequate reserve balances across services. Financial Planning guidelines approved by Board. New quarterly operational variance reporting implemented. An overhaul of the business planning process was started in the 2019 and continues through 2021. A prioritization and decision-making methodology has been developed. It will be reviewed annually to ensure it is reflective of the CRD's operating context. Financial Services will undertake a review of best practices in reserve balances for all services in 2021. Service plans for 2021 were approved by COW in October 2020. Staff reported back on priorities and decisions made to achieve sustainable budgets and work plans. Direction and strategy for 2022 will be set at annual Board check-in in late spring. A review of best practices in reserve balances will be undertaken for all services in 2021. ***Media Release***: Public feedback encouraged on CRD and CRHD 2021 provisional financial plans (Oct. 29, 2020). Staff brought reserve balances, analysis, modelling and two draft reserve guideline iterations through ELT. Government Finance Officers Association US & Canada awarded CRD with this year's Distinguished Budget Presentation Award and the Canadian Award for Financial Reporting. ***Media Release***: Capital and operating financial plans approved for 2021 (Mar. 24, 2021). This initiative has been accelerated and a report on reserve balance measures and gaps/surpluses will be submitted to the Finance Committee for its consideration in July 2021.
4e Seek 100% participation in the CRD arts function and facilitate a discussion of the region's art facility needs.	▸ *GFC July 3, 2019* ▸ *GFC Oct. 2, 2019* ▸ *PAFSC Jan. 29, 2020* ▸ *Board, June 24, 2020* ▸ *Board July 8, 2020* ▸ *GFC Oct. 7, 2020* ▸ *Board Oct. 14, 2020* ▸ *Board Jan. 13, 2021* ▸ *Board Mar. 10, 2021* ▸ *GC, April 7, 2021* ▸ *Board April 12, 2021* ▸ *PAFSC, May 5, 2021*	In 2017/2018 staff along with Arts commission chair embarked on a roadshow to encourage participation in the Arts Development Service, resulting in net 1 participant increase to the service (+Sooke, +SGI, -Sidney). To advance a regional discussion on arts facilities, GFC supported two recommendations: to establish a Select Committee to facilitate a discussion of regional arts facilities; and to have the Arts Commission and Royal & McPherson Theatres Services Advisory Committee report on the potential for full participation in their respective Services. Regional Arts Facilities Select Committee first meeting held. Terms of Reference approved. Request For Proposal for a consultant to facilitate the arts facilities discussion approved and posted. Select committee confirmed proceeded with public engagement through COVID-19. External consultant presented electronic engagement plan to committee and ensured activities are in accordance with Public Health Officer guidelines. Updated CRD Arts & Culture Support Service Strategic Plan and submitted to Board June 24, 2020. Phases of the project included pre-consultation meetings, the development of a facilities inventory and analysis, in-depth interviews with key community members and an online survey that attracted over 500 participants. Public engagement, including workshops to vet and validate learning outcomes and propose future actions, completed in Fall 2020. Implementation and implications of the consultant's recommendations from Stage One: A Public Conversation about Performing Arts Facilities in the CRD report received and direction to staff to add additional funds to the 2021 final budget. Creation of a Performing Arts Facilities Select Committee whose purpose will be to define the scope and functions of a regional service that will lead to the establishing bylaw for the Performing Arts Facilities Service. PAFSC directed staff to develop a service bylaw, service plan and a process to consult with municipalities, electoral areas, arts organizations, and other bodies.

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Advocacy, Governance & Accountability

Board Priorities Dashboard

Summary of Completed Actions

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Board Initiatives	Resolutions	Comments
4f Explore how the CRD can best contribute to regional economic development.	▸ *GFC July 3, 2019* ▸ *Board July 10, 2019* ▸ *GFC Oct. 2, 2019* ▸ *Board Oct. 9, 2019* ▸ *Board Mar 11, 2020* ▸ *Board May 13, 2020* ▸ *GFC July 29, 2020* ▸ *Board Aug. 12, 2020* ▸ *EAC Sept. 9, 2020* ▸ *Board Sept. 9, 2020* ▸ *GFC Dec. 2, 2020* ▸ *Board, Dec. 9, 2020*	**Operationalized.** ***Advocacy:*** Correspondence sent by Board Chair to support South Island Prosperity Project Smart Cities application. Advocacy plan presented to Committee and Board and approved. ***Media Release***: CRD and the Community Economic Development Commission (CEDC) have received a Rural Dividend grant. Staff presented with Ministry of Citizen Services on Broadband Connectivity across BC's rural islands at the Rural Islands Economic Forum (RIEF) in November 2019. Board Chair recommended proposed for an Economic Recovery Forum to be held. This proposed forum would be intended to bring together elected officials, business leaders and other stakeholders where we could discuss potential region-wide initiatives. Board Chair participated in the Opportunity in Recovery: Discussing BC's post COVID-19 future on June 17.2020 Community Economic Development Commission Five Year Financial Plan to fund a project with Rural Island Economic Partnership (REIP) to develop an online business directory and marketing plan for rural businesses. ***Advocacy:*** COVID-19 and Community Works Funds (April 27, 2020). ***Advocacy:*** South Island Leaders Unite to Address Economic Crisis and Recovery (April 16, 2020). Staff presented report on the regional role in economic development. The CRD continues to have a strong interest in supporting a regional economic development strategy and partnering with senior levels of government and stakeholders. In SGI, relationships have been established for collaboration at relevant provincial and federal level. External grants and funding opportunities collated and promoted through commissions. Approved the Rural Dividend amendments and staff authorized to direct award contract to Rural Islands Economic Partnerships Society. CRD allocated $1.4 million to the COVID-19 Safe Restart Grants for Local Government. SGI Community Economic Sustainability Commission (CESC) is now coordinating with SSI Community Economic Development Commission (CEDC) for regional economic resiliency. Contract was executed with Rural Island Economic Partnership (RIEP) for Shared Business Service Model. Island Food Security report was presented to the SGI CESC. Commission is now exploring funding options for development and implementation partnerships. Board endorsed three applications to the Investing in Canada Infrastructure Program - COVID-19 Resilience Infrastructure Stream to support all three electoral areas. The 2021 work program for the Southern Gulf Islands Economic Sustainability Commission (CESC) is underway and includes COVID-19 economic resiliency, an SGI affordable housing strategy, connectivity (broadband planning), food security and transportation planning. ***Media Release***: Island Coastal Economic Trust expands to more communities (Feb. 19, 2021). ***Advocacy***: COVID Safe Restart Grants - AVICC (Feb. 22, 2021) - UBSM (Jan. 29 2021). Continue to advance advocacy initiatives identified by the SGI and SSI community economic development commissions. REIP's work is ongoing and regular reporting to the commission will take place as work progresses The SGI Economic Recovery and Resiliency Program worked through community partners to share information, identify challenges, and identify resources to support businesses and non-profit organizations to navigate the challenges of COVID-19 closures. ***Media Release***: Capital Regional District reports on 2020 funding for the Electoral Areas (May 18, 2021)

Corporate Priorities Dashboard

Summary of Completed Actions

Accountability

Corporate Initiatives	Resolutions	Comments
Business capacity & continuity: Advance our workforce planning & Organizational Health & Safety programs to support organizational capacity & resilience.	▸ *Board Mar. 18, 2020*	**Operationalized**. Organizational Development Plan Actions updated for 2019, 2020 nad 2021 and advanced to all staff. Received Local Government Auditor General report December 2018 on Emergency Preparedness identifying the need to improve business continuity planning efforts which included CRD response and proposed work to be implemented. Ensure CRD systems and policies are aligned to significantly improve workplace decision-making and business tracking, including alignment with business continuity requirements. Significant focus on the review and implementation of a comprehensive Human Resource Information System (HRIS), aligned to our current Enterprise Resource System (SAP), and continued review of OHS safety elements tied to certificate of recognition. Starting mid-March 2020 a significant focus on the COVID-19 pandemic. Staff and Board members have been closely monitoring the COVID-19 situation and reviewing its essential services, decision-making processes and health and safety requirements to ensure business continuity during the COVID-19 pandemic. Occupational Health & Safety created the Safety Exposure Control Plan, as well as additional documents outlining health and safety protocols in line with WorkSafeBC. Application for Certificate of Recognition (CoR) for audit postponed to 2021 due to the COVID-19 pandemic. Service plan initiative prepared for the implementation of the HRIS as part of the service planning process but deferred to 2021. Successfully recruited Occupational Health and Safety Manager. Occupational Health & Safety continue to update and create new documents outlining health and safety protocols in line with WorkSafeBC. Preparation for Fall COVID planning, including new Human Resource processes. Face coverings were circulated to all staff. **Many media releases have been distributed as a result of COVID-19. For a full list click here.*
Fiscal responsibility: Integrate asset management & risk analysis into our capital planning processes to strengthen our fiscal management practices & support resource sustainability.	▸ *Board Mar. 13, 2019* ▸ *GFC Oct. 2, 2019* ▸ *PEC Oct. 23, 2019* ▸ *COW Oct. 30, 2019* ▸ *Board Oct. 30, 2019* ▸ *Board Mar. 11, 2020* ▸ *COW Oct, 28, 2020* ▸ *Board, Oct. 28, 2020*	Asset Management Policy & Strategy approved by Board, with a prioritized multi-year phased implementation starting with the Core Area Sewer Service. Incremental impacts included in provisional budget; 2 FTEs and a one-time costs of $125k. Regional Parks Sustainable Service Delivery Plan Report Card approved by PEC and Board. The multi-year Asset Management Initiative Business Case project continues to be implemented, with work on the Core Area Wastewater Service underway. Sustainable Service Delivery Plans are being developed across multiple service areas. Regional Parks Sustainable Service Delivery approved by Board. A corporate risk management framework has been established and processes embedded in capital planning processes to support resource prioritization. A supporting asset componentization guide has been developed. Guide has been applied to Core Area Wastewater Treatment Project to ensure robust asset lifecycle risk analysis. Initiative approved through service planning to develop life-cycle costing policy & procedures to improve business case options development and decision-making. Staff brought revisions to the Board approved investment policies of CRD and CRHC (March 2020) to consolidate, align investment goals and diversification, as well as formalize social responsible investment parameters. ew manager for asset management has been on-boarded and material progress has been made on the implementation of the enterprise asset management strategy. Related policies have been drafted and over a third of the organization's planned development of sustainable service delivery plans have been drafted or are underway. On track to develop the life-cycle costing framework and procedures by end of the year.
Transparency: Streamline our service planning tools & establish KPIs to effectively track & report progress on Board Priorities, Corporate Projects & operational service activities, thereby enhancing accountability.	▸ *COW Oct. 30, 2019* ▸ *Board Oct. 30, 2019* ▸ *Board Mar. 18, 2020*	**Operationalized.** Corporate Plan finalized March 2019. Service Planning templates completed. Service plans presented as part of 2020 service planning process. Staff completed a review of the 2019 service planning process and based on lessons learned, while ensuring work is aligned with the 2019-2022 Board Priorities and the 2019-2022 Corporate Business Plan have adjusted the service planning process for 2020. Board conducted the 2019-2022 Board Priorities Annual Check-in May 2020. First phase of the 2021 service planning process (initiative identification and prioritization) was completed June 2020. Changes were implemented this year, following the 2019 service planning review. Moving forward with financial planning work as well as Community Needs Summary development in line with target deadlines. Service planning reports for 2021, which included new KPIs, were reviewed by committees and commissions between September and October. The CRD Board approved the report and the Provisional Budget on October 28, 2020. Direction and strategy for 2022 were set at annual Board check-in in late spring 2021.Executing service planning and annual check-in program.
Efficiency & collaboration: Develop a partnership directory & guidelines document to guide staff & existing potential partner groups & enable greater collaboration.	▸ *GFC Nov. 4, 2020* ▸ *Board Nov. 18, 2020*	**Operationalized.** Advancing initiatives under inter-governmental MOUs for Regional Housing First, Regional Emergency Management, First Nations and Wildfire response. Provide core funding to various not-for-profit groups under operating agreements. Continue to advance initiatives under inter-governmental MOUs for Regional Housing First, Regional Emergency Management, First Nations and Wildfire response. Partnerships guidelines prepared and existing formal partnerships captured in directory. Continue work to seek new partnerships and transition informal partnerships to formal. Staff directed to expand and enhance the CRD's youth engagement approaches as part of the organizational Diversity and Inclusion strategy, currently under development.
Customer service: Enhance our systems and policies to respond to evolving best practices, adhere to legislative requirements, and provide efficient, accessible, customer service.	▸ *Board May 8, 2019* ▸ *Board June 12, 2019* ▸ *Board Dec. 11, 2019* ▸ *Board Mar. 18, 2020*	The 2019 Organizational Development Plan actions include implementing new systems to review polices, a new technology strategy aligned with corporate priorities and enhancing corporate health and wellness and recruitment strategies. Transparency initiatives endorsed by the Board, including a rise and report webpage and a monthly Board Highlights report. ***Media Release***: CRD Launches Transparency Initiatives. The Board Highlights monthly e-newsletter (launched December 2019) sends a summary of key agenda items and Board decisions directly to your inbox, with links to related materials and webcasts for in-depth review. The rise and report section of the CRD website (launched December 2019) publishes decisions that were made in-camera once they are ready for public release. Website, social media and media channels fully engaged to report out information as the COVID-19 pandemic evolves. Staff developing signage to convey new health and safety requirements and operational impacts as directed by the Public Health Officer. EA email accounts have been activated for residents to send questions and comments to the CRD for response in a timely manner. Website, social media and media channels fully engaged to report out information as the COVID-19 pandemic evolves. Closed CRD offices re-opened to the public June 1, 2020. Signage and other measures taken to convey new health and safety requirements and operational impacts as directed by the Public Health Officer. Launched the water outages map allowing customers of the Juan de Fuca Water Distribution System and Local Service Areas to view current water outages online. New corporate sign strategy approved and aligned with best practices. CRD Bike Map is now available online in a digital format to help riders find the best route conveniently on desktop or mobile device.

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OPEN CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, OCTOBER 13, 2021

APPENDIX D
CORPORATE CLIMATE CHANGE INITIATIVES

Input from two dozen CRD services and the CRD Climate Action Inter-Municipal Working Group and Task Force, staff developed a final draft Climate Action Strategy for the organization. The Strategy was presented to the Environmental Services Committee on September 29, 2021 for recommendation prior to Board approval. The strategy outlines how the CRD can influence, lead and support efforts to reduce emissions and adapt to a changing climate. It includes a renewed vision, principles, goal, greenhouse gas reduction targets and climate actions that the CRD will undertake within both its corporate operations and community-focused services over the next five years. Staff also presented the service implications associated with plan implementation.

CRD delivered a Capital Region Residential Energy Retrofit Business Case that offers costs and a design framework for achieving the emission reduction goals associated with the residential built environment. The business case recommends a regionally coordinated, subsidized and well-marketed program following a “One Stop Shop” model, with an initial focus on Part 9 (i.e., single family homes, duplexes and townhomes). The business case was a 2021 Board approved initiative and is included in the Climate Action Strategy action plan. Staff continue to work with an inter-municipal project team to further engage local contractors on opportunities and investigate third-party financing schemes as an additional program offering. This additional work is funded by a Federations of Canadian Municipalities Community Efficiency Financing Program ‘Design Study’ grant.

The CRD was awarded an honourable mention at this year’s Community Energy Association Climate & Energy Action Awards for the Bring it Home 4 the Climate program. Developed and supported by City Green Solutions, the CRD and municipal partners, the pilot program helps capital region homeowners connect with resources, rebates, and support to improve energy efficiency and reduce carbon pollution in their homes. As it is a proven successful model, Bring It Home is being expanded and will be offered by municipalities in the lower mainland in the coming months. The program learnings have directly informed the business case, noted above.

In partnership with several municipalities, the CRD submitted an application to Natural Resources Canada’s Zero Emission Vehicle Awareness Initiative for $224,000 in grant funding to support a regional campaign to increase awareness and public confidence in zero-emission vehicles (ZEVs) and ZEV technologies. If successful, the project will employ a multi-pronged approach to increase public knowledge of the advantages of electric vehicle and electric bicycle ownership in the capital region through public outreach events and targeted capacity-building support in key groups, such as strata associations and trades practitioners.

This quarter, the CRD extended the contribution agreement with BC Hydro to receive funding to support the CRD's Community Energy Specialist position for another two-year term. The position was established in connection with mutually agreed upon set of deliverables. The updated work plan includes deliverables associated with the collaborative efforts of the CRD Climate Action Inter-Municipal Working Group and CRD priorities (such as policy support, projects and regional capacity building related to new and existing buildings and electric vehicle adoption) and BC Hydro Community Energy Manager Network participation. The value of this contract represents funding of $100,000 ($50,000 per year) to support the regional efforts of the Climate Action Program. Staff had previously received Board approval to continue this two-year term position during 2021 service planning.

The CRD was approved for the CleanBC Go Electric Fleets EV Charging Facility Assessment rebate for the Integrated Water Services building at 479 Island Highway. As part of the corporate fleet EV infrastructure implementation plan, this site assessment will determine the equipment and cost requirements to develop the IWS building into a hub for up to 30 EVs by 2030.

Advocacy Dashboard > Quarter 3 – 2021

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Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-01-02	**Property Purchase Tax on housing properties acquired by CRD**	Request and advocate for the Ministry of Finance to exempt the CRHC from Property Purchase Transfer Tax (PPTA) on affordable housing property purchases.	✓	✓		✓	CAO correspondence to Provincial Property Tax Enquiries Agency and Minister of Finance requesting that the CRHC be granted an exemption from PPTA on affordable housing purchases. CRHC Board Chair Helps to lead any advocacy. Letter to Property Transfer Tax Enquiries Letter to Minister James	Report on Provincial Budget Submissions indicates no relief. In relation to this request, in March 2021, BC Assessment made CRHC properties exempt from property tax consistent with CRD owned properties.
20-01-01	**Speed Enforcement on the Malahat**	Move forward with a trial of point to point interval cameras on the Malahat.	✓		✓	✓	Letter to Minister Farnworth	
20-01-02	**Increased Transit Funding**	Request for new investments and reliable annual funding to support increased public transportation.	✓	✓	✓	✓	Letter to Prime Minister Trudeau, Premier Horgan, Minister McKenna and Minister Garneau. Email from the Prime Minister's Office Email from the Office of the Premier Letter from Minister Trevena Letter from Minister McKenna	

Advocacy Dashboard > Quarter 3 – 2021

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
21-01-01	Aboriginal Coalition to End Homelessness Society	Request federal and provincial funding to support the Aboriginal Coalition to End Homelessness Society.	✓			✓	Letter to support Aboriginal Coalition to End Homelessness Society March 24, 2021	
21-01-02	Regional Transportation Priorities	Confirm the CRD Board's Regional Transportation Priorities.	✓			✓	Letter to Minister Fleming Met with Minister Fleming by teleconference October 4, 2021	

Advocacy Dashboard > Quarter 3 – 2021

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-02-01	Climate Emergency	Ask Federal government to strengthen national efforts to meet the Paris Agreement. Ask Provincial government to fully implement CleanBC and provide data on utilities vehicles and community energy emission inventories to local governments.	✓	✓	✓	✓	Letter to Premier Horgan Letter to Minister McKenna Representation from all CRD local governments on Climate Action Task force and staff Working Group sharing information and collaborating on projects. Partner with NGO's, Academic Institutions and Utilities with staff support through shared research, policy development and program delivery.	Quarterly update to enhance Annual Community and Corporate Climate Action reporting.
19-02-02	Climate Action Leadership	Seek Strategic partnership	✓				Letter to Minister Heyman Response from Minister Heyman Letter to Minister McKenna	Continue to seek partnership with senior governments.
20-02-01	Solid Waste Policy Advocacy	Ongoing Association of Vancouver Island Coastal Communities special committee on provincial Solid Waste policy and diversion programs.	✓			✓	Link to policy resolutions submitted to AVCC for debate, if passed would move on to UBCM then if passed would move to Province. Parliamentary Secretary Malcolmson toured the Hartland Landfill in early May. Memo to Parliamentary Secretary Malcolmson.	
20-02-02	Parkland Acquisition	Ask provincial government to participate in further parkland acquisition in the Capital Region.	✓			✓	Letter to Minister Heyman Met with Minister Heyman by teleconference on February 17, 2021.	

21-02-01	**Climate Action Revenue Incentive Program (CARIP)**	Ask provincial government to re-establish CARIP funding or similar program.	✓			✓	Letter to Premier John Horgan, Minister Osborne, Minister Heyman and Brian Frenkel (UBCM). Letter from Minister Osborne	
21-02-02	**Short-Term Management of CRD Biosolids**	Ask provincial government to reconsider approving a biocell at Hartland Landfill and updating the Organic Matter Recycling Regulation.	✓			✓	Letter to Minister Heyman	

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-03-01	First Nations Reconciliation	Enhance Indigenous reconciliation at the community level.	✓			✓	Letter from Minister Robinson identifying the opportunity to meet with Snr. Provincial staff from the Ministry of Indigenous Relations and Reconciliation. Letter to Ministers Fraser and Robinson Letter from Minister Robinson Met with senior provincial staff on March 7, 2019 and agreed to follow up as required. Letters to MPs (Collins, Garrison, MacGregor and May) Letter to JOŁEŁP (Tsartlip First Nation) Chief and Council Forum of All Councils took place on November 28, 2019.	Ongoing

Advocacy Dashboard > Quarter 3 – 2021

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Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-04-01	Electoral Areas Rural Status	Change in definition for CRD electoral areas to rural for various Federal and Provincial Funding programs.	✓	✓		✓	Letter to Premier Horgan and then follow up to MLA Olsen. Letter to Premier Horgan requesting the CRD Electoral Areas of Salt Spring Island, Southern Gulf Islands and Juan de Fuca in the regions be approved for investment by Islands Coastal Economic Trust. Letter to Minister Bains requesting inclusion of the rural Southern Gulf Islands in the regional jurisdiction of the Community Futures Cowichan Valley office. Letter to Minister Joly regarding inclusion of the Southern Gulf Islands in Community Futures. Board Chair Plant met with Minister Kahlon to discuss Islands Coastal Economic Trust on December 21, 2020. Letter to Strathcona Regional District writing in support of the CityWest applications to the Federal Universal Broadband Fund and the Provincial Economic Recovery Intake programs. CRD Board Chair and Electoral Area Directors met with Minister Kahlon by video conference on February 12, 2021.	Ongoing

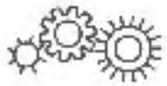
							Media Release from the Ministry of Jobs, Economic Recovery and Innovation that the CRD Electoral Areas are now eligible to apply for funding from the Island Coastal Economic Trust (ICET) and be included in other services that ICET provides. Letter to Innovation, Science and Economic Development Canada supporting the TELUS application to the Mobile Stream of the Federal Universal Broadband Fund for increased cellular service in the Southern Gulf Islands and Salt Spring Island Electoral Areas.	
20-04-01	**Rural Home owner grant to apply in the CRD rural EA areas**	Change Provincial policy to allow designation of our EA as rural.	✓	✓			Resolution to UBCM through letter from Board Chair Plant	
20-04-02	**Investing in Canada Infrastructure Program (ICIP)**	Advocate for individual assessment of CRD Electoral Area ICIP applications to provide the same opportunity as municipalities.	✓	✓		✓	Letter to Minister Robinson	Ongoing
21-04-01	**COVID Safe Restart Grant Inequity for Electoral Areas**	Advocate to provide more equitable Safe Restart Grant funding to Regional District Electoral Areas.	✓	✓		✓	Letter to Premier Horgan requesting additional funding for the COVID-19 Safe Restart Grants for Local Government for Electoral Areas and First Nations.	

							Letter to UBCM seeking advocacy on Safe Restart Grants for Local Government for Electoral Areas and First Nations. Resolution to UBCM and AVICC. Letter from Deputy Minister Okenge Yuma Morisho announcing additional funding.	

Advocacy Dashboard > Quarter 3 – 2021

Making a difference...together

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-05-02	Abandoned Boats	Advocate for additional federal funding to continue program and ask Federal Government to take on 100% of costs.	✓		✓		Letter to Minister Garneau CRD and Dead Boat Society have an MOU to partner on Abandon Boat identification and disposal. The Society and its partners are advocating for continued Federal funding to take on the project directly.	Ongoing
19-05-03	Canada Goose Management Strategy	Ask Federal Government to enhance non-migratory goose management approach.	✓				Letter to Minister McKenna Letter to Minister Wilkinson Letter from Minister Wilkinson	Ongoing
19-05-05	Deer Management	Encourage province to take responsibility for wildlife.	✓	✓			Letter to Ministers Popham, Heyman and Donaldson Several municipalities are now advocating as a group and individually for Provincial action and support. Letter from Nancy Liesch, ED, Natural Resources	Ongoing
19-05-06	Elk & Beaver Lake Remediation	Seek funding partnership from federal and provincial government as a capital project, CRD would commit some funds.	✓	✓	✓	✓	Board Chair Plant leading Board advocacy with the Premier and local MLAs. Saanich is member partner. Staff researching how other lakes received grants. Letter to Minister Popham Board Chair Plant and CAO Lapham met with Minister Popham December 11, 2019. Letter to Minister Popham Funding was announced by the Province on May 4, 2021 in a Media Release.	Enhanced service plan proposal for 2020.



Advocacy Dashboard > Quarter 3 – 2021

Making a difference...together

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
19-05-07	**Weed Control Invasive Species**	Ask Province to add additional species to weed control regulation.	✓				Letter to Minister Donaldson Letter from ADM Paul Rasmussen	Ongoing
19-05-08	**Ocean Legacy Foundation Report**	Seek favourable consideration and action on the five recommendations in the report.	✓				Letter to Minister Heyman Letter from Minister Heyman	Ongoing
20-05-01	**Advocate to allow stacking of gas tax funds to contribute projects for municipalities and electoral areas**	Ask Federal Government to change the way this operates for municipal governments.	✓	✓	✓	✓	Resolution sent to Association of Vancouver Island and Coastal Communities meeting January 2020 and reply letter from FCM Resolutions	
20-05-03	**Request province develop a strategy and plan for ongoing coordination between BC Ferries, BC Transit and MoTI on integrated, low carbon, active transportation oriented solutions for SSI and SGI**	Advocate for this approach mostly around integration of transportation planning.	✓	✓			Letter to Minister Trevena Letter from Minister Trevena	
20-05-04	**Write to UBCM and FCM asking them to advocate to the Federal**	Asking for relaxed guidelines in light of economic and financial impacts for up to	✓	✓			Letter to UBCM and FCM Board Chair and CAO had call with FCM on May 21 Board Chair and CAO had call with UBCM on June 4	

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
	Government to broaden the guidelines of Community Works Funds for capital and operating expenditures as a result of the COVID-19 pandemic	one year subject to local government due diligence and as long as expenditures are in the public interest.					Letter from FCM Letter from UBCM UBCM indicated that they are generally aligned with the CRD position in their advocacy with FCM to the Federal Government. UBCM is in engaged in discussions with FCM and the Federal Government to utilize the gas tax funding model for recovery funding and granting. There continue to be challenges with Regional District EAs with respect to the request for funding non profits and ineligible projects and risks to RDs in proceeding to fund projects that might ultimately not received UBCM and Federal funding approval. EA continue to what to pursue funding approvals for non profit services. UBCM administer under the Federal Provincial agreement approved in 2014 for 10 years and that would be difficult to change without renegotiating the whole agreement which would come with some risks.	

Advocacy Dashboard > Quarter 3 – 2021

Making a difference...together

Tracking #	Issue	Objective	Advocates				Comments	Status/Update
			Board	LG/EA	Partner	Staff		
							Acknowledged social services and emergency and public service buildings being asked to be included as eligible projects.	
21-05-01	Opioid Overdose Crisis	Advocate the provincial and federal government to declare the overdose crisis a national public health emergency and develop comprehensive action plans.	✓		✓	✓	Resolution to UBCM and AVICC.	

Capital Regional District
Quarterly Operating Variance Report - Q2, 2021
Service Budgets Greater than $1,500,000

		Operating Expenses							Operating Revenue						
			Year to Q2			Annual Forecast				Year to Q2			Annual Forecast		
Service Number	Service Description	Annual Budget $ (Schedule A)	Actuals $	% of Budget	2020 % of Budget	$	% Budget (over)/under	Explanation	Annual Budget $ (Schedule A)	Actuals $	% of Budget	2020 % of Budget	$	% Budget (over)/under	Explanation
1.010	Legislative & General	25,887,694	10,092,381	39%	41%	24,590,049	5%	Forecasted annual savings on timing of staff vacancies, and potential deferral of some one-time spending. Support services delivering core services as planned.	25,887,694	8,901,701	34%	30%	25,806,707	0%	Half of the revenue is derived from allocations to other services; one-third is funded by requisition, with the balance from reserves, grants or other revenue. Some potential savings from less than planned reserve funding.
1.105	Facility Management	1,690,872	705,063	42%	47%	1,497,521	11%	Service involves the provision of facilities management services to CRD HQ and satellite facilities, and IWS facilities. Savings in Q1 and Q2 on temporary staff vacancies are anticipated to be partially caught up with use of additional labour support in the final 2 quarters of the fiscal year.	1,690,872	632,087	37%	44%	1,504,639	11%	Revenue largely from provision of facilities management services. Projected to be under budget due to vacancies in Q1 through Q3.
1.226	Health Facilities - VIHA	1,580,254	777,108	49%	44%	1,575,754	0%	Service involves leasing of CRD buildings to VIHA, and is 100% recovery from tenant. Any potential surpluses are returned to tenant.	1,580,254	769,648	49%	24%	1,575,754	0%	Service involves leasing of CRD buildings to VIHA and is 100% recovery from tenant. Any potential surpluses are returned to tenant.
1.280	Regional Parks	16,391,381	5,072,008	31%	30%	16,434,152	0%	Service on budget with expenditure primarily weighted to Q2 and Q3.	16,391,381	1,105,460	7%	5%	16,475,090	-1%	Projected slightly above budget. Revenues primarily from requisition. Additional revenue received from internal recovery and one time municipal contribution.
1.297	Arts Grants & Development	2,942,074	608,619	21%	37%	2,945,689	0%	Service is a grant funding service at full compliment, and projecting to disburse most grant funds available to arts organizations in line with budget.	2,942,074	191,051	6%	6%	2,965,999	-1%	Projected slight abover budget. Revenues primarily from requisition. Additional revenue received from internal recovery and one time municipal contribution.
1.310	Land Banking & Housing	2,692,517	1,593,699	59%	56%	2,587,386	4%	Operating expenses largely on track for 2021, with some annual savings forecasted for temporary staff vacancies. Expenses unevenly distributed due to large debt payments in Q2 and Q4.	2,692,517	1,311,648	49%	52%	2,634,171	2%	On target for 2021. 50% requisition, 48% grants and other, 2% surplus carry forward. Minor reduction in project management fee (planning) revenue due to temporary staff vacancy.
1.311	Regional Housing Trust Fund	4,511,970	280,565	6%	0%	1,068,270	76%	Expenses are driven by grants to 3rd party housing service providers. Can vary based on eligibility and selection, surpluses are carried forward.	4,511,970	3,507,687	78%	76%	4,522,686	0%	On target for 2021. 78% from surplus carryforward, 22% from requisition.
1.318	Building Inspection	1,653,290	712,718	43%	45%	1,577,300	5%	Underspend largely due to temporary staffing vacancies.	1,653,290	637,116	39%	29%	1,760,300	-6%	Permit Fee Revenue has increased due to higher than expected number of permit requests. Revenues on Salt Spring Island increased as a result of particularly high permit activity due to a large condominium project.
1.324	Regional Planning Services	1,662,662	642,897	39%	40%	1,424,247	14%	Forecasted underspend on program development costs, including Implementation of Data Review project (fewer bike counters required), and underspend on auxiliary wages and contractor costs. The 2022 budget is recalibrated and restructured to align with historical spending in aimimg for effective service delivery.	1,662,662	357,675	22%	19%	1,662,662	0%	Revenues for service are primarily requisition and fixed allocation. No variance projected for 2021.
1.40X	SEAPARC	3,684,094	1,541,345	42%	29%	3,627,135	2%	Forecasted to be on plan with usual increase in activity through remainder of the year. The service continues to monitor and respond to health orders that limit the levels of indoor programs.	3,684,094	397,493	11%	8%	3,672,735	0%	Revenues are approximately 80% from requisition; 20% fees. The service has faced continuing health orders that have limited the provision of indoor programs, it is anticipated that higher activity in the remaining quarters will result in actuals in line with plan.
1.44X	Panorama Rec. Center	8,071,561	3,285,243	41%	38%	8,617,785	-7%	Forecasted to be on plan with usual increase in activity through remainder of the year and introduction of the new child care program. The service continues to monitor and respond to health orders that limit the levels of indoor programs.	8,071,561	1,569,870	19%	13%	8,622,964	-7%	Revenues are approximately 65% from requisition; 35% fees. The service has faced continuing health orders that have limited the provision of indoor programs, it is anticipated that higher recreation activity in the remaining quarters, along with the introdution of a new child care service area that is fully funded from grants and fees, will result in actuals exceeding plan.
1.459*	Salt Spring Is- Pool, Parks, Land, Art & Rec. Prog	1,759,079	746,198	42%	42%	1,726,552	2%	The service has faced continuing health orders that have limited the provision of the programs. Some maintenance labor cost is redirected to capital work resulting in a minor savings in operating expenditure. It is anticipated that higher activity in the remaining quarters will result in actuals in line with plan.	1,759,079	131,142	7%	8%	1,726,552	2%	Revenues are approximately 88% from requisition; 12% fees. The service has faced continuing health orders that have limited the provision of indoor programs, it is anticipated that higher activity in the remaining quarters will result in actuals in line with plan.
1.521	Environmental Resource Management	25,176,280	12,005,349	48%	39%	25,142,340	0%	Operating costs are on plan, and forecasted to be in line with budget for the year.	25,176,280	16,393,061	65%	55%	28,503,061	-13%	Tipping fee revenues are forecasted higher largely due to the current environment for construction and redevelopment. This is driving larger volumes of construction, demolition, renovation and moving waste. Also, the current travel restrictions seem to have resulted in more individual resident doing self-hauling of long-time stored items to the landfill for disposal, as evidenced by the increase in traffic across the public scales. Overall revenue for 2021 is forecasted to be higher than budget by $3.2M.
1.576	Environmental Engineering Services	2,802,602	1,074,137	38%	49%	2,551,912	9%	Service involves the delivery of engineering and project management service to multiple services in the CRD's recreation and environmental management services. Savings in Q1 and Q2 on temporary staff vacancies are expected to continue through remainder of year with related outreach programming affected by reduced interactions levels during COVID pandemic.	2,802,602	1,380,956	49%	57%	2,551,912	9%	Revenue driven by providing engineering and project management service to multiple service in the CRD's recreation and environmental services areas. Forecasted to remain below budget in final 2 quarters.
1.577	IW - Environmental Operations	11,626,417	5,575,305	48%	53%	11,201,713	4%	Overhead service budget, continuing to deliver services as planned. Expenditures forecast slightly under budget for the year. Forecasted temporary staff vacancies providing salary savings.	11,626,417	6,013,766	52%	55%	11,962,496	-3%	Revenues are driven by providing services to other CRD services, that continue to operate as planned. Recovery revenue forecasted to generate a favourable variance.
1.578	Environmental Protection and Water Quality	8,238,988	3,760,046	46%	45%	8,126,941	1%	Service involves the delivery of environmental regulation and monitoring programs, continuing to provide service as planned. Forecast largely on budget, with some minor savings on temporary staff vacancies.	8,238,988	4,189,342	51%	50%	8,126,946	1%	Revenues are driven by providing services to other CRD services that continue to operate as planned.
1.911	911 Systems	2,595,230	1,300,422	50%	52%	2,570,453	1%	Fixed contracts and debt servicing costs are on track with budget. This service receives 911 levy contributions from phone carriers and pays a portion of these to municipalities. Forecasted reduced 911 levies from phone carriers reduces payment distribution compared to budget.	2,595,230	1,136,908	44%	46%	2,570,453	1%	Sources of revenue are fixed source requisitions, lease revenue, and variable 911 levies received from phone carriers. Forecasting reduced revenues from a drop in 911 levies.
1.921	Regional CREST	1,723,234	861,012	50%	50%	1,720,734	0%	This is a contribution service that provides support to CREST based on service agreement. Operating expenses are on track with budget.	1,723,234	99,504	6%	6%	1,722,734	0%	Operating revenues are primarily requisition and are on track with budget.

Capital Regional District
Quarterly Operating Variance Report - Q2, 2021
Service Budgets Greater than $1,500,000

		Operating Expenses							Operating Revenue						
			Year to Q2			Annual Forecast				Year to Q2			Annual Forecast		
Service Number	Service Description	Annual Budget $ (Schedule A)	Actuals $	% of Budget	2020 % of Budget	$	% Budget (over)/under	Explanation	Annual Budget $ (Schedule A)	Actuals $	% of Budget	2020 % of Budget	$	% Budget (over)/under	Explanation
2.610	Saanich Peninsula Water Supply	7,169,999	3,215,304	45%	43%	7,506,197	-5%	Operational services and system maintenance are continuing as planned. Expenditures are forecasted to be higher than budget due to increased bulk water purchases.	7,169,999	3,615,147	50%	45%	7,691,280	-7%	Revenues are driven by seasonal water sales. Demand is expected to be higher than budgeted levels for 2021 due to increased summer temperatures.
2.670	Regional Water Supply	34,921,283	13,001,827	37%	38%	34,537,361	1%	Operational services and system maintenance are continuing as planned. Operational savings forecasted due to temporary staff vacancies.	34,921,283	16,628,697	48%	43%	36,836,970	-5%	Revenues are driven by seasonal water sales. Demand is expected to be higher than budgeted levels for 2021 due to increased summer temperatures.
2.680	Juan de Fuca Water Distribution	20,793,372	7,820,345	38%	34%	20,676,417	1%	Operational services and system maintenance are continuing as planned. Operational savings forecasted due to reduced labour charges which will be largely offset by increased bulk water purchases.	20,793,372	8,558,177	41%	32%	22,063,311	-6%	Revenues are driven by seasonal water sales. Demand is expected to be higher than budgeted levels for 2021 due to increased summer temperatures.
3.717	Core Area Wastewater Operations	29,538,628	9,670,687	33%	26%	28,568,628	3%	Expanded wastewater treament and conveyance operations (i.e. existing and new infrastructure) began in Q1 2021. Forecasted savings in electricity, chemicals, and R%M are expected to be offset by increased labour and contract for services required for first year of treatment and conveyance operations. These trends were present during Q1 and have continued into Q2.	29,538,628	950,420	3%	5%	28,568,628	3%	Service revenues are primarily from requisition. Forecast revenue is reduced due to delays in operational readiness of the OMS receiving facility at the Residual Treatment Facility.
3.718	Saanich Peninsula Wastewater	4,404,946	1,752,923	40%	43%	4,250,534	4%	Services delivering on plan and current expenditures forecast a minor favourable variance as a result of operational delays on the OMS receiving facility.	4,404,946	55,920	1%	1%	4,250,534	4%	Service revenues are primarily from requisition. Projected to come in slightly under budget as a result of lower heat recovery revenue from Panorama Rec.
3.755	Regional Source Control	1,685,236	798,386	47%	48%	1,574,129	7%	Operational services are continuining as planned. Forecasted savings due to temporary staff vacancies.	1,685,236	195,378	12%	15%	1,574,129	7%	Service revenue is primarily from requisition. Forecasted reduction in internal allocation recovery revenue, due to temporary staff vacancies.
	Total Services above	223,203,663	*81%*						223,203,663	*81%*					
	Other CRD Services	52,023,954	*19%*						52,023,954	*19%*					
		275,227,617							275,227,617						
CRHD	Capital Regional Hospital District	36,111,356	11,620,815	32%	31%	36,031,904	0.2%	Minor reduction in short term borrowing costs, and lower than expected debt reserve fund expense due to the timing of Island Health capital claims.	36,111,356	3,198,651	9%	9%	36,079,224	0.1%	Less reserve funds will be required due to HCPS term position vacancy in Q1 and Q2; Revenues are primarily requisition and on track with budget.
CRHC	Administration	2,604,290	1,116,017	43%	46%	2,404,290	7.7%	Savings due to staff vacancies and hiring lags.	2,604,290	1,265,224	49%	45%	2,604,290	0.0%	The Administration revenues are directly tied to property management fees and are expected to be as planned.
CRHC	Development Services	714,500	203,156	28%	32%	714,500	0.0%	The Development Services expenses are directly tied to capital project fees and is expected to be as planned.	714,500	180,199	25%	32%	714,500	0.0%	The Development Services revenues are directly tied to capital project fees and are expected to be as planned. (Fees unevenly distributed throughout the year.)
CRHC	UOA buildings	12,742,465	6,497,622	51%	51%	12,509,755	1.8%	Savings from reduction in property tax due to reclassification by BC Assessment.	12,509,757	6,269,131	50%	53%	12,509,757	0.0%	The UOA building revenues are made up of grants and rents and are expected to be as planned.
CRHC	ILBC building	679,433	334,632	49%	53%	673,604	0.9%	Savings from reduction in property tax due to reclassification by BC Assessment.	679,433	295,155	43%	51%	648,000	4.6%	The ILBC building revenues are made up of grants and rents tied to occupancy controlled by Island Health. Unfavourable forecast due to vacancies managed by Island Health.
CRHC	NOA buildings	1,322,345	594,866	45%	47%	1,260,439	4.7%	Savings from reduction in property tax due to reclassification by BC Assessment.	1,603,626	800,017	50%	50%	1,603,626	0.0%	The NOA building revenues are made up of tenant rents and are expected to be as planned.
CRHC	RHFP buildings	7,409,153	2,384,538	32%	50%	7,265,797	1.9%	Forecast expected to vary below budget due to reduction in mortgage payments (lower rate mortgate on 2 properties) and anticipated water utility savings due to slower than planned rent-up of new buildings; partially offset by an increase in property tax for a building purchased during the year (becomes exempt 2nd year.)	7,424,979	2,943,211	40%	48%	6,168,012	16.9%	Unfavourable variance due to slower than planned rent-up of new buildings. Forecasts based on new assumptions reflecting current trends and experience in this portfolio. All buildings forecast to be fully rented by Dec 31, 2021.
CRHC	IHI building	670,871	310,203	46%	n/a	670,871	0.0%	The IHI building expenses are expected to be as planned.	812,668	419,481	52%	n/a	812,668	0.0%	The IHI building revenues are made up of tenant rents and are expected to be as planned.

Capital Regional District

2021 - Quarter 2 - Capital Plan Report

Projects Greater than $500,000

	As planned or better than plan
	Changes to quarter forecast, no revision to annual plan
	Change in annual plan
R	Changes to project plan (may result in 2021 Budget Amendment or included in 2022 Capital Plan)

			Quarter 2						Total 2021				Status of Total Project Plan			
Department	Service Description	Capital Project Title	Q2 Budget	Q2 Forecast	Q2 Actuals	Variance (over) / under	Variance % (over) / under	Q2 Variance Explanation (if necessary)	Total 2021 Amended Budget (as per approved budget)	Total 2021 Forecast	Total Forecast Variance (over) / under	Total Forecast Variance % (over) / under	Scope	Timing	Budget	Notes
CRD																
Integrated Water Services	Core Area Wastewater	Core Area Wastewater Treatment Project		96,949,892	86,092,371	10,857,521	11%	As of Q2 the vast majority of construction has been completed: the Arbutus Attenuation Tank and Clover Point Pump Station are the only Project sites with active construction ongoing. The current Project budget includes committed funds to complete the remaining works and close-out the construction contracts.	113,249,817	108,773,774	4,476,043	4%				S - on plan T - completion in Q4 2021 B - on plan
	Core Area Wastewater	Bowker Sewer Rehabilitation	150,000	-	-	-	0%	Inspector of Municipality approval for loan authorization received, minor spend before year end may occur for project planning. Forecast that construction works to occur in summer 2022.	4,300,000	90,000	4,210,000	98%		R		S - on plan T - construction deferred to 2022 B - on plan
	Core Area Wastewater	NW Trunk Sewer Rehabilitation Sections 1 & 2	1,000,000	1,000,000	552,688	447,312	45%	Delays with contracted construction. Project forecast for completion by Q4, on budget and scope.	2,000,000	1,552,688	447,312	22%				S - on plan T - completion in Q4 vs Q2 2021 B - on plan
	Core Area Wastewater	IT Capital Purchases and Plant Optimization	200,000	128,921	28,947	99,974	78%	Q2 variance due to delay in Radio equipment RFP. Optimization and IT related purchases scheduled to be completed in Q3 & Q4. Project still in scope and on budget.	580,000	480,026	99,974	17%				S - on plan T - completion in Q4 vs Q3 2021 B - on plan
	Core Area Wastewater	New Fleet Purchases	460,000	-	5,246	(5,246)	-100%	Tooling of existing trucks forecast to be complete in Q3. Purchase orders for two heavy duty vehicles created, delivery pushed to Q3. A final heavy duty truck is forecast to be delivered in early 2022.	840,000	625,246	214,754	26%		R		S - on plan T - majority complete in 2021; residual project spend in 2022 B - on plan
	Regional Water Supply	Sooke Intake Screens Replacement	-	200,000	70,113	129,887	65%	Multi-year project substantially complete in Q1. Closeout costs to be completed by year-end. Overall project complete in scope and under budget.	800,000	493,573	306,427	38%				S - on plan T - on plan B - better than plan
	Regional Water Supply	Implications from Sooke Lake Dam Safety Review	250,000	-	14,154	(14,154)	-100%	Variance due to resourcing and scheduling constraints delaying completion into 2022. Minor internal project management costs began in Q1, and continued in Q2. Consultant costs forecasted to commence in Q3. Total project is still in scope and on budget.	900,000	435,745	464,255	52%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Water Supply	Butchart Dam No. 5 Remediation	50,000	10,000	35,213	(25,213)	-252%	Project re-tendered in Q1, and contract has been awarded. Work commenced late Q2, with completion forecast for late 2022. Project is in scope and below budget.	2,900,000	705,017	2,194,983	76%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Water Supply	RWS Supply Main No. 4 Upgrade	20,000	5,000	-	5,000	100%	Planning to commence in the latter half of the year. Design to continue into 2022, with construction beginning 2022. Staff resources have been redirected to other projects.	1,800,000	90,000	1,710,000	95%		R		S - on plan T - construction deferred to 2022 B - on plan
	Regional Water Supply	Sooke Lake Dam - Instrumentation System Improvements	100,000	70,000	56,580	13,420	19%	Consultant was hired in Q1. Majority of construction and equipment cost to be deferred to 2022. Total project is still in scope and on budget.	900,000	204,637	695,363	77%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Water Supply	GVWSA Land Acquisition Priorities	-	-	4,853	(4,853)	-100%	Land purchase complete in Q1. Minor administrative closeout costs in Q2 with assessment work beginning on security infrastructure that will be fully implemented in Q3 and Q4.	750,000	730,352	19,648	3%				S - on plan T - on plan B - on plan
	Regional Water Supply	Cabin Pond Dams Decommissioning	-	-	-	-	0%	Project is deferred to 2022, pending completion of a decomissioning study (business case analysis on maintaining vs removal) and prioritization of other capital work.	600,000	-	600,000	100%		R		S - on plan T - completion deferred to 2024 B - on plan
	JDF Water Distribution	Rocky Point Upgrades	200,000	50,000	1,470	48,530	97%	Project delays due to complexity of contract wih multiple parties. Project was tendered in Q2 with plans to award in Q3. Total project is still in scope and on budget but will be largely deferred into 2022.	5,360,000	1,347,110	4,012,890	75%		R		S - on plan T - completion deferred to 2022 B - on plan
	JDF Water Distribution	Goldstream AC Replacement	40,000	80,000	55,903	24,097	30%	Project consultancy expenditures began in Q2, and forecast to be spent in Q3 and Q4. Project on budget and in scope, with construction forecasted to be deferred to 2022.	4,800,000	757,520	4,042,480	84%		R		S - on plan T - completion deferred to 2022 B - on plan
	JDF Water Distribution	AC Pipe Replacement Program	1,500,000	1,998,000	737,475	1,260,525	63%	Completion of Marwood, Penwood Drive, and Luxton Road AC replacement. Minor closing costs to occur in Q3. Overall 2021 phase multi-year project forecast to be complete in 2021 in scope and under budget.	3,000,000	1,809,330	1,190,670	40%				S - on plan T - on plan B - on plan
	JDF Water Distribution	Comprehensive Pump Station Upgrades	150,000	120,000	55,294	64,706	54%	Expenditures for Ludlow Pump Station to occur through Q3 and Q4. Project on budget, in scope and to be completed in 2022.	1,000,000	465,425	534,575	53%		R		S - on plan T - completion deferred to 2022 B - on plan
	JDF Water Distribution	Sun River Reservoir Replacement	50,000	30,000	52,485	(22,485)	-75%	Project design is complete and expect to tender in Q3. Total project is still in scope and on budget with expectations to finish in early 2022.	800,000	341,654	458,346	57%		R		S - on plan T - completion deferred to 2022 B - on plan
	JDF Water Distribution	Residential Service & Meter Replacement Program	200,000	200,000	206,466	(6,466)	-3%	Project is still on plan at Q2. Total project is in scope, on budget and on schedule.	800,000	788,245	11,755	1%				S - on plan T - on plan B - on plan

Capital Regional District
2021 - Quarter 2 - Capital Plan Report
Projects Greater than $500,000

	As planned or better than plan
	Changes to quarter forecast, no revision to annual plan
	Change in annual plan
R	Changes to project plan (may result in 2021 Budget Amendment or included in 2022 Capital Plan)

			Quarter 2						Total 2021				Status of Total Project Plan			
Department	**Service Description**	**Capital Project Title**	**Q2 Budget**	**Q2 Forecast**	**Q2 Actuals**	**Variance (over) / under**	**Variance % (over) / under**	**Q2 Variance Explanation (if necessary)**	**Total 2021 Amended Budget (as per approved budget)**	**Total 2021 Forecast**	**Total Forecast Variance (over) / under**	**Total Forecast Variance % (over) / under**	**Scope**	**Timing**	**Budget**	**Notes**
Integrated Water Services	JDF Water Distribution (DCC)	McCallum Pump Station and Tank 4	150,000	150,000	48,754	101,246	67%	Project design expected to be complete in Q3 and will tender in Q4. Total project is in scope and on budget, but will be largely deferred into 2022.	4,610,000	596,698	4,013,302	87%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Water Supply & JDF Distribution	Voice Radio Upgrade	-	-	-	-	0%	Work to commence in Q3 and Q4 as a radio upgrade plan is being refined amongst staff. 2021 budget will largely be deferred into 2022. Total project is still in scope and on budget.	640,000	200,000	440,000	69%		R	.	S - on plan T - completion deferred to 2022 B - on plan
	Saanich Peninsula Treatment Plant	SPWWTP Replacement of Rotary Presses		100,000	86,616	13,384	13%	Consultant costs incurred in Q2. Majority of work planned for competion in Q4 2021, with project closeout delayed until Q1 2022.	1,200,000	986,616	213,384	18%		R		S - on plan T - minor closeout costs in Q1 2022 B - on plan
	Saanich Peninsula Treatment Plant	Trunk Sewer Relining	505,000	30,000	-	30,000	100%	Project start delayed awaiting techinical hydraulic analysis. Construction to be completed in conjunction with the CAWW Western Trunk Twinning project, planned to occur in 2022. Project on budget and in scope.	1,100,000	81,029	1,018,971	93%		R		S - on plan T - completion deferred to 2022 B - on plan
	Saanich Peninsula Treatment Plant	SPWWTP Concrete Tank Repairs	120,000	10,000	-	10,000	100%	Project initiation delayed from Q2 and into Q3, with majority of work forecast for Q3. Overall project still forecast to be complete by the end of 2021, on scope and budget.	850,000	840,000	10,000	1%				S - on plan T - on plan B - on plan
	Saanich Peninsula Water Supply	SPW System Upgrade and Expansion	20,000	15,000	-	15,000	100%	Project to be completed in conjunction with RWS Goldstream Main No. 4 Replacement project. Design to begin in late 2021 and continue into 2022. Project on budget and in scope.	1,800,000	70,000	1,730,000	96%		R		S - on plan T - completion deferred to 2022 B - on plan
Local Services	Community Transportation (SSI)	Pathway Booth Canal to Vesuvius - Phase 2	300,000	240,000	145,090	94,910	40%	Underspend in Q2 caused by project delays due to the need to protect heritage trees. Completion forecasted for the end of Q3. Project in scope and on budget.	700,000	700,000	-	0%				S - on plan T - completion in Q3 vs Q2 2021 B - on plan
	South Galliano Fire (SGI)	South Galliano Fire Hall	360,000	360,000	142,613	217,387	60%	Q2 variance caused by delays due to late equipment delivery. Completion forecasted for the end of Q3. Project is in scope and on budget.	600,000	598,610	1,390	0%				S - on plan T - on plan B - on plan
	Pender Island Fire Protection (SGI)	New Pumper Truck - Replace E27 Pumper	625,000	625,000	624,451	549	0%	Pumper truck received in Q2 as forecasted. Project completed in scope, on-time, and on budget.	625,000	624,451	549	0%				S - on plan T - on plan B - on plan
	Small Craft Facilities (SGI)	Construction of the Anson Road Facility	350,000	350,000	353,432	- 3,432	-1%	Construction of on-shore works completed in Q2. Dock works to commence in Q3 with forecasted completion in Q4. Project in scope, on budget, and on schedule.	965,000	965,000	-	0%				S - on plan T - on plan B - on plan
	Magic Lake Sewer Utility (SGI)	Wastewater Improvements Phase 1	-	475,000	1,049,352	- 574,352	-121%	Sewer upgrade contractor accelerated work into Q2 that was forecasted for Q3. Treatment plant upgrade portion of project continues to be delayed, as it is dependent on grant funding to be announced in Q3. Total project is in scope and on budget.	5,750,000	1,199,653	4,550,347	79%		R		S - on plan T - completion deferred to 2022 B - on plan
	Magic Lake Sewer Utility (SGI)	Wastewater Improvements Phase 2	750,000	-		-	0%	Project proceeding is fully contingent on receipt of grant funding. Forecasted to be deferred to Q4 2021 and 2022, pending grant funding decision in Q3 2021.	3,000,000	65,000	2,935,000	98%		R		S - on plan T - deferred pending grant funding B - on plan
Parks and Environmental Services	Regional Parks	Construct E&N Trail Phases 3 & 4	1,409,457	1,207,800	1,549,484	- 341,684	-28%	Phase 3 substantially complete in Q2, including work previously forecast for Q3. Minimal expenses anticipated in Q3. Project forecast to be complete in 2022.	3,869,459	2,622,178	1,247,281	32%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Parks	Purchase and Install Elk Lake Remediation Systems	-	120,000	14,132	105,868	88%	Initial design build tendering delayed from Q2 to Q3. Grant received in Q2. Project completion deferred to 2022.	1,400,000	720,174	679,826	49%		R		S - on plan T - completion deferred to 2022 B - on plan
	Regional Parks	Mayne Island Demonstration Trail	383,332	30,000	52,800	- 22,800	-76%	Project is in preliminary design; additional community consultation and design costs incurred in Q2. Construction now forecast to begin in 2022, with completion in 2023.	1,214,425	249,823	964,602	79%		R		S - on plan T - completion deferred to 2023 B - on plan
	Regional Parks	Construct Hamsterly Beach Washroom	300,000	50,000	18,645	31,355	63%	Limited design work completed in Q2 with work rescheduled to Q3. Construction anticipated to begin in Q4 and complete in Q1 2022.	600,000	480,000	120,000	20%		R		S - on plan T - completion deferred to 2022 B - on plan
	Panorama Recreation	Heat Recovery Plant	817,667	-	-	-	0%	Project is on hold pending availability of a grant and forecasted to be deferred to 2022, pending grant funding decision in Q3.	2,453,001	-	2,453,001	100%		R		S - on plan T - deferred pending grant funding B - on plan
	Panorama Recreation	Multi-Purpose Sports Field	-	-	46,808	- 46,808	-100%	Site clearing and surface prep, initiated in late Q2, slightly ahead of schedule.	1,268,238	1,268,238	-	0%				S - on plan T - on plan B - on plan
	Environmental Resource Management	Aggregate Production for Internal Use	1,000,000	1,000,000	1,095,863	- 95,863	-10%	Q2 aggregate production on plan. 2021 phase of project forecasted to be completed in scope and budget.	4,250,000	4,249,756	244	0%				S - on plan T - on plan B - on plan
	Environmental Resource Management	Landfill Gas Utilization	198,000	198,000	76,997	121,003	61%	Development of RFP documentation is in progress in Q2. Overall project on track for completion in 2021, in scope and on budget. Multi-year project will end in 2023	1,355,000	1,154,076	200,924	15%				S - on plan T - on plan B - on plan

Capital Regional District

2021 - Quarter 2 - Capital Plan Report

Projects Greater than $500,000

	As planned or better than plan
	Changes to quarter forecast, no revision to annual plan
	Change in annual plan
R	Changes to project plan (may result in 2021 Budget Amendment or included in 2022 Capital Plan)

			Quarter 2						Total 2021				Status of Total Project Plan			
Department	**Service Description**	**Capital Project Title**	**Q2 Budget**	**Q2 Forecast**	**Q2 Actuals**	**Variance (over) / under**	**Variance % (over) / under**	**Q2 Variance Explanation (if necessary)**	**Total 2021 Amended Budget (as per approved budget)**	**Total 2021 Forecast**	**Total Forecast Variance (over) / under**	**Total Forecast Variance % (over) / under**	**Scope**	**Timing**	**Budget**	**Notes**
Parks and Environmental Services	Environmental Resource Management	Hartland North Site Buffer Acquisition	1,900,000	1,900,000	1,654,410	245,590	13%	Final purchase was complete in Q2. Overall project complete in scope and under budget.	2,000,000	1,755,227	244,773	12%				S - on plan T - on plan B - better than plan
	Millstream Site Remediation	Millstream Remediation	210,866	210,866	46,321	164,545	78%	Awaiting Ministry of Environment approval. Overall project is still in scope and on budget but will be derrred into 2022	632,597	462,840	169,758	27%		R		S - on plan T - completion deferred to 2022 B - on plan
Planning & Protective Services	Land Banking & Housing	RHFP - Hockley (Langford) (CRD/CMHC/CRHC)	-	-	7,411	- 7,411	-100%	Some residual consultant fees in Q2 after building purchase in Q1. Project completed on plan, variance due to overstated capital lease between CRD and CRHC.	32,683,518	31,033,390	1,650,128	5%				S - on plan T - on plan B - on plan
	911 Call Answer	Next-Generation 911 Call Answer Technology Upgrade	-	-		-	0%	Project proceeding is fully contigent on new regulation from Canadian Radio-Television and Telecommunications (CRTC). The project scope, timing and budget are to be confirmed after issuance of the published regulation; timing unknown at this stage.	1,000,000	-	1,000,000	100%				S - delay pending regulatory direction T - delay pending regulatory direction B - delay pending regulatory direction
Facilities	CRD Headquarters	1st Floor Redesign	1,865,000	150,000	61,153	88,847	59%	Tendering delay moved deconsruction of Starbucks space to Q3. Overall project completion deferred to 2022.	1,885,000	1,271,940	613,060	33%		R		S - on plan T - completion deferred to 2022 B - on plan
Royal Theatre	Royal Theatre	Repair Building Envelope	-	-	-	-	0%	Project is on hold pending availability of a grant.	530,000	530,000	-	0%				S - on plan T - deferred pending grant funding B - on plan
		Total Projects >$500k	**15,634,322**	**108,063,479**	**95,043,590**	**13,019,888**	**12%**		**222,361,055**	**172,415,040**	**49,946,016**	22%				
		Total Projects <$500K; Potential Parkland Acquisitions							**63,323,434**							
		Total Projects							**285,684,489**							
CRHD																
Planning & Protective Services	Capital Regional Hospital District	Oak Bay Lodge Demolition	1,666,666	1,426,019	679,872	746,147	52%	Demolition contract awarded in early Q2; work commenced on hazardous waste removal late in Q2. Completion forecast revised to early 2022. Overall project forecast to be under budget due to favorable RFP.	5,000,000	3,761,268	1,238,732	25%		R		S - increased due to discovery of additional hazardous materials T - completion deferred 2022 B - better than plan
		Land Acquisition - Royal Bay	1,200,000	1,200,000	1,215,207	(15,207)	-1%	Deposit paid in Q2 as forecasted, with contract expected to close in Q4.	8,400,000	8,042,068	357,932	4%				S - on plan T - on plan B - better than plan
		Regional Housing First Program Contribution	-	-		-	0%	The Health and Capital Planning Strategies division is currently working with CRHC on a strategy for the contribution. Contribution to RHFP expected to be deferred to 2022 as planning progresses.	10,000,000	-	10,000,000	100%		R		S - on plan T - contribution deferred to 2022 B - on plan
		Total Projects >$500k	**1,666,666**	**1,426,019**	**679,872**	**746,147**	**52%**		**23,400,000**	**11,803,336**	**11,596,664**	**50%**				
		Total Projects <$500K; Capital Grants							**11,560,824**							
		Total Projects							**34,960,824**							
CRHC																
Planning & Protective Services	Regional Housing	Michigan redevelopment Housing	389,000	389,000	200,686	188,314	48%	Q2 variance due to timing of consultants and contract tendering - these costs will be pushed to Q3-Q4. Demolition to start in Q4. Overall project on plan.	2,296,000	2,097,931	198,069	9%				S - on plan T - costs delayed to Q3 & Q4 B - on plan
		Caledonia Redevelopment Housing	6,295,504	10,000	31,187	(21,187)	-212%	Project on hold until lease with SD61 is finalized. Estimated to start up again in Q4. Most costs deferred to 2022 and beyond. Q2 costs relate to consultants and site security (patrols and fencing.)	13,871,636	617,191	13,254,445	96%		R		S - on plan T - construction deferred to 2022 B - on plan
		Hockley Prepaid Site Lease	-	-	-	-	0%	Hockley purchase by CRD and lease to CRHC complete in Q1. Some project surplus from contingency and due to lower temporary borrowing rate.	25,575,117	25,408,892	166,225	1%				S - on plan T - on plan B - better than plan
		Triway Redevelopment Housing	3,355,335	20,000	52,493	(32,493)	-162%	Property tax and PTT paid upon land possession in Q2. Construction costs begin in Q3, with completion in 2022.	11,983,338	5,205,329	6,778,009	57%		R		S - on plan T - some construction deferred to 2022 B - on plan
		Routine Capital	797,896	832,422	793,770	38,652	5%	Routine upgrades of housing townhouses and apt buildings are affected by tenant moveouts, trades availability and weather.	3,989,478	3,881,773	107,705	0%				S - on plan T - costs delayed to Q3 & Q4 B - on plan
		Total Projects >$500k	**10,837,735**	**1,251,422**	**1,078,136**	**173,286**	**14%**		**57,715,569**	**37,211,116**	**20,504,453**	**36%**				
		Total Projects <$500K							**1,068,997**							
		Total Projects							**58,784,566**							

APPENDIX H
HUMAN RESOURCES TRENDS AND CORORATE SAFETY Q2

OPEN CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, OCTOBER 13, 2021

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1. *Workforce Composition and Turnover [see Table 1]*

The Chief Administrative Officer submits a Staff Establishment Chart (SEC) annually together with the Financial Plan for consideration of approval by the Board. For 2021, the SEC identified 667.48 full time equivalencies (FTEs) – 651.68 regular and 15.8 term positions exceeding one year – and the CRD has 385 auxiliary staff through Quarter 2. In addition, the CRD has almost 1,400 registered volunteers to assist in the support of many of its services and programs. 89.6% of the CRD's paid workforce is unionized. The average length of service and average workforce age of CRD staff remain relatively consistent from previous years, at 9.8 years and 45.9 years respectively. Turnover rates, including retirement rates, are trending towards normal. Turnover rates have remained consistent through the year, and are within expected norms, with turnover related to employee retirements tending slightly lower in 2021 compared to 2020. The CRD expects continued retirements in the coming years, putting increased pressure on existing resources, and emphasis has been placed workforce planning and recruitment strategies as part of our Organizational Development Plan.

Table 1:

Corporate CRD Human Capital Performance Metric	*CRD Current (By Quarter 2021)*	CRD Current (Annual 2021)	Industry Average (Annual 2021)	*CRD Annual (2020)*	*Industry Average (2020)*
Total Unionized Workforce (all staff)	***Q1: 89.5%*** ***Q2: 89.7%***	***89.6%***	***82.7%***	*89.4%*	*82.3%*
Average Length of Service (regular staff)	***Q1: 9.6 years*** ***Q2: 9.9 years***	***9.8 years***	***11.0 years***	*10.2 years*	*10.8 years*
Average Employee Age (regular staff)	***Q1:45.9 years*** ***Q2:45.9 years***	***45.9 years***	***46.6 years***	*45.8 years*	*46.0 years*
Turnover Rate / Retirement Rate (regular staff)	***Q1: 2.6% (0.8% retirements)*** ***Q1: 2.0% (0.2% retirements)***	***4.6% (1.0% retirements)***	***3.7% (1.3% retirements)***	*6.7% (2.5% retirements)*	*5.5% (2.4% retirements)*

2. *Job Opportunities [see Table 2]*

By means of 122 job postings, 223 individual job opportunities were open for application at the CRD in Quarter 1. On average, the CRD experiences a low vacancy rate (1.2% of regular staff opportunities) which is approximately one-quarter industry average.

Significant workplace onboarding and orientation is undertaken for all new employees. In addition to the workplace orientations and required training programs, all new employees attend the weekly onboarding sessions which are geared to inform and engage new staff early in their CRD careers. 82 staff were put through the program through Quarter 2, and 625 employees since this program was implemented.

Table 2:

Corporate CRD Human Capital Performance Metric	*CRD Current (By Quarter 2021)*	CRD Current (Annual 2021)	Industry Average (Annual 2021)	*CRD Annual (2020)*	*Industry Average (2020)*
Job Opportunities (all staff)	***Q1: 123*** ***Q2: 100***	***223***	***N/A***	*299*	*N/A*
Vacancy Rate (regular staff)	***Q1: 1.3%*** ***Q2: 1.1%***	***1.2%***	***5.1%***	*1.0%*	*5.4%*

3. *Absenteeism and Occupational Health and Safety [see Table 3]*

The CRD measures and monitors absenteeism by both its sick leave usage and safety ratings, and has commenced a comprehensive disability management program aimed at early intervention and proactive and positive return to work programs. By this the CRD is continuing its proactive disability management efforts to ensure costs of absenteeism are appropriately managed, and employees are actively engaged early in return to work measures to aid in their recovery to work from illness, as well as its proactive healthy workplace program focused on providing employees personal tools to keep them healthy.

Through the second quarter of 2021, absenteeism rates are consistent with previous years, and includes the extended periods required of the province for the requirement to self-isolate when ill. As an essential service, the CRD is closely monitoring the impact of absenteeism related to the health pandemic and is taking appropriate measures to ensure essential operations are maintained.

In addition to our regular operational and capital project safety management, significant emphasis has been placed on the leadership to manage the staff and public safety requirements associated with the COVID-19 pandemic. As part of our Corporate Occupational Health & Safety (OHS) Program, the CRD has implemented a number of safety protocols and organizational plans including a Safety and Exposure Control Plan and a Communicable Disease Plan, a number of COVID-19 Safe Work Practices, and undertaken numerous workplace hazard assessments across the organization, to name a few. All these measures align with the CRD's comprehensive 15 element OHS Program, directive of Provincial Health and the Province of BC, and WorkSafeBC.

The CRD continues to experience a positive (merit) situation with WorkSafeBC resulting in a lower-than-industry Employer Rating Assessment. Over the past three years, WorkSafeBC has consistently increased the base rate for the local government industry, from 2.09% in 2019 to 2.19% in 2020 and to 2.60% in 2021. Based on our proactive and diligent safety program, the CRD's current assessment levied by WorkSafeBC has been significantly below the base rate for the industry, resulting in a 20.2% cost savings in 2021.

Table 3:

Corporate CRD Human Capital Performance Metric	*CRD Current (By Quarter 2021)*	CRD Current (Annual 2021)	Industry Average (Annual 2021)	*CRD Annual (2020)*	*Industry Average (2020)*
Absenteeism (Sick Leave) Rate (regular staff)	***Q1: 3.7%*** ***Q2: 3.7%***	**3.7%**	**4.5%**	*3.6%*	*4.4%*
WorkSafeBC Employer Rate (all staff)	***All: 2.09%***	**2.09%**	**2.60%**	*1.95%*	*2.19%*

Table 4:

CONCLUSION

The CRD continuously monitors Human Resource organizational health, and proactively modifies and adapts Human Resource programs and systems where trends may show challenges arising. While there continues to be no significantly alarming organizational health trends based on metrics information, the CRD is expected to continue to see pressures as a result of the current health crisis and the organization continues to monitor this very closely and adapt workplace practices and programs to continue to ensure essential services are maintained.

Making a difference...together

REPORT TO CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Outcomes from Board Meeting (September 8, 2021) on Region-Wide Participation in the Arts and Culture Support Service**

ISSUE SUMMARY

On September 8, 2021, the Board of the Capital Regional District (CRD) considered three recommended motions from the Arts Commission to expand the current service to full regional participation through Alternative Approval Process (AAP). Two out of three motions passed, resulting in a mixed outcome with no clear path forward.

BACKGROUND

On July 28, 2021, the Arts Commission reviewed a staff report on the efforts to gain more participation in the Arts and Culture Support Service through consent of municipal councils. As a motion arising, the Arts Commission approved a set of recommendations, namely:

1. That staff be directed to prepare amendments to the establishing bylaw to gain full regional participation in the Arts and Culture Support Service, with all electoral areas and municipalities added as Group 1 or Group 2 Participating Areas;
2. That the Board proceed by way of a regional alternative approval process; and
3. That staff include a report with the removal of the 2-year exit clause and include additional service requisition scenarios that reflect 30% participation for new members and a general increase to the service budget.

On September 8, 2021, the Board considered these recommended motions. The results were that the two motions regarding the amendments to the bylaw carried, but the motion regarding the alternative approval process was defeated (see Table 1).

Table 1. CRD Board Voting Results on Arts Commission Motions Arising

Motion	Threshold	Result
#1 Prepare bylaw amendments	Majority	Carried
#2 Proceed with region-wide AAP	2/3rds Majority	Defeated
#3 Remove exit clause	Majority	Carried

Because these motions are connected and dependent on one another, staff are providing a report with an analysis of feasibility and implications of next steps.

ALTERNATIVES

Alternative 1

1. That staff take no further action to draft amendments, including removal of the exit clause, to the establishing bylaw of the Arts and Culture Support Service, Bylaw No. 2884.
2. That the CRD Board Chair send a letter to non-participating jurisdictions, outlining the benefits of joining the Arts and Culture Support Service, and associated costs, and encouraging non-participating jurisdictions to join the existing service voluntarily.

Alternative 2
That this report be referred back to staff for additional information.

IMPLICATIONS

Service Delivery Implications

The Arts and Culture Support Service delivers five granting programs: Operating Grants, Project Grants, IDEA Grants, Incubator Grants, and Equity Grants. Non-profit organizations within participating jurisdictions are eligible to apply to these programs to fund arts activities. The economic, social, and cultural benefits of arts activities funded through these grants throughout the region have been well-documented in the *CRD Arts and Culture 2020 Progress Report*.

Alignment with Board & Corporate Priorities

Board Initiative 12a-1 in the 2019-2022 Corporate Plan indicates there is a priority to:

> "Facilitate a discussion of the region's art facility needs & explore partnerships to support 100% participation in the CRD arts functions."

Since the establishment of the Arts Service in 2001, efforts to recruit new participants have been repeated as councils have changed through election cycles. In 2017-18, prior to the most recent corporate plan, council presentations were made in North Saanich, Central Saanich, Sidney, and Sooke. From the establishment of the Arts Service, such presentations and outreach have resulted in participation increasing from four to nine jurisdictions.

Since October 2019, staff have sent correspondence to the non-participating municipalities of Central Saanich, Colwood, Langford, North Saanich, and Sidney as well as the non-participating electoral areas of Salt Spring Island and Juan de Fuca. Following this outreach, presentations were made to Sidney and Colwood councils. While several of the seven non-participating jurisdictions gave due consideration, all have declined to join the service at this time.

Next, the Board explored the possibility of 100% participation in the Arts and Culture through a region-wide AAP and the necessary amendments to the establishing bylaw, which were approved at the Arts Commission meeting of July 28, 2021, and met mixed results at the September 8, 2021, CRD Board meeting (see Background section above).

Through these two initiatives, the Board has explored multiple ways to achieve 100% participation in the Arts and Culture Support Service and has fulfilled the scope of work outlined in this board initiative.

Legislative Implications

Staff have been directed to make amendments to the establishing bylaw of the Arts and Culture Support Service (Bylaw No. 2884) for full regional participation, including removal of the current 2-year exit clause. These amendments must also specify the participants in the service and can only be advanced if accompanied by a Board resolution on the electoral approval process. The

recommended electoral approval process at the time of these proposed amendments was AAP, which has been eliminated as an option for this initiative by a Board vote on September 8, 2021.

The Arts and Culture Support Service is currently a sub-regional service of interested participating jurisdictions. If, as indicated through staff outreach over several years, certain jurisdictions are not interested in joining through consent at this time, then there are two electoral approval processes that could lead to a region-wide service: region-wide AAP (which was rejected by the CRD Board on September 8, 2021) and region-wide referendum. A region-wide referendum would take four to six months and would likely cost more than $500,000. Even if deferred, running a referendum in conjunction with the 2022 local government elections is not likely to result in significant savings, as the CRD cannot require municipalities to participate nor can the CRD be assured that the question provided on the ballot would be the same throughout the region. Staff have no capacity to execute a region-wide referendum as a stand-alone process in the same year as a general election. Also, a motion to pursue a region-wide referendum would require a two-thirds majority vote at the Board in order to pass. Thus, a region-wide referendum is not a feasible approach to attain full regional participation in the Arts and Culture Support Service at this time.

Additionally, to continue making amendments to the current bylaw, as currently directed by the Board, could have adverse unintended consequences. Any amendment that involves withdrawal provisions, such as the exit clause, requires unanimous consent of existing participants. Certain participants may also view the removal of this exit clause as placing an additional restriction on their consent to participate or not participate in the service, and they may withdraw from the service as a result of this amendment being further pursued.

CONCLUSION

The CRD Board considered recommendations from the Arts Commission on how to achieve 100% participation in the Arts and Culture Support Service. The Board passed motions on making amendments to the establishing bylaw, but defeated an accompanying motion on the electoral approval process necessary to implement these amendments. This report reviews the implications of the outcomes of this Board vote and provides a recommended path forward that focuses on expanding the existing service through providing information on the value of the service to non-participating jurisdictions and encouraging them to join.

RECOMMENDATION

1. That staff take no further action to draft amendments, including removal of the exit clause, to the establishing bylaw of the Arts and Culture Support Service, Bylaw No. 2884.
2. That the CRD Board Chair send a letter to non-participating jurisdictions, outlining the benefits of joining the Arts and Culture Support Service and associated costs, and encouraging non-participating jurisdictions to join the existing service voluntarily.

Submitted by:	Chris Gilpin, MPA, Manager, Arts & Culture Support Service
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

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REPORT TO CAPITAL REGIONAL DISTRICT BOARD
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Outcomes from Board Meeting (September 8, 2021) on a New Regional Performing Arts Facilities Service**

ISSUE SUMMARY

On September 8, 2021, the Board of the Capital Regional District (CRD) considered four recommended motions from the Performing Arts Facilities Select Committee to establish a new Regional Performing Arts Facilities Service with full regional participation through a region-wide Alternative Approval Process (AAP). Three out of four motions passed, resulting in a mixed outcome with no clear path forward.

BACKGROUND

On September 8, 2021, the Performing Arts Facilities Select Committee reviewed a staff report to establish a new Regional Performing Arts Facilities Service that would plan, develop, and fund performing arts facilities with regional impact. This new service would also consolidate and expand funding for the existing sub regional services for the Royal Theatre and McPherson Playhouse. The Performing Arts Facilities Select Committee approved a set of recommendations to be sent to the CRD Board, namely:

1. That Bylaw No. 4445, "Regional Performing Arts Facilities Service Establishing Bylaw No. 1, 2021", be read a first, second, and third time;
2. That staff canvas participants of the Royal Theatre and McPherson Playhouse services to gauge interest in participation in the regional service to be established by Bylaw No. 4445;
3. That if service participants of the Royal Theatre and McPherson Playhouse services informally consent to creation of the service to be established by Bylaw No. 4445, staff are directed to forward Bylaw No. 4445 to the Inspector of Municipalities for review and approval; and
4. That staff be directed to initiate a region-wide Alternate Approval Process (AAP) in accordance with Sections 342(4) and 345 of the *Local Government Act* to meet the legislated requirement for elector approval of Bylaw No. 4445.

On September 8, 2021, the Board considered these recommended motions. The results were that the three motions regarding the new establishing bylaw carried, but the motion regarding the region-wide AAP was defeated (see Table 1).

Table 1. CRD Board Voting Results on Regional Performing Arts Facilities Service

Motion	Threshold	Result
#1 Three readings of Bylaw 4445	Majority	Carried
#2 Canvas existing participants	Majority	Carried
#3 Forward to Inspector of Municipalities	Majority	Carried
#4 Proceed with region-wide AAP	2/3rds Majority	Defeated

Because these motions are connected and dependent on one another, staff are providing a report with an analysis of feasibility and implications of next steps.

ALTERNATIVES

Alternative 1

1. That staff take no further action related to Bylaw No. 4445 nor to its proposed approval process as outlined in the recommendations brought to Board on September 8, 2021.
2. That the CRD Board Chair send a letter to all CRD jurisdictions, outlining the benefits of joining the Royal Theatre Service and McPherson Playhouse Service, along with associated costs, and encouraging non-participating jurisdictions to join these existing services voluntarily.

Alternative 2

That this report be referred back to staff for additional information.

IMPLICATIONS

Service Delivery Implications

The Royal Theatre Service and the McPherson Playhouse Service support two key performing arts facilities with regional impact. The economic, social, and cultural benefits of such performing arts facilities was well-documented in *Stage One: A Public Conversation about Performing Arts Facilities in the CRD*, which notes "[g]rowing and strengthening the performing arts eco-system further will bring a wide range of benefits and impacts on the social, and economic health of the region and its people". Growing these existing services would be another way to leverage the regional benefits that accrue from active and accessible performing arts facilities.

Alignment with Board & Corporate Priorities

Board Initiative 12a-1 in the 2019-2022 Corporate Plan indicates there is a priority to:

> "Facilitate a discussion of the region's art facility needs & explore partnerships to support 100% participation in the CRD arts functions."

In 2019, the CRD tasked the Regional Arts Facilities Select Committee with holding discussions on the region's arts facilities needs and engaging a consultant to design and facilitate a process for public and stakeholder input. The Regional Arts Facilities Select Committee convened five times between November 2019 and March 2021 to hold discussions and advance this work. In 2020, consultations were conducted, leading to a report, *Stage One: A Public Conversation about Performing Arts Facilities in the CRD*, as well as an online resource that documents an inventory of arts facilities in the region, including their capacity, location, and functions.

On March 3, 2021, the Regional Arts Facilities Select Committee recommended to the CRD Board that the top recommendation of the report should be implemented through establishing a new regional performing arts facilities service. On April 14, 2021, the CRD Board approved a recommendation from the Governance Committee to create a Performing Arts Facilities Select Committee whose purpose would be "to define the scope and functions of a regional service that will lead to the drafting of an establishing bylaw for the Performing Arts Facilities Service". The Performing Arts Facilities Select Committee convened three times between May and September 2021. On September 8, 2021, the Performing Arts Facilities Select Committee reviewed an

establishing bylaw, accompanying service plan and financial simulation for a regional performing arts facilities service, and made recommendations to the CRD Board (see Background section above for details and results of these recommendations).

Through these two select committees, consultations with stakeholders and the general public, the resultant publically-available report and online inventory of arts facilities in the region, the CRD Board has facilitated discussion of the region's art facility needs and has fulfilled the scope of work outlined in this board initiative.

Legislative Implications

The establishing bylaw for a new Regional Performing Arts Facilities Service (Bylaw No. 4445) has passed three readings at the CRD Board; however, the bylaw includes specific language related to the electoral approval process as AAP. This electoral approval process has been eliminated as an option for this initiative by the Board vote on September 8, 2021. To proceed, the Board needs to specify the new form of electoral approval process it wishes to pursue before the draft bylaw can be advanced to the Inspector of Municipalities. The Board will also need to rescind third reading of the Bylaw to amend those sections that specify AAP as the electoral approval process and instead insert the new electoral approval process that the Board has chosen.

If, as indicated through letter (Langford) and through motions (Salt Spring Island), certain jurisdictions are not interested in joining a Regional Performing Arts Facilities Service through consent at this time, then there are two electoral approval processes that could lead to a region-wide service: region-wide AAP (which was rejected by the CRD Board on September 8, 2021) and region-wide referendum. A region-wide referendum would take four to six months and would likely cost more than $500,000. Even if deferred, running a referendum in conjunction with the 2022 local government elections is not likely to result in significant savings, as the CRD cannot require municipalities to participate nor can the CRD be assured that the question provided on the ballot would be the same throughout the region. Staff have no capacity to execute a region-wide referendum as a stand-alone process in the same year as a general election. Also, a motion to pursue a region-wide referendum would require a two-thirds majority vote at the CRD Board in order to pass. Thus, a region-wide referendum is not a feasible approach to approve a new Regional Performing Arts Facilities Service at this time.

CONCLUSION

The CRD Board considered the outcomes from the vote on September 8, 2021, on a set of interconnected motions for a new Regional Performing Arts Facilities Service. The Board passed motions to begin the process for an establishing bylaw, but defeated an accompanying and interconnected motion on the electoral approval process necessary to gain the participant approval required prior to adoption of that bylaw. This report reviews the implications of the outcomes of this Board vote and provides a recommended path forward that focuses on expanding existing services through providing information on the value of the service to non-participating jurisdictions and encouraging them to join.

RECOMMENDATION

1. That staff take no further action related to Bylaw No. 4445 nor to its proposed approval process as outlined in the recommendations brought to Board on September 8, 2021.
2. That the CRD Board Chair send a letter to all CRD jurisdictions, outlining the benefits of joining the Royal Theatre Service and McPherson Playhouse Service, along with associated costs, and encouraging non-participating jurisdictions to join these existing services voluntarily.

Submitted by:	Chris Gilpin, MPA, Manager, Arts & Culture Support Service
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

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REPORT TO THE ELECTORAL AREAS COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Bylaw No. 4455: Tax Exemption (Permissive) Bylaw, 2021**

ISSUE SUMMARY

To authorize electoral area permissive tax exemptions for 2022.

BACKGROUND

Under Section 391 of the *Local Government Act* (LGA), the Capital Regional District (CRD) may provide tax exemption for eligible properties in an electoral area. A bylaw must be adopted by the CRD Board prior to October 31 each year for the exemption to be processed by BC Assessment for the following year.

The permissive tax exemption requests are evaluated and considered by the CRD Board annually. The application deadline is July 31 each year to apply for the tax exemption of the next taxation year. The detailed information regarding the application process and additional resources are available on the CRD website (Appendix D).

2022 Exemption Requests

For the 2022 taxation year, there are eight renewals and one new request to be considered. The renewals include one property donated to the CRD for community parks (Galiano Parks and Recreation Service) with a life interest for the donor and caretaker, and one leased property used for CRD services (North Galiano Fire Service).

Table 1: Renewal Requests

#	PROPERTY	DESCRIPTION
1	Pender Island Golf and Country Club	Granted since 1999 upon request for land and improvements used principally for public athletic or recreation purposes – LGA 391(4)(a); letter of request for 2022 attached.
2	Galiano Golf and Country Club	Granted since 1999 upon request for land and improvements used principally for public athletic or recreation purposes – LGA 391(4)(a); letter of request for 2022 attached
3	Magic Lake Property Owners Society (MLPOS)	Granted upon request for land only used principally for public athletic or recreation purposes – LGA 391(4)(a); letter of request for 2022 attached
4	Royal Canadian Legion, Branch #239 Pender Island	Granted for the first time in 2018 upon request for land and improvements used principally for public athletic or recreation purposes exemption under LGA 391(4)(a); letter of request for 2022 attached.

#	PROPERTY	DESCRIPTION
5	Royal Canadian Legion, Branch #92, Salt Spring Island	Granted for the first time in 2020 upon request for land and improvements used principally for public athletic or recreation purpose exemption under LGA 391(4)(a); letter of request for 2022 attached.
6	Salt Spring Island Golf and Country Club	Granted for the first time in 2020 upon request for land and improvements used principally for public athletic or recreation purpose exemption under LGA 391(4)(a); letter of request for 2022 attached.
7	Galiano Parks and Recreation Commission: Donated Land—Life Estate Doreen Kennedy	Granted the first time in 2019 upon request for land and improvements used for community park purposes by the Galiano Parks and Recreation Commission exemption under LGA 391(4)(g); letter of request for 2022 attached.
8	North Galiano Fire Hall	Granted in 2013 for land and improvements held by the CRD for the fire service – LGA 391(4)(g); this exemption is required given that the new fire hall has been constructed on property that the CRD leases from the North Galiano Fire Protection Society; no letter of request necessary (CRD itself).

Table 2: New Request

#	PROPERTY	DESCRIPTION
1	Salt Spring Island Rod & Gun Club	New in 2022 upon request for land and improvements used principally for public athletic or recreation purposes – LGA 391(4)(a); letter of request for 2022 attached.

The Salt Spring Island Rod &Gun Club (the "Club") has been a not-for profit society since 1960. The Club promotes shooting sports and teaches the legal safe handling and usage of firearms and archery for recreational purposes to both members and the general public. It is the only safe, federally licensed and inspected shooting facility on Salt Spring Island. The Club has been the home facility for several national and international champions in their sports. The facility is also widely used for community events, educational workshops and onsite programs and events for other sporting and recreational organizations. The club has also provided its land and facilities to the RCMP, Salt Spring Island Fire Rescue and Salt Spring Search and Rescue for emergency and training purposes.

The Club is seeking a permissive tax exemption under LGA Section 391(4)(a) following a reversal of their tax exemption status by BC Assessment in 2019. BC Assessment previously exempted this property under the *Taxation (Rural Area) Act*, RSBC 1996, c 448, Section 15(1)(q), which references that the non-profit organization's activities must have demonstrable benefit to all members of the community. Under LGA Section 391(4)(a) eligibility differs, requiring that the land and improvements be principally used for public athletic or recreation purposes but not requiring benefit to the community as a whole.

The assessed value for land and improvements excluding the residential class (Class 1) portion meets the criteria for exemption under LGA Section 391(4)(a).

ALTERNATIVES

Alternative 1

The Electoral Areas Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4455, "Tax Exemption (Permissive) Bylaw, 2021", be introduced and read a first, second and third time;
2. That Bylaw No. 4455 be adopted.

Alternative 2

That this report be referred back to staff for further review.

IMPLICATIONS

Financial Implications

The following values represent the estimated tax revenue of the proposed exemptions (based on 2021 assessment values and tax rates):

Estimated Total Proposed Tax Exemptions:

PROPERTY	CRD	CRHD	OTHER	TOTAL
Pender Island Golf & Country Club	$2,148	$228	$4,651	$7,027
Galiano Golf and Country Club	$2,241	$211	$4,405	$6,857
Magic Lake Property Owners Society	$6,167	$154	$3,288	$9,609
Royal Canadian Legion, Branch #239 Pender Island (Class 8 Only)	$364	$34	$732	$1,130
Royal Canadian Legion, Branch #92, Salt Spring Island (Class 8 Only)	$379	$30	$777	$1,185
Salt Spring Island Golf & Country Club	$4,992	$757	$18,759	$24,508
Galiano Parks and Recreation Commission—Donated Land—Life Estate Doreen Kennedy	$2,801	$268	$3,706	$6,775
North Galiano Fire Hall	$2,648	$248	$4,640	$7,536
Salt Spring Island Rod & Gun Club	$845	$119	$3,090	$4,054

The estimated exemption under "Other" in the table above accumulates multiple tax categories, such as School Tax, Provincial Rural Tax, Police Tax, BC Assessment, Municipal Finance Authority (MFA), Island Trust, SSI Fire and Water Protection (for SSI only).

The exemption from property taxes removes the eligible assessed values on these properties and corresponding tax assessed values from the total taxable assessed value that taxes will be applied to. This results in other ratepayers absorbing the tax revenue from which these properties are exempted.

Staff have consulted with the respective Electoral Area Director on each application received and have compiled this report and recommendation in alignment with support for exemption.

CONCLUSION

The CRD has nine (9) permissive tax exemptions to consider for the taxation year 2022; eight (8) by request and one for the North Galiano Fire Hall now located on property that the CRD leases from the North Galiano Fire Protection Society. The proposed Bylaw No. 4455 will grant permissive tax exemption in accordance with Section 391 of the *Local Government Act*. Staff have consulted with the respective Electoral Area Director on each application received and have compiled this report and recommendation in alignment with support for exemption.

RECOMMENDATION

The Electoral Areas Committee recommends to the Capital Regional District Board:
1. That Bylaw No. 4455, "Tax Exemption (Permissive) Bylaw, 2021", be introduced and read a first, second and third time;
2. That Bylaw No. 4455 be adopted.

Submitted by:	Rianna Lachance, BCom, CPA, CA, Senior Manager, Financial Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Bylaw No. 4455
Appendix B: Correspondence (8)
Appendix C: BC Assessment Property Classifications
Appendix D: CRD Permissive Tax Exemption Application Process

APPENDIX A

CAPITAL REGIONAL DISTRICT

BYLAW NO. 4455

****

A BYLAW TO AUTHORIZE ELECTORAL AREA PERMISSIVE TAX EXEMPTIONS

****

WHEREAS:

A. Under Section 391 of the *Local Government Act*, the Capital Regional District may provide tax exemption for properties in an electoral area that meet any of the conditions listed in Section 391(4).

B. The Board wishes to exempt certain properties owned, held or operated for the uses or purposes set out in Section 391(4)(a) and (g) of the *Local Government Act* from taxation for the calendar year 2022.

NOW THEREFORE, the Regional Board of the Capital Regional District in open meeting assembled, enacts as follows:

1. Each property described in Schedule "A" attached to this bylaw shall be exempt from taxation under Section 391 of the *Local Government Act* for the year 2022 by virtue of it being used, held, owned or occupied by the organizations named in the Schedule.

2. This Bylaw may be cited as "Tax Exemption (Permissive) Bylaw, 2021".

READ A FIRST TIME THIS	day of	202_
READ A SECOND TIME THIS	day of	202_
READ A THIRD TIME THIS	day of	202_
ADOPTED THIS	day of	202_

_____ _____

CHAIR CORPORATE OFFICER

Bylaw No. 4455

SCHEDULE "A"

OWNER / OCCUPIER / HOLDER	DESCRIPTION	EXEMPTION	LGA REFERENCE
Salt Spring Island Rod & Gun Club	Lot A, Plan VIP14462, Section 4, Range 4, Cowichan Land District, Portion Salt Spring, (221 Long Harbour Road) Tax Roll No. 01-64-764-00716.007	Land and improvements (exclude Class 1 Residential Class)	391(4)(a)
Pender Island Golf & Country Club	Lot A, Plan VIP52327, Section 17, Cowichan Land District, Portion Pender Island (2314 Otter Bay Road) Tax Roll No. 01-64-764-08647.010	Land and improvements	391(4)(a)
Galiano Golf & Country Club	Lot AM11, Block 1, Plan 24167, District Lot 4, Cowichan District, Portion Galiano Island, and Lot 6, Block 2, District Lot 4, Galiano Island, Cowichan District, Plan 24167 (Linklater Road) Tax Roll No. 01-64-764-02192.023	Land and improvements (exclude Class 1 Residential Class)	391(4)(a)
Magic Lake Property Owners Society	Lot A, Plan VIP41807; Section 9; Portion Pender Island; District Lot 465 Cowichan Land District (Thieves Bay Marina) Tax roll No. 01-764-13027.026 Tax roll No. 01-764-13027.027	Land only (exclude improvement and water lot)	391(4)(a)
Magic Lake Property Owners Society	Lot 21, Plan VIP22335; Section 9; Cowichan Land District , Portion Pender Island (Land adjacent to Mouat Park) Tax roll No. 01-764-08454.305, Lot 18, Plan VIP22424; Section 10; Cowichan Land District Portion Pender Island (Tennis Court & Play Area) Tax roll No. 01-764-08455.036, Lot 67, Plan VIP22335, Section 9, Cowichan Land District Portion Pender Island Tax roll No. 01-764-08454.397	Land only (exclude improvements and water lot)	391(4)(a)
Royal Canadian Legion, Branch #239 Pender Island	Lot 6 PL; VIP7196 SEC: 17 Parcel A, Portion PENDER ISLAND, Parcel A (DD 47774W) Tax Roll No. 01-764-08666.000	Land and improvements (Class 8 Only)	391(4)(a)
Royal Canadian Legion, Branch #92 Salt Spring Island	Lot A, Plan VIP11826, Section 4, Range 3, Cowichan Land District, Portion North Salt Spring Tax Roll No. 01-764-00655.001	Land and improvements (Class 8 Only)	391(4)(a)
Salt Spring Island Golf & Country Club	Section 5, Range 2, Cowichan Land District, (805 Lower Ganges Rd) Tax Roll No. 01-764-00481.000	Land and improvements	391(4)(a)
Capital Regional District (Galiano Community Park)	Lot A, Plan VIP15952, District Lot 2&8, Cowichan Land District, Portion GALIANO ISLAND Tax Roll No. 01-764-002145.005	Land and improvements	391(4)(g)
Capital Regional District (North Galiano Fire Hall)	Lot 1 of Lot 83, Galiano Island, Cowichan District, Plan VIP69843 Tax roll No. 01-764-02273.110	Land and improvements	391(4)(g)

Salt Spring Island Rod & Gun Club

July 30, 2021

Att: Lia Xiu
Finance Manager, *Local Services and Grant Management*
Finance and Technology

CRD

Re: Salt Spring Island Rod and Gun Club request for 2022 Permissive Tax Exemption

The Salt Spring Island Rod and Gun Club (the "Club") respectfully requests an exemption from property taxes for its lands and facilities located at 221/223 Long Harbour Road, Salt Spring Island for the upcoming tax year pursuant to Sections 391(3) and (4) of the Local Government Act. The Club's property has for many years been exempted from most property tax by BC Assessment. However, circumstances now require that a Section 391 property tax exemption be sought.

Backround

The Salt Spring Island Rod and Gun Club was organized in 1913 and has been a non profit society since about 1960. It ranks as one of the two or three oldest public service and recreational clubs on Salt Spring Island. The Club promotes shooting sports and teaches the legal safe handling and usage of firearms and archery for recreational and hunting purposes to both members and the general public. The Club's facilities, include an indoor shooting range, a meeting and classroom for educational events, an outdoor trap shooting range and associated trap shack, an outdoor rifle range (currently closed for modifications) and an outdoor archery range. The Club is a federally licensed shooting facility and zoned for its activities. It is the only safe, licensed and inspected shooting facility on Salt Spring Island. The Club has been the home facility for several national and international champions in their sport as well as a judge for the Canada Games. Subject to the Club's policies and rules, the general public is welcome to join members in the recreational and educational activities offered. The Club has also made its facilities available to other sporting and recreational organizations. Such organizations have included the island's roller derby club and the Victoria Outdoorsmen.

The Club Today

Since its inception, the Club's facilities have served as a community hub for indoor and outdoor recreation, weddings, dinners, gatherings, educational workshops and community events. The Club has provided its land and facilities without charge to the CRD, the RCMP, Salt Spring Island Fire Rescue, and the Salt Spring Amateur Radio Society, the communications team of Salt Spring Island Search and Rescue for emergency and training purposes.

The Club has a signed agreement with the CRD for the use of the lands and facilities as an emergency marshaling, shelter and care giving site. The grounds have been evaluated as an alternate emergency helicopter landing site. The CRD has also made use of the facilities for activities related to Camp Colossus. The Club's facilities have also been used for the Wolf Kids Nature Program.

Members of the local RCMP detachment use the Club's facilities for firearms practice.

Salt Spring Island Fire Rescue has used the lands and facilities for training purposes including hose lays, the set up of a helispot and most recently for the fire department's drone pilot training. The Club's large open area surrounded by tall trees is well suited for drone training. In addition to training of fire department members, the fire department has used the Club's facilities for a public fire extinguisher workshop.

The Salt Spring Amateur Radio Society has used the Club's facilities for training and social events. The next session is tentatively scheduled for August, 2021 and consideration has been given to establishing a permanent antenna on the Club grounds for emergency communications.

The Club has also regularly provided a number of educational opportunities to its members and the general public. These classes have included:

- Junior Rifle Program for youth 11-15 to learn the basics and safe handling of firearms
- Archery and rifle shooting for the Boy Scouts and high school students
- Canadian Firearms Safety Courses (CFSC)
- BC CORE Hunter education courses (CORE)
- Archery Canada courses

All Club events and activities are planned and run by volunteers and wherever possible facility maintenance and improvement is also done by volunteers from the membership or the general public. Nominal fees are charged for membership and for some activities. These fees are used only to cover club operating and insurance costs and no group or individual members make a profit from Club sponsored events.

In the recent past the Club began extensive and costly environmental and sound testing studies. These studies have placed a financial burden on the Club at the expense of maintenance and repairs. The requested property tax exemption would help the Club to continue such testing, to maintain and repair

the Club facilities and with pandemic restrictions easing, to continue to provide the use of the facilities to the public and public agencies without charge.

As requested please find attached a copy of the 2021 Property Assessment Notice. I am including also a few of the Assessment Notices of prior years to affirm the Club's receipt of past property tax exemptions from BC Assessment

Thank you for your time and consideration and should you have any questions please do contact me.

On behalf of the Salt Spring Island Rod and Gun Club,

Sincerely,

Ken Cameron, president

John Wiebe, treasurer

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: **01-Capital**
Jurisdiction: **764-Gulf Islands Rural**
Roll: **00716.007**

CONFIDENTIAL PIN: 0001060807

School District: 64-Gulf Islands
Neighbourhood: 810

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

221 LONG HARBOUR RD
LOT A, PLAN VIP14462, SECTION 4, RANGE 4, COWICHAN LAND DISTRICT, RGE 4E, N SALT SPRING ISLAND; LOT 1, PLAN VIP20794, SECTION 3&4, RANGE 4, COWICHAN LAND DISTRICT, PORTION SALT SPRING, RGE 4E, N SALT SPRING ISLAND; MANUFACTURED HOME REG.# 43606
PID: 004-416-074 003-598-861

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	**Value**	**Class**
Land	47,800	Residential
	575,000	Rec/Non Profit
Buildings	24,400	Residential
	43,500	Business/Other
2021 Assessed Value	**$690,700**	

Taxable Value	**Rural**
Less Exemptions	10,000
2021 Taxable Value	**$680,700**

YOUR PROPERTY VALUE HISTORY

2021	+14%	$690,700
2020	-29%	$606,800
2019	+69%	$860,700
2018	+21%	$509,700

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

FEB 1 — DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS **FEBRUARY 1, 2021**

Important information about the complaint process can be found on the back page.

Important messages about your 2021 Assessment

- The tax exemptions applied to your property value have changed from last year. This may result in a change to your property taxes in 2021.
- Due to the specialized nature of your property, it is not displayed on Assessment Search (bcassessment.ca). Please contact us if you require additional information.
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-00716.007

The Owner/Lessee of this property is:

142836

S-03
SALT SPRING IS ROD & GUN CLUB
PO BOX 442 STN GANGES
SALT SPRING ISLAND BC V8K 2W1

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

Before using information in this Notice for non-assessment purposes, please verify records with your Land Title Office. Wherever words or expressions used in this Notice differ from wording of the legislation, the legislation shall prevail. This information is current as of printing deadline.

FOLLOW US

We Value BC

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Pender Island Golf & Country Club

2305 Otter Bay Road, Pender Island, B.C. □ www.penderislandgolf.com

Mailing Address:
P.O. Box 6, Pender Island, B.C. V0N 2M0

Golf Shop 250-629-6659
Office Phone/Fax 778-402-6527

A scenic 9-hole golf course located on Pender Island amidst B.C.'s beautiful Gulf Islands.

August 4, 2021

Capital Regional District
Attention: Ms. Rianna Lachance
Senior Manager, Financial Services
625 Fisgard Street, PO Box 1000
Victoria, BC V8W 2S6

Dear Ms Lachance,

The Pender Island Golf and Country Club respectfully requests exemption from taxes for the year 2022 under Section 809(3)(a) of the *Local Government Act.*

Background

The Pender Island Golf and Country Club has been in existence since 1937 and, except for a period during the Second World War, the golf course has been in operation ever since. The Golf Club is a not-for-profit society and was incorporated under the *Societies Act* on July 3, 1945 (Charter No. 1047671-7). The purpose of this Society as stated in the constitution is to maintain the Golf Club "for the use and pleasure of club members and the public".

The Club in the Community

The Pender Island "community" is quite small, with about 2,500 full time residents, a high percentage of whom are retired or semi-retired. The summertime community expands substantially with many short-term residents and visitors coming to the island for vacation activities. In terms of recreation, Pender Island is somewhat isolated; however, the Golf Club provides an excellent outlet for recreational activities and is one of the major attractions for both residents of and visitors to Pender Island.

In terms of members, the Golf Club has junior, intermediate, social and regular memberships. As well, the Golf Club also provides recreational opportunities to many more residents and visitors on a casual green fee basis and these participants are increasing. We estimate that about 400 people regularly use these facilities. With few other recreational activities on the island other than boating, disc golf, cycling and walking, the Golf Club is one of the major providers of recreation on Pender Island. There are no bowling facilities, no public swimming pool, no curling or hockey rinks and no theatre.

There are no restrictions to membership in the Golf Club. While members can play as often as they wish, there is no preference given to members over green fee players. All golfers play on a first-come/ first booked, first-to-play basis.

Pender Island is very much a volunteer environment and the Golf Club is no exception. The Club was built by volunteers and volunteers continue to help maintain the course and work to continually improve its infrastructure.

Each year a "Pro-Am" tournament is held and a portion of the proceeds are donated to local community organizations. In the past several years, proceeds have gone to the Pender Island Medical Clinic and to the Roger Coleman Bursary Fund. As well, an active junior golf program provides free lessons to junior golfers through our involvement with the Pender Island School. Adult lessons are also available, allowing senior residents to take advantage of golf as a recreational activity.

The Golf Club provides employment and training for up to eight full and part-time employees.

Tax History

We have requested and been very appreciative to have received a tax exemption each year since 1999. We endeavor to be fiscally responsible and at the same time provide a product that is appreciated and of benefit to all Pender Island residents and visitors at as low cost as possible.

The Club has maintained its fees and charges at break-even levels. A tax bill would place a heavy burden on our financial situation and would undoubtedly necessitate higher recreation costs to the community as well as reductions in services and employment.

We respectfully request a tax exemption under Section 809(3),(a) of the *Local Government Act* for the year 2022. Should you require additional information regarding this request, we would be pleased to provide it.

Yours sincerely,

Daniel J. Weeks
President, Pender Island Golf & Country Club

Enclosure: Copy of 2021 Assessment Notice

CC: David Howe, Capital Regional District Director
7915 Swanson View Drive
Pender Island, BC V0N 2M2

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: **01-Capital**
Jurisdiction: **764-Gulf Islands Rural**
Roll: **08647.010**

CONFIDENTIAL PIN: 0000948597

School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

2305 OTTER BAY RD
LOT A, PLAN VIP52327, SECTION 17, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND; PARCEL F, SECTION 17, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND, EXCEPT PLAN 22933 36581
PID: 017-337-178 009-675-698

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	21,300	Business/Other
	775,000	Rec/Non Profit
Buildings	186,000	Business/Other
2021 Assessed Value	**$982,300**	
Taxable Value	**Rural**	
Less Exemptions	982,300	
2021 Taxable Value	**NIL**	

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	0%	$982,300
2020	+8%	$982,300
2019	0%	$909,400
2018	0%	$909,400

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS **FEBRUARY 1, 2021**

Important information about the complaint process can be found on the back page.

Important messages about your 2021 Assessment

- **2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax**

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-08647 010

The Owner/Lessee of this property is:

151816

S-04
PENDER ISLAND GOLF & COUNTRY CLUB
2305 OTTER BAY RD
RR 1 PO BOX 6
PENDER ISLAND BC V0N 2M0

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

Before using information in this Notice for non-assessment purposes, please verify records with your Land Title Office. Wherever words or expressions used in this Notice differ from wording of the legislation, the legislation shall prevail. This information is current as of printing deadline.

151816_1_2 BCA PROD ANOT 21 STD 20201204

Galiano Golf Course Society

24 St. Andrews Crescent

Galiano Island, BC

VON 1P0

Ms. Lia Xu, Finance Manager, Financial Services

Capital Regional District

625 Fisgard St.

PO Box 1000. Victoria, BC

V8N 2S6

August 19, 2021

Dear Ms. Lia Xu,

I am writing on behalf of the Galiano Golf Course Society to request an exemption from property taxes for the year 2022. Relief from taxation has been granted to the Golf Course Society under Section 391 of the local government act since year 2000.

Our Golf Course Society continues to operate as a nonprofit society providing an important recreational facility to Galiano Island residents and visitors alike. Our course is open to everyone year round and encourages exercise, mental stimulation, practising social engagement through social distancing (respecting COVID-19 Provincial Health & WorkSafe BC Guidelines) in a beautiful natural setting. Our course is a focal point for many seniors.

As in past years we host two educational clinics during the summer & fall months. One student and one adult clinic. These clinics are attended by local school children, adult members and non members and seniors. Our island recreational facilities are limited when compared with other communities in the Capital Regional District.

We would be happy to provide you with any further documentation or information about the Galiano Golf Course that you may require.

Sincerely,

John Hatch, President

John F. Hatch

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 02192.023

School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

ST. ANDREWS CRES
LOT 6, BLOCK 2, PLAN VIP24167, DISTRICT LOT 4, COWICHAN LAND DISTRICT, PORTION GALIANO ISLAND, FOR COMMUNITY GOLF COURSE, CLUBHOUSE & RELATED FACILITIES PURPOSES, LEASE/PERMIT/LICENCE # 111975; LOT 11, BLOCK 1, PLAN VIP24167, DISTRICT LOT 4, COWICHAN LAND DISTRICT, PORTION GALIANO ISLAND, FOR COMMUNITY GOLF COURSE, CLUBHOUSE & RELATED FACILITIES PURPOSES, LEASE/PERMIT/LICENCE # 111975; LOT 6, BLOCK 2, PLAN VIP24167, DISTRICT LOT 4, COWICHAN LAND DISTRICT, PORTION (ET CETERA)

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	47,500	Residential
	12,200	Business/Other
	916,000	Rec/Non Profit
Buildings	38,800	Residential
	99,700	Business/Other
2021 Assessed Value	**$1,114,200**	

Taxable Value	Rural
Less Exemptions	1,114,200
2021 Taxable Value	**NIL**

Important messages about your 2021 Assessment

- A copy of this Property Assessment Notice is sent to all owners
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax
- Visit bcassessment.ca and create a free account to unlock additional features such as favourites, comparisons and our interactive map.

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	0%	$1,114,200
2020	+9%	$1,114,200
2019	0%	$1,023,800
2018	0%	$1,023,800

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-02192.023

The Owner/Lessee of this property is:

165386

S-04
GALIANO GOLF & COUNTRY CLUB
PO BOX 186
GALIANO ISLAND BC V0N 1P0

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

COPY

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P.O. Box 65, Pender Island, BC V0N 2M0

March 15, 2021.

Rianna Lachance, Senior Manager, Financial Services
Capital Regional District
625 Fisgard Street, PO Box 1000
Victoria, BC V8W 2S6

To the Senior Manager, Financial Services,

The Magic Lake Property Owners' Society (MLPOS) recognizes, with thanks, our 2021 tax exemption and requests a further exemption from rural property taxes for the year 2021 under Section 809 (3) (a) of the Local Government Act. Our 2020 Property Assessment Notices are enclosed.

MLPOS was incorporated as a non-profit society on 29 August 1975, Charter No. 11823. The objectives of MLPOS are two-fold: (1) To represent the members in matters affecting their property or their life style in Magic Lake Estates. (2) To acquire, maintain and administer, or dispose thereof, property in Magic Lake Estates or the foreshore adjacent thereto for the recreational use of the members.

The North and South Pender Islands have roughly 2500 full-time residents – with approximately one third of these full-time residents living in Magic Lake Estates.

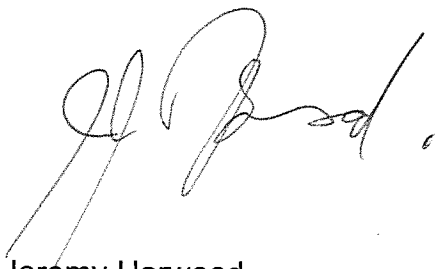
MLPOS operates and maintains a recreational marina at Thieves Bay with 180 berths for the use of members and guests of the society. Our marina provides emergency moorage for any vessel in the area requiring shelter and/or assistance. We reserve, at no charge, a designated berth for the Ambulance Service to conduct medical evacuations for anyone on the Pender Islands. The RCMP and Coast Guard have used our marina for emergency incidents. MLPOS also maintains a public launching ramp beside the marina and we have equipped the marina breakwater with picnic tables open to the public. This Thieves Bay spot has become a very popular, and spectacular, public whale watching site as well as being a favourite walk/drive destination.

In addition to Thieves Bay Marina, MLPOS operates and maintains the only public tennis courts on the Pender Islands. These courts are open year round to members of the Society and to the public, on a pay-per-use basis. We also maintain a children's playground beside the tennis courts and a public park (Mouat Park) designated for the propagation of plants native to the Gulf Islands.

Volunteerism thrives on the Pender Islands and this is apparent in MLPOS. Volunteers build, maintain and manage the marina, tennis courts and playground. We keep all fees charged for the use of these facilities at break-even levels and use all funds generated solely for the short and long-term upkeep and improvement of these recreational facilities.

We hope that you grant our request for a property tax exemption for the year 2022. Such an exemption will significantly enhance our ability to maintain and provide these important recreational facilities for the benefit of our members, our community and tourists to the Gulf Islands.

Yours truly,



Jeremy Harwood
President, Magic Lake Property Owners' Society

Encl: Copy of 2021 Property Assessment Notices

Cc: David Howe, CRD Director, Southern Gulf Islands.

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: **01-Capital**
Jurisdiction: **764-Gulf Islands Rural**
Roll: **08455.036**

CONFIDENTIAL PIN: 003371340

Bulk Mail: 5316
School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

PRIVATEERS RD
LOT 18, PLAN VIP22424, SECTION 10, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND
PID: 003-246-442

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

2021 Assessment – represents your property value as of July 1, 2020

Assessed Value	**Value**	**Class**
Land	230,000	Rec/Non Profit
Buildings	17,500	Business/Other
2021 Assessed Value	**$247,500**	
Taxable Value	**Rural**	
Less Exemptions	240,000	
2021 Taxable Value	**$7,500**	

YOUR PROPERTY VALUE HISTORY

2021	+6%	$247,500
2020	-12%	$233,500
2019	+43%	$265,700
2018	+23%	$185,300

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

Important messages about your 2021 Assessment

- **2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax**

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

FEB 1 **DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021**

Important information about the complaint process can be found on the back page.

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-08455.036

The Owner/Lessee of this property is:

MAGIC LAKE PROP OWNER'S SOCIETY
PO BOX 65
PENDER ISLAND BC V0N 2M0

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

Before using information in this Notice for non-assessment purposes, please verify records with your Land Title Office. Wherever words or expressions used in this Notice differ from wording of the legislation, the legislation shall prevail. This information is current as of printing deadline.

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2976_5_10
BCA_PROD_ANOT_21_MBK_20201204

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 13027.027

CONFIDENTIAL PIN: 003371340

Bulk Mail: 5316
School District: 64-Gulf Islands
Neighbourhood: 935

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

THIEVES BAY
DISTRICT LOT 465, COWICHAN LAND DISTRICT, COMMERCIAL MARINA IN THIEVES BAY, 1.57 HA ISSUED FOR GROUP MOORAGE, BREAKWATER & BOAT LAUNCHING PURPOSES, LEASE/PERMIT/LICENCE # 114382
LBF:0288670

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	398,000	Rec/Non Profit
Buildings	226,000	Business/Other
2021 Assessed Value	**$624,000**	
Taxable Value	**Rural**	
Less Exemptions	119,000	
2021 Taxable Value	**$505,000**	

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	-10%	$624,000
2020	-5%	$694,000
2019	+2%	$730,000
2018	0%	$714,000

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

Important messages about your 2021 Assessment

- A copy of this Property Assessment Notice is sent to all owners
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-13027.027

The Owner/Lessee of this property is:

MAGIC LAKE PROP OWNER'S SOCIETY
PO BOX 65
PENDER ISLAND BC V0N 2M0

CONTACT US

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From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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We Value BC

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RT4 P000 ANOT 21 MBK 20201204

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 13027.026

CONFIDENTIAL PIN: 003371340

Bulk Mail: 5316
School District: 64-Gulf Islands
Neighbourhood: 935

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

THIEVES BAY
LOT A, PLAN VIP41807, SECTION 9, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND
PID: 000-952-141

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	**Value**	**Class**
Land	99,200	
2021 Assessed Value	**$99,200**	**Rec/Non Profit**
Taxable Value	**Rural**	
Less Exemptions	99,200	
2021 Taxable Value	**NIL**	

Important messages about your 2021 Assessment

- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-13027.026

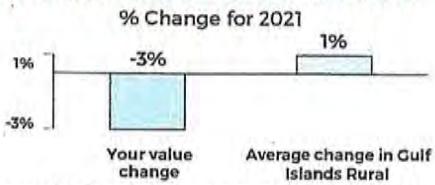
The Owner/Lessee of this property is:

MAGIC LAKE PROP OWNER'S SOCIETY
PO BOX 65
PENDER ISLAND BC V0N 2M0

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE CHANGE



The graph above shows average change for multiple property types, and is for informational purposes only.

Visit **bcassessment.ca/marketmovement** for information on individual property types.

YOUR PROPERTY VALUE HISTORY

2021	-3%	$99,200
2020	0%	$102,000
2019	+5%	$102,000
2018	+4%	$97,300

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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We Value BC

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BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 08454.397

CONFIDENTIAL PIN: 003371340

Bulk Mail: 5316
School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

LOT 67, PLAN VIP22335, SECTION 9, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND
PID: 003-219-666

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	13,000	
2021 Assessed Value	**$13,000**	**Residential**
Taxable Value	**Rural**	
Less Exemptions	13,000	
2021 Taxable Value	**NIL**	

Important messages about your 2021 Assessment

- Due to the specialized nature of your property, it is not displayed on Assessment Search (bcassessment.ca). Please contact us if you require additional information.
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax
- Visit bcassessment.ca and create a free account to unlock additional features such as favourites, comparisons and our interactive map.

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-08454.397

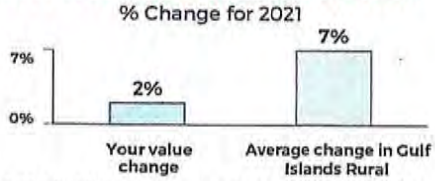
The Owner/Lessee of this property is:

MAGIC LAKE PROP OWNER'S SOCIETY
PO BOX 65
PENDER ISLAND BC V0N 2M0

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE CHANGE



The graph above shows average change for multiple property types, and is for informational purposes only.

Visit **bcassessment.ca/marketmovement** for information on individual property types.

YOUR PROPERTY VALUE HISTORY

2021	+2%	$13,000
2020	+5%	$12,700
2019	+5%	$12,100
2018	+5%	$11,500

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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FOLLOW US

We Value BC

2976_3_10

RCA PROD ANOT 21 MRK 20201204

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 08454.305

CONFIDENTIAL PIN: 003371340

Bulk Mail: 5316
School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

STORM CRES
LOT 21, PLAN VIP22335, SECTION 9, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND
PID: 003-275-400

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	111,000	
2021 Assessed Value	**$111,000**	**Rec/Non Profit**
Taxable Value	**Rural**	
Less Exemptions	111,000	
2021 Taxable Value	**NIL**	

Important messages about your 2021 Assessment

- Due to the specialized nature of your property, it is not displayed on Assessment Search (bcassessment.ca). Please contact us if you require additional information.
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-08454.305

The Owner/Lessee of this property is:

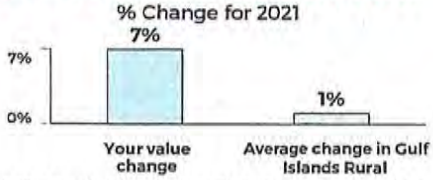
2976

S-01
MAGIC LAKE PROP OWNER'S SOCIETY
PO BOX 65
PENDER ISLAND BC V0N 2M0

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE CHANGE



The graph above shows average change for multiple property types, and is for informational purposes only.

Visit **bcassessment.ca/marketmovement** for information on individual property types.

YOUR PROPERTY VALUE HISTORY

2021	+7%	$111,000
2020	+25%	$104,000
2019	+22%	$83,300
2018	+33%	$68,400

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

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CONTACT US

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From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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FOLLOW US

We Value BC

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RCA PROD ANOT 21 MBK 20201204

LEGION

RECEIVED
APR 14 2021

Royal Canadian Legion
Branch #239
1344 Mackinnon Road
Pender Island, BC V0N 2M1

250-629-3441
branch239.rcl@gmail.com

March 30, 2021

Capital Regional District
625 Fisgard Street, PO Box 1000
Victoria, BC V8W 2S6

Attention: Rianna Lachance
Senior Manager, Financial Services

Dear Ms. Lachance:

The Royal Canadian Legion Branch #239 (Pender Island) respectfully requests relief from municipal taxes for the year 2021 under Section 391(3)(a) of the *Local Government Act.*

Background

Branch #239 has been active on Pender Island since 1959, and has occupied its current premises since 1972. Current membership stands at 279, representing 12% of the island's full time population of 2302 per 2016 census.

Contributions to the Island Community

Below is a brief description of the Legion's normal contribution to island life. During this past year of Covid, normal activities and events have been cancelled pursuant to regulations.

Every year, Branch #239 organizes the island's Canada Day, Labour Day and Remembrance Day celebrations and services. Gaming funds (meat draws, 50/50 draws, bingo) typically return to the community $9,000-$10,000 per year in bursaries, scholarships and donations in support of island youth and their activities. In the same way, the poppy fund generates approximately $2,500 in support of both island youth and Canadian veterans. The branch also provides part time employment.

As well as hosting the Legion's own functions, the building is available as a low cost venue for other Pender Island community clubs and services, private functions and memorials.

The Legion building also functions as one of Pender Island's emergency muster points and shelters, with its crisis-ready condition maintained by Legion volunteers.

Tax History

We were granted our first tax exemption in 2018, having managed to remain largely solvent to this point in our history. This tax exemption has been most gratefully received. In 2015-16 we were forced into additional expenses by the need to renovate our aging building, not least because its substandard acoustics had rendered it largely unusable for our aging, hearing-impaired population. This effort overstrained our resources, and while we intend to remain financially responsible, municipal taxes are a heavy burden. Without this burden, we will feel less pressure to cut back on our services, reduce employment or increase our charges.

This past year we operated at a loss due to the inability to be open for normal activities and generate revenue. Fixed expenses, including taxes, continue to be payable regardless of closure.

Therefore, we respectfully request another tax exemption under Section 391(3)(a) of the *Local Government Act* for the year 2022. Should you require additional information regarding this request, we would be pleased to provide it.

Yours sincerely,

Jean Deschenes
President
Royal Canadian Legion Branch #239 (Pender Island)

Enclosure: Copy of 2021 Assessment Notice

CC: David Howe, Capital Regional District Director

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 08666.000

CONFIDENTIAL PIN: 0001048707

School District: 64-Gulf Islands
Neighbourhood: 910

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

1344 MACKINNON RD
PARCEL A, LOT 6, PLAN VIP7196, SECTION 17, COWICHAN LAND DISTRICT, PORTION PENDER ISLAND, PCL A (DD 47774W)
PID: 005-758-289

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	70,800	Business/Other
	120,000	Rec/Non Profit
Buildings	40,100	Business/Other
	68,400	Rec/Non Profit
2021 Assessed Value	**$299,300**	
Taxable Value	**Rural**	
Less Exemptions	198,400	
2021 Taxable Value	**$100,900**	

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	+1%	$299,300
2020	+11%	$295,700
2019	+1%	$266,200
2018	0%	$262,800

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

Important messages about your 2021 Assessment

- **2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax**

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-08666 000

The Owner/Lessee of this property is:

S-04 151834
ROYAL CANADIAN LEGION PENDER ISLAND BRANCH NO. 239
1344 MACKINNON RD
RR 1
PENDER ISLAND BC V0N 2M1

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

Before using information in this Notice for non-assessment purposes, please verify records with your Land Title Office. Wherever words or expressions used in this Notice differ from wording of the legislation, the legislation shall prevail. This information is current as of printing deadline.

We Value BC

FOLLOW US

151834_1_2

RECEIVED
AUG 11 2021

Royal Canadian Legion Branch 92
120 Blain Road Salt Spring Island V8K 2P7
250 537-5822
legionbr92@shaw.ca

Aug. 6/2021

Attention:
Chief Financial Officer, Nelson Chan
Po Box 1000
Victoria BC V8W 2S6

Dear Mr. Chan :

The Royal Canadian Legion Br. 92 on Salt Spring Island respectfully requests relief from municipal taxes under section 391 (3) (a) of the *Local Government Act.*

Background

Branch 92 has been active on Salt Spring since 1931 and has occupied its current premises for over 30 years. The Branch's membership coming into 2020 was 612, approximately 6% of SaltSpring Island's full-time population of 10,557 (2016 census). As of Jan 2021 our membership had declined to 340. We are very proud to have the dedicated members doing their best to support Br. #92 but they and the Executive need your support more than ever.

Contributions to the Island Community

Branch #92 makes significant contributions to Salt Spring Island's social fabric in many ways. Every year Branch 92 organizes the Island's Canada Day Celebration and Remembrance Day Services. The Branch strives to support the community of Salt Spring by raising Gaming, Poppy and General funds which are then allocated to local organizations and individuals as grants, donations, Scholarships and Bursaries. Br. 92 also currently employs 8 part time employees and a part time bookkeeper. We proudly offer our staff a living wage.

Branch 92 facilities in addition to being used for Legion functions are available to other Salt Spring Community Clubs and services as a cost effective venue for

meetings and events. Branch facilities are also available as a location for private functions and memorials.

Our Branch has an integral role in the event of an emergency. The Salt Spring Island Emergency Supply container is located on our property and the Branch is a muster point and shelter for several of the Island's Emergency Pods. Finally, our Branch's lower floor is a designated back-up location for Lady Minto Hospital. During the Coved 19 crisis the Hospital used our parking facilities, their parking was covered with temporary shelters for various services.
Salt Spring Pharmacy organized a drive-through vaccination event through our property as well in 2020.

We are in the process of building a *Therapeutic Garden* for the neighbouring Health Care and Senior Centres. We have realized how important it is for our ageing population to have a safe environment to get out in the fresh air and smell the roses as they grow, or sit in the shade on a bench and enjoy their friends and family. As part of this initiative we are updating our outside washroom facilities to support physically challenged participants.

While the Branch manages to remain solvent, it is under regular and continuous financial pressure. An exemption from paying taxes would lessen this burden significantly. As a result the Branch will be able to continue its good work and contributions to the Salt Spring Island Community; avoiding possible service cutbacks, reduced employment or increased prices.

Tax exemption under Section 391 (3) (a) of *the local Government Act* is respectfully requested.
If any additional information about the request is required, please contact the undersigned.

Yours Truly,

T Woods

Tom Woods
President, Royal Canadian Legion #92 (Salt Spring Island)

Enclosed : A Copy of 2021 Property Assessment Notice
cc: Gary Holman, CRD Salt Spring Island Electoral Area Director

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 00655.001

CONFIDENTIAL PIN: 0001048708

School District: 64-Gulf Islands
Neighbourhood: 810

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

120 BLAIN RD
LOT A, PLAN VIP11826, SECTION 4, RANGE 3E, COWICHAN LAND DISTRICT, PORTION NORTH SALT SPRING, EXCEPT PLAN VIP64146
PID: 000-553-387

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	361,000	Business/Other
	97,800	Rec/Non Profit
Buildings	73,600	Business/Other
	65,300	Rec/Non Profit
2021 Assessed Value	**$597,700**	
Taxable Value	**Rural**	
Less Exemptions	173,100	
2021 Taxable Value	**$424,600**	

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	+5%	$597,700
2020	-13%	$566,900
2019	+24%	$652,000
2018	-2%	$527,700

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

FEB 1 DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

Important messages about your 2021 Assessment

- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-00655 001

The Owner/Lessee of this property is:

142514

S-03
ROYAL CANADIAN LEGION SALT SPRING ISLAND BRANCH NO. 092
120 BLAIN RD
SALT SPRING ISLAND BC V8K 2P7

CONTACT US

For more information about your Assessment Notice go to **bcassessment.ca**

From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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Salt Spring Island Golf & Country Club
805A Lower Ganges Road
Salt Spring Island, B.C. V8K 2N5
Telephone: 250-537-2121
Fax: 250-537-2126
Email: president@saltspringgolf.com
Web Site: www.saltspringgolf.com

Date: August 3rd, 2021

General Manager Corporate Services
Capital Regional District
PO Box 1000, 625 Fisgard Street
Victoria, BC V8W 2S6

To the General Manager Corporate Services,

The Salt Spring Island Golf and Country Club (SSIGCC) gratefully acknowledges our previous permissive tax exemption for the year 2021 and respectfully requests relief from property taxes for the year 2022 under Section 391(4)(a) of the Local Government Act.

Background:

While best known for the golf course that was first opened here on Salt Spring Island in 1928, residents and visitors currently enjoy a variety of recreational activities on the property, including golf, tennis, squash, disc golf and a restaurant. The tennis and squash facilities are operated by not-for-profit societies under contractual agreements with the Golf Club. Disc golf is played on and around the golf course layout itself. The golf course, indoor tennis and squash facilities provide the only public access to these activities on Salt Spring (there is outdoor tennis elsewhere).

The Salt Spring Golf and Country Club is a not-for-profit society incorporated under the B.C. Societies Act. Title to the property is held by non-society Salt Spring Recreational Holdings Ltd (SSRHL) which leases it to majority shareholder SSIGCC. The property tax is paid by SSIGCC on behalf of SSRHL.

Public Use of the Facilities:

In the past year, over 29,000 9-hole equivalent rounds of golf were played on the course, with more than 8,300 rounds being played by public greens-fee paying residents or visitors to the island. Our junior, intermediate, regular and social members play the bulk of the remaining rounds with about 360 members currently in the above categories. Our driving range and putting green facilities are also a popular public attraction. Disc golf was brought to the club in partnership with the local disc golf club and has also expanded the appeal of the club to the general public.

Contributions to the Community:

The facility is widely used for charitable fundraising events as well as supporting many on-site and off-site programs for various community groups. In a typical year we would see programs such as free beginner golf

lessons for the public, a junior golf program, and high school use of the driving range. A new program in 2019 provided weekly instruction to 14 Special Olympics athletes here on Salt Spring.

During the windstorm of December 2018, our facilities were used as an unofficial emergency site and in 2020 our site became an Emergency Reception Centre for the Salt Spring Island Emergency Program to provide service and care of evacuees during an emergency or disaster.

We provide free charging facilities for both electric vehicles and electric bicycles.

The club currently provides 19 staff course operation positions (the majority are seasonal/part-time positions and exclusive of restaurant operations) to local residents. A substantial volunteer effort supplements maintenance and administration activities. The club works with local businesses to promote tourism. Several tournaments (including disc golf) bring participants from off-island for a day or more.

Financial Background and Covid-19 Update:

On March 22nd, 2020, the club shut down in response to the pandemic. On April 25th , it cautiously re-opened under guidance from, and support of, health and government officials, while following a series of strict protocols and limited play. By late May 2020, the general public was able to enjoy our facility again with continuously monitored and updated sanitizing and distancing rules in place, and this continued into 2021, although the indoor tennis facility still had COVID limits on play.

The club's not-for-profit fee structure is geared towards covering operating costs without the use of public funding. Demand for repair or replacement of our aging clubhouse assets and maintenance equipment is an ongoing challenge and often requires fund-raising or donations. An exemption on eligible property tax would be of great assistance in continuing and enhancing the community's enjoyment of this historic Salt Spring Island recreational hub.

Sincerely,

Drew Stotesbury
President, Salt Spring Island Golf and Country Club

David MacPherson
President, Salt Spring Recreational Holdings Ltd

Contact: Jim Shultz jim@saltspringgolf.com
Enclosures: 2021 Property Assessment Notice

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 00481.000

School District: 64-Gulf Islands
Neighbourhood: 810

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

805 LOWER GANGES RD
SECTION 5, RANGE 2, COWICHAN LAND DISTRICT, EXCEPT PLAN 2183 39530, RGE 2E, N SALT SPRING ISLAND, EXC PT IN PLANS 2183 & 39530; SECTION 6, RANGE 2, COWICHAN LAND DISTRICT, EXCEPT PLAN 14185, RGE 2E, N SALT SPRING ISLAND, EXC THE EASTERLY 6.75 CHAINS THEREOF; EXC PCL B (DD 77036I), & EXC PT IN PL 14185
PID: 009-600-451 009-600-426

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	61,000	Business/Other
	1,914,000	Rec/Non Profit
Buildings	870,000	Business/Other
2021 Assessed Value	**$2,845,000**	
Taxable Value	**Rural**	
Less Exemptions	2,845,000	
2021 Taxable Value	**NIL**	

COPY

Important messages about your 2021 Assessment

- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-00481.000

The Owner/Lessee of this property is:

159807

S-04
SALT SPRING REC HOLDINGS
PO BOX 242 STN GANGES
SALT SPRING ISLAND BC V8K 2V9

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE HISTORY

2021	0%	$2,845,000
2020	-4%	$2,847,000
2019	+22%	$2,958,500
2018	+35%	$2,429,500

Visit **bcassessment.ca/propertytax** and refer to the back page to learn how your value change and average change relate to your property taxes.

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
Assessed value reflects property's physical condition and permitted use as of this date.

DEADLINE FOR FILING A NOTICE OF COMPLAINT (APPEAL) IS FEBRUARY 1, 2021

Important information about the complaint process can be found on the back page.

CONTACT US

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From our website you can search for your property, compare your assessment and update your mailing address.

Call us at **1-866-valueBC** (1-866-825-8322) or 604-739-8588.

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FOLLOW US

We Value BC

From: Paul Longridge
To: Stephen Henderson
Subject: Permissive tax exemption request for 1-720 Active Pass Drive, Galiano Island
Date: Tuesday, May 25, 2021 9:37:31 AM

I am writing to respectfully relief from property taxes for the year 2022 under Section 391 (4) (g) of the Local Government Act.

Our family has owned property on Galiano Island since 1962. The property is over 9 acres in area and is situated overlooking Active Pass at Collinson Point. It has a cliff of about 125 feet at the water. The property contains a house, work shop, garage, and storage for firewood and garden tools. There is an extensive garden of about 2 acres with an irrigation system using stored rainwater.

Betty Kennedy donated the property to the CRD in 2015, and retained a life interest for herself and me. My primary home is in Oak Bay. Betty used to care for the garden until her failing health made her no longer able to do the work. When she donated the property for a park to the CRD she set up a trust fund of $300,000 , the income from which was to maintain the garden and buildings.

The property was donated for Community Park purposes. The house and garden were occasionally used during Betty's lifetime by the Galiano Parks and Recreation Commission for social functions and garden tours by the public. These uses have stopped since Betty's death, but might resume when the Covid 19 pandemic has substantially diminished.

The maintenance is high which is why Betty set up the trust fund. But at the rate the assessment has risen, all of the income will be going for taxes. Interestingly, the increased assessment is based on properties which have been sold, and that is an invalid comparison as this property can never be sold.

I am hoping to surrender my Life Interest before the end of 2022, at which time the GIPRC will take over maintaining the property, and inherit the balance of the trust fund to help them.

Please exempt this property from taxation in 2022.

Sincerely,

Paul Longridge
1-720 Active Pass Drive
Galiano Island, BC V0N 1P0

May 25, 2021

BC ASSESSMENT

IMPORTANT INFORMATION FOR PROPERTY IDENTIFICATION

Area: 01-Capital
Jurisdiction: 764-Gulf Islands Rural
Roll: 02145.005

Bulk Mail: 7103
School District: 64-Gulf Islands
Neighbourhood: 935

2021 PROPERTY ASSESSMENT NOTICE

Property Location & Description

1 720 ACTIVE PASS DR
LOT A, PLAN VIP15952, DISTRICT LOT 2&8, COWICHAN LAND DISTRICT, PORTION GALIANO ISLAND
PID: 004-601-009

2021 Assessment – represents your property value as of **July 1, 2020**

Assessed Value	Value	Class
Land	1,251,000	
Buildings	225,000	
2021 Assessed Value	**$1,476,000**	**Residential**
Taxable Value		**Rural**
Less Exemptions	1,476,000	
2021 Taxable Value	**NIL**	

COPY

Important messages about your 2021 Assessment

- A copy of this Property Assessment Notice is sent to all owners
- 2021 tax rates will be set in May. For tax information, please go to gov.bc.ca/ruralpropertytax
- Visit bcassessment.ca and create a free account to unlock additional features such as favourites, comparisons and our interactive map.

The Assessment Office for this property is:

Victoria Assessment Office
102-3350 Douglas St
Victoria BC V8Z 7X9
01-64-764-02145.005

The Owner/Lessee of this property is:

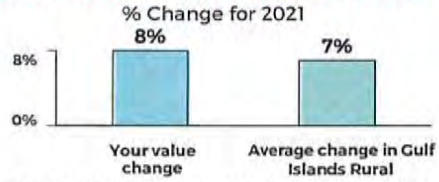
165225

S-04
CAPITAL (REGIONAL DISTRICT)
ATTN FACILITIES MANAGER
PO BOX 1000 STN CENTRAL
VICTORIA BC V8W 2S6

This is **not** a tax notice. Tax notices are issued by local governments and taxing authorities.

This notice contains important information about your property. Please review and keep for your records. No action is required unless you disagree with your assessment.

YOUR PROPERTY VALUE CHANGE



The graph above shows average change for multiple property types, and is for informational purposes only.

Visit **bcassessment.ca/marketmovement** for information on individual property types.

YOUR PROPERTY VALUE HISTORY

2021	+8%	$1,476,000
2020	-7%	$1,361,000
2019	+18%	$1,460,000
2018	+13%	$1,234,000

IMPORTANT DATES

July 1, 2020
Assessed value is the property's market value as of this date.

October 31, 2020
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Important information about the complaint process can be found on the back page.

CONTACT US

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Log in (https://www.bcassessment.ca/Home/LoginInfo/) | Register (https://auth.bcassessment.ca/register)

BC ASSESSMENT

Understanding property classes and exemptions

BC Assessment places property in one or more of nine classes, typically based on the property's type or use. Municipal zoning does not determine property class, though it may be a factor in some cases.

The Property classes:

Class 1, Residential — single-family residences, multi-family residences, duplexes, apartments, condominiums, nursing homes, seasonal dwellings, manufactured homes, some vacant land, farm buildings and daycare facilities.

Class 2, Utilities — structures and land used for railway transportation, pipelines, electrical generation or transmission utilities, or telecommunications transmitters. This property class does not include gathering pipelines, offices or sales outlets.

Class 3, Supportive Housing —this property class only includes eligible supportive housing property that has been designated by Cabinet. Eligible supportive housing property is funded by the provincial government or a health authority for the provision of housing that includes on-site support services for persons who were previously homeless, at risk of homelessness, and who are affected by mental illness or who are recovering from drug or alcohol addictions or have other barriers to housing. For more information, visit Classifying Supportive Housing Property (/Services-products/property-classes-and-exemptions/classifying-supportive-housing-property).

Class 4, Major Industry — land and improvements (buildings and structures) of prescribed types of industrial plants, including lumber and pulp mills, mines, smelters, large manufacturers of specified products, ship building and loading terminals for sea-going ships.

Class 5, Light Industry — property used or held for extracting, processing, manufacturing or transporting products, including ancillary storage. Scrap metal yards, wineries and boat-building operations fall within this category. Exceptions include properties used for the production or storage of food and non-alcoholic beverages and retail sales outlets, which fall into Class 6. For more information, visit Light Industrial vs. Business and Other Property Classifications. (/Services-products/property-classes-and-exemptions/light-industrial-vs-business-and-other-property-classifications)

Class 6, Business Other — property used for offices, retail, warehousing, hotels and motels all fall within this category. This class includes properties that do not fall into other classes.

Class 7, Managed Forest Land — privately-owned, forest land managed in accordance with the *Private Managed Forest Land Act* or the *Forest and Range Practices Act*. Property owners in this class have an obligation to provide good resource management practices, such as reforestation, care of young trees, protection from fire and disease and sound harvesting methods.

For more information on managed forest land, consult the pages: Managed Forest Classification in British Columbia (/Services-products/property-classes-and-exemptions/managed-forest-classification-in-british-columbia) and How Managed Forest Land is Assessed (/Services-products/property-classes-and-exemptions/managed-forest-classification-in-british-columbia/how-managed-forest-land-is-assessed).

Class 8, Recreational Property, Non-profit Organization — includes two very different categories:

Recreational Land

- land used solely as an outdoor recreational facility for specific activities such as golf, skiing, tennis, public swimming pools, waterslides, amusement parks, marinas and hang gliding. Improvements on the land (such as a clubhouse) fall into Class 6.
- land in a rural area that is part of parcel used for overnight commercial accommodation that exists predominantly to facilitate specific outdoor recreational activities such as hunting, fishing and kayaking. Improvements on the land most likely fall within Class 6 (e.g. a hotel).

Non-Profit Organization Land and Improvements

- property used or set aside for at least 150 days per year as a place of public worship or as a meeting hall by a non-profit, fraternal organization. The 150 days cannot include activities with paid admission or the sale/consumption of alcohol.
- additionally, the 150 days needs to be in the year ending on June 30 of the calendar year preceding the calendar year for which the assessment roll is being prepared.

Class 9, Farm — to qualify as farm for assessment purposes, the land must produce a prescribed amount of qualifying primary agricultural products for sale, such as crops or livestock. Farm buildings come within Class 1. For more information on farm land, visit Farm Land Assessment (/Services-products/property-classes-and-exemptions/farm-land-assessment).

Split Classification

Property with several distinct uses can fall into more than one class. For example, commercial and residential space might be combined in one building, or a property combines residential, farm and forest land. In these cases, BC Assessment determines the share of the value of the property attributable to each class.

Exemptions from Property Tax

BC Assessment is required to determine the "actual value" of land and improvements (i.e., property) in the Province. However, property taxes are levied on a property's "taxable value", not its actual value. "Taxable value" is a property's actual value minus the value of any tax exemptions.

What is a tax exemption?

A tax exemption is a tool that reduces or eliminates liability to property tax. In a few unusual situations property may be exempt from assessment, in which case it is not included on the assessment roll. But more commonly, property is assessable (i.e., included on the roll) but exempt from property tax in whole or in part. This page focuses on exemptions from property tax.

How exemptions work

Exemptions from property tax operate in a number of different ways. Exemptions may be whole or partial; that is, they may exempt all or only part of a property from taxes, or they may provide relief from all or only some property taxes. In all cases, specified criteria such as ownership, use, location, or property type, must be met before an exemption applies. In

some cases, the discretion to grant or deny an exemption lies with the taxing jurisdiction.

Look up tax exemptions

The majority of property tax exemptions are contained in taxing statutes such as the *Community Charter*, the *Vancouver Charter*, the *Local Government Act* and the *Taxation (Rural Area) Act*. However, exemptions are also set out in more subject-specific legislation such as the *School Act*, the *Health Authorities Act* or the *University Act*.

Examples of exemptions providing full relief from property taxes

• Property owned by the federal or provincial government is fully exempt from property taxes for all purposes: section 125 of the *Constitution Act*.
• Property owned by a municipality is fully exempt from property taxes for all purposes: section 220(1)((b) of the *Community Charter*; and section 131(1) of the *School Act*.

Examples of exemptions providing partial relief from property taxes

• A farmer's dwelling in a rural area is exempt from provincial general property taxes, but subject to school taxes: section 15(1)(f) of the *Taxation (Rural Area) Act*; and section 131(4)(a) of the *School Act*.
• Up to $10,000 of the assessed value of improvements in Class 4 – major industry, Class 5 – light industry and Class 6 – business and other is exempt from all property taxes: Industrial and Business Property Exemption Regulation, made under the *Community Charter*.
• 50% of the assessed value of a parcel of land in Class 9 – farm is exempt from school taxes: section 130(1)(a) of the *School Act*.

This information is not intended to be a comprehensive guide on exemptions from property tax.

More information

More information about property taxation and exemptions can also be found at the following provincial government links:

1) Municipalities - http://www.cscd.gov.bc.ca/lgd/finance/property_tax.htm (http://www.cscd.gov.bc.ca/lgd/finance/property_tax.htm)

2) Rural areas - BC Government Website - Rural Area (http://www2.gov.bc.ca/gov/topic.page?id=BBB16B457CFA4B718448F04493368F9A&title=Rural%20Area)

APPENDIX D

Electoral Area Property Taxes

Electoral Areas

Salt Spring Island

Juan de Fuca

Southern Gulf Islands

Grants in Aid

Community Works Fund

Electoral Area Property Taxes

Noise & Nuisance

As a regional district, the Capital Regional District (CRD) does not directly collect property taxes from electoral area property owners. Instead, the Provincial Surveyor of Taxes collects revenue on behalf of the CRD and the hospital district (CRHD).

The CRD delivers local, sub-regional and regional services to residents within electoral areas. Each service is budgeted for separately and the tax burden is shared between participating municipalities and electoral areas as set out in each service bylaw. For local services delivered to a smaller area within an electoral area, taxes are only levied for those within the boundaries of that service. Read more

Permissive Tax Exemptions

The CRD may exempt non-profit organizations from taxation for a specified period of time. This exemption is granted by bylaw under the authority of Section 391 of the *Local Government Act*.

Property tax exemptions remove the assessed value of that property from the total taxable assessed value in a service or area. This means the remaining assessed values generate the total tax revenue required for each tax category collected by the Surveyor of Taxes, including School Tax, Islands Trust, Hospital Districts, BC Assessment, Municipal Finance Authority and Regional District services.

Exemptions may be limited to a specified portion of the net taxable value of the property to which the exemption applies.

Eligibility

Eligible non-profit organizations include:

- an athletic or service organization used principally for public athletic or recreation purposes;
- a church as tenant or licensee for the purpose of public worship or for the purposes of a church hall;
- an agricultural or horticultural society and that is in excess of the area exemption under section 15 (1) (j) of the *Taxation (Rural Area) Act*;
- a not-for-profit organization in school buildings that the organization uses or occupies as tenant or licensee of a board of school trustees;
- a francophone education authority in school buildings that the francophone education authority uses or occupies as licensee of a board of school trustees;
- a not-for-profit organization in school buildings that the organization uses or occupies as tenant or licensee of a francophone education authority

Application process

Applications are evaluated and considered by the Board annually; the application deadline is July 31 each year. To apply, applicants must submit the following to the CRD:

- a letter requesting an exemption,
- an application form (under development), and
- a copy of their property assessment notice.

Applicants meeting all criteria are included in a bylaw to authorize electoral area permissive tax exemptions and presented to the Board for approval.

Applicants will be notified of submissions to the Board and any subsequent approvals.

Once approved, the CRD submits the bylaw authorizing the exemptions to the BC Assessment Authority to be included in the following year's assessment roll.

Additional Resources

- Exemption and Tax Relief Programs
- Property Taxes in Rural Areas
- Local Government Act, section 391

Contact Information

For more information about the process, please contact us by email.

What is the CRD?

The Capital Regional District (CRD) is the regional government for 13 municipalities and three electoral areas on southern Vancouver Island and the Gulf Islands, serving more than 425,500 people. Guided by its Board, the CRD works collaboratively to build a vibrant, livable and sustainable region. Read more >>

Navigate

» About the CRD
» Services
» Parks, Recreation & Culture
» Projects & Initiatives
» Education & Environment

Contact Us

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Canada V8W 1R7

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» Contacts, Locations & Hours

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REPORT TO ELECTORAL AREAS COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT **Expansion of Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Area (Bylaw No. 1951)**

ISSUE SUMMARY

Three properties located in Willis Point within the Juan de Fuca Electoral Area have petitioned the Capital Regional District (CRD) to be included in the Willis Point Fire Protection service area. The proposed change requires an amendment to the Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Establishment Bylaw.

BACKGROUND

Three properties in Willis Point area of the Juan de Fuca Electoral Act are currently excluded from the Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Area. These property owners have worked with staff to prepare a petition to the CRD to be included in the Willis Point Fire Protection, Emergency Response and Recreation Service area boundary. The proposed boundary amendment would include properties located at 400, 410 and 420 Durrance Close.

The petition process was concluded on September 10, 2021. All three property owners provided unanimous support to the amended service area and results have been certified by the CRD Corporate Officer (Appendix B).

The proposed bylaw amendment ensures properties receive timely life-safety services and increases the tax base for the service. There are no operational concerns with the addition of these properties. The proposal is supported by staff and the Willis Point Fire Protection, Emergency Response and Recreation Commission.

ALTERNATIVES

Alternative 1
The Electoral Areas Committee recommends to the Capital Regional District Board:

1. That the attached Certificate of Results of the petition to expand the service area boundary for the Willis Point Fire Protection, Emergency Response and Recreation Service be received;
2. That Bylaw No. 4458, “Willis Point Fire Protection, Emergency Response and Recreation Service Establishment Bylaw No. 1, 1991, Amendment Bylaw No. 5, 2021" be read a first, second, and third time; and
3. That Bylaw No. 4458 be referred to the Inspector of Municipalities for approval.

Alternative 2
That this report be referred back to staff for additional information.

CONCLUSION

Three properties located within the Juan de Fuca Electoral Area submitted a petition to be included in the Willis Point Fire Protection service area. If approved, the proposed change amends the Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Establishment Bylaw to include these properties.

RECOMMENDATION

The Electoral Areas Committee recommends to the Capital Regional District Board:

1. That the attached Certificate of Results of the petition to expand the service area boundary for the Willis Point Fire Protection, Emergency Response and Recreation Service be received;
2. That Bylaw No. 4458, "Willis Point Fire Protection, Emergency Response and Recreation Service Establishment Bylaw No. 1, 1991, Amendment Bylaw No. 5, 2021" be read a first, second, and third time; and
3. That Bylaw No. 4458 be referred to the Inspector of Municipalities for approval.

Submitted by:	Shawn Carby, CD, BHSc, MAL, Senior Manager, Protective Services
Concurrence:	Kevin Lorette, P. Eng., MBA, General Manager, Planning & Protective Services
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Bylaw No. 4458
Appendix B: Certification of Petition Results

CAPITAL REGIONAL DISTRICT
BYLAW NO. 4458

****

A BYLAW TO AMEND THE SERVICE AREA OF THE WILLIS POINT FIRE PROTECTION, EMERGENCY RESPONSE, AND RECREATION FACILITIES LOCAL SERVICE (BYLAW NO. 1951)

****

WHEREAS:

A. Under Bylaw No. 1951, "Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Establishment Bylaw No. 1, 1991", the Regional Board established a fire protection and emergency response service for the area commonly known as Willis Point, expanding the service area by amendment over the years;

B. By petition under section 337 of the *Local Government Act*, property owners on the north-side of Durrance Close wish to be added to the service area;

C. The Electoral Area Director for the Juan de Fuca Electoral Area has consented to the modifications to the establishing bylaw under ss. 347 and 349 of the *Local Government Act*; and

D. The Board wishes to amend Bylaw No. 1951 to extend the service area and make certain changes modernizing the language of the bylaw at the same time;

NOW THEREFORE, the Capital Regional District Board in open meeting assembled hereby enacts as follows:

1. Bylaw No. 1951, "Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Establishment Bylaw No. 1, 1991" is hereby amended as follows:
   (a) By deleting Schedule "A" in its entirety and replacing it with the attached Schedule "A";

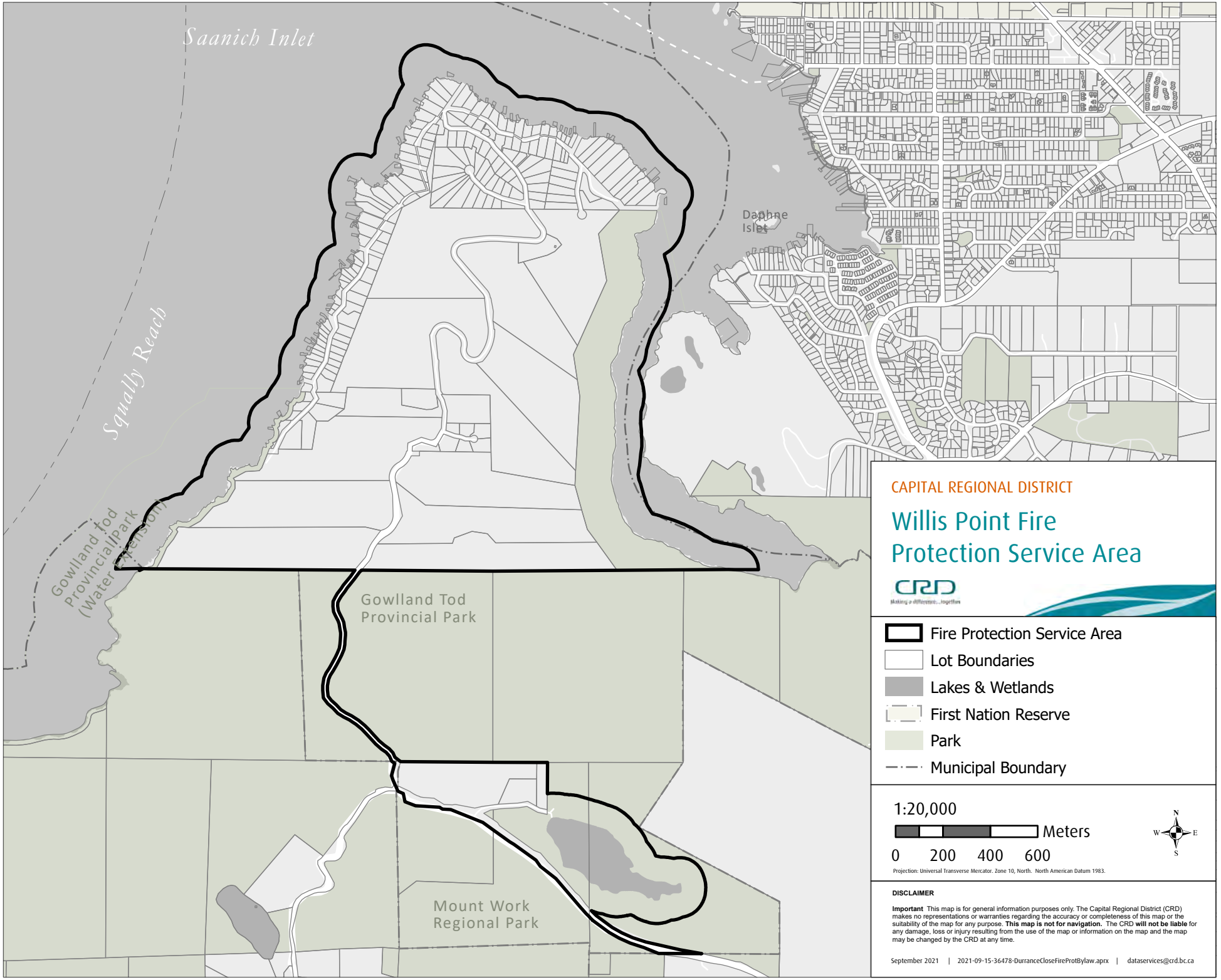
2. This bylaw may be cited for all purposes as "Willis Point Fire Protection, Emergency Response and Recreation Facilities Local Service Establishment Bylaw No. 1, 1991, Amendment Bylaw No. 5, 2021".

APPROVED BY PETITION PER S. 337 OF THE LOCAL GOVERNMENT ACT	10th	day of	September	2021
READ A FIRST TIME THIS	th	day of		20__
READ A SECOND TIME THIS	th	day of		20__
READ A THIRD TIME THIS	th	day of		20__
APPROVED BY THE INSPECTOR OF MUNICIPALITIES THIS	th	day of		20__
ADOPTED THIS	th	day of		20__

CHAIR

CORPORATE OFFICER

Schedule "A"
Service Area Boundaries



CAPITAL REGIONAL DISTRICT

Willis Point Fire Protection Service Area

Fire Protection Service Area
Lot Boundaries
Lakes & Wetlands
First Nation Reserve
Park
Municipal Boundary

1:20,000

Meters

0 200 400 600

Projection: Universal Transverse Mercator. Zone 10, North. North American Datum 1983.

DISCLAIMER

Important This map is for general information purposes only. The Capital Regional District (CRD) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. **This map is not for navigation.** The CRD **will not be liable** for any damage, loss or injury resulting from the use of the map or information on the map and the map may be changed by the CRD at any time.

September 2021 | 2021-09-15-36478-DurranceCloseFireProtBylaw.aprx | dataservices@crd.bc.ca

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CAPITAL REGIONAL DISTRICT

CERTIFICATION OF RESULTS

WILLIS POINT FIRE PROTECTION, EMERGENCY RESPONSE AND RECREATION SERVICE – PETITION TO INCLUDE 400, 410 & 420 DURRANCE CLOSE

I, Kristen Morley, Corporate Officer for the Capital Regional District, do hereby declare that a petition was signed by 100% of the owners of properties located at 400, 410 and 420 Durrance Close requesting expansion of the service area boundary under Bylaw 1951, "*Willis Point Fire Protection, Emergency Response and Recreation Service Establishment Bylaw No. 1, 1991*".

The requirements for the petition as set out in section 337 of the *Local Government Act* and 212 of the *Community Charter* have been satisfied.

Dated at Victoria, BC
this 10th day of September, 2021.

Kristen Morley
Corporate Officer

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REPORT TO ELECTORAL AREAS COMMITTEE
MEETING OF WEDNESDAY, OCTOBER 13, 2021

SUBJECT Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021."

ISSUE SUMMARY

To advance Bylaw No. 4444, to amend the Southern Gulf Islands Community Economic Sustainability Commission (CESC) Bylaw No. 3803 to add up to four (4) commissioners, increasing the number of commissioners from five (5) to a maximum of nine (9).

BACKGROUND

At the April 20, 2021 meeting of the CESC, the following motion was carried:

> *That the CESC requests the Electoral Area Director request the CRD board amend the bylaw to allow for the appointment of four additional commissioners, who would be commissioners at large.*

At the May 12, 2021 meeting of the Capital Regional District Board, the following motion was carried:

> *That staff be directed to report back with amendments to Bylaw 3803, the "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012" to increase the number of commissioners from five (5) to nine (9), with the additional members considered commissioners at large to represent the Southern Gulf Islands Electoral Area as a whole, and to enable the commissioners at large to be appointed for one (1) or two (2) year terms.*

The CESC, established in 2011 through Bylaw No. 3803, provides an economic development service for the Southern Gulf Island Electoral Area, advising on the economic prosperity, social equity, and environmental quality of the EA. The CESC is an advisory commission comprised of the Electoral Area Director (or Alternate), and one member appointed to represent each of Galiano, Mayne, Pender, and Saturna Islands.

The Commission has indicated an interest in broadening the diversity of its membership to bring a greater range of perspectives to its work. More voices around the table would deepen the understanding of the region's economic sustainability and increase the accountability of the Commissions' deliberations.

In accordance with the CESC request and Board direction, Bylaw No. 4444 has been drafted to increase Commission membership from five (5) to a maximum of nine (9) commissioners, with up to four (4) additional members as "commissioners at large." The commissioners at large would represent a regional perspective in addition to the Regional Director and the existing four members that are appointed to represent each of the islands.

The Commission also requested flexibility in the term of the appointments to enable those with specific expertise to be appointed to support a special project for a shorter term. Bylaw No. 4444 enables commission appointments to be made for up to two years, with a maximum of three terms. The actual term of each new commissioner would be specified at the time of appointment.

ALTERNATIVES

Alternative 1:

The Electoral Areas Committee recommends to the Capital Regional District Board:

1. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be introduced and read a first, second, and third time.

2. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be adopted.

Alternative 2:

That the Electoral Areas Committee request staff report back with additional information.

IMPLICATIONS

This request supports CRD Board priorities and the corporate plan priorities for Advocacy, Governance & Accountability.

The addition of commissioners at large will broaden the diversity of voices and allow different perspectives to inform the work of the CESC. Flexibility in the term of appointments will allow individuals with specific expertise to be appointment for shorter terms to serve special projects.

Administratively, this request will increase the number of appointments that require advertising and tracking, but does not represent a significant increase in work load.

CONCLUSION

Bylaw No. 4444 amends the CESC Establishing Bylaw 3803 to increase the number of commissioners from five (5) to nine (9). An increase in the number of commissioners will bring a greater range of perspectives and broaden the diversity of deliberations of the CESC, thus improving governance of the economic development service in the SGI EA.

RECOMMENDATIONS

The Electoral Areas Committee recommends to the Capital Regional District Board:

1. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be introduced and read a first, second, and third time.

2. That Bylaw No. 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021" be adopted.

Submitted by:	Justine Starke, MCIP, RPP, Manager, SGI Service Delivery, Corporate Services
Concurrence:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Bylaw 4444, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021"

CAPITAL REGIONAL DISTRICT
BYLAW NO. 4444

****

A BYLAW TO AMEND THE MEMBERSHIP OF THE SOUTHERN GULF ISLANDS COMMUNITY ECONOMIC DEVELOPMENT COMMISSION (BYLAW NO. 3803)

****

WHEREAS:

A. Under Bylaw No. 3803, "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012", the Regional Board established a commission to advise on economic development and sustainability for the Southern Gulf Islands Electoral Area;

B. The Commission wishes to expand its membership to include additional representatives from industry and the community; and

C. The Board wishes to amend Bylaw No. 3803 to ensure fulsome representation as requested;

NOW THEREFORE, the Capital Regional District Board in open meeting assembled hereby enacts as follows:

1. Bylaw No. 3803, "Southern Gulf Islands Community Economic Development Commission Bylaw No. 1, 2012", is hereby amended as follows:

   (a) By replacing section 3(a) with the following:

   3(a) The Commission shall consist of nine (9) members, including:

   i. The Director representing the Southern Gulf Islands Electoral Area;

   ii. Four (4) other individuals: one each representing Galiano Island, Mayne Island, Saturna Island, and the Pender Islands (the "Island Representatives");

   iii. Four (4) other individuals to be appointed as commissioners at large to represent a Southern Gulf Islands regional perspective (the "At Large Representatives").

   (b) By replacing section 5, Term of Office, in its entirety with the following:

   5. <u>TERM OF OFFICE</u>

   (a) The terms of office for the Island Representatives and At Large Representatives is a two year period, expiring December 31 in the second year of appointment or for such shorter period as set out in the appointment.

   (b) No appointee, other than the Electoral Area Director, may serve more than three (3) consecutive two-year terms, absent Board Approval.

2. This bylaw may be cited for all purposes as "Southern Gulf Islands Community Economic Sustainability Commission Bylaw No. 1, 2012, Amendment Bylaw No. 2, 2021".

READ A FIRST TIME THIS th day of 20__

READ A SECOND TIME THIS th day of 20__

READ A THIRD TIME THIS th day of 20__

ADOPTED THIS th day of 20__

CHAIR

CORPORATE OFFICER

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EEP 21-39

REPORT TO ENVIRONMENTAL SERVICES COMMITTEE
MEETING OF WEDNESDAY, SEPTEMBER 29, 2021

SUBJECT **Updated Capital Regional District Climate Action Strategy**

ISSUE SUMMARY

To present the renewed draft Capital Regional District (CRD) Climate Action Strategy for approval.

BACKGROUND

The CRD has committed to taking action to address climate change within operations at the regional level, as highlighted in the Board's declaration of a climate emergency and accompanying commitment to take a leadership role to pursue regional carbon neutrality. In response, staff led the development of a renewed draft Climate Action Strategy (the strategy), replacing both the CRD 2016 Corporate Climate Action Strategy and the 2017 Regional Climate Action Strategy. The strategy (Appendix A) reflects current Board priorities and provides a clear path for how the CRD will show leadership on climate action.

The strategy outlines how the CRD can influence, lead and support efforts to reduce emissions and adapt to a changing climate. It includes a renewed vision, principles, goals and corporate greenhouse gas (GHG) reduction targets. To leverage and maximize region-wide benefits, it aligns with federal, provincial and local initiatives and policy directives. It is recognized that the success of this strategy relies on our collective commitment to bold climate action at all levels of government.

Over the next five years, the CRD's Climate Action Service, and over twenty CRD divisions, will be responsible for implementation of the strategy's 128 actions. Staff will monitor and assess whether actions need to be adapted, shifted or updated to reflect changing context or opportunities, and report progress annually. After five years, the strategy will be updated to continue advancing the CRD's climate goals.

To develop the strategy, staff and a consultant team engaged staff representatives for numerous CRD divisions, the CRD Climate Action Inter-Municipal Working Group, and elected officials on the CRD Climate Action Inter-Municipal Task Force. Input was embedded into the strategy, and feedback, in general, aligns with the draft Strategy.

ALTERNATIVES

Alternative 1

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That the Capital Regional District Regional Climate Action Strategy be approved; and

2. That staff be directed to forward this report to municipal councils for information.

Alternative 2

That the report be referred back to staff for further review.

IMPLICATIONS

Environmental & Climate Implications

The strategy recognizes that GHG emissions must be reduced and sequestered and, to respond to climate impacts, efforts must focus on understanding vulnerabilities, ensuring natural assets are resilient, and preparing the region's infrastructure and lands.

The strategy sets a new corporate GHG reduction target of 45% below 2007 levels by 2030 (per the Province's reporting framework). The strategy aligns with the regional target to reduce GHG emissions 61% by 2038 based on 2007 levels (per 2018 Regional Growth Strategy). Further, the Intergovernmental Panel on Climate Change states that to limit global temperature rise below 1.5ºC, there must be net-zero emissions by 2050. The strategy includes CRD actions to support this pathway over the next five years.

Intergovernmental Implications

To develop this strategy, staff reviewed municipal climate plans and consulted the region's municipalities and electoral areas to understand priorities for the CRD to play a role in achieving coordinated regional climate action goals. The strategy complements municipal priorities, fills in gaps and aligns with federal and provincial governments. It is intended to inform the service and work plans of CRD community-based services, guide funding applications and highlight partnership and advocacy opportunities.

Supporting Indigenous-led climate solutions is a foundational principle of the strategy. The CRD will continue to look to the region's First Nations to understand priorities and support, as needed.

Regional Growth Strategy Implications

The strategy aligns with the policy direction of the CRD's Regional Growth Strategy.

Social Implications

Development of the strategy identified six principles that guided the selection of actions and will continue to guide their implementation, including a core principle to ensure "actions are inclusive and accessible to residents across the region, and support the most vulnerable."

Financial Implications

While many of the strategy's actions can be accomplished within existing service levels, increased service adjustments have been proposed, starting in the 2022 budget year (refer to *2022 Service Planning – Climate Action & Adaptation* staff report, also on the September 29 agenda). The CRD will continue to leverage partnerships, programs and grant funding opportunities.

Future financial implications associated with service level adjustments, identified by feasibility or other studies, would be considered by the Board in future service planning processes.

Service Delivery Implications

The strategy proposes a service adjustment of two new full-time equivalents (FTE), the conversion of one FTE to a continuous versus contract position, and reallocation of funding due to loss of the Climate Action Revenue Incentive Program. This would allow the CRD to support additional programming related to regional energy retrofits (refer to *Capital Region Energy Retrofit Business Case* staff report, also on the September 29 agenda), public electric vehicle charging (related to the June 16, 2021 CRD Electric Vehicle Infrastructure Roadmap staff report), municipal climate action policy and capacity building, and to advance corporate energy management. Refer to the *2022 Service Planning – Climate Action & Adaptation* staff report, also on the September 29 agenda.

An increase in service delivery to the Climate Action Service requires a bylaw amendment to increase requisition room limits. Should the proposed 2022 service planning adjustments or the amendment of Bylaw No. 3510, Climate Action & Adaptation, not be supported, actions and associated timelines would need to be adjusted within the strategy's five-year action plan.

Alignment with Board & Corporate Priorities

The key driver of the strategy is to advance the Board's Climate Action & Environmental Stewardship Strategic Priority and accelerate the CRD's Climate Action activities in light of its declaration of a Climate Emergency.

Alignment with Existing Plans & Strategies

Embedded through numerous services, climate action at the CRD has strong linkages with several strategic plans across the organization including: 2019-2022 Board Priorities and Corporate Plan, the 2018 Regional Growth Strategy, the 2014 Regional Transportation Plan and Pedestrian and Cycling Master Plans, the 2017 Regional Water Supply Strategic Plan, the forthcoming Regional Parks Strategic Plan, the recently approved Solid Waste Management Plan and regional transportation priorities (Appendix A). Successful implementation of these dependent plans alongside the strategy is integral to fulfilling the CRD's role in climate action.

CONCLUSION

The CRD Climate Action Strategy provides a renewed vision, goals and plan to guide the organization's climate action activities for the next five years. Developed in consultation with municipal partners, the Strategy includes an implementation plan for where and how the CRD will influence, lead or support our region in reducing greenhouse gas emissions and preparing for climate impacts through its various services.

RECOMMENDATION

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That the Capital Regional District Regional Climate Action Strategy be approved; and

2. That staff be directed to forward this report to municipal councils for information.

Submitted by:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

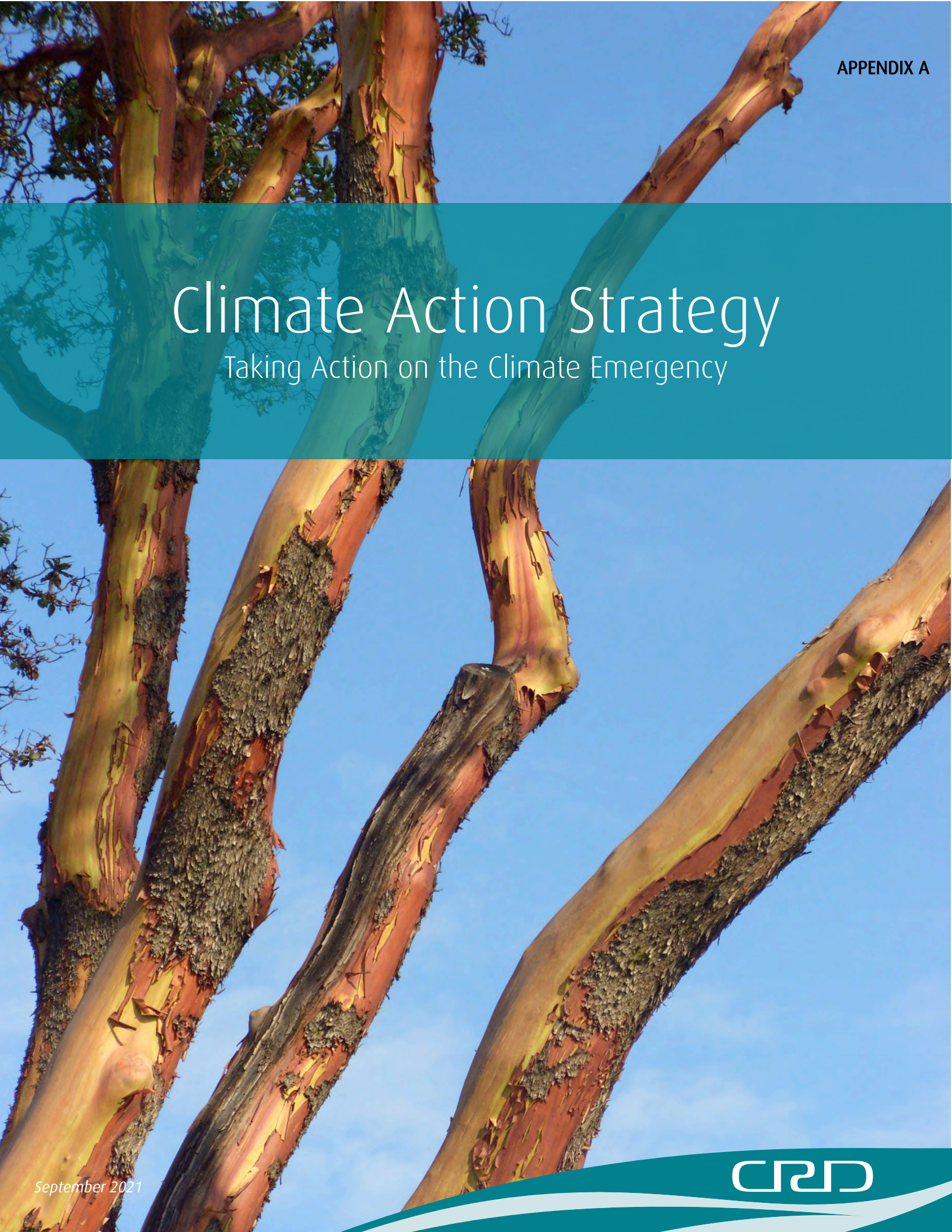
ATTACHMENTS

Appendix A: CRD Climate Action Strategy - Taking Action on the Climate Emergency - September 2021 Report
Appendix B: Climate Action Strategy 2021 - Taking Action on the Climate Emergency - Presentation

APPENDIX A

Climate Action Strategy

Taking Action on the Climate Emergency



September 2021

Territorial Acknowledgement

The CRD acknowledges that it conducts its business in the territory of the Lək̓ʷəŋən (Songhees) and Xwsepsum (Esquimalt) Nations here in the core area, the W̱SÁNEĆ Nations, including W̱JOŁEŁP (Tsartlip), BOḰEĆEN (Pauquachin), SȾÁUTW̱, (Tsawout) and W̱SIKEM (Tseycum) on the Saanich Peninsula and Gulf Islands, Sc'ianew (Beecher Bay), T'Sou-ke, and Pacheedaht to the west as well as MÁLEXEŁ (Malahat) and Pune'laxutth' (Penelekut) Nations. All of whom have lived on these lands since time immemorial.

Table of Contents

Introduction **2**
- The Climate Emergency 2
- Climate Action Vision 2
- Guiding Principles 3
- Climate Commitments by Other Governments 4
- Targets and Commitments 5

The CRD's Role in Climate Action **6**
- Building on a Strong Foundation 6
- Overview of the CRD 8
- Climate Action through the Years 11

Adapting to a Changing Climate **12**
- Climate Projections and Impacts 12
- CRD Climate Adaptation Planning 13

Greenhouse Gas Emissions: Now and Looking Forward **15**
- The CRD's Corporate GHG Emissions 15
- Regional GHG Emissions 19

The CRD's Five-year Action Plan **24**
- Climate-Focused Decision Making 25
- Sustainable Land Use, Planning and Preparedness 27
- Low-Carbon Mobility 30
- Low-Carbon and Resilient Buildings and Infrastructure 34
- Resilient and Abundant Nature, Ecosystems and Food Systems 38
- Minimized Waste 41

Implementation and Reporting **44**
- Performance Indicators and Reporting 45
- Adaptive Management 48

Appendix A: Glossary **49**

Appendix B: Related CRD Strategies and Plans **53**

Appendix C: Detailed Action Plan **54**

Prepared by Pinna Consulting on behalf of Capital Regional District staff.

Introduction

The Climate Emergency

Addressing climate change is one of the most critical issues of our time – both locally and across the planet. The Capital Regional District (CRD) has clearly acknowledged and committed to taking action to address climate change within our operations as well as at the regional level, to reduce emissions and to prepare for the uncertainty a changing climate brings. This was highlighted in the Board's declaration of a climate emergency in early 2019 and commitment to taking a leadership role to pursue regional carbon neutrality.

In response to the climate emergency, the CRD developed this updated five-year Climate Action Strategy in 2021, replacing two former strategies and integrating with existing local, provincial and federal climate action initiatives. The success of this strategy relies on our collective commitment to bold climate action at all levels of government to respond to this emergency.

Climate Action Vision

Through collective action, we eliminate emissions and foster healthy and resilient communities and natural areas now and in the future.

This vision recognizes that the CRD must act in concert with many partners to address the climate emergency, ensuring the region is minimizing its contribution to climate change while also preparing for the changes that have already begun. In this context, "we" is inclusive of all governments, First Nations, residents, businesses, institutions, organizations and residents

in the region. The CRD has many important roles to play in achieving this vision. This plan lays out those roles, as well as specific actions the CRD can take over the next five years to reduce emissions and prepare for changes to our climate.

Guiding Principles

Six principles were identified during the development of this strategy that guided the selection of the actions, and will continue to be used to guide the implementation of actions under each goal area:

- **Leadership:** The CRD takes bold action to rapidly eliminate greenhouse gas (GHG) emissions from corporate operations, prepares CRD assets for the changing climate, and integrates climate action across the CRD's local and regional services.
- **Urgency:** Actions to mitigate the impacts of climate change are swift and substantial to respond to the climate emergency.
- **Collaboration:** Collaborative and collective action among municipal, provincial, federal and First Nations governments, businesses, organizations and residents is critical to advance climate action.
- **First Nations relations:** Actions support Indigenous-led climate solutions that are grounded in Indigenous self-determination, shared prosperity and respect Indigenous relationships with the land, water and all beings.
- **Equity:** Actions are inclusive and accessible to residents across the region, and particularly support those most vulnerable to the impacts of climate change.
- **Co-benefits:** Actions maximize co-benefits, including reducing GHG emissions, increasing resilience, improving affordability, expanding economic opportunities, improving health and well-being, advancing reconciliation, and more.

Climate Commitments by Other Governments

The CRD's 2019 climate emergency declaration was prefaced by the Intergovernmental Panel on Climate Change (IPCC) report released in 2018, which found that limiting warming to a 1.5°C change this century could avoid more catastrophic impacts of climate change that would be experienced at 2°C or more of warming. Further to this, the report identified that to limit global temperatures to an increase of 1.5°C this century, the global community will need to achieve a greenhouse gas (GHG) emissions reduction of about 45% from 2010 levels by 2030 and become carbon neutral by approximately 2050.[1]

In 2021, Canada's federal government passed the *Canadian Net-Zero Emissions Accountability Act,* which sets out targets to achieve net-zero GHG emissions by 2050 and aligns Canada with the IPCC report findings.[2] The government also released a strengthened climate action plan, including a proposal to increase the carbon tax annually from $50 per tonne of CO_2 emissions in 2022 to $170 per tonne in 2030.

Provincially, BC has set targets to reduce GHG emissions 40% by 2030, 60% by 2040 and 80% by 2050, relative to 2007.[3] In 2018, the Province released the CleanBC plan with actions that are estimated to reduce BC's emissions by 18.9 megatonnes of CO_2e, 75% of the amount needed to reach the 2030 target. In 2019, the Province amended the *Climate Change Accountability Act* to include requirements related to climate risk and adaptation. This legislation requires an annual ministerial report on climate change risks, and an overview of government's actions to manage them. Currently, the Province is developing a Climate Preparedness and Adaptation Strategy that outlines actions for 2022-2025 needed to address the greatest risks to BC, building from the 2019 Preliminary Strategic Climate Risk Assessment. This, along with modernizing the BC *Emergency Program Act* and developing the forthcoming BC Flood Strategy, will guide provincial investments, policies and programs on climate adaptation in coming years.

Locally, municipal governments across the capital region have declared climate emergencies, promising to accelerate climate action efforts to achieve net-zero carbon emissions. Many have set very ambitious GHG reduction targets, enacted local policies and undertaken planning exercises aimed at reducing emissions and preparing for a changing climate.

Policies and programs implemented at each level of government are critical to achieving a carbon neutral capital region and improving our regional resiliency to climate change.

1. https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf
2. Canadian Net-Zero Emissions Accountability Act
3. BC Climate Change Accountability Act, 2007

Targets and Commitments

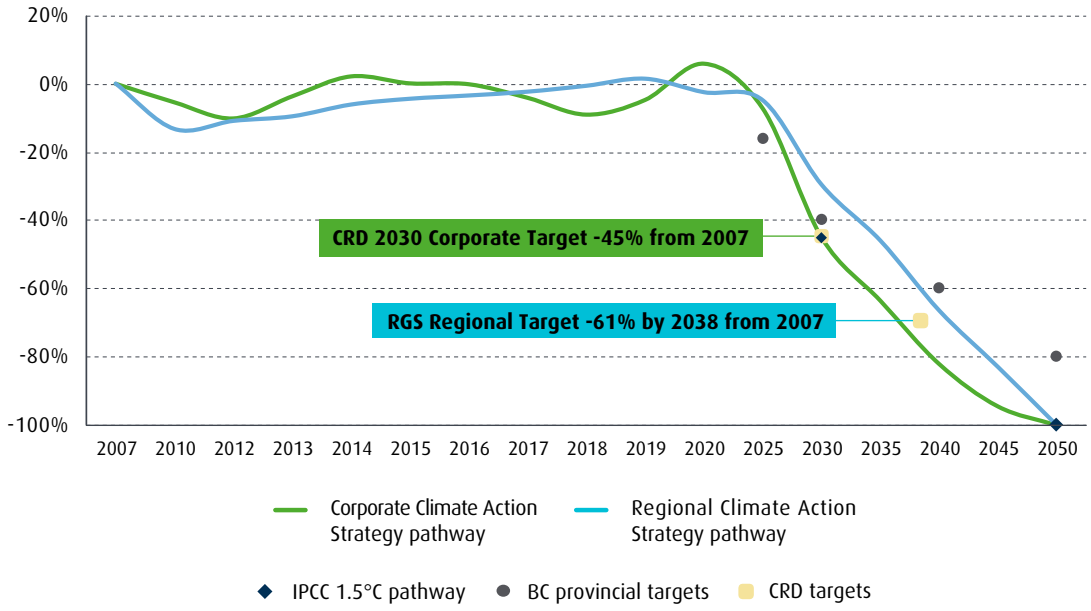
The following targets and commitments provide a set of markers that will help the CRD track and communicate progress on reducing GHG emissions, both at the regional and corporate scales. Figure 1 shows the pathways to reach these targets relative to international and provincial emission reduction goals.

Regional target: Reduce regional GHG emissions 61% by 2038 based on 2007 levels (as per 2018 Regional Growth Strategy).

Corporate target: Reduce corporate GHG emissions 45% by 2030 based on 2007 levels, and reach net-zero GHG emissions before 2050.

Climate emergency declaration: The CRD Board identified Climate Action & Environmental Stewardship as a priority for the region and approved a motion to declare a climate emergency. Through this declaration, the CRD signalled it would demonstrate leadership toward reaching regional carbon neutrality.[4] This strategy outlines a pathway toward net-zero emissions by mid-century, in line with the IPCC modelled pathways to maintain temperatures below 1.5°C this century.

Figure 1. CRD GHG emission reduction pathways and targets



4. The Board declaration stated an aspirational goal to work toward being a carbon-neutral region by 2030. Upon examination of the existing state of the community and corporate greenhouse gas inventories, and the senior government policy positions, no feasible pathway of achieving regional carbon neutrality by 2030 was identified.

The CRD's Role in Climate Action

Building on a Strong Foundation

This 2021 strategy replaces and builds upon two existing CRD climate action strategies: the 2016 Corporate Climate Action Strategy and the 2017 Regional Climate Action Strategy. This 2021 strategy reflects current Board priorities (including the climate emergency declaration) to provide a clear path forward for how the CRD, under its service mandates, will show leadership on climate action, both for the CRD's corporate operations and for its community-focused services.

Corporate operations refer to operations and management of CRD-owned facilities, assets and lands, and corporate greenhouse gas (GHG) emissions refer to those produced by CRD corporate activity. Preparing corporate assets for climate change and reducing corporate GHG emissions are important because the CRD has direct control over these decisions, which provides an opportunity for the CRD to show leadership on climate action.

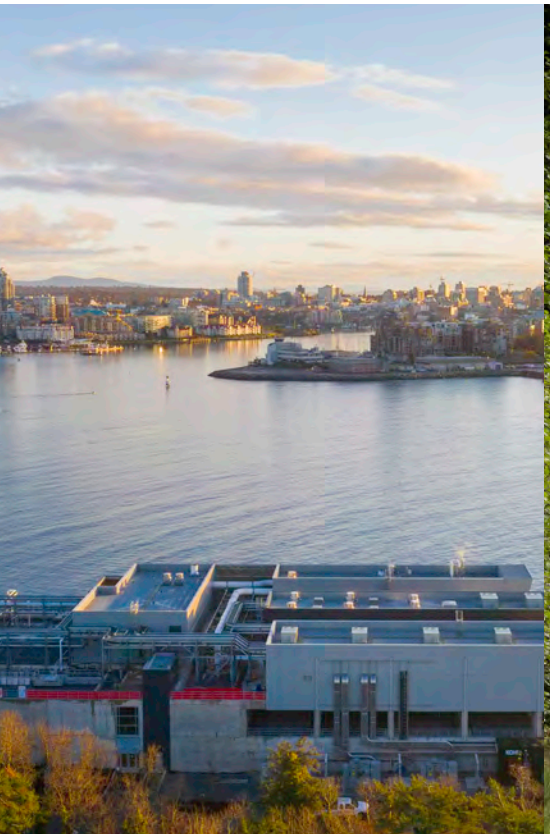
Community-focused climate action refers to action the CRD can take through its various regional, sub-regional and local services to support the climate mitigation and adaptation across the region. Depending on the service, the CRD has varying levels of control. In many cases, the CRD may influence but does not directly control decisions or outcomes, such as urban land use, transportation choices, energy-efficient building construction and retrofits and community waste reduction. Regional GHG emissions refer to all emissions from activities within the CRD region, a much larger amount of emissions than the CRD's corporate emissions. Enhancing regional resilience to a changing climate and reducing regional GHG emissions both involve significant partnerships with and between municipal, senior and First Nations governments, businesses, organizations and members of the public.

The **corporate** portion of the 2021 strategy builds from the 2016 strategy by involving stronger integration into the decision-making process, identifying key corporate projects, allocating resources and actively seeking grants to support additional investments. The **community** portion of the strategy focuses on areas where the CRD has the greatest influence and areas requiring or benefitting from strong regional coordination.

Throughout the development of this plan, there has been extensive engagement across CRD departments and with municipal representatives. The following groups were consulted, either through workshops or interviews:

- Elected officials from the CRD's Climate Action Inter-Municipal Task Force.
- Municipal staff from the CRD's Climate Action Inter-Municipal Working Group.
- Numerous staff from the CRD's various services that have a role in implementing this strategy, including: facilities, recreation, fleet, purchasing, finance, legislative, risk and insurance, regional and strategic planning, electoral area planning, parks, protective services, building inspections, environmental protection, utilities (water and wastewater), First Nations relations, health and capital planning, housing and environmental resource management.

Collectively, the input from this engagement led to the development of the new vision, guiding principles, goals and a set of actions and metrics to implement and monitor over the next five years.



Overview of the CRD

The CRD has over 200 services, infrastructure and financing agreements with municipalities and electoral areas to deliver services in the following categories:

- Regional, where all municipalities and electoral areas are served.
- Sub-regional, where two or more jurisdictions are served.
- Local, in the electoral areas where the CRD is the local government.

Services encompass the regional water supply, solid waste management, wastewater treatment, regional parks, recreation facilities and more.

In addition, the CRD owns and operates the Capital Region Housing Corporation, a non-profit operator of 2,007 affordable rental units within seven municipalities, and administers the Capital Regional Hospital District (CRHD). The CRHD invests in traditional health care services and provides capital funding for health care infrastructure, such as health facilities and hospital equipment.

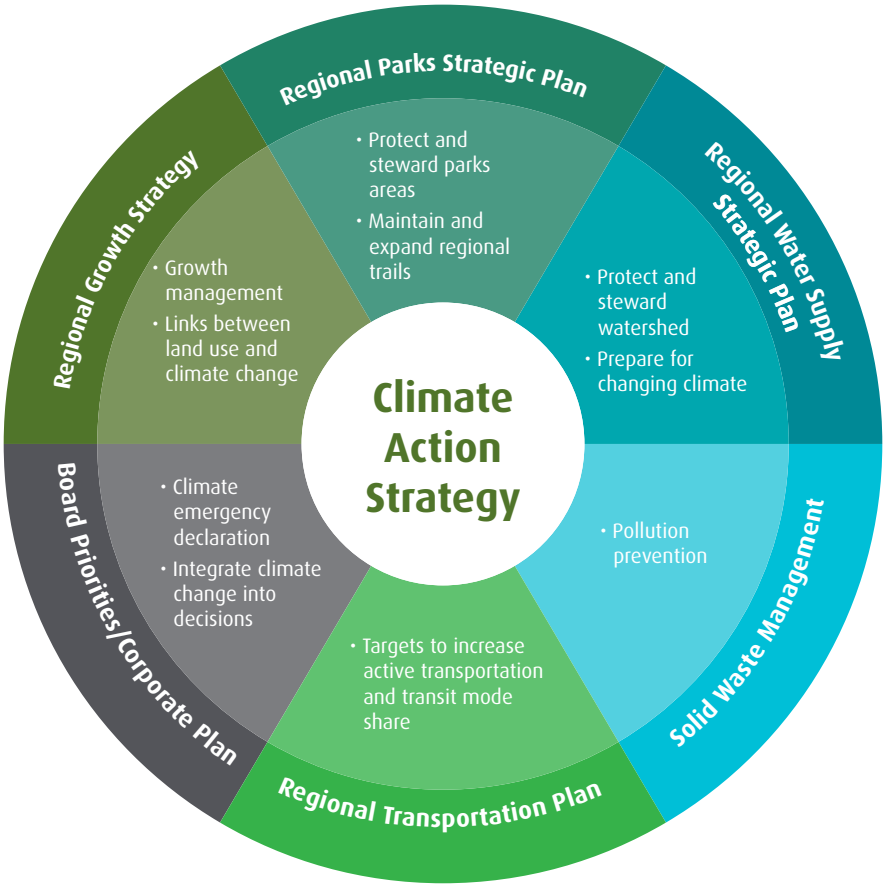
Under Bylaw 3510, the CRD established a climate action service in 2009 to act as a resource and facilitator for local governments, citizens and organizations in the capital region on energy and climate issues. The service has five major focus areas:

- Provide support to local governments in developing and implementing climate action plans and programs (GHG emissions reductions and climate adaptation), as part of legislative requirements under Bill 27 and voluntary commitments under the BC Climate Action Charter.
- Catalyze action through partnerships with public and private sectors, non-governmental organizations and community organizations and increase public awareness of climate change issues.
- Liaise with senior levels of government on climate change-related programs, policies and legislation that impact the capital region.
- Provide scientific information, data and indicators related to local and regional GHG emissions and projected climate impacts.
- Support the CRD in fulfilling its corporate climate objectives by developing and facilitating the implementation of corporate climate action plans, policies and programs and support execution of climate-related Board strategic priorities.

Climate Action Strategy's Relationship to Other CRD Plans

Climate action at the CRD is embedded through numerous services and, as a result, has strong linkages with several strategic plans across the organization. Figure 2 highlights those with the strongest dependencies for this strategy, though there are several more that also influence the outcomes of climate action (see Appendix B). Successful implementation of these plans is integral to fulfilling the CRD's role in climate action.

Figure 2. CRD strategies with strong links to the Climate Action Strategy



Climate Action through the Years

Climate action is a Board priority (2009-11)

Climate action is a Board priority (2012-14)

2003

CRD Headquarters Phase 2 certified Leadership in Energy and Environmental Design (LEED) Gold

2006

CRD Headquarters Phase 2 certified LEED Gold

2007

Acquired Leech Water Supply Area for future drinking water catchment

Developed Community Energy Plan

2008

Developed CRD Corporate Climate Action Plan

Signed BC Climate Action Charter

2009

Acquired Leech Water Supply Area for future drinking water catchment

Established CRD Climate Action Service (1.5 FTE)

2010

Established inter-municipal climate action working group and task force

2011

Saanich Peninsula wastewater treatment plant heat recovery system comissioned

Heat recovery projects started at SEAPARC and Panorama Recreation

2012

Salt Spring Island Library certified as LEED Gold

Climate action is a Board priority (2012-14)

Climate action is a Board priority (2015-18)

Climate action is a Board priority (2019-22)

2013

Began supporting school climate programs

2014

2015

Corporate Climate Analyst position established (1 FTE)

Began offering regional oil to heat pump incentives

Piloted internal climate lens decision-making tool

2016

Corporate Climate Action Strategy developed

2017

Regional Climate Action Strategy developed

Began corporate Zero Emissions Fleet Initiative

Climate Projections for the Capital Region Report released

2018

Corporate Climate Action Reserve Fund established

Regional Growth Strategy adopted (GHG reduction target of 61% by 2038)

Completed EV Infrastructure Planning Guide

FireSmart programs begin in electoral areas

2019

Coastal Flood Inundation Mapping Project initiated

Transition 2050 Residential Acceleration project begins

Community Energy Specialist position established (1 FTE)

2020

Hartland renewable natural gas project approved

McLoughlin Point Wastewater Treatment Plant certified LEED Gold

Regional Greenhouse Gas Inventory Study released

2021

EV Infrastructure Roadmap developed

Regional Retrofit Service business case completed

New CRD climate action strategy developed

Board approves transportation priorities

Adapting to a Changing Climate

Climate Projections and Impacts

Changes to our climate are already noticeable—extreme weather events like droughts, floods, heat waves and fires are happening more often—and these changes are projected to increase in frequency and severity over the coming decades. According to *Climate Projections for the Capital Region*,[5] as a result of global warming, global climate models project the capital region will experience:

- more extreme climate events (such as intense storms or long heat waves).
- an increase in rainfall in fall, winter and spring; and a decrease in rainfall in summer.
- more intense, longer-lasting and more frequent rainfall events.
- frequent heavy snowfalls and rain on snow events in the short-term, less snow in the future.
- hotter summers and less days with freezing in winter.
- increased likelihood of variability of climate within and between years.

Global climate change is also increasing the region's susceptibility to increasing sea level rise. The most vulnerable areas to sea level rise are low-lying and have gently sloping beaches. Recent mapping activities by the CRD identified multiple sites like this in the region.[6]

5. Climate Projections for the Capital Region, CRD, 2017
6. Capital Region Coastal Flood Inundation Mapping Project, CRD, 2020

A changing climate will likely have many implications in this region—negatively affecting health, infrastructure, water supply, agriculture, ecosystems and species. These changes will result in more seasonal variations in water availability, causing droughts; high intensity precipitation events, causing flooding; heavy snow and ice, impacting transportation networks; extreme wind events that may cause power outages; prolonged heat events, increasing wildfire risk; and future coastal storms, flooding homes and infrastructure.

The scientific community agrees that the more we reduce total greenghouse gas emissions in the short term, the less intense these changes will be over time, and that acting earlier is in many cases less costly than delaying action.[7] Public Safety Canada estimates that every dollar invested in mitigation saves $3 to $5 in recovery costs.[8]

CRD Climate Adaptation Planning

Adaptation is defined by the Intergovernmental Panel on Climate Change as the process of adjusting to actual or expected climate and its effects. This includes working to reduce or avoid harm, exploiting beneficial opportunities or facilitating adjustments in natural systems. To be effective in reducing our vulnerability and adapting to a changing climate, we need to improve how we anticipate, respond to and recover from both extreme weather events and more gradual changes occurring over time.

Over the past few years, the CRD has undertaken a number of planning exercises to better understand climate risk and identify actions that would reduce climate risk and support regional efforts on climate adaptation, as listed below. Results and recommendations from these exercises were considered in the development of this plan.

- **Corporate Climate Change Risk Assessment:**[9] This report undertook a screening-level climate change risk assessment at the major asset class level to better understand vulnerabilities to climate change within corporate operations. Results included a list of recommendations to improve climate resiliency. Without undertaking action, a number of CRD assets—including ecological assets and parks; trails, boardwalks and piers; wastewater treatment, storage and conveyance systems; roads; bridge and tunnel assets; and dams and weirs—are most likely to be impacted by climate change.

7. Special Report: Global Warming of 1.5°C, Summary for Policy Makers, IPCC, 2018. C.2.7 states that marginal abatement costs in modelled 1.5°C pathways are quite variable, but roughly 3-4 times higher than pathways limiting to 2.0°C (high confidence).

8. The Cost of Climate Adaptation, Federation of Canadian Municipalities and Insurance Bureau of Canada, 2019

9. Corporate Climate Change Risk Assessment, Stantec Consulting, 2021

- **Adaptation planning for the Greater Victoria Drinking Water Supply Area (GVWSA):** This involves mapping ecosystems, forest characteristics and invasive species to identify potential vulnerabilities to the projected impacts of climate change on the GVWSA. Analysis has pointed to the need to continue emphasizing wildfire prevention and post-fire rehabilitation to protect the water supply and source water quality.
- **Community Climate Change Adaptation Priorities for the Capital Regional District:**[10] Led by ICLEI Canada, the CRD, in partnership with four municipalities, conducted a two-year climate risk assessment for the region, known as the Together for Climate project. This work identified risks and recommended actions the CRD can undertake to further support community preparedness for climate change. Regional risks identified included sea level rise, watershed health, air quality and extreme heat, invasive species, wind, tree health and interface fires. While the CRD is already engaged in advancing preparedness on many of these fronts, it is also well-poised to build capacity across the region in response to local climate impacts. This project recommended the CRD take a leadership role in supporting community-focused actions.

10. https://icleicanada.org/wp-content/uploads/2020/10/CRD-Climate-Adaptation-Resource_FINAL.pdf

Greenhouse Gas Emissions: Now and Looking Forward

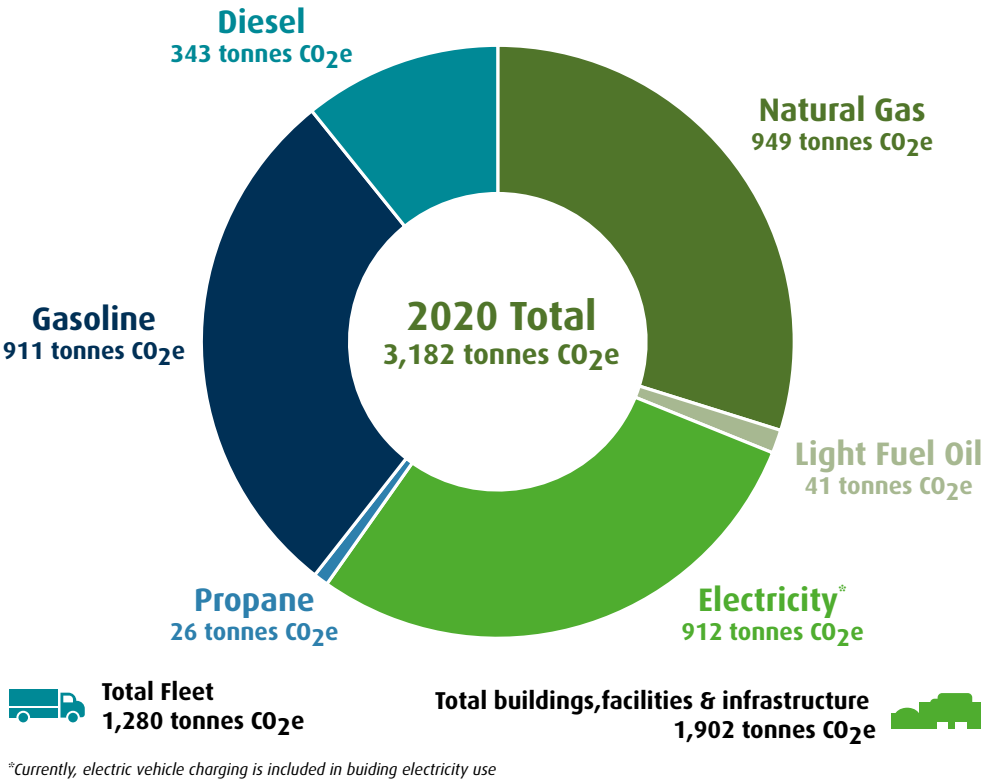
The CRD's Corporate GHG Emissions

In order to deliver services, the CRD operates buildings, infrastructure and a fleet of vehicles and equipment, which result in greenhouse (GHG) emissions – primarily from the use of fossil fuels. Since 2012, the corporation has annually tracked and reported its GHG emissions. Although the CRD's corporate emissions account for less than 1% of regional GHG emissions, reducing the organization's carbon footprint is an important area of action because the CRD can directly address these emissions through decisions made in the purchase, construction and operation of its assets and delivery of its services. In this realm, the CRD can take a leadership role in demonstrating how to rapidly eliminate GHG emissions.

2020 Corporate Emissions Profile and Business-as-usual Forecast

In 2020, the CRD's corporate operations resulted in roughly 3,182 tonnes of CO_2e, where operating fleet vehicles and equipment roughly account for 40%, and operating buildings, facilities and infrastructure account for 60% (see Figure 3). This represents an overall increase of 6% since 2007, while at the same time increasing service levels (including 24% increase in fleet size and 19% in staffing). This fell short of the 30% reduction target set for 2020.

Figure 3. Sources of greenhouse gas emissions from CRD Corporate operations in 2020



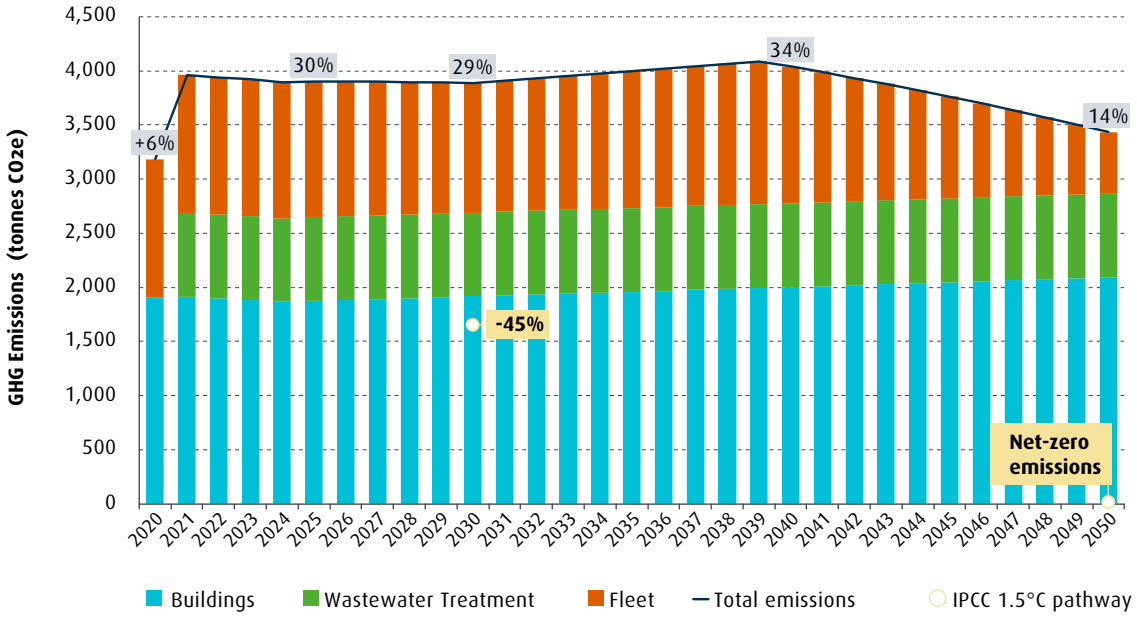
Currently, electric vehicle charging is included in buiding electricity use

Sufficient emission reductions cannot be achieved without an increased corporate effort. A **business-as-usual scenario** (see Figure 4) estimates the change in corporate GHG emissions going forward, based on anticipated changes in service levels to serve a growing population, together with the implementation of senior government policies and regulations currently in place and CRD projects with allocated budget (see Table 1 for a list of assumptions). Following this trajectory, the CRD's corporate GHG emissions are estimated to increase by 33% by 2040, then decrease to +13% relative to the 2007 baseline by 2050—demonstrating that substantial effort is needed to align with the climate emergency commitment.

Table 1. CRD Corporate business-as-usual greenhouse gas emissions scenario assumptions

Sector	Item	Description	Year
Fleet	BC Low Carbon Fuel Regulation	-10% emissions intensity gasoline, diesel	2021-2030
Fleet	Federal Heavy-Duty Vehicle GHG Regulation	-16% fuel use in replacement vehicles from 2027 relative to 2017	2027-2039
Fleet	BC Zero Emission Vehicle (ZEV) Regulation	100% of replacement vehicles are ZEV starting in 2040	2040-2050
Buildings	New McLoughlin Point Wastewater Treatment Plant	18.6 GWh electricity; 145 MWh natural gas estimated	2021
Buildings	Japan Gulch Ultraviolet Plant Upgrade	-60% electricity consumption	2022-2024

Figure 4. CRD Corporate greenhoiuse gas emissions: business-as-usual scenario, 2020-2050, with percent change relative to 2007 (tonnes CO_2e)



CRD Corporate Emissions Reduction Target: 2021-2030

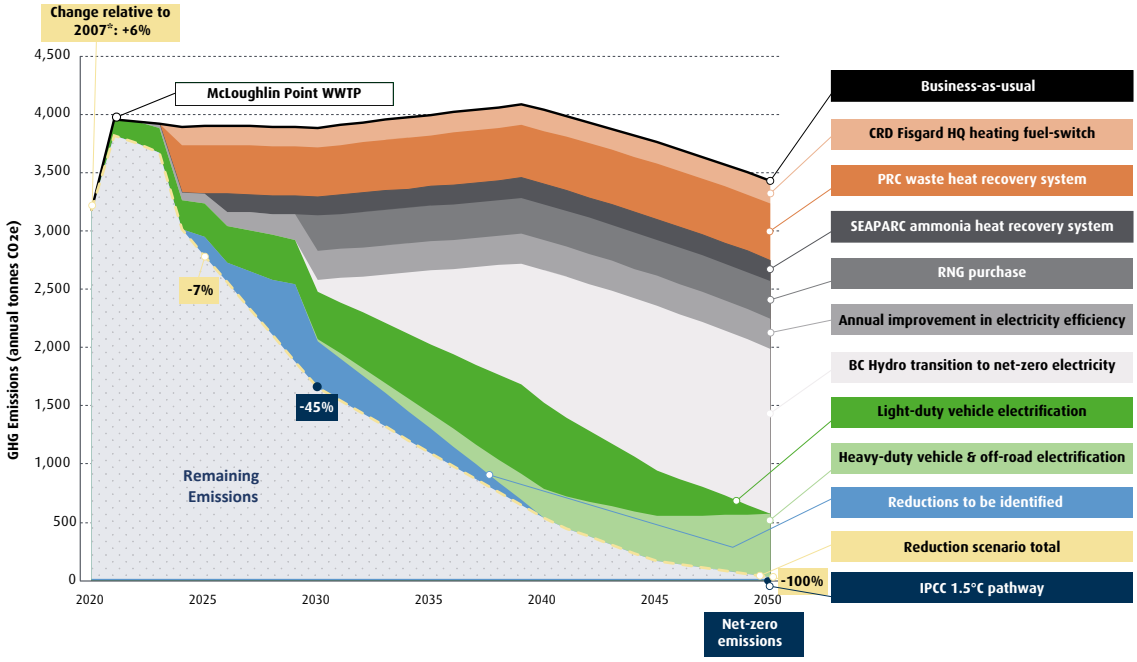
Though ambitious and requiring substantial resources and effort, the CRD can accomplish its reduction targets by ensuring the completion of several critical actions. This pathway includes the critical actions outlined in Table 2, with the resulting estimated impact of each shown in Figure 5. For reference, the IPCC 1.5°C scenario targets are shown in dark blue. Even with these critical actions, further effort is required to identify and implement additional means of reducing emissions.

Guided by the principles of leadership and urgency, the CRD will target to reduce GHG emissions from corporate operations 45% by 2030, relative to 2007, and be net-zero before 2050.

Table 2. Critical Actions of the CRD Corporate Climate Action Strategy Pathway

Sector	Critical Action	Year
Buildings	CRD Fisgard Headquarters heating fuel-switch from natural gas to electricity	2024
Buildings	Install Panorama Recreation Centre heat recovery system	2024
Buildings	Install SEAPARC Recreation Centre heat recovery system	2026
Buildings	Offset remaining gas use with renewable natural gas	2030
Buildings	Annual 5% improvement in electricity efficiency	2023-2030
Buildings	Transition to net-zero emissions electricity (BC Hydro)	2030-2045
Buildings	Maintain (or expand) operation of Saanich Peninsula Wastewater Treatment Plant district energy system	2025
Fleet	100% Light-duty vehicle and truck electrification	2021-2040
Fleet	Heavy-duty and off-road vehicle electrification and renewable fuel use	2030-2050
All	Identify and implement additional reductions of 400 tonnes CO_2e by 2030	2021-2030

Figure 5. CRD Corporate GHG emissions: Climate Action Strategy scenario, 2020-2050 (tonnes CO_2e)



* *Percentage change in GHG emissions in 2020 relative to 2007 is different from the CRD's 2020 Climate Action Annual Report. Corporate GHG emissions inventories and projections in this document have been adjusted to reflect the province-wide reporting change in the BC Hydro's electricity emissions factor, which increases from 10.67 tCO_2e per GWh of BC Hydro electricity to 40.1 tCO_2e per GWh, starting in 2021. This increase reflects the reality that BC Hydro periodically imports high-GHG electricity from other regions*

Regional GHG Emissions

2018 Capital Region Emissions Profile

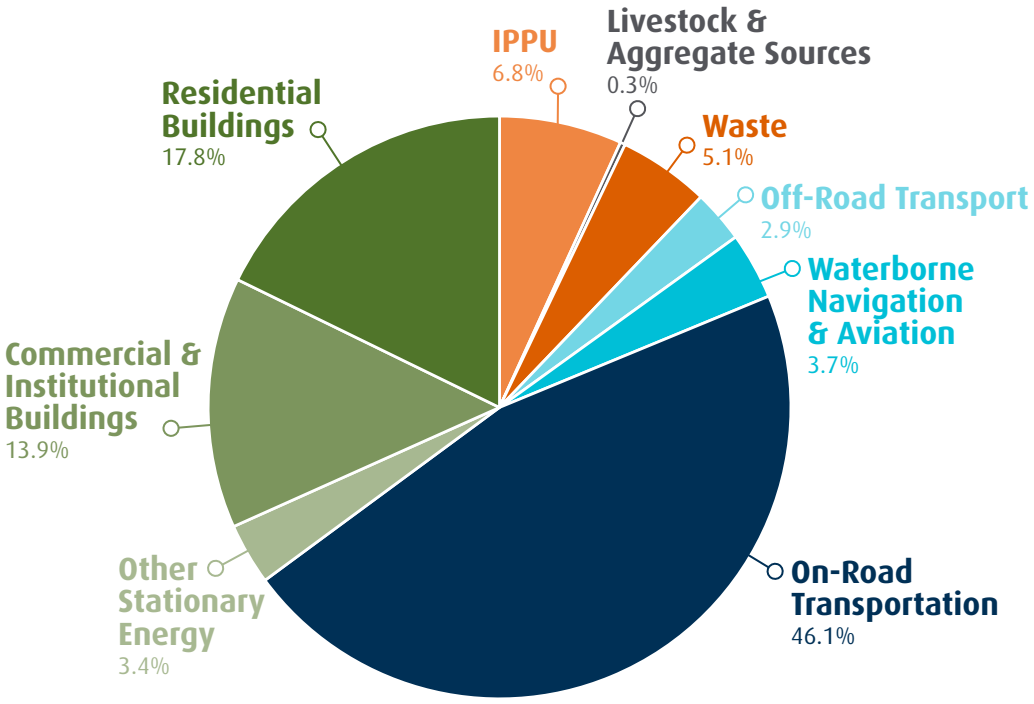
In 2020, the CRD completed a regional energy and emissions inventory to provide a more complete picture of the region's energy consumption and GHG emissions. This followed the Global Protocol Community-Scale Greenhouse Gas Emission Inventories BASIC+ Framework, and included territorial GHG emissions from: stationary energy (e.g., buildings), transportation (e.g., commuter vehicles), waste (e.g., landfills), industrial processes and product use (IPPU), and agriculture, forestry and other land use (e.g., fertilizer application).

The study conducted for the 2018 year shows that approximately 1.7 million tonnes of CO_2e emissions are emitted annually in the capital region, which is relatively unchanged from 2007 levels.[11] Although this does not represent a significant reduction from the 2007

11. Capital Regional District 2018 GPC BASIC+ Community Greenhouse Gas (GHG) Emissions Inventory Report, Stantec, 2020

baseline, the total GHG emissions per capita has decreased by 14%. The two largest sources of GHG emissions in this inventory are transportation – accounting for almost half of regional GHG emissions, and buildings – accounting for another third of regional GHG emissions.

Figure 6. Sources of regional GHG emissions, 2018

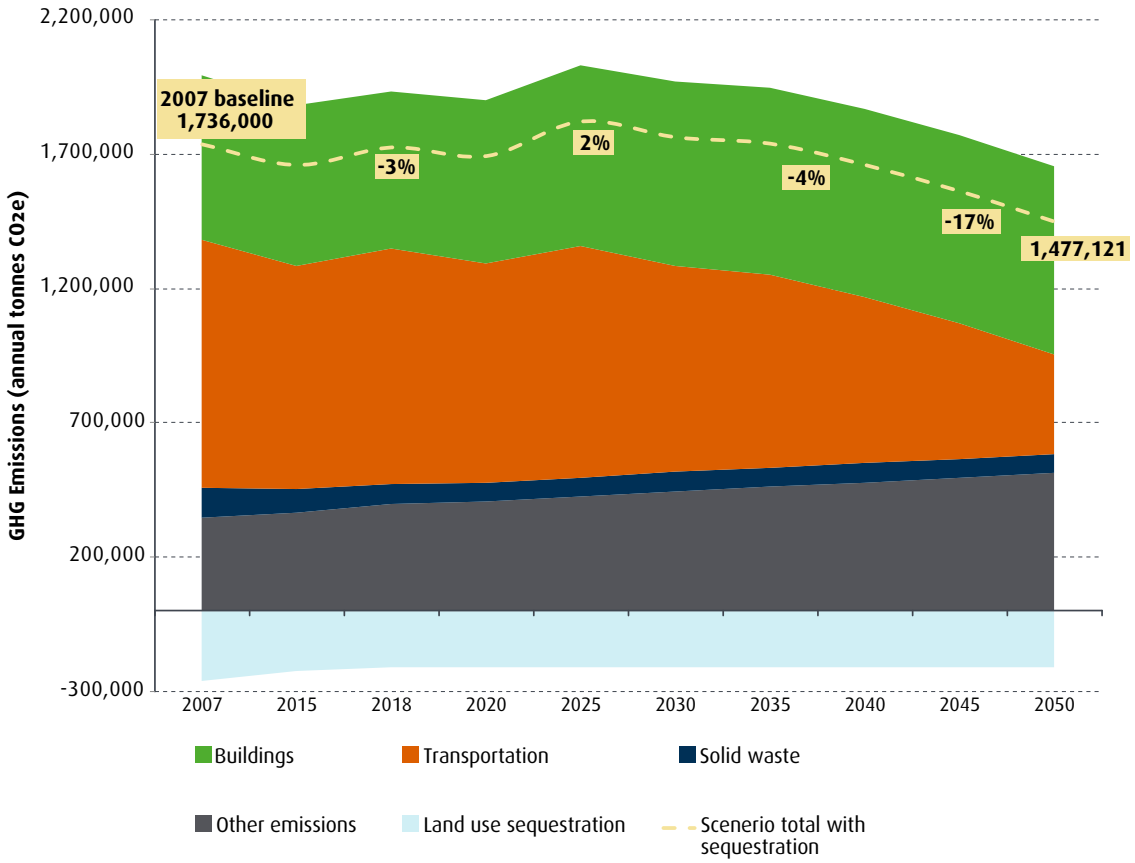


Capital Region Business-as-Usual Emissions Forecast

Continued strong population growth is anticipated for the capital region over the coming decades. Historically, energy consumption and levels of GHG emissions have shown a strong correlation with population growth, though this is weakening over time due to changes in land use and transportation mode shift in urban areas, and more efficient buildings, infrastructure and technology. Although current trends indicate that energy consumption and GHG emissions may reduce over time, much more significant shifts are needed to address the climate emergency. Based on the Capital Regional District 2019-2038 Population, Dwelling Units and Employment Projection Report, the population is anticipated to exceed 450,000 by 2028 and almost 500,000 by 2040, an increase of 20% by 2038, relative to 2019. If the population continued to grow at this rate, the CRD's population would reach over 540,000 by 2050.

Under the assumption that senior governments continue to implement the climate policies and regulations they have committed to, the forecast shown in Figure 7 can be considered a business-as-usual scenario for region-wide GHG emissions. This forecast estimates GHG emissions over time if only senior government policies are implemented and no additional action is taken by the CRD, local governments, residents, businesses, industry and organizations in the region. Under this scenario, GHG emissions are forecast to decrease over time, reaching -23% by 2050; clearly insufficient to align with the climate emergency.

Figure 7. Capital region-wide GHG emissions: Business-as-usual scenario, 2007-2050 (tonnes CO^2e)



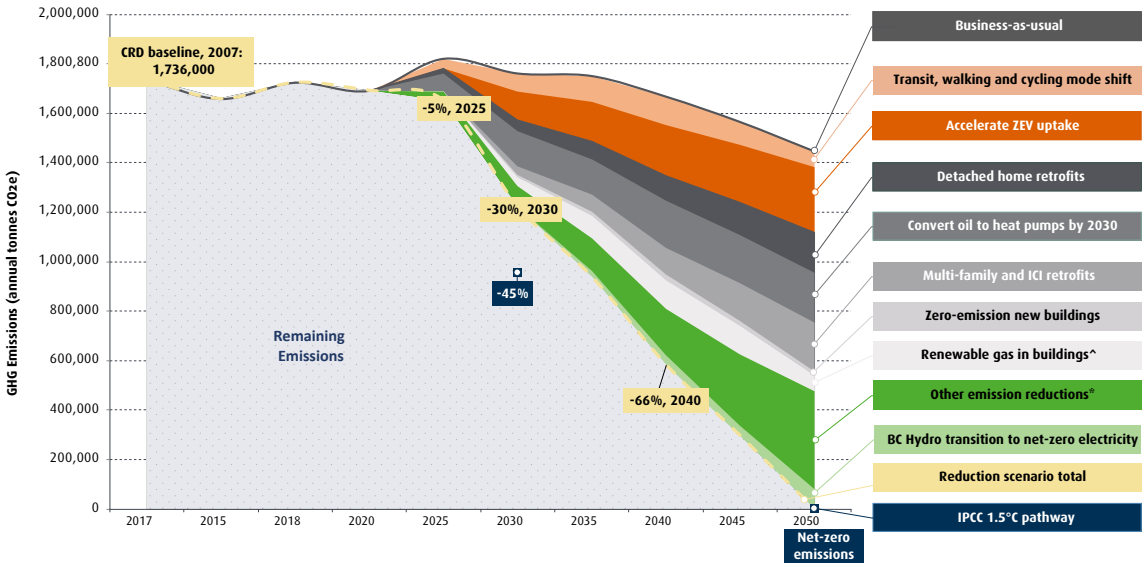
Rapidly Reducing Emissions While Increasing Resilience

A second region-wide scenario, called the **Climate Action Strategy** scenario, demonstrates one potential future trajectory for regional GHG emissions, though there are many more possible outcomes that depend on numerous factors beyond the CRD's control. This GHG emission reduction scenario cannot be achieved by the actions of the CRD alone; it shows the

potential outcome if all players do their part, including the CRD, by investing in the transition off fossil fuels. The scenario shows a pathway to achieve the CRD's regional GHG emission reduction target for 2038 and approach net-zero emissions by mid-century. However, it falls short of meeting the Intergovernmental Panel on Climate Change 1.5°C scenario of reducing global emissions by 45% by 2030, from 2010 levels. **Additional measures need to be identified over the tenure of this plan to address the climate emergency.**

The actions identified in this strategy articulate how the CRD intends to play a leadership role in advancing the initiatives in its areas of influence in the near term. Figure 8 shows the potential reductions in regional emissions from different climate initiatives and Figure 9 shows the emissions that would remain after these reductions. This scenario assumes that the remaining emissions will be reduced by carbon sequestration from land use protection. This is shown as negative emissions in Figure 9 and subtracts from the total remaining emissions, resulting in the dotted-yellow reduction scenario pathway line. Land use protection ensures that natural areas continue to act as a carbon storage through mid-century.

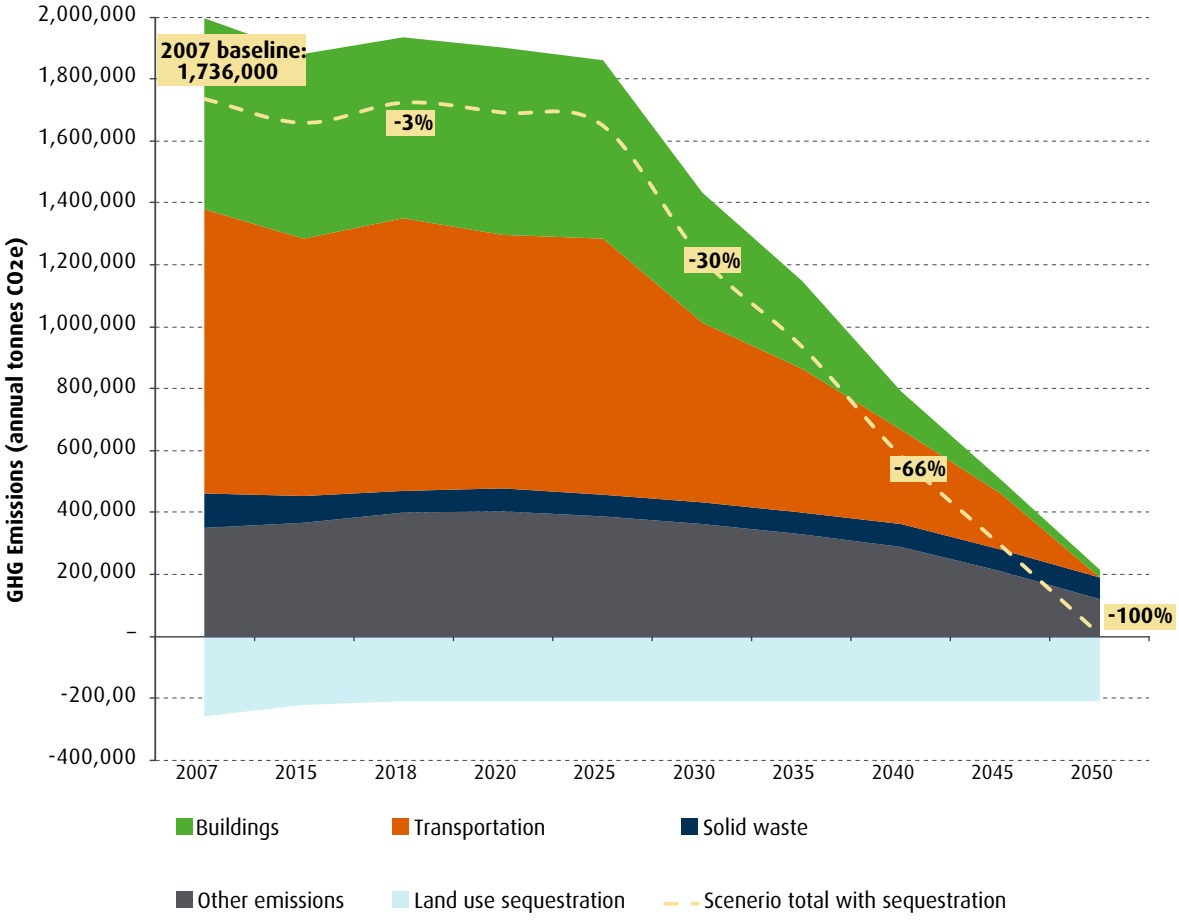
Figure 8. Capital region-wide GHG emissions: Climate Action Strategy scenario, 2007-2050 (tonnes CO_2e)



^ Renewable gas may include several sources, e.g., captured landfill gas, gas from anaerobic digesters, future supply of hydrogen gas.

** Other emissions sources include agriculture, forestry, other land use, fugitive, marine and aviation, product use*

Figure 9. Capital region-wide GHG emissions: Climate Action Strategy remaining emissions, 2007-2050 (tonnes CO_2e)



The CRD's Five-year Action Plan

As highlighted above, substantial action is needed from many parties to set the corporation and the region on paths that align with maintaining global temperature increase below 1.5°C, and that helps us prepare for the climate changes already evident. This section highlights six goal areas where the CRD will focus its efforts, together with numerous actions that will be undertaken by several different services across the organization. As highlighted in the vision and guiding principles, the CRD will also need to work collaboratively with several other organizations, and some of these key partner roles are highlighted below. **Appendix C provides a consolidated list of actions and related sub-actions**, including which division(s) are responsible for leading and supporting the actions, estimated timing of action implementation and whether additional resources are needed.

Climate Action Strategy Goals

- **Climate-focused decision making**
- **Sustainable land use, planning and preparedness**
- **Low-carbon mobility**
- **Low-carbon and resilient buildings and infrastructure**
- **Resilient and abundant nature, ecosystems and food systems**
- **Minimized waste**

Climate-Focused Decision Making

Goal 1: Climate action priorities are integrated at all levels of decision making across the organization.

In order to provide its wide range of services, the CRD maintains and operates vehicles, equipment, buildings, facilities, infrastructure, landfills, paths and parks. Decisions made in each service area can have implications for the amount of GHG emissions generated or sequestrated by CRD assets over time, as well as how prepared these assets are for the changing climate.

There are a number of options to further integrate climate action into the decision-making process, including using a standard climate lens framework that demonstrates the climate impact of operational decisions and identifying an internal carbon price to help with business cases for energy efficiency and emission reduction measures. Effective implementation will require allocating appropriate internal funding and rolling out organizational change efforts to accompany new policies. Through this process, the CRD can also improve the organizational understanding of Indigenous knowledge, laws and perspectives in relation to climate solutions to inform how the CRD approaches climate action.

The CRD's Role

Operational decision making: Decisions at the CRD are guided by various corporate processes and procedures, including budget and capital planning, procurement, asset management and service planning. The CRD can update these to ensure they reflect the climate emergency priority.

Partners' Roles

Utilities: To support the CRD's efforts to improve energy efficiency and reduce GHG emissions through co-funding of staff resources and providing grants and funding to undertake projects.

Federal and Provincial governments: To ensure BC's electricity grid transitions to zero emissions, and to strengthen policies and programs that support rapid market transformation toward zero-emission buildings, infrastructure, vehicles and equipment.

Service providers: To supply CRD with options for reducing emissions during the procurement process.

Actions at a Glance

See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Corporate actions	Lead CRD divisions
Integrate and standardize the climate lens framework across processes	Environmental Protection Financial Services Legal Services Regional & Strategic Planning
Develop internal carbon pricing policies and procedures	Environmental Protection Financial Services
Identify internal funding sources for climate action	Environmental Protection
Support staff capacity building and coordination	Environmental Protection
Investigate how Indigenous knowledge can inform climate action at CRD	First Nations Relations

Sustainable Land Use, Planning and Preparedness

Goal 2: Support the region on its pathway to livable, affordable and low-carbon communities that are prepared for climate change.

How land use is managed has a strong influence on the regional GHG emissions, by affecting how far we travel to daily amenities, school, work, etc., how we choose to get to those places, as well as affecting how much land can be protected as carbon sinks. The 2018 Regional Growth Strategy (RGS) sets a regional vision and high-level policies for growth management. The key provision is to contain 95% of growth in designated areas, and to concentrate growth in a way that is connected. In turn, this helps protect the region's parks and resource lands. The RGS, which encompasses the entire capital region except for the Islands Trust Areas, sets forth objectives, policies and targets to address climate change and highlights the connection between land use and climate change.

In addition to land use, planning and preparedness efforts across the region are important to increase the resilience of the region by increasing our ability to cope with hazardous or emergency events and other impacts that result from a changing climate. For example, emergency response plans need to be reviewed and refined over time, particularly as the context of our climate changes and shifts to include more extreme weather events that may require responses not anticipated or experienced in the past.

The CRD's Role

Regional planning: The CRD leads the development, monitoring and progress reporting of the RGS.

Juan de Fuca land use planning: The CRD is directly responsible for land use planning in the Juan de Fuca Electoral Area.

Emergency management in electoral areas: The CRD is responsible for emergency management, emergency response, fire protection, and search and rescue in the electoral areas.

Inter-municipal coordination: In relation to climate action, regional planning and emergency management, the CRD facilitates numerous committees that support this goal area: CRD Climate Action Inter-Municipal Working Group, CRD Climate Action Inter-Municipal Task Force, the Development Planning Advisory Committee, the Regional Emergency Management Partnership, Local Government Emergency Program Advisory Commission and the Regional Emergency Planning Advisory Commission.

Data management: The CRD supports an improved understanding of regional climate change issues and opportunities by collecting, analyzing and sharing information with regional partners.

Partners' Roles

Municipalities: Support regional growth planning and make local land use planning decisions.

Islands Trust: Make land use planning and policy decisions for Salt Spring Island and the Southern Gulf Islands electoral areas.

Provincial government: Owns various regulations (including BC Local Government Act and the Emergency Program Act), which provide the legislative framework for the CRD and its local governments. The Ministry of Transportation and Infrastructure is responsible for subdivision approvals in the electoral areas.

First Nations: The CRD will look to First Nations for leadership in understanding how to create new regional planning and decision-making systems together on their Traditional Territories.

Actions at a Glance

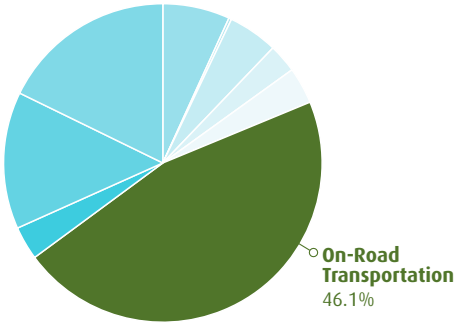
See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Corporate actions	Lead CRD divisions
Incorporate climate hazards and vulnerabilities into corporate CRD emergency response plans	Protective Services

Community-focused actions	Lead CRD divisions
Monitor Regional Growth Strategy	Regional & Strategic Planning
Integrate climate impacts into Juan de Fuca land use plans and policies	Juan de Fuca Planning
Collect and share pertinent energy, emissions, climate projections and vulnerability data	Environmental Protection
Identify innovative actions to close the regional 2030 emissions reduction gap	Environmental Protection
Coordinate regional climate action, collaboration and capacity building among local governments and interested First Nations	Environmental Protection First Nations Relations Health & Capital Planning Protective Services Regional & Strategic Planning
Incorporate regional climate projections into electoral area emergency planning and enhance FireSmart efforts	Protective Services
Coordinate with emergency management stakeholders on planning and public outreach activities related to climate risks	Environmental Protection
Investigate Transition Salt Spring Island 2.0 Climate Plan implementation	Salt Spring Island Administration

Low-Carbon Mobility

Goal 3: Rapidly reduce corporate fleet emissions. Support, endorse and encourage active, public and zero-emission transportation options across the region.



Almost half of the region's greenhouse gas (GHG) emissions come from transportation (cars, buses and trucks moving people and goods around). Not only do these vehicles release significant GHG emissions, they're also leading to increased traffic congestion in peak periods. Shifting from a vehicle-focus to a low-carbon mobility focus means improving the options to get more people walking, biking and taking transit. Currently, these make up about 27% of trips in the region, but the goal is to reach 45% by 2038.

For trips that use a vehicle, rapidly switching to electric vehicles (EVs) will require building out charging infrastructure throughout the region – making sure they are accessible to those who live in all types of homes and at key locations across the region.

For heavy-duty vehicles and equipment that have no suitable electric option in the near term, alternatives to fossil fuels, such as biodiesel and renewable diesel, can provide an interim option to rapidly reduce emissions where supply is available.

The CRD's Role

CRD fleet: The CRD owns and operates a fleet of approximately 300 vehicles to provide its many services across the region.

Regional trail system: The CRD is responsible for the planning, design, operation, maintenance, regulation and funding of a regional trail system that acts as an active transportation spine.

Regional planning: Together with member municipalities, the CRD developed and implements a Regional Transportation Plan and Regional Pedestrian and Cycling Master Plan.

Electoral area transportation: The CRD provides project management for transportation plans and projects and is a local partner for transit initiatives. The CRD plays an advisory role to the Ministry of Transportation & Infrastructure, which manages the road networks in the Juan de Fuca, Salt Spring Island and Southern Gulf Islands Electoral Areas.

Data management: The CRD collects, analyzes and shares data and information on regional transportation patterns, trips and modes, as well as undertaking modelling activities and providing policy support.

Community programs: The CRD supports local governments and partner agencies to plan for and implement a regional multi-modal transportation system, advance active transportation and electric vehicle programming and support transport projects that benefit the region as a whole.

Partners' Roles

Federal and provincial governments: Implement policy to achieve federal and provincial climate targets, including vehicle emission standards, zero emission vehicle sales, carbon tax, and low carbon fuel standard. Senior governments also provide funding for large infrastructure projects, and are responsible for road infrastructure in electoral areas, highways and through First Nations reserves.

Municipalities: Provide local roads, sidewalks, cycling infrastructure and trails, create land use and development plans, and develop bylaws to support low-carbon travel.

BC Transit: Manage Victoria Regional Transit system operation, advise Victoria Regional Transit Commission, fund provincial portion of the system, partner with Salt Spring Island Transit.

Victoria Regional Transit Commission: Determine transit route configurations, service levels and fares, review and recommend annual operating budgets and capital spending.

Salt Spring Island Transportation Commission: Serve as an advisor to the CRD and to BC Transit on matters related to the transit service and to transportation-related community needs and projects.

First Nations: The CRD will look to First Nations to identify priorities for working together on transportation initiatives.

Actions at a Glance

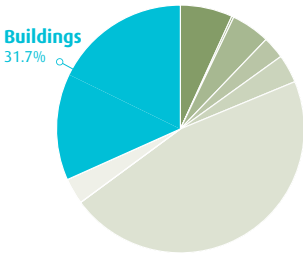
See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Corporate actions	Lead CRD divisions
Administer and track the new Green Fleet Policy	Customer & Technical Services
Develop electric vehicle (EV) adoption and right-sizing plan for the corporate fleet	Customer & Technical Services Environmental Protection
Develop EV infrastructure plan for the corporate fleet	Environmental Protection Facilities Management & Engineering Services
Investigate the feasibility of bio-based diesel supply and storage for shared regional use	Customer & Technical Services

Community-focused Actions	Lead CRD divisions
Develop a region-wide approach to transportation demand management and safety policy	Regional & Strategic Planning
Collect, analyze and distribute transportation planning data regionally	Regional & Strategic Planning
Accelerate infrastructure improvements that support active transportation	Regional & Strategic Planning Regional Parks Salt Spring Island Administration Southern Gulf Islands Administration
Lead and support regional education programs focused on zero-emission mobility	Environmental Protection Regional & Strategic Planning
Support acceleration of transit improvements and increased service	First Nations Relations Regional & Strategic Planning Salt Spring Island Administration Southern Gulf Islands Administration
Support a public electric vehicle charging network and encourage uptake of zero-emission vehicles	Environmental Protection
Implement Regional EV Charging Roadmap	Environmental Protection
Improve internet access on Southern Gulf Islands	Southern Gulf Islands Administration

Low-Carbon and Resilient Buildings and Infrastructure

Goal 4: Accelerate energy efficiency, emission reductions and enhanced resilience in CRD buildings and infrastructure. Support and encourage the same for all buildings and infrastructure across the region.



Approximately one-third of regional greenhouse gas emissions come from energy used in buildings across the capital region, almost all of which is from fossil fuels for space heating and hot water. Shifting from relying on fossil fuels for space heating and hot water and improving the energy efficiency of our buildings are key to achieving GHG reduction targets. Further, this can support resiliency measures, which may be increasingly important with anticipated increases in high temperatures during the summer. Renewable fuels (such as renewable natural gas or a future supply of green hydrogen) may also provide an alternative for some applications.

While newly-constructed buildings are often more energy efficient, it is important to consider the embodied carbon in the materials selected for those buildings and the emissions associated with construction. Some materials require very high emissions to produce and therefore contribute to increased emissions globally.

As our climate changes, it is increasingly important to prepare our buildings and infrastructure for anticipated changes, which could affect the types of materials and systems selected, the capacity of infrastructure (like stormwater pipes), what climate information to use in design, how the building performs during power interruptions, and how buildings can provide community shelter or emergency support.

The CRD's Role

CRD buildings and infrastructure: The CRD owns and operates a large amount of buildings and infrastructure across its various services, including:

- Administration and operation centres.
- Residential care, social and affordable housing.
- Recreation and community centres.
- Roads, bridges, tunnel, dams and weirs.
- Trails, boardwalks and piers.
- Water storage, treatment and conveyance systems.

Building inspection: The CRD enforces the BC Building Code in the Juan de Fuca Electoral Area, the Southern Gulf Island Electoral Area, Salt Spring Island Electoral Area and, upon request, in First Nations communities.

Data management: The CRD collects, analyzes and shares data and information relevant to new and existing buildings and infrastructure.

Community programs: The CRD offers community programs to educate the public and encourage and incent efficient and low-carbon buildings across the region, including coordinating regional initiatives.

Partners' Roles

Federal and provincial governments: Set building code and equipment standards, and provide funding for incentive programs to support building retrofits to higher energy efficiency and alternative energy systems.

Municipalities: Issue building permits and enforce the BC Building Code, set development permit area requirements, and deliver education and incentive programs.

Islands Trust: Set development permit area requirements.

Utilities: Provide reliable energy, deliver demand-side management programs including incentives, increase capacity for energy efficiency retrofits, and provide educational outreach on building technologies and alternative energy systems.

First Nations: The CRD will look to First Nations to identify priorities for working together on First Nations' building and infrastructure-related initiatives.

Actions at a Glance

See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Corporate actions	Lead CRD divisions
Develop and implement a corporate Green Building Policy	Environmental Protection Facilities Management & Engineering Services
Develop and implement a Strategic Energy Management Plan	Environmental Protection Facilities Management & Engineering Services
Conduct energy studies for CRD facilities to identify priority emission reduction and energy efficiency projects	Environmental Protection Panorama Recreation Salt Spring Island Administration SEAPARC Water and Wastewater Infrastructure Operations/Engineering
Complete identified high-impact retrofits to CRD facilities	Facilities Management & Engineering Services Panorama Recreation SEAPARC
Pursue climate-friendly development and retrofits for Capital Region Housing Corporation and Capital Region Hospital District facilities	Environmental Protection Health & Capital Planning Regional Housing
Consider climate impacts in risk assessments and infrastructure upgrades	Water and Wastewater Infrastructure Operations / Engineering Watershed Protection

Community-focused actions	Lead CRD divisions
Implement a Regional Energy Retrofit Program	Environmental Protection
Develop, deliver and support building-related energy, emissions and water education	Environmental Protection
Support acceleration of regional building energy benchmarking and local government regulation approaches	Environmental Protection
Coordinate high-performance building policy support and capacity building activities	Environmental Protection
Collect and share data and research on building energy use and emissions	Environmental Protection
Promote green infrastructure and improved stormwater management approaches	Environmental Protection
Understand climate impacts on groundwater resources in Juan de Fuca Electoral Area	Juan de Fuca Planning
Investigate regional renewable energy and storage potential	Environmental Protection

Resilient and Abundant Nature, Ecosystems and Food Systems

Goal 5: Protect, conserve and manage ecosystem health and nature's capacity to store carbon and adapt to climate change. Support the ongoing ability of natural systems to sustain life.

Green spaces, blue spaces and parks provide important services to store carbon in vegetation and soils, while at the same time providing ecological services that support the region's resilience to climate change, and providing buffers to extreme weather events. For example, the forests in the Greater Victoria Water Supply Area contribute to the high quality of water in the supply reservoirs, and green spaces in urban and suburban areas provide natural cooling capacity. In contrast, the built environment largely absorbs heat from the sun, which results in the urban heat island effect. As temperatures in the region rise, natural areas can also serve to reduce the need for energy-intensive air conditioning and provide accessible areas of respite for all residents.

Monitoring ecological changes over time and sharing this across all levels of government, including First Nations, as well as community organizations and citizens can increase our collective understanding of the impacts of these changes and inform how we can collectively respond to support the health of our ecosystems.

The CRD's Role

Land stewardship: Several services within the CRD play an important role in stewarding the CRD's lands, including:

- Managing over 13,000 hectares of natural areas in 34 regional parks and three regional trails.
- Managing over 20,000 hectares of forested land in three watersheds that supply potable water to residents.
- Managing a system of community parks across Salt Spring and the Southern Gulf Islands.

Land acquisition: The CRD plans for future acquisitions, restores and conserves natural resources, and offers interpretive programs for the continued stewardship of regional parks and trails.

Community and inter-municipal coordination: The CRD supports or coordinates a number of stewardship groups related to parks, watershed and harbour protection and invasive species management.

Education and outreach: The CRD develops and delivers education and outreach to help build regional resiliency, promote stewardship, and protect and conserve ecosystems.

Regional planning: The CRD does not have a specific mandate over food and agriculture. However, the CRD administers a Food and Agriculture Task Force to support the goals in the 2016 Regional Food & Agriculture Strategy for a resilient food and agriculture system.

Partners' Roles

Federal and provincial governments: Manage parks and waterbodies in their jurisdictions (e.g., Gulf Islands National Park Reserve, Goldstream Provincial Park, Race Rocks Marine Protected Area), manage forested areas, provide funding and information resources.

Municipalities: Collaborate with the CRD in defining a direction for regional parks, implement integrated watershed management, manage municipal parks and trails, create urban forest strategies, and make land use planning decisions and manage environmental development permit areas.

Islands Trust: Local trust committees make land use planning decisions and manage environment development permit areas. They collaborate with the CRD for new parks when subdividing or rezoning. The Islands Trust Fund secures land in nature reserves and through conservation covenants and collaborates with CRD Parks on projects, as appropriate.

First Nations: The CRD will look to First Nations to identify priorities for working together on nature-based, ecosystem and food initiatives within and around their Traditional Territories.

Actions at a Glance

See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Corporate actions	Lead CRD divisions
Integrate climate considerations into regional parks strategic planning and management	Regional Parks
Monitor ecosystem health in the Greater Victoria Water Supply Area (GVWSA) and investigate expanding regionally	Regional Parks Watershed Protection
Undertake climate adaptation initiatives to increase the resilience of the GVWSA	Watershed Protection

Community-focused actions	Lead CRD divisions
Provide regional and local ecological data to support planning and policy efforts	Environmental Protection
Coordinate regional invasive species program	Environmental Protection
Support regional forest and urban tree programs	Environmental Protection
Support Indigenous-led monitoring and restoration programs	Environmental Protection First Nation Relations
Support local food and agriculture planning and programs	Environmental Protection Regional & Strategic Planning
Integrate climate impacts and solutions into education and outreach campaigns	Environmental Protection Integrated Water Services Regional Parks Salt Spring Island Administration Southern Gulf Islands Administration

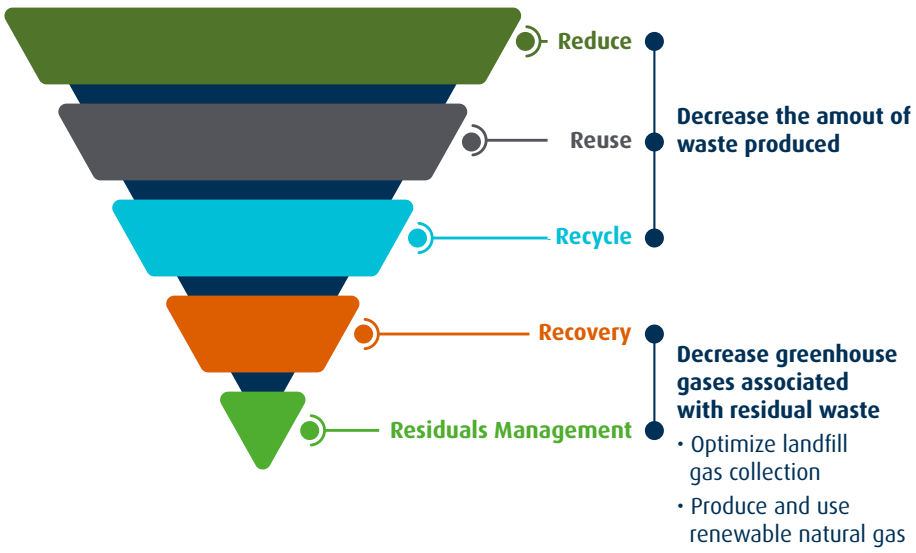
Minimized Waste

Goal 6: Waste generation and the resulting emissions are minimized and remaining waste is transformed into a resource. Follow the 5R pollution prevention hierarchy.

When we buy products and dispose of the waste, we also contribute to greenhouse gas (GHG) emissions in the region. About 6% of regional GHG emissions are associated with waste—and the majority of this comes from decomposing organic waste that was added to Hartland Landfill over the last several decades (e.g., food scraps and construction wood waste).

The most effective way to reduce future emissions from the landfill is to follow the 5R hierarchy – focusing first on decreasing the amount of waste produced, then on decreasing the GHG emissions from remaining waste (see Figure 10). The CRD continues to actively manage residual GHG emissions by maximizing the efficiency of the landfill gas capture system and converting the captured gas into an energy resource. A small portion of the region's waste emissions result from management of liquid waste. Liquid waste management can also provide an opportunity for resource recovery, energy efficiency and energy generation.

Figure 10. 5R pollution prevention hierarchy



The CRD's Role

Solid Waste Management Plan: The CRD is responsible for solid waste management in the region and provides three major services: diversion (recycling and waste diversion programs), recovery (landfill gas capture and energy generation) and landfilling (disposal services and environmental protection).

Waste is seen as a resource and the CRD seeks the highest and best use for these resources, as demonstrated by initiatives such as methane gas capture and the ban on kitchen scraps from the landfill.

The CRD's efforts on solid waste are guided by the Solid Waste Management Plan, which provides a high-level, long-term vision of how to manage solid waste in accordance with the pollution prevention hierarchy, in accordance with the requirements under the provincial Environmental Management Act.

Liquid Waste Management Plan: The CRD, in cooperation with local municipalities, electoral areas, Island Health and industry, works together to develop local services to manage and monitor sewage infrastructure and treatment, stormwater infrastructure and septic systems. These programs and services are aimed at protecting human health, local streams, creeks, the ocean and our environment.

Education and outreach: The CRD delivers education and outreach programs that support the solid waste and liquid waste management services.

Partners' Roles

Federal and provincial governments: Set policies that guide local government and industry waste diversion performance and landfill management and reporting.

Municipalities: Collect solid waste and organics, where applicable.

Industry: Provide waste and recyclable services for residents and businesses without municipal services. Provide funding for products covered under the provincial Recycling Regulation (e.g., printed paper and packaging, paint, electronics, etc.).

Non-profits: Operate recycling facilities on the Southern Gulf Islands. Greater Victoria Compost Education Centre provides composting education to residents across the capital region.

First Nations: The CRD will look to First Nations to identify priorities for working together on waste reduction and management initiatives.

Actions at a Glance

See Appendix C for related sub-actions, the CRD divisions supporting them, estimated timing of action implementation and whether additional resources are needed.

Community-focused actions	Lead CRD divisions
Implement the Solid Waste Management Plan	Environmental Resource Management
Develop and deliver education programs to promote a circular economy, zero waste and the first 3Rs (reduce, reuse and recycle)	Environmental Resource Management
Support education and engagement on waste management to be delivered by and for First Nations communities	Environmental Resource Management
Continue to maximize and optimize the capture of landfill gas for beneficial use	Environmental Resource Management
Consider climate change impacts in liquid waste management	Environmental Protection

Implementation and Reporting

Climate action is integrated into work plans across the CRD departments, divisions and services. Over the next five years, the actions contained within this strategy will be implemented by almost two dozen service areas across the organization (see Appendix B and C). The CRD's Climate Action Program will be responsible for coordinating, monitoring and reporting on this Five-year Climate Action Strategy. Collaboration and involvement of staff across the organization and throughout the community will be integral to its success.

As progress is made in the implementation of this action plan, knowledge and understanding of the growing impacts of climate change will continue to develop, as will new opportunities for accessing external funding. To remain flexible and adaptable, and support implementation over time, program staff will:

- continue to identify opportunities for external funding to support strategy goals and actions.
- participate in regional and provincial forums to share best practices with others and learn from Indigenous knowledge and approaches to climate action.
- remain up-to-date with climate science and potential risks and impacts for the capital region.
- continue to provide data, information and policy support to local government climate action efforts.
- provide updated information about climate change projections and risks to senior management and the Board to inform decisions.
- continue to monitor data to track progress over time.

- identify opportunities for increasing public awareness on climate change risks and opportunities.
- evaluate progress annually and adjust actions, as needed.
- continue to provide annual progress reports to the CRD Board on the Climate Action Strategy.

Other services in the CRD are responsible for leading or supporting actions identified in this strategy, as listed in the detailed action plan (see Appendix C). These services are also responsible for reporting progress annually and supporting with the review and adjustment of actions, as needed.

Performance Indicators and Reporting

Staff will continue to publicly report annually on the progress being made in the implementation of the Five-year Climate Action Strategy. Table 3 summarizes the success measures identified for each goal area proposed for annual reporting. For each goal area, a corporate action status and/or a community-focused action status will reflect general progress made toward all actions in that goal. This helps to summarize at-a-glance progress made on actions that may not be easily measurable or reflected in another indicator, such as actions that are ongoing or taking place over a long period. For other measures, an icon is provided to indicate the desired direction of the measure over time (increasing or decreasing), if applicable, or if the measure is intended to provide contextual information.

In addition to these measures, annual reports to the Board and public will identify key achievements and successes, partnerships and any major barriers.

Table 3. Annual reporting measures

Goal area	Corporate	Community-focused
Goal 1: Climate-focused decision making	Corporate action status	N/A
	Annual CRD Corporate GHG emissions	
Goal 2: Sustainable land use, planning and preparedness	Corporate action status	Community-focused action status
		Regional GHG emissions
		Number of net new dwelling units in areas where more than 42% walk/bike/bus to work*
Goal 3: Low-carbon mobility	Corporate action status	Community-focused action status
	Annual CRD corporate fleet GHG emissions	Regional GHG emissions from transportation
	Number of corporate electric vehicles (EVs) purchased/combustion vehicles replaced	Percentage of total trips made by walking, cycling and transit in the Growth Management Planning Area*
	Number of EV chargers installed	Percentage of the Regional Trail Network completed*
		Number of public EV chargers installed
		Annual EV ICBC registrations (region fleet size)
		Victoria Transit Region fuel sales

Goal area	Corporate	Community-focused
Goal 4: **Low-carbon and resilient buildings and infrastructure**	Corporate action status	Community-focused action status
	Annual CRD corporate facilities GHG emissions	Regional GHG emissions from buildings
	Number of critical emissions reduction projects completed	Natural gas use: • Annual FortisBC consumption numbers • Annual FortisBC connections
	Number of site energy audits completed	Number of fossil-fuel-heated homes sold each year in the capital region
Goal 5: **Resilient and abundant nature, ecosystems and food systems**	Corporate action status	Community-focused action status
	Number of volunteer stewardship hours	Percentage of Sea-to-Sea Green/Blue Belt acquired (RGS)
		Hectares of regional parkland
		Hectares of farmland in the Growth Management Planning Area*
Goal 6: **Minimized waste**	N/A	CRD's per capita disposal rate (reported via *Solid Waste Management Plan* target to reduce to 250kg or less by 2030)

* *Metrics will be drawn from Regional Growth Strategy indicator reporting.*

Adaptive Management

As implementation of this strategy progresses, it will be vital to track progress and assess whether identified actions need to be adapted, shifted to different times or focus, updated to reflect changing context and/or opportunities. Through this process, the CRD will be guided by the underlying guiding principles.

After five years of implementation, the CRD will undertake a thorough review and update to determine what actions are needed to continue advancing the corporation and the region to drastically reduce GHG emissions and foster healthy and resilient communities and natural areas.

Appendix A: Glossary

Adaptation: The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effect.[1]

Biodiversity: The variability among living organisms from terrestrial, marine and other ecosystems. Biodiversity includes variability at the genetic, species and ecosystem levels.[1]

Capacity building: The practice of enhancing the strengths and attributes of, and resources available to, an individual, community, society or organization to respond to change.[2]

Carbon neutrality: See net-zero emissions.[3]

Climate: The average weather over a long period of time. Aspects of climate include temperature, precipitation, wind speed and direction, sunshine, fog and frequency of extreme events.[4]

Climate change: The process by which the average weather becomes different over time. Climate has changed due to natural forces over the course of history (e.g., volcanoes, ocean currents) but human activity (e.g., industry, transportation) is now considered the cause of rapid and severe climate change. These changes include sea level rise, more intense and more frequent extreme weather events (e.g., storms, hurricanes, storm surge) and in Atlantic Canada, warmer, wetter summers and winters.[4]

Co-benefits: The positive effects that a policy or measure aimed at one objective might have on other objectives, irrespective of the net effect on overall social welfare. Co-benefits are often subject to uncertainty and depend on local circumstances and implementation practices, among other factors.[1]

Drought: A period of abnormally dry weather, long enough to cause a serious hydrological imbalance. Drought is a relative term; therefore, any discussion in terms of precipitation deficit must refer to the particular precipitation-related activity that is under discussion.[1]

Ecosystem: A functional unit consisting of living organisms, their non-living environment, and the interactions within and between them. The components included in a given ecosystem and its spatial boundaries depend on the purpose for which the ecosystem is defined: in some cases, they are relatively sharp, while in others they are diffuse. Ecosystem boundaries can change over time. Ecosystems are nested within other ecosystems, and their scale can range from very small to the entire biosphere. In the current era, most ecosystems either contain people as key organisms or are influenced by the effects of human activities in their environment.[1]

Embodied carbon: The GHG associated with the non-operation phase of the building. This includes emissions caused by extraction, manufacture, transportation, assembly, maintenance, replacement, deconstruction, disposal and end-of-life aspects of the materials and systems that make up a building.[5]

Extreme weather event: An event that is rare at a particular place and time of year. Definitions of "rare" vary, but an extreme weather event would normally be as rare as or rarer than the 10^{th} or 90^{th} percentile of a probability-density function estimated from observations. By definition, the characteristics of what is called extreme weather may vary from place to place in an absolute sense. When a pattern of extreme weather persists for some time, such as a season, it may be classed as an extreme climate event, especially if it yields an average or total that is itself extreme (e.g., drought or heavy rainfall over a season).[1]

Fossil fuels: Carbon-based fuels from fossil hydrocarbon deposits, including coal, peat, oil and natural gas.[2]

Greenhouse gas (GHG): Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. This property causes the greenhouse effect. Water vapour (H_2O), carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4) and ozone (O_3) are the primary greenhouse gases in the Earth's atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Besides CO_2, N_2O and CH_4, the Kyoto Protocol deals with the greenhouse gases sulphur hexafluoride (SF_6), hydrofluorocarbons (HFC) and perfluorocarbons (PFC).[2]

Groundwater: Water below the level of the water table in the ground; water occupying the subsurface-saturated zone.[6]

Infrastructure: The physical capital and associated services are considered basic and necessary to the functioning of the built environment. These include such things as: sanitary sewers, treatment plants, and water pipelines and distribution/collection systems; roads, signals, sidewalks and other components of the transportation system, including transit vehicles, ferries and airports; solid waste management facilities including transfer stations and landfills; and energy supply and distribution systems, including hydroelectric and natural gas transmission and distribution systems. More generally, infrastructure can refer to other tangible public and private assets necessary to support the development of a modern urban settlement, such as hospitals, schools and recreation facilities. In some cases, preserved green space and natural areas, including forest, wetlands and stream corridors have been described as "green infrastructure" essential to the vitality of healthy human communities.

Interface fire: A fire that involves human development and wildland simultaneously.[6]

Invasive species: Any species not native to a particular ecosystem whose introduction causes, or is likely to cause, economic or environmental harm or harm to human health.[6]

Mitigation (of climate change): A human intervention to reduce the sources or enhance the sinks of greenhouse gases.[1]

Net-zero emissions: Net-zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period.[3]

Resilience: The capacity of social, economic and environmental systems to cope with a hazardous event, trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning and transformation.[6]

Sequestration: The uptake (i.e., the addition of a substance of concern to a reservoir) of carbon-containing substances, in particular carbon dioxide (CO_2), in terrestrial or marine reservoirs. Biological sequestration includes direct removal of CO_2 from the atmosphere through land use change, afforestation, reforestation, revegetation, carbon storage in landfills and practices that enhance soil carbon in agriculture (cropland management, grazing land management).[2]

Storm surge: The temporary increase, at a particular locality, in the height of the sea due to extreme meteorological conditions (low atmospheric pressure and/or strong winds). The storm surge is defined as being the excess above the level expected from the tidal variation alone at that time and place. [1]

Urban heat island: The relative warmth of a city compared with surrounding rural areas, associated with changes in runoff, effects on heat retention and changes in surface reflectivity.[1]

Vulnerability: The degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change. It is a function of the character, magnitude and rate of climate change and variation to which a system is exposed, its sensitivity and its adaptive capacity.[1]

Zero-emission vehicle (ZEV): A vehicle that has the potential to produce no tailpipe emissions. It can still have a conventional internal combustion engine, but must also be able to operate without using it. We consider the following vehicles to be ZEVs: battery-electric, plug-in hybrid electric and hydrogen fuel cell.[7]

1. IPCC, 2014, Climate Change 2014: Impacts, Adaptation, and Vulnerability
2. IPCC, 2014, Climate Change 2014: Mitigation of Climate Change
3. IPCC, 2018, Special Report: Global Warming of 1.5°C – Glossary
4. BC MOE, 2013, Sea Level Rise Adaptation Primer – Appendix A
5. UK Building Council, 2015, Tackling Embodied Carbon in Buildings
6. BC Ministry of Forests, 2008, Glossary of forestry terms in British Columbia
7. Transport Canada, accessed 2021, Zero-emission vehicles (website)

Appendix B: Related CRD Strategies and Plans

CRD Plans intersecting with climate action	Climate Action Strategy Goal					
	1	2	3	4	5	6
2019-2022 Board Priorities	•	•	•	•	•	•
Advocacy Strategy (2019)	•	•	•	•	•	•
Community Health and Well-Being Plan (2017)		•	•	•	•	
Core Area Inflow and Infiltration Management Plan (2017)					•	
Corporate Asset Management Strategy (2019)	•			•	•	
Corporate Plan (2019-2022)	•	•	•	•	•	•
Liquid Waste Management Plans (various)					•	•
Regional Food and Agriculture Strategy (2016)					•	•
Regional Green/Blue Spaces Strategy (1997)					•	
Regional Growth Strategy (2018)		•	•	•	•	
Regional Housing Affordability Strategy (2018)	•		•			
Regional Parks Land Acquisition Strategy (2012-2021) and Fund					•	
Regional Parks Strategic Plan (2012-2021)			•		•	
Regional Pedestrian & Cycling Master plan (2011) and Salt Spring Island Edition (2013)			•			
Regional Trails Management Plan (2015)			•		•	
Regional Transportation Plan (2014)	•		•			
Regional Water Supply Strategic Plan (2017)				•	•	
Solid Waste Management Plan (2021)						•

Appendix C: Detailed Action Plan

CRD Divisions	Abbreviation
Environmental Protection	EPro
Juan de Fuca Electoral Area Planning	JdF Planning
Building Inspections	BI
Corporate Communications	CC
Customer & Technical Services	CTS
Environmental Resource Management	ERM
Facilities Management & Engineering Services	Facilities
Financial Services	Finance
First Nations Relations	FNR
Health & Capital Planning Strategies	HCP
Human Resources & Corporate Safety	HR
Information Technology & GIS	IT
Legal Services	Legal
Panorama Recreation	Pan Rec
Protective Services	PS
Regional & Strategic Planning	RSP
Regional Housing	Housing
Regional Parks	Parks
Risk & Insurance Management	Risk
Salt Spring Island Administration	SSI Admin
SEAPARC	SEAPARC
Southern Gulf Islands Administration	SGI Admin
Water and Wastewater Infrastructure Operation/Engineering	IWS
Watershed Protection	WP

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
Goal 1: Climate-Focused Decision Making	**Corporate**					
	1-1 Integrate and standardize the climate lens framework across processes	Prepare a framework to standardize corporate climate action planning and evaluation of the climate impact of operational decisions. Utilize in corporate strategic planning, service planning and annual reporting.	EPro RSP	CC	Core service	2022-2023
		Integrate greenhouse gas emissions and climate risks into capital project planning; work with select services to develop Sustainable Service Delivery Plans.	Finance	EPro Other relevant divisions	Core service + new	2024+
		Incorporate a climate lens when implementing the corporate Asset Management Strategy.	Finance	EPro	Core service	2021+
		Align procurement and vendor selection with the CRD's corporate climate goals, as part of the planned procurement policy update.	Legal	EPro	Core service	2021-2022
		Complete annual corporate GHG reporting and provide to the Board and departments.	EPro	Finance	Core service	Annually
	1-2 Develop internal carbon pricing policies and procedures	Develop an internal carbon pricing policy to support internal decision making. Embed in specified corporate processes and procedures (e.g., net present value and lifecycle cost analyses).	EPro Finance	All relevant divisions	Core service	2021-2023
		Pilot the new internal carbon pricing policy with select department(s).	EPro Finance		Core service	2023-2024
	1-3 Identify internal funding sources for climate action	Continue Climate Action Reserve Fund (CARF) to support corporate climate action goals.	EPro	Finance	Core service	Ongoing
		Identify innovative sources of funding to support climate action programs, including expanded CARF, internal carbon fee and the opportunity for an internally invested project.	EPro	Finance	Core service	2023-2024
	1-4 Support staff capacity building and coordination	Develop an internal climate action SharePoint site to profile key policies, procedures and resources for staff.	EPro	IT	Core service	2021
		Develop a staff climate action outreach program to encourage sustainable behaviour.	EPro	CC	Core service	2022
		Prepare and deliver training in conjunction with the roll-out of the new policies and procedures.	EPro	CTS Facilities Finance RSP	Core service	Ongoing
		Promote CRD climate goals and policies to volunteer committees and commissions. Pilot with Salt Spring Island and Southern Gulf Islands Electoral Areas.	EPro	SGI Admin SSI Admin Other relevant divisions	Core service	2022
		Maintain an ongoing staff climate action working group to share knowledge and continually evaluate best opportunities for climate action initiatives.	EPro	CTS Facilities Finance IWS Pan Rec SEAPARC	Core service	Ongoing

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	1-5 Investigate how Indigenous knowledge can inform climate action at the CRD	Investigate and understand perspectives on how Indigenous knowledge and Indigenous laws informs and relates to climate action; share this information with CRD departments and with municipalities.	FNR	EPro	Core service	Ongoing
Goal 2: Sustainable Land Use, Planning and Preparedness	**Corporate**					
	2-1 Incorporate climate hazards and vulnerabilities into corporate CRD emergency response plans	Incorporate climate hazards and vulnerabilities into corporate CRD emergency response plans.	PS	All relevant divisions	Core service + grants	Ongoing
		Review and refine existing communication processes as they relate to climate change and extreme weather.	PS	CC	Core service	Ongoing
	Community-focused					
	2-2 Monitor Regional Growth Strategy (RGS)	Review Regional Context Statements for alignment with climate policies in the RGS and publish annual RGS indicators report.	RSP		Core service	Ongoing
	2-3 Integrate climate impacts into Juan de Fuca land use plans and policies	Continue to update and adopt official community plans that are consistent with the climate policies in the RGS.	JdF Planning		Core service + grants	Ongoing
		Review and update development permit flood management guidelines and requirements to ensure appropriate building setbacks from shoreline.	JdF Planning		Core service + grants	2021, 2022
	2-4 Collect and share pertinent energy, emissions, climate projections and vulnerability data	Collect and share pertinent regional energy and emissions and climate projections data with local governments, stakeholders and First Nations.	EPro		Core service	Ongoing
		Conduct regional and local government Global Protocol Community-Scale Basic+ GHG inventories every two years.	EPro		Core service	2021, 2023
		Renew regional downscaled climate projections when updated global climate projections available.	EPro	WP Other relevant divisions	Core service	2022-2023
		Expand data collection and mapping efforts to identify vulnerabilities to the impacts of climate change.	EPro		Core service + grants	Ongoing
	2-5 Identify innovative actions to close the regional 2030 emissions reduction gap	Identify the emission gap between the 2030 target and the 2022 inventory. Initiate a process to identify new actions that will close the gap in emissions by 2030.	EPro		Core service + grants	2023-2024

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	2-6 Coordinate regional climate action, collaboration and capacity building among local governments and interested First Nations	Facilitate coordinated local government approaches to municipal land use policy, public outreach, data related to sea level rise planning.	EPro		Core service + grants	2021-2024
		Collaborate and coordinate with stakeholders and interested First Nations government to include climate projections and risks into strategies, plan and policies.	EPro		Core service + grants	Ongoing
		Support Indigenous-led climate solutions.	EPro	FNR Other relevant divisions	Core service + grants	Ongoing
		Coordinate Inter-municipal Climate Change Task Force and Inter-municipal Climate Change Working Group.	EPro		Core service	Ongoing
		Incorporate climate action updates, within the CRD Development Planning Advisory Commission meetings.	RSP	EPro	Core service	Ongoing
		Coordinate Local Government Emergency Program Advisory Commission and Regional Emergency Management Partnership.	PS		Core service	Ongoing
		Develop resources identifying connection between climate and health and develop resources for decision makers and public engagement.	HCP	Epro	Core service	2021
		Research and share with local governments best practices for incorporating an equity lens into mitigation, adaptation plans and programs.	EPro HCP		Core service	2022
		To support integration of land use and transportation, seek opportunities for funding, incentives and pilot projects to implement the Regional Growth Strategy land use concept.	RSP		Core service + grants	2022-2024
	2-7 Incorporate regional climate projections into electoral area emergency planning and enhance FireSmart efforts	Include regional climate projections in hazard, risk and vulnerability assessments for the three Electoral Areas' Emergency Operations Work Plans.	PS	EPro	Core service	Ongoing
		Enhance FireSmart efforts in electoral areas.	PS		New + grants	Ongoing
		Complete advance planning for drought and wildfire response in the Electoral Areas.	PS	IWS	Core service	2021-2022
	2-8 Coordinate with emergency management stakeholders on planning and public outreach activities related to climate risks	Work with the Province, Local Government Emergency Program Advisory Commission and the Regional Emergency Management Partnership to share data, support planning, and coordinate public outreach activities related to regional climate risks.	PS	CC EPro	Core service	Ongoing
	2-9 Investigate Transition Salt Spring Island 2.0 Climate Plan implementation	Investigate resource requirements and funding for a new staff to support the implementation of the Transition Salt Spring Island 2.0 plan.	SSI Admin	EPro PS	Core service	2022

Goal 3: Low-Carbon Mobility

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	Corporate					
	3-1 Administer and track the new Green Fleet Policy	Continuous support and review of Green Fleet Policy to ensure zero-emissions vehicles are selected as replacement options whenever possible.	CTS	EPro	Core service	Ongoing
	3-2 Develop electric vehicle (EV) adoption and right-sizing plan for the corporate fleet	Monitor and adjust for market availability for new low-emission medium and heavy-duty vehicles.	CTS EPro	Facilities	Core service	2021-2022/ Ongoing
		Investigate opportunities for integrating car share into fleet operations.	CTS EPro		Core service	2022
		Explore opportunities for telematics and improved fuel use tracking to determine fleet right sizing.	CTS	EPro IT	New – TBD	2023-2024
	3-3 Develop EV infrastructure plan for the corporate fleet	Develop EV infrastructure plan for the corporate fleet.	Epro Facilities	CTS Other relevant divisions	Core service + grants	2021-2022
		Install chargers to support light-duty EV purchases.	Facilities	All relevant divisions	Core service + grants	2022-2024
	3-4 Investigate the feasibility of bio-based diesel supply and storage	Investigate the feasibility of bio-based diesel storage and supply for shared regional use.	CTS	EPro	Core service	2023-2024
	Community-focused					
	3-5 Develop a region-wide approach to transportation demand management and safety policy	In collaboration with partners, develop options for transportation demand management (TDM) and safety policy.	RSP	EPro	Core Service	
		Work with partners to implement TDM and safety policy approaches across the region.	RSP	EPro	New	2022+
	3-6 Collect, analyze and distribute transportation planning data regionally	Collect, analyze and distribute transportation planning data, including traffic counts, bike counts, and origin-destination survey results.	RSP	EPro	Core service	Ongoing
		Expand the Origin-Destination survey.	RSP		Core service	2022-2024

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	3-7 Accelerate infrastructure improvements that support active transportation	Support Board advocacy to senior governments for secure funding for local and regional transportation infrastructure improvements.	RSP		Core service	2022+
		Develop a policy framework and partnership agreements for the long-term build out of consistent, connected cycling facilities.	RSP	Parks	Core service	2022
		Implement the Regional Transportation Plan and the Pedestrian and Cycling Master Plan.	Parks RSP		Core service + grants	Ongoing
		Implement priority projects identified in the Regional Trails Management Plan to support active transportation: • Complete the E&N trail and upgrade heavily used urban sections. • Widen and install lighting at priority sections of the Galloping Goose and Lochside regional trails. • Continue to implement the Gulf Islands Regional Trails Management Plan.	Parks	RSP SGI Admin SSI Admin	New + grants	Ongoing
		Implement Pedestrian and Cycling Master Plan: Salt Spring Island Edition.	SSI Admin	RSP	Core service	Ongoing
		Complete Southern Gulf Islands Transportation Integration Plan for the SGI EA Area.	SGI Admin	RSP	Core service	2021
		Implement SGI Transportation Integration Plan through service establishment.	SGI Admin		New	2022-2023
	3-8 Lead and support regional education programs focused on zero-emission mobility	Develop, deliver and support new regional education programs focused on active, public and zero-emission transportation, including electric vehicles and e-bikes.	EPro	Parks RSP	Core service	Ongoing
		Continue to implement active school travel planning (Ready, Step, Roll program at five schools per year).	RSP		Core service	Ongoing
	3-9 Support acceleration of transit improvements and increased service	Support Board advocacy to accelerate implementation of Bus Mass Transit (RapidBus) linking directly to growth centres; secure funding; locate density near nodes.	RSP		Core service	2022+
		Support Board advocacy to improve local transit service in suburban and rural areas, including Park and Rides.	RSP	JdF Planning	Core service	2022+
		Plan for long-term transportation alternatives, including passenger ferry and rail-based transit options in appropriate locations.	RSP		Core service	2022-2024
		Facilitate delivery of the Salt Spring Island (SSI) Community Transit Service. • Work with BC Transit to electrify fleet and increase service.	SSI Admin	RSP	Core service	Ongoing
		Identify low-carbon mobility options as part of planning for an inter-island transportation system. Investigate expanding to Salt Spring Island.	SGI Admin	FNR RSP SSI Admin	TBD	TBD

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	3-10 Support a public electric vehicle charging network and encourage uptake of zero-emission vehicles	Develop and deliver education programs to encourage the adoption of EVs, and build capacity among EV infrastructure builders, site hosts, electricians and other key sectors.	EPro		Core service	Ongoing
		Support electric vehicle and e-bike adoption and infrastructure by providing guidance and coordinated policy support.	EPro		Core service	Ongoing
		Pursue opportunities to fund and coordinate installation of publicly accessible electric vehicle charging stations.	EPro Other relevant divisions		Core service + grants	Ongoing
	3-11 Implement Regional EV Charging Roadmap	Implement the Capital Region EV Infrastructure Roadmap. • Coordinate funding applications and deployment. • Support planning and coordination on charger site selection. • Engage with BC Hydro on infrastructure planning. • Educate and build capacity of potential EV adopters, infrastructure builders, site hosts, engineers, electricians, and other trades. • Track and share usage at existing sites to monitor performance and inform planning.	EPro		New + grants	2022-2026
	3-12 Improve internet access on Southern Gulf Islands	Support and coordinate broadband internet improvements to enable work from home opportunities and support local economic development.	SGI Admin		Core service	2021
		Establish connectivity service to facilitate senior government funding and internet service provider investment.	SGI Admin		New	2022

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
Goal 4: Low-Carbon and Resilient Buildings and Infrastructure	**Corporate**					
	4-1 Develop and implement a corporate Green Building Policy	Develop and implement a corporate Green Building Policy that prioritizes energy efficiency, electrification and resiliency.	EPro Facilities	All relevant divisions	Core service	2022
	4-2 Develop and implement a Strategic Energy Management Plan	Complete energy audits of corporate facilities to support development of a Strategic Energy Management Plan.	EPro Facilities	All relevant divisions	Core service + grants	2021
	4-3 Conduct energy studies for CRD facilities to identify priority emission reduction and energy efficiency projects	Conduct Net-Zero Energy Pathway Feasibility Study for recreation centres.	Pan Rec SEAPARC SSI Admin	EPro	Core service + grants	2022
		Conduct Saanich Peninsula District Energy System Expansion Study.	IWS	EPro Pan Rec	Core service	2022
		Complete energy audits of all CRD sites with significant GHG impact (e.g., >5 tonnes annually).	All relevant divisions	EPro Facilities	Core service + grants	2022-2024
		Conduct emissions reduction feasibility study for the Integrated Water Services (IWS) building at 479 Island Highway.	IWS	EPro Facilities	Core service	2022
		Identify future energy efficiency upgrades and opportunities in IWS infrastructure. Implement where possible.	EPro	IWS	New energy manager	2023-2025
		Evaluate the business case for installing renewable power at corporate sites, including water and wastewater locations.	EPro IWS	EPro	New energy manager	2024
	4-4 Complete identified high impact retrofits to CRD facilities	Retrofit the HVAC system at Fisgard HQ to switch from fossil fuels to electricity.	Facilities	CTS EPro	Core service	TBD
		Install an Energy Recovery System at SEAPARC.	SEAPARC	EPro	New + grants	TBD
		Replace Fuel Oil Burners and remove underground fuel tanks at SEAPARC.	SEAPARC	EPro	New	TBD
		Install an Energy Recovery System at Panorama Recreation.	Pan Rec	EPro	Core service + grants	TBD
	4-5 Pursue climate-friendly development and retrofits for CRHC and CRHD facilities	Identify and pursue funding opportunities to address energy and GHG saving opportunities during new development and retrofits of housing and healthcare facilities.	HCP Housing		TBD	TBD
		Embed energy reduction and other climate requirements in new developments, as per Island Health or BC Housing policies and other funding requirements.	HCP Housing		TBD	Ongoing
		Seek opportunities to promote housing tenant engagement programs to reduce energy use and energy costs through partnerships.	EPro	Housing	Core service	2022-2023

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	4-6 Consider climate impacts in risk assessments and infrastructure upgrades	Consider climate change impacts when undertaking risk assessments associated with the water supply and wastewater systems and infrastructure management decision making and plans.	IWS WP		Core service	Ongoing
		Consider future climate projections and review and revise infrastructure design standards, as appropriate. Upsize/right size drainage structures within the Greater Victoria Water Supply Area, based on priority.	WP		Core service	Ongoing
	Community-focused					
	4-7 Implement a Regional Energy Retrofit Program	Implement a Regional Energy Retrofit Program: • Targeted concierge service. • Optional financing component made available. • Coordinate and promote incentives for the provincial and federal retrofit programs.	EPro		New	2022-2026
	4-8 Develop, deliver and support building-related energy, emissions and water education	Develop, deliver and support regional educational programs and community initiatives that achieve reductions in building-related GHG, water and energy use.	EPro		Core service + grants	Core service
	4-9 Support acceleration of regional building energy benchmarking and local government regulation approaches	Coordinate with senior and local government to understand and pursue opportunities related to regional energy benchmarking. Participate in the Building Benchmark BC program.	EPro		Core service	2022-2024
		Advocate to the Province for greater local government authority to decrease community emissions from buildings (including energy benchmarking and labelling and regulating climate pollution for buildings).	EPro		Core service	2022-2024
	4-10 Coordinate high-performance building policy support and capacity building activities	Participate on the provincial local government step code peer network.	EPro		Core service	Ongoing
		Research and share information on best practices and support coordination of local government policy regarding high-performance buildings.	EPro	BI	Core service	Ongoing
		Provide expanded public and industry education on high-performance buildings through workshops, front counter and website resources.	EPro	BI	Core service	2022
	4-11 Collect and share data and research on building energy use and emissions	Collect and share data on pertinent regional building energy use and GHG emissions with local governments.	EPro		Core service	Ongoing
		Research and share information and best practices on embodied carbon in green building standards, land use and infrastructure.	EPro		Core service	2023
	4-12 Promote green infrastructure and improved stormwater management approaches	Work with local governments and community groups to promote, encourage and inform green infrastructure and improved stormwater management approaches.	EPro		Core service	Ongoing
	4-13 Understand climate impacts on groundwater resources in Juan de Fuca Electoral Area	Understand potential impact of climate change on groundwater resources to inform future planning in electoral areas.	JdF Planning		Core service	Ongoing
	4-14 Investigate regional renewable energy and storage potential	Undertake regional mapping of renewable energy potential to inform education and future programming.	EPro		TBD – grants	2024
		Investigate local power storage generation and storage potential.	EPro		TBD – grants	2025

Goal 5:
Resilient and Abundant Nature, Ecosystems and Food Systems

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	Corporate					
	5-1 Integrate climate considerations into regional parks strategic and management planning	Integrate climate change considerations in forthcoming Regional Parks Strategic Plan and parks management plans.	Parks	EPro	Core service	2022
		Update the CRD land acquisition criteria to include climate change considerations (subject to Regional Parks Strategic plan direction).	Parks	EPro	Core service	2022
		Invite and support First Nations participation in park planning, acquisition and protection of places.	Parks	FNR	Core service	Ongoing
	5-2 Monitor ecosystem health in the Greater Victoria Water Supply Area (GVWSA) and investigate expanding regionally	Continue forest composition, hydrology monitoring and forest health reviews to assess and monitor ecosystem changes within the GVWSA.	WP		Core service	Ongoing
		Prepare business case to undertake planning in order to identify and prepare responses to climate change impacts on regional parks.	Parks		New	TBD
	5-3 Undertake climate adaptation initiatives to increase the resilience of the GVWSA	Complete and implement the Climate Change Adaptation Strategy for the GVWSA.	WP		Core service	Ongoing
		Advance forest fuel management within the GVWSA to mitigate the intensity and extent of potential wildfires.	WP		Core service	2021+
		Investigate options to initiate more active forest management program in the GVWSA to create more resilient forested ecosystems.	WP		New	2022+
	Community-focused					
	5-4 Provide regional and local ecological data to support planning and policy efforts	Compile existing ecological data/mapping from other agencies to create a regional biodiversity inventory.	EPro		Core service	2021
		Undertake regional forest and urban tree monitoring efforts.	EPro		Core service	2021
		Support efforts to monitor stream flows in the region.	EPro		Core service	Ongoing
	5-5 Coordinate regional invasive species program	Deliver regional invasive species programs, coordinate Capital Region Invasive Species Partnership intergovernmental working group. Support capacity building and local government policy development.	EPro		Core service	Ongoing
	5-6 Support regional forest and urban tree programs	Support regional forest and urban tree programming, and coordinated planning efforts to increase canopy and sequestration potential.	EPro		Core service + grants	2023
	5-7 Support Indigenous-led monitoring and restoration programs	Work with First Nations to identify interest in and support First Nations' Guardian programs for monitoring ecosystems.	FNR	EPro Parks	Core service + new	Ongoing
		Where requested, work with First Nations in watershed protection, ecosystem restoration and invasive species management.	EPro	FNR	Core service	TBD

	Action name	Specific sub-actions	Lead	Support	Resources	Timing
	5-8 Support local food and agriculture planning and programs	Administer Food and Agriculture Task Force and facilitate coordination of the Food and Agriculture Strategy implementation. • Support agriculture extension services coordination. • Investigate feasibility for a Regional Foodlands Trust.	RSP		Core Service	Ongoing
		Develop public engagement materials on local food systems and low carbon food choices. Support and promote Indigenous food systems.	EPro	FNR	Core service	2024
	5-9 Integrate climate impacts and solutions into environmental education and outreach campaigns	Integrate education about climate impacts, threats and solutions into public education and outreach campaigns associated with drinking water, regional and community parks, and community watershed and biodiversity programs.	EPro IWS Parks SGI Admin SSI Admin	CC	Core service	Ongoing
		Promote UN Decade on Restoration and encourage groups/residents to get involved.	EPro		Core service	Ongoing
Goal 6: **Minimized Waste**	**Community-focused**					
	6-1 Implement the Solid Waste Management Plan	Implement the Solid Waste Management Plan, consider influence on GHG emissions and climate resilience.	ERM		Core service + new	2021-2031
	6-2 Develop and deliver education programs to promote a circular economy, zero waste and the 3Rs	Develop and deliver education programs to promote the 3Rs (reduce, reuse, recycle), reduce consumption, and promote zero waste and circular economy approaches.	ERM	EPro	Core service	Ongoing
	6-3 Support education and engagement on waste management to be delivered by and for First Nations communities	Collaborate with First Nations to develop and share educational outreach information, and engagement opportunities on waste management with their community members.	ERM	FNR	Core service	Ongoing
	6-4 Continue to maximize and optimize the capture of landfill gas for beneficial use	Continue to maximize and optimize the capture of landfill gas for beneficial use (as per SWMP Strategy 14).	ERM		Core service	Ongoing
		Initiate Hartland Renewable Landfill Gas Initiative.	ERM		Core service	2023
		Continue to actively monitor the landfill's fugitive emissions and undertake operational adjustments to reduce them.	ERM		Core service	Ongoing
		Continue to conduct research, investigate and report out on emerging waste management technologies (including alternatives to landfilling such as integrated resource management and gasification).	ERM		Core service	Ongoing
	6-5 Consider climate change impacts in liquid waste management	Consider climate change impacts in the development of renewed Core Area Liquid Waste Management Plan and Saanich Peninsula Liquid Waste Management Plan.	EPro	IWS	Core service	2022

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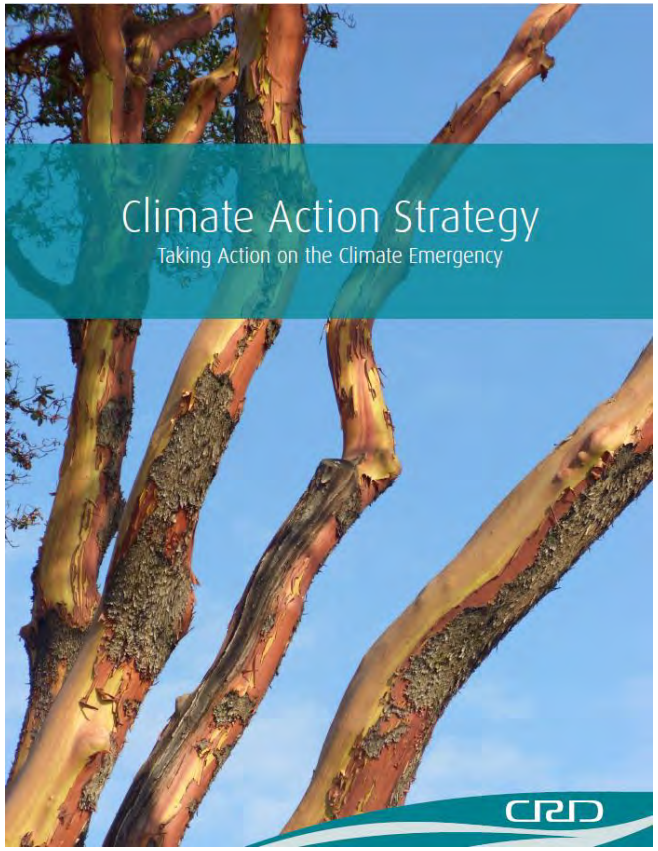
Climate Action Strategy 2021

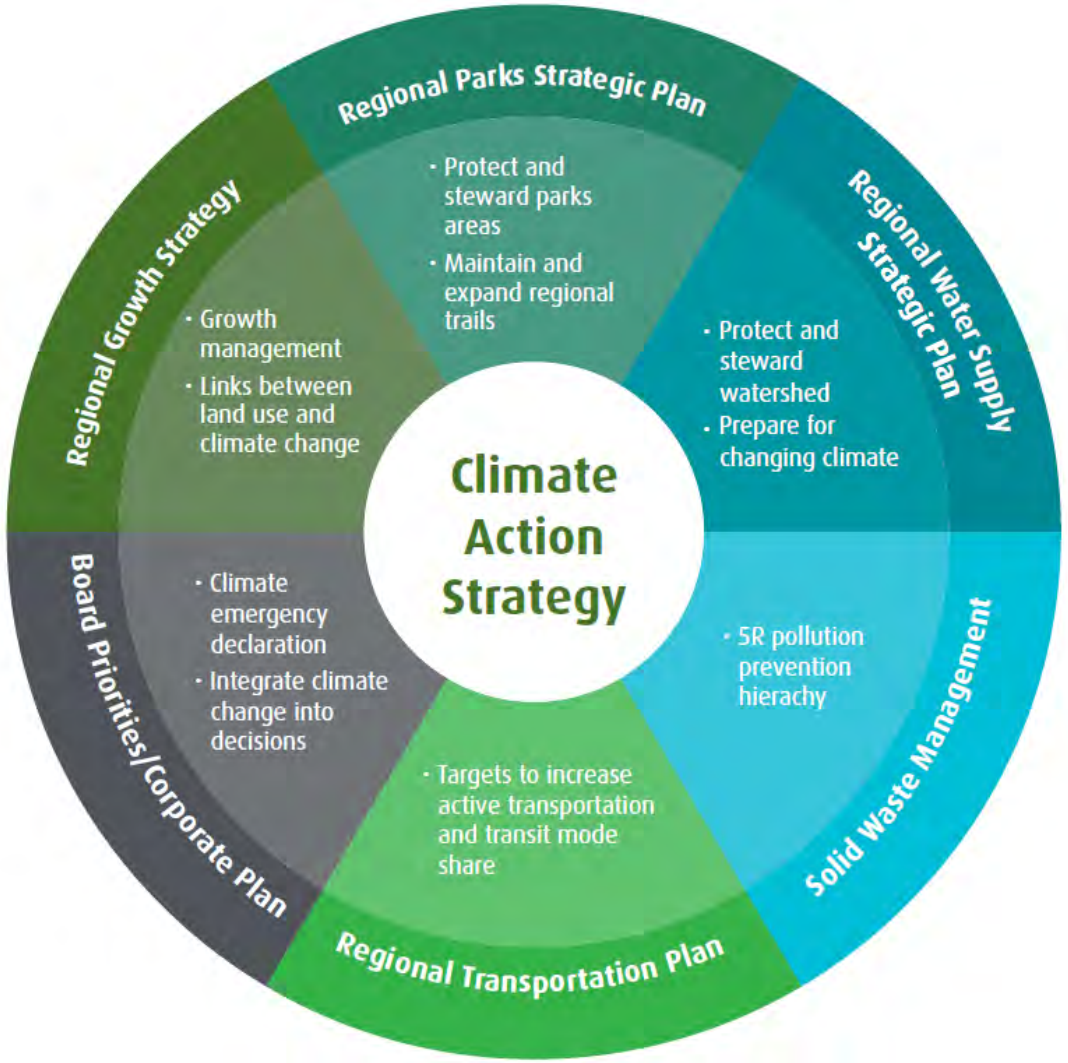
Taking Action on the Climate Emergency



Making a difference...together

Development Process

- Review and evaluation
- Best practice review
- Multi-stage engagement
  - Municipal partners
  - CRD divisions and services
- Data analysis
- Development of five-year action plan



Climate Action Vision

Making a difference...together

Through collective action, we eliminate emissions and foster healthy and resilient communities and natural areas now and in the future.

Guiding Principles

Making a difference...together

- **Leadership**: bold action to eliminate greenhouse gas (GHG) emissions from corporate operations, prepare CRD assets for the changing climate, and integrate climate action across the local and regional services.
- **Urgency**: Actions to mitigate the impacts of climate change are swift and substantial.
- **Collaboration**: among municipal, provincial, federal and First Nations governments, businesses, organizations and residents.
- **First Nations relations**: support Indigenous-led climate solutions grounded in Indigenous self-determination, shared prosperity and respect Indigenous relationships with the land, water and all beings.
- **Equity**: inclusive and accessible to residents across the region, particularly those most vulnerable to the impacts of climate change.
- **Co-benefits**: maximize co-benefits, including GHG reductions, resilience, affordability, economic opportunities, health and well-being, reconciliation, and more.

Targets

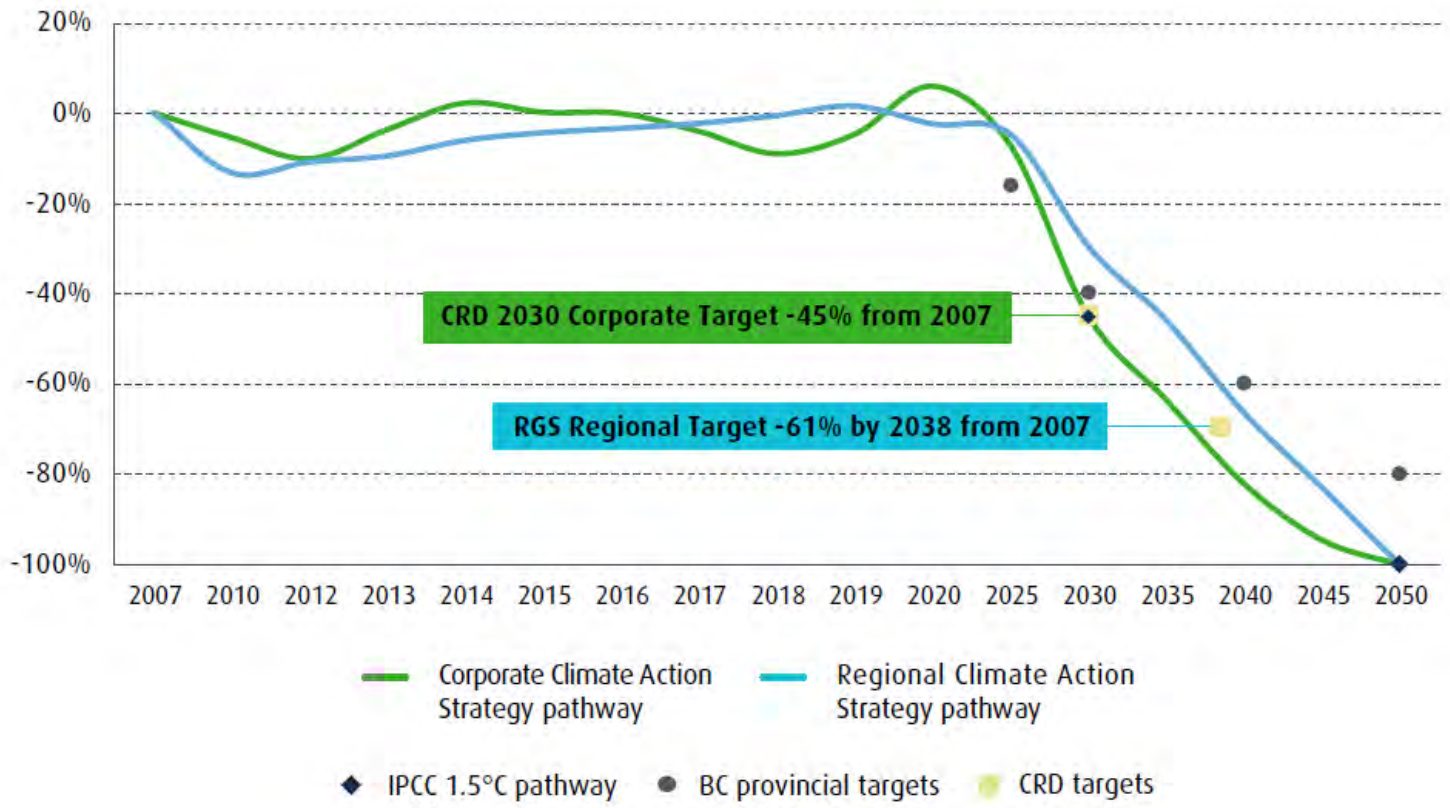
Making a difference...together

Reduce corporate GHG emissions:

- 45% ↓ by 2030
- Net-zero by 2050

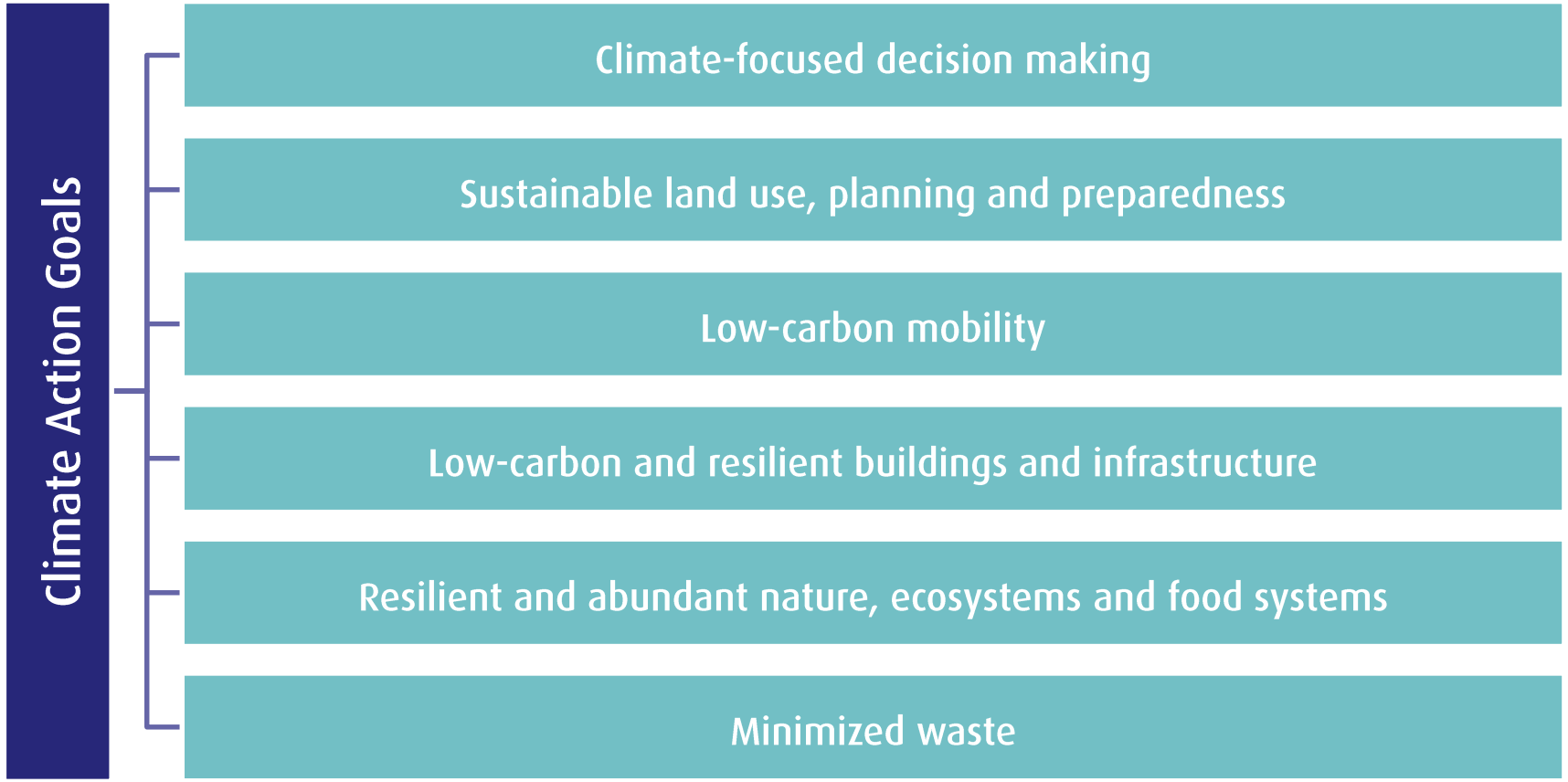
Reduce regional GHG emissions:

- 61% ↓ by 2038
- Net-zero by 2050*



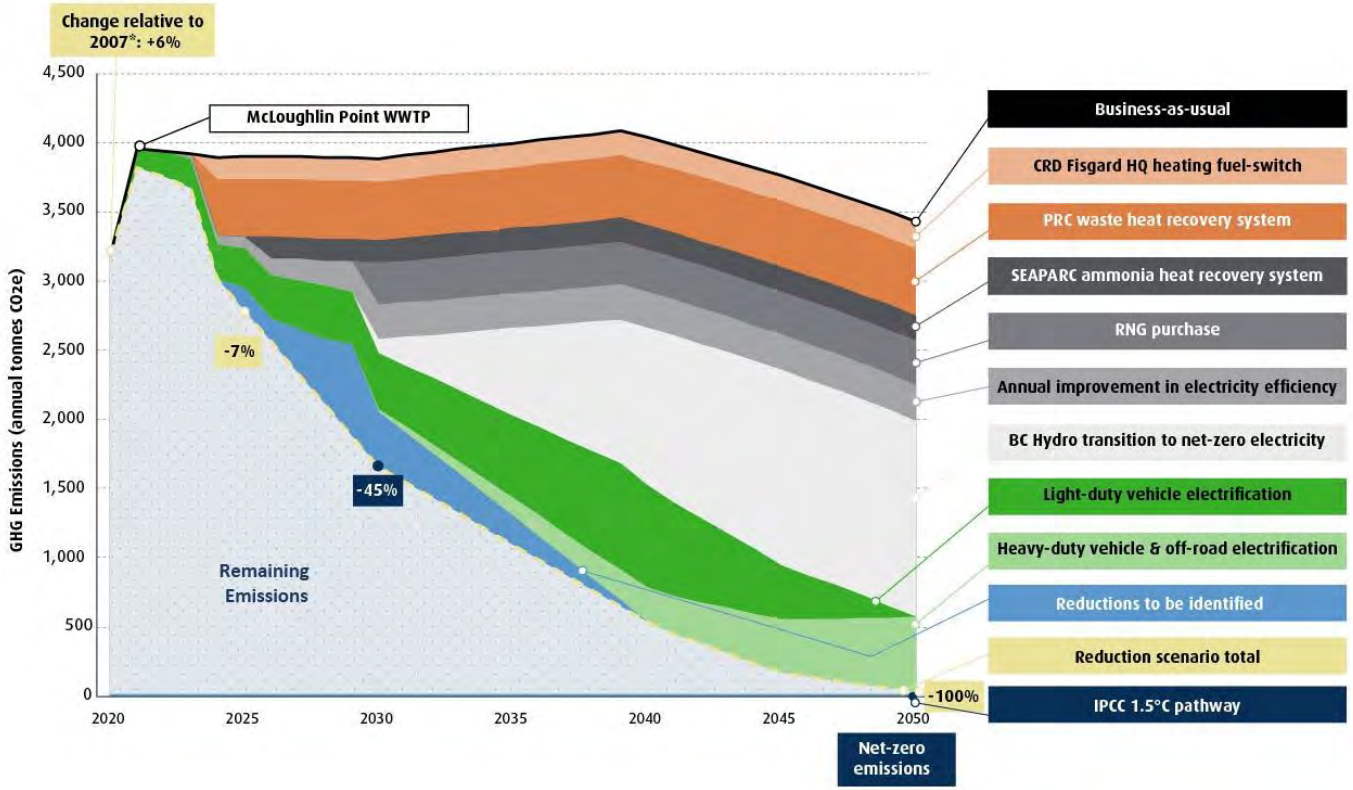
*As per Intergovernmental Plan on Climate Change (IPCC) Pathway/Climate Emergency Declaration

Climate Action Goals



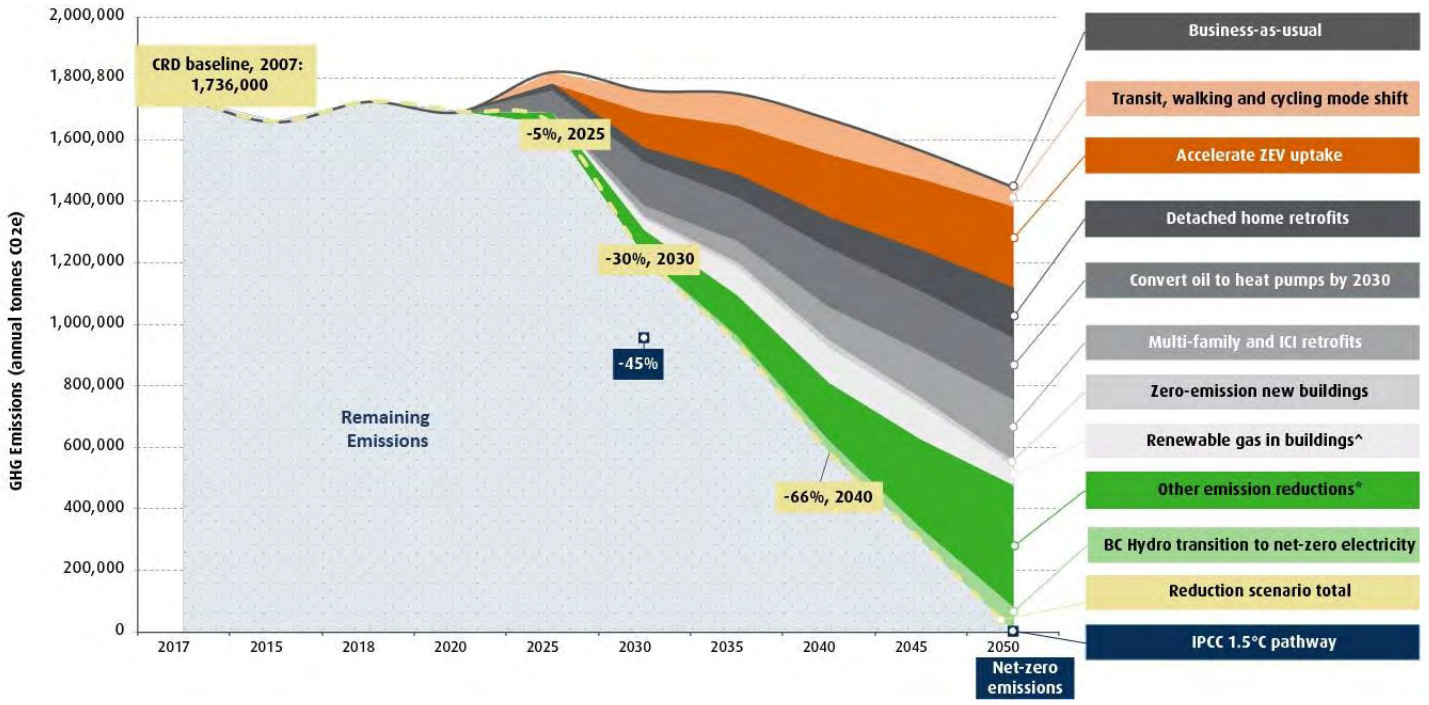
Emissions Reduction Pathway – Corporate Scenario

- There is an identified path to achieving emissions targets
- Each action is critical; we only just meet the target
- Some necessary reductions still need to be identified (blue area)



Emissions Reduction Pathway – Regional Scenario

- Business as usual based on existing policy directives; one potential scenario
- Requires all levels of government and community to achieve
- The CRD can play a role in coordinating local policy and leading programs



Climate Risks and Adaptation

Making a difference...together

- Changes to our climate are already noticeable and will increase
- Potential impacts:
  - transportation network disruptions
  - power outages
  - increasing wildfire risk
  - flooding of homes and infrastructure
  - negative health outcomes

CRD climate adaptation planning

- Climate Projections for the Capital Region
- Capital Region Coastal Flood Inundation Mapping Project
- Corporate Climate Change Risk Assessment
- Adaptation planning for the Greater Victoria Drinking Water Supply Area
- Community Climate Change Adaptation Priorities for the Capital Regional District

Five-year Action Plan

What do we do first?

Climate-Focused Decision Making

Making a difference...together

Goal 1: Climate action priorities are integrated at all levels of decision-making across the organization.

CRD's Role:

- Operational decision-making

Sample summary actions:

- Expanded CRD climate lens framework
- Internal carbon pricing policy
- Staff capacity building
- Embedding Indigenous knowledge

Sustainable land use, planning and preparedness

Making a difference...together

Goal 2: Support the region on its pathway to livable, affordable and low-carbon communities that are prepared for climate change.

CRD's Role:

- Regional planning
- Juan De Fuca land use planning
- Emergency management in Electoral Areas
- Inter-municipal coordination
- Data management
- Southern Gulf Islands Administration & Salt Spring Island Administration

Sample summary actions:

- Monitor Regional Growth Strategy
- Collect and share regional energy, emissions and climate projections data
- Support regional capacity building
- Coordinate with emergency managers & planners on embedding climate risk in planning & outreach activities

Making a difference...together

Goal 3: Rapidly reduce corporate fleet emissions. Support, endorse and encourage active, public and zero-emission transportation options.

CRD's Role:

- CRD fleet
- Regional trail system
- Regional planning
- Electoral Area transportation
- Advisor on transit
- Data management
- Community programs

Sample summary actions:

- Advance zero emission corporate fleet
- Develop regional Transportation Demand Management approach
- Accelerate active transport infrastructure
- Collect transportation planning data
- Zero emission/active travel education
- Support acceleration of transit improvements
- Support public Electric Vehicle charging network

Low-Carbon and Resilient Buildings and Infrastructure

Making a difference...together

Goal 4: Accelerate energy efficiency, emission reductions and enhanced resilience in CRD buildings and infrastructure. Support and encourage the same for all buildings and infrastructure across the region.

CRD's Role:

- CRD buildings & infrastructure
- Electoral Area building inspection
- Data management
- Community programs

Sample summary actions:

- Energy studies and corporate retrofits
- Climate friendly new development in Capital Region's Housing Corporation and Capital Regional Hospital District facilities
- Energy and emissions reduction education
- Support energy retrofit programs
- High performance building policy support
- Promote green infrastructure

Resilient and Abundant Nature, Ecosystems and Food Systems

Making a difference...together

Goal 5: Protect, conserve and manage ecosystem health and nature's capacity to store carbon and adapt to climate change. Support the ongoing ability of natural systems to sustain life.

CRD's Role:

- Land & water stewardship
- Land acquisition
- Community & inter-municipal coordination
- Education & outreach
- Regional planning

Sample summary actions:

- Embed climate into Regional parks strategic planning
- Climate adaptation initiatives in Greater Victoria Drinking Water Supply Area
- Ecological data collection
- Support regional forest and urban tree programming
- Lead regional invasive species program
- Support local food and agriculture

Minimized Waste

Making a difference...together

Goal 6: Waste generation and the resulting emissions are minimized and remaining waste is transformed into a resource.

CRD's Role:

- Solid waste management planning
- Liquid waste management planning
- Education and outreach

Sample summary actions:

- Implement Solid Waste Management Plan
- Promote circular economy, zero waste and 3Rs (recycle, reduce and reuse)
- Support engagement on waste management delivered by First Nations
- Landfill gas collection maximization and beneficial use (e.g. Renewable Natural Gas)

Implementation & Reporting

Making a difference...together

- Performance indicators by goal
- Action tracking
- Annual reporting
- Adaptive management
- Five-year review & update

CAPITAL REGIONAL DISTRICT

BYLAW NO. 4411

****

A BYLAW TO AUTHORIZE THE BORROWING OF TWELVE MILLION NINE HUNDRED THOUSAND DOLLARS ($12,900,000) FOR THE PURPOSE OF ACQUIRING, DESIGNING AND CONSTRUCTING WATER WORKS FACILITIES OF SAANICH PENINSULA WATER SUPPLY

****

WHEREAS:

A. Under Bylaw No. 376, "Bulk Water Rates Bylaw, 1977", the Board of the Regional District established a local service for the purpose of supplying water in the Regional District;

B. It is deemed desirable to fund works relating to the acquiring, designing and constructing water distribution facilities in the Saanich Peninsula Water Supply system, and the work shall include the planning, study, public consultation, site selection, design, land and material acquisition, construction, supply and installation of all material, equipment and components and all construction necessary for the preparation and works relating to the acquiring, designing and constructing water distribution facilities in the Saanich Peninsula Water Supply system;

C. The estimated cost of the works is the sum of twelve million nine hundred thousand dollars ($12,900,000) dollars;

D. Pursuant to sections 407 of the *Local Government Act*, participating area approval is required for this borrowing and shall be obtained by municipal council consent under s. 346 of the *Local Government Act*; and

E. Financing is proposed to be undertaken by the Municipal Finance Authority of British Columbia pursuant to agreements between it and the Capital Regional District;

NOW THEREFORE the Capital Regional District Board in open meeting assembled hereby enacts as follows:

1. The Board is hereby empowered and authorized to undertake and carry out or cause to be carried out the acquisition of land, planning, study, design and construction of buildings, plant, mains, dams, and other water works facilities and equipment herein before described and to do all things necessary in connection therewith and without limiting the generality of the foregoing:

    a) to borrow upon the credit of the Capital Regional District a sum not exceeding twelve million nine hundred thousand dollars ($12,900,000); and

    b) to acquire all such real property, easements, rights-of-way, leases, licenses, rights or authorities as may be requisite or desirable for or in connection with the acquisition of land, planning, study, design and construction to add, replace, upgrade water works facilities and all related ancillary works, studies and equipment deemed necessary in connection with construction of said facilities.

2. The maximum term for which debentures may be issued to secure the debt intended to be created by this bylaw is 15 years.

3. This Bylaw may be cited as “Saanich Peninsula Water Supply Water Works Facilities Loan Authorization Bylaw No. 1, 2021”.

READ A FIRST TIME THIS	9th	day of	June	2021
READ A SECOND TIME THIS	9th	day of	June	2021
READ A THIRD TIME THIS	9th	day of	June	2021
APPROVED BY MUNICIPAL COUNCIL CONSENT PROCESS PER S.346 OF THE *LOCAL GOVERNMENT ACT* THIS	16th	day of	August	2021
APPROVED BY THE INSPECTOR OF MUNICIPALITIES THIS	5th	day of	October	2021
ADOPTED THIS		day of		202_

CHAIR CORPORATE OFFICER