Making a difference...together

PORT RENFREW UTILITY SERVICES COMMITTEE
Notice of Meeting on **Monday, June 12, 2023 at 2:00 p.m.**
Goldstream Conference Room, 479 Island Highway, Victoria, BC

For members of the **public who wish to listen to the meeting** via telephone please call **1-833-353-8610** and enter the **Participant Code 1911461 followed by #.** You will not be heard in the meeting room but will be able to listen to the proceedings.

W. Forsberg (Chair) C. Welham (Vice-Chair) C. Carlsen A. Wickheim, Electoral Area Director

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AGENDA

1. APPROVAL OF AGENDA

2. ADOPTION OF MINUTES 3

***Recommendation**: That the minutes of the February 6, 2023 meeting be adopted.*

3. CHAIR'S REMARKS

4. PRESENTATIONS/DELEGATIONS

Delegations will have the option to participate electronically. Please complete the online application for "Addressing the Board" on our website and staff will respond with details.

Alternatively, you may email your comments on an agenda item to the Port Renfrew Utility Services Committee at iwsadministration@crd.bc.ca.

Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

5. SENIOR MANAGER'S REPORT

- Electoral Areas Water Conservation Bylaw No. 1, 2022 (Bylaw No. 4492) – Update

6. COMMITTEE BUSINESS

6.1. 2022 Annual Report 7

There is no recommendation. This report is for information only.

6.2. Project and Operations Update 24

There is no recommendation. This report is for information only.

7. CORRESPONDENCE

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*To ensure quorum, advise **IWSAdministration@crd.bc.ca** if you cannot attend.*

IWSS-297445977-10374

8. NEW BUSINESS

9. ADJOURNMENT

Next Meeting: Friday, November 10, 2023 at 2:00pm

Making a difference...together

MINUTES OF A MEETING OF THE Port Renfrew Utility Services Committee, held Monday, February 6, 2023 at 2 p.m., In The Goldstream Meeting Room, 479 Island Highway, Victoria, BC

PRESENT: **Committee Members:** W. Forsberg (Chair); C. Welham (Vice Chair) (EP); A. Wickheim (Electoral Areas Committee); C. Carlsen (EP)

Staff: J. Marr, Acting Senior Manager, Infrastructure Engineering; J. Dales, Senior Manager, Wastewater Infrastructure Operations; J. Kelly, Manager, Capital Projects; C. Moch, Manager, Water Quality Operations; L. Xu, Manager, Finance Services (EP); L. Ferris, Manager, Policy and Planning, Environmental Resource Management; T. Duthie, Manager, Administrative Services; M. Risvold, Committee and Administrative Clerk (Recorder)

EP = Electronic Participation

The meeting was called to order at 2:01.

1. ELECTION OF CHAIR

The Acting Senior Manager called for nominations for the position of Chair of the Port Renfrew Utility Services Committee for the term ending December 31, 2023.

A. Wickheim nominated W. Forsberg. W. Forsberg accepted the nomination.

The Acting Senior Manager called for nominations a second time.

The Acting Senior Manager called for nominations a third and final time.

Hearing no further nominations, the Acting Senior Manager declared W. Forsberg Chair of the Port Renfrew Utility Services Committee for the term ending December 31, 2023 by acclamation.

2. ELECTION OF VICE CHAIR

The Chair called for nominations for the position of Vice Chair of the Port Renfrew Utility Services Committee for the term ending December 31, 2023.

A. Wickheim nominated C. Welham. C. Welham accepted the nomination.

The Chair called for nominations a second time.

The Chair called for nominations a third and final time.

Hearing no further nominations, the Chair declared C. Welham Vice Chair of the Port Renfrew Utility Services Committee for the term ending December 31, 2023 by acclamation.

3. APPROVAL OF AGENDA

Operations for the Church Water Shutoff was added to New Business.

MOVED by A. Wickheim, **SECONDED** by C. Welham,
That the agenda be approved as amended.

CARRIED

4. ADOPTION OF MINUTES

MOVED by C. Welham, **SECONDED** by A. Wickheim,
That the minutes of the November 21, 2022 meeting be adopted.

CARRIED

5. CHAIR'S REMARKS

The Chair had no remarks.

6. PRESENTATIONS/DELEGATIONS

There were none.

7. SENIOR MANAGER'S REPORT

J. Marr advised he is looking forward to working with the committee and welcomed the new members.

8. COMMITTEE BUSINESS

8.1. Presentation – Port Renfrew Utility Services Committee Orientation

Staff provided the orientation presentation and responded to questions from the committee regarding:

- Water meters. Staff advised that the Capital Regional District (CRD) owns up to and including the meter. The area from the meter to the property line is maintained by the homeowner. Homeowners are unable to complete work on the public side.
- Back-up generator. Staff advised there is $60,000 allocated in grant funding for the new back-up generator. Additional funding is for the hook-up and installation. The current back-up generator is still functioning but does not have the power to run the blowers and treatment plant which results in the number of treated effluent being reduced.
- Alternative Approval Process (AAP). Staff advised a public notice would be issued including the plans, and the community would respond. If 10 percent of the single family equivalent's do not support the AAP, it will proceed to referendum. 51 percent of the vote must be positive to proceed with borrowing. Staff noted an AAP is the most cost-effective way to borrow. Staff will confirm how the AAP is communicated to the community.

8.2. Port Renfrew Garbage and Recycling Depot Operation

L. Ferris provided the report.

Staff responded to questions regarding the potential for the depot to be moved outside of town. Staff advised it is not explicitly being considered and the land the current depot is on is owned by CRD for this purpose. Staff are corresponding with Pacheedaht First Nation to see if they would want to host the depot and noted any option going forward will be more expensive. Staff will review the ability of obtaining Crown Land for the new depot. Discussion ensued.

8.3. Project and Operations Update

Staff responded to questions regarding the outfall blockage. Staff advised that a repaired coupling has been removed to relieve the treated effluent into the ocean as a short-term fix. There is a long-term capital plan to address this issue. There has been an increase of sampling by Environmental Protection and there has been no observations of increased coliforms.

8.4. Referral from Electoral Areas Committee – Electoral Areas Water Conservation Bylaw No. 1, 2022 (Bylaw No. 4492)

The committee provided the following feedback:

- How the bylaw would be enforced for fisherman washing charter boats
- The Ministry of Environment requiring boats to be washed after being in the ocean

9. PORT RENFREW UTILITY SERVICES COMMITTEE MEETING SCHEDULE

Regular meetings of the Port Renfrew Utility Services Committee shall be held in the Goldstream conference room, 479 island highway, Victoria, BC on Monday, February 6, Monday, June 12 and a date to be determined in November to approve the operating and capital budget. Meetings will commence at 2:00 pm unless otherwise determined.

Staff advised additional meetings are at the call of the chair.

10. CORRESPONDENCE

There was none.

11. NEW BUSINESS

11.1. Operations for the Church Water Shutoff

The committee asked where the water shut-off location is for the church across from lower Beach Camp. Staff will determine where the shut-off is located and provide the location information to the committee.

12. ADJOURNMENT

MOVED by W. Forsberg, **SECONDED** by C. Welham,
That the February 6, 2023 meeting be adjourned at 3:47 pm.

CARRIED

_____
CHAIR

_____
SECRETARY

Port Renfrew Utility System

2022 Annual Report

CRD | Drinking Water, Wastewater, Street Lighting and Refuse

Introduction

This report provides a summary of the Port Renfrew Utility Services for the year 2022 and includes a description of services and a summary of the water, sewer, street lighting, and refuse disposal services in terms of operations, maintenance, capital upgrades, and finances for each service.

Port Renfrew Utility Services Committee

The Port Renfrew Utility Services Committee (PRUSC) has authority delegated by the Capital Regional District (CRD) Board for provision of water, sewer, street lighting and refuse disposal for the Port Renfrew community. Refuse disposal service is also provided to the Pacheedaht First Nation under a service delivery agreement. This Annual Report relates to the services provided under the authority of the PRUSC. Snuggery Cove Water Local Service (Debt Servicing) was created for the sole purpose of servicing debt relating to the expansion of the Port Renfrew water system to the Snuggery Cove area. The debt was paid off and the service budget was discontinued from 2021 onwards.

WATER SERVICE

Service Description

The community of Port Renfrew, located in the Juan de Fuca Electoral Area of the CRD, is comprised of rural residential and commercial and institutional development. The Port Renfrew water service was originally owned by a forestry company and was transferred to the CRD in 1989 to service the Beach Camp area. In 2002, the water service area was extended to include the Snuggery Cove area and again in 2016 to include the lands to the south of Beach Camp. The water service consists of approximately 231 parcels, encompassing a total area of approximately 98.3 hectares. Of the 231 parcels, 315.6 Single Family Equivalents (SFE) were customers to the water system in 2022.

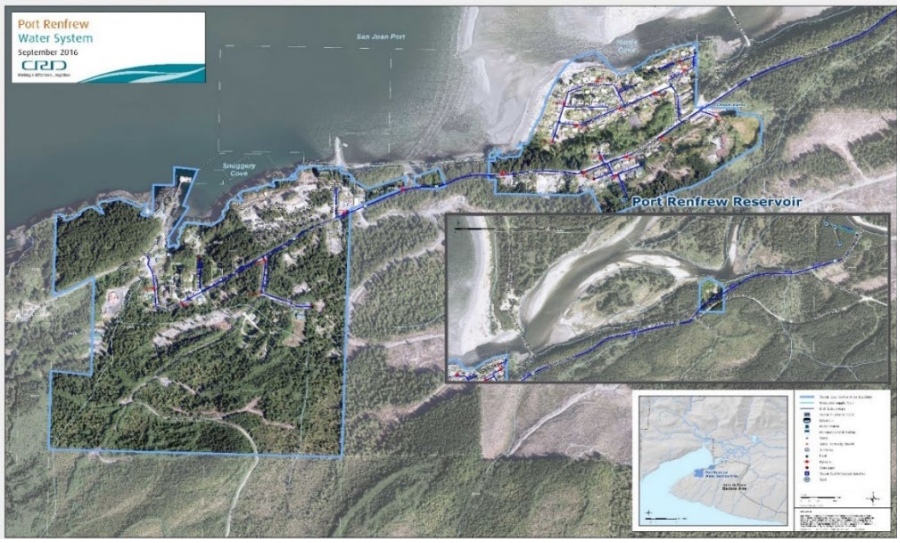

Figure 1: Map of the Water Service Area

The Port Renfrew water system is primarily comprised of:

- One groundwater well, related pumping and control equipment and building.
- Disinfection process equipment (chlorine) and an aeration tower/scrubber for hydrogen sulfide reduction to improve water taste and odour.
- Two steel storage tanks total combined volume is 888 cubic meters (or 235,000 US gallons).
- Distribution system: 4,400 metre network of 150 millimeters (mm) and 100 mm diameter asbestos cement (AC) water mains to the Beach Camp area and a 2,200 metres network of 150 mm and 100 mm polyvinyl chloride (PVC) water mains to the Snuggery Cove area.
- Other water system assets: 195 service connections, 25 hydrants and an auxiliary generator.

Water Supply

2022 data shows that the water level in the winter, when at its highest, was 24 metres above the well pump, and in the summer at its lowest point was 15 metres above the pump.

Water Production and Demand

Referring to Figure 2, 70,143 cubic meters of water was extracted (water production) from the well in 2022; a increase of 14% over the previous year and 13% above the five year average. The monthly comparison of treated water volumes, produced for the years 2018 to 2022 inclusive, shows that there continues to be a very high demand in August which is typically the peak of drought like conditions and tourism in the area, before trending lower for the rest of the year.

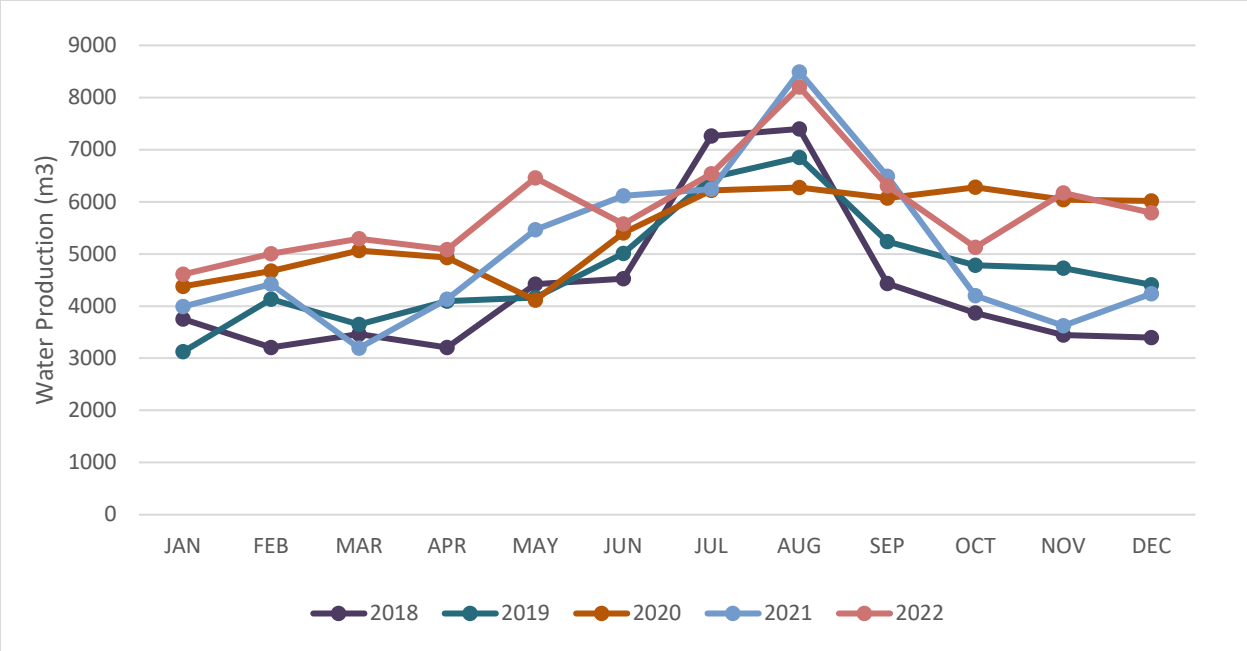

Figure 2: Water Service Monthly Water Production

Drinking Water Quality

The analytical results (biological, chemical and physical parameters) of water samples collected in 2022 from the Port Renfrew water system indicate that the drinking water was of good quality and within Guidelines for Canadian Drinking Water Quality (GCDWQ) health-related regulatory and aesthetic limits, including disinfection by-products.

While the treated water temperature did exceed the aesthetic limit of 15°C during the summer months (July 13 – August 25), this had no other negative impact on the drinking water quality.

Typical Port Renfrew drinking water quality characteristics for 2022 are summarized as follows:

Raw Water

- The source water from the well was free of E.coli and total coliform bacteria.
- The well water was low in iron and manganese concentrations, slightly hard (mean hardness 42.75 mg/L) and had a neutral pH of 7.1.
- The median raw water turbidity was below the detection limit of 0.14 Nephelometric Turbidity unit (NTU).

Treated Water

- The water delivered to the customers was safe to drink throughout the year. No sample out of 83 compliance samples in the distribution system tested positive for total coliform bacteria in 2022.
- The mean annual free chlorine concentration in the distribution system was an acceptable 0.42 mg/L.
- The average annual disinfection by-product total concentrations for trihalomethanes (TTHM) were well below the GCDWQ limit. Haloacetic acids (HAA) were not tested in 2022. HAA concentrations are typically low when THM concentrations are low.

Table 1 and 2 below provide a summary of the 2022 raw and treated water test results.

Water Quality data collected from this drinking water system can also be reviewed on the CRD website:

https://www.crd.bc.ca/about/data/drinking-water-quality-reports

Water Service Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Integrated Water Services staff:

- Multiple water leaks were responded to and repaired throughout the system.
- The main hydro feed pole to the Water Treatment Plant was replaced. Interior lighting within the Water Treatment Plant was upgraded. The Water Treatment Plant sulphide scrubbing unit was replaced.

Water Service Capital Projects Update

The Capital Projects that were in progress or completed in 2022 include:

- Wickanninish Road AC Watermain Replacement – Design work completed. Construction to be completed in 2023.

SEWER SERVICE

Service Description

The Port Renfrew sewer system serves 88 properties in the Beach Camp and localized residential area below and has continued to operate reliably in the past year, although the wastewater treatment plant (WWTP) occasionally had difficulty processing peak flow events. The treatment process consists of an extended aeration facility and a steel outfall which discharges treated effluent to the San Juan River estuary under a Ministry of Environment permit. The 88 properties are comprised of 97.77 SFE's.

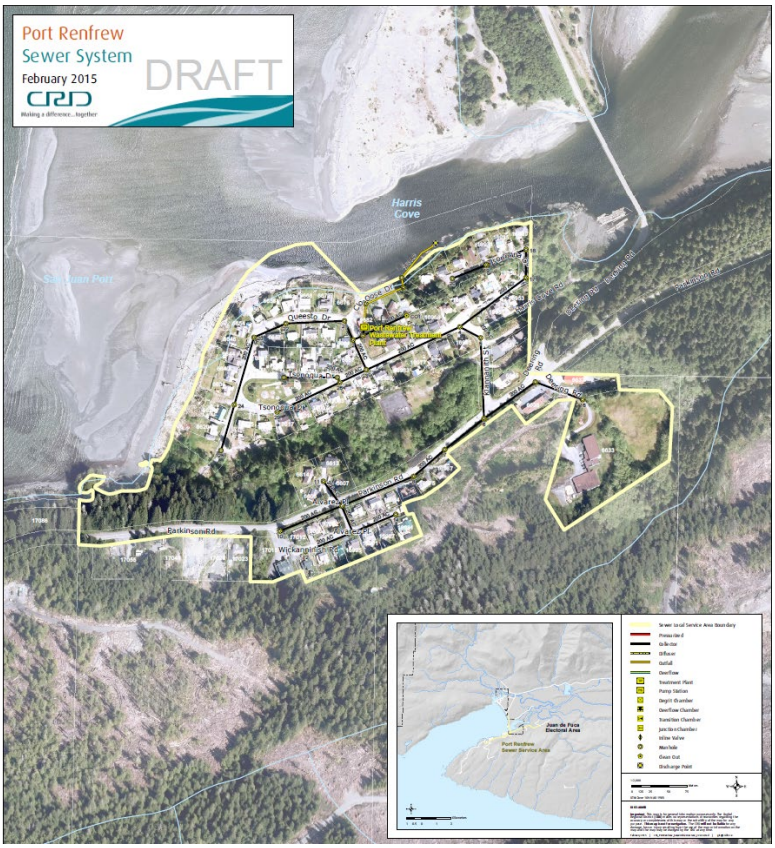

Figure 3: Map of the Sewer Service Area

A sewage volume of 18,390 cubic meters was treated and discharged in 2022 which equates to an average of 188 cubic meters/SFE. Sewage flows in Port Renfrew went down by 17% from 2021 which can be influenced by annual rainfall and tourist numbers. During the rainy season, inflow and infiltration water enters the sewer system through cracks and defects in the pipes and manholes that were installed in the 1960's.

Figure 4 shows Port Renfrew sewer flow trends over the last 10 years.

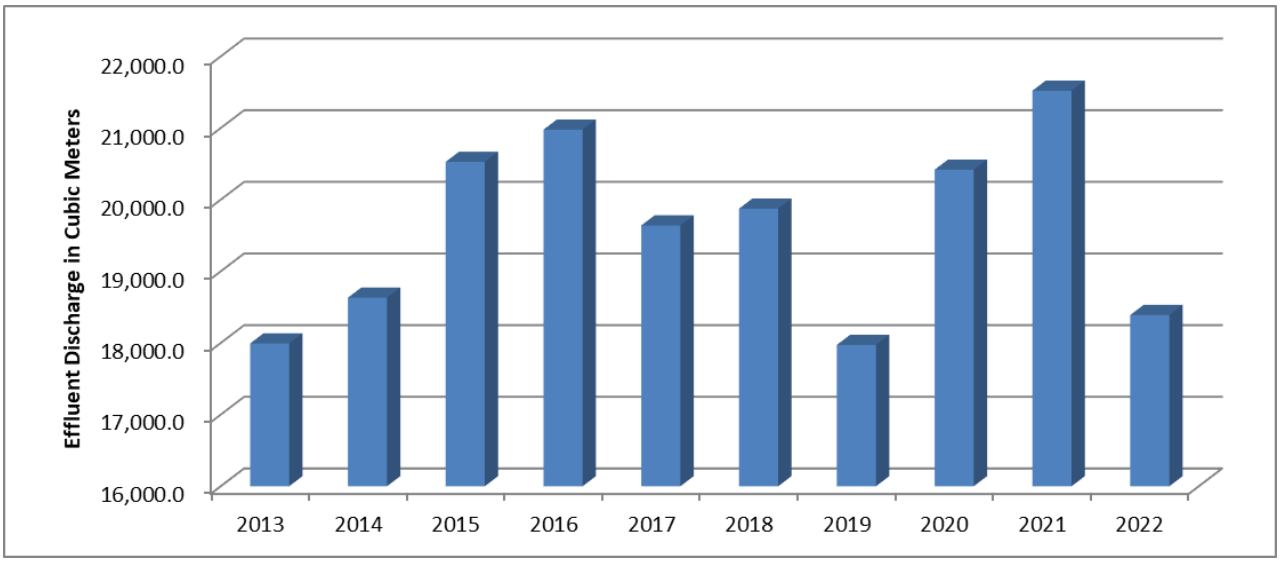

Figure 4: Port Renfrew Sewer Flow Trends

Treated Effluent Discharge Quality

Regulatory Compliance – Wastewater

Flow and effluent quality are assessed for compliance with the provincial discharge permit on a daily and monthly basis, respectively. Mean daily flows in 2022 were similar to flow rates recorded since 2007; flow exceeded the permitted daily maximum one time in January 2022, due to heavy rains. There was one total suspended solids (TSS) exceedance in June of the permitted effluent quality limits.

Receiving Water

Routine receiving water monitoring was required at the Port Renfrew WWTP in 2020, but did not take place as planned. This monitoring is required every four years unless there are planned bypasses, plant failures/overflows, or wet weather overflows that exceed three days duration in the winter or one day duration in the summer. Sampling was conducted as shoreline marine monitoring in summer 2021. All results were below regulatory guidelines meaning that risk to human health was low. Receiving water monitoring is next scheduled for 2024.

There was no overflow/emergency receiving water sampling conducted in 2022.

Sewer Service Operational Highlights

The following is a summary of the major operational issues that were addressed by CRD Integrated Water Services staff:

- The Wastewater Treatment Plant's roof was replaced. Repairs to the emergency generator were completed along with a successful load test. The Human-Machine Interface (HMI) touchscreen was replaced. Exterior electrical outlet upgrades were completed.

Sewer Service Capital Projects Update

The Capital Projects that were in progress or completed in 2022 included:

- Generator Updgrade – supply contract was entered into to provide a new standby power generator capable of powering the entire wastewater treatment plant during a power outage. Delivery isn't expected until late 2023.

Street Lighting Service

Street lighting service is provided in the area of Port Renfrew known as Beach Camp. The street lights are operated and maintained by BC Hydro, and costs are recovered through a parcel tax and user charge on parcels in the area where the service is provided. There were no significant issues with this service in 2022.

Refuse Disposal Service

The Port Renfrew Refuse Disposal service serves 379 taxable folios including 330 residential folios within the service area and is funded through direct tax requisition based on the value of each property. The Pacheedaht First Nation also utilizes the service through a fee-for-service agreement. The tonnages of materials received and transferred from the Port Renfrew Garbage and Recycling Depot in 2022 are as follows:

Port Renfrew Garbage & Recycling Depot
(tonnes)

	2022	2021
Garbage	237	241
Recyclables		
- *Scrap metal and large appliances*	78	84
- *Packaging and printed paper*	27	23
- *Tires/electronics*	4	3
Note: Beverage containers, paint, used motor oil and used cooking oil are also accepted at the depot – quantities are not available due to the hauling and processing arrangements in place for these products.		

The Port Renfrew Refuse Disposal service is facing challenges with respect to how the depot is staffed and operated and the way the service is funded. These challenges need to be addressed through the development of a new approach to delivering solid waste and recycling services in Port Renfrew for implementation in 2024. CRD staff are preparing a report with options for consideration by Port Renfrew Utilities Services Commission in Q3 2023.

Financial Report

Please refer to the attached 2022 Statement of Operations and Reserve Balances for Port Renfrew Street Lighting, Water, Snuggery Cove Water, Sewer and Refuse Disposal services.

Revenue includes parcel taxes (Transfers from Government), fixed user fees (User Charges), Water Sales, interest on savings (Interest earnings), and miscellaneous revenue such as late payment charges (Other revenue).

Expenses include all costs for providing the services. General Government Services include budget preparation, financial management, utility billing and risk management services. CRD Labour and Operating Costs include CRD staff time as well as the cost of equipment, tools and vehicles. Debt servicing costs are interest and principal payments on long term debt. Other Expenses include all other costs to administer and operate the services, for example, insurance, supplies, water testing and electricity etc.

The difference between Revenue and Expenses is reported as Net revenue (expenses). Any transfers to or from capital or reserve funds for the service (Transfers to Own Funds) are deducted from this amount and added to any surplus or deficit carry forward from the prior year, yielding an Accumulated Surplus (or deficit) that is carried forward to the following year.

Submitted by:	Jason Dales, B.Sc., WD IV, Senior Manager, Wastewater Infrastructure Operations
	Joseph Marr, P.Eng., Acting Senior Manager, Infrastructure Engineering
	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
	Rianna Lachance, BCom, CPA, CA, Senior Manager, Financial Services
Concurrence:	Ian Jesney, P.Eng., Acting General Manager, Integrated Water Services
	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services

Attachment: 2022 Statement of Operations and Reserve Balances

For questions related to this Annual Report please email IWSAdministration@crd.bc.ca

APPENDIX A

Table 1

Table 1: 2022 Summary of Raw Water Test Results, Port Renfrew Water System										
PARAMETER		**2022 ANALYTICAL RESULTS**				**CANADIAN GUIDELINES**	**2012 - 2021 ANALYTICAL RESULTS**			
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Minimum	Range Maximum	≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum	Range Maximum
ND means Not Detected by analytical method used										
Physical Parameters/Non-Metallic Inorganics										
Carbon, Total Organic	mg/L	**1.84**	4	0.2	3.6		1.4	23	0.46	43
Hardness as CaCO3	mg/L	**42.75**	4	42	47.1	No Guideline Required	40.2	26	7.71	47.8
pH	pH units	**7.1**	5	7.1	7.2	6.5 - 8.5 AO	7.4	41	6.6	8.48
Turbidity	NTU	**< 0.14**	10	0.05	0.15		< 0.14	35	0.06	0.55
Water Temperature	°C	**8.7**	12	6	11.1	>15 AO	8.4	104	5	12.1
Microbial Parameters										
Indicator Bacteria and Turbidity										
Coliform, Total	CFU/100 mL	**< 1**	11	< 1	< 1		< 1	119	< 1	2
E. coli	CFU/100 mL	**< 1**	11	< 1	< 1		< 1	89	< 1	< 2
Metals										
Aluminum	ug/L as Al	**5.95**	4	5.8	6.2	2900 MAC / 100 OG	7.35	26	6	123
Antimony	ug/L as Sb	**< 0.5**	4	< 0.5	< 0.5	6 MAC	< 0.5	26	< 0.5	1.3
Arsenic	ug/L as As	**0.125**	4	0.11	0.14	10 MAC	0.12	26	< 0.1	< 0.5
Barium	ug/L as Ba	**1.2**	4	1.2	1.3	1000 MAC	1.2	26	< 1	< 9
Beryllium	ug/L as Be	**< 0.1**	4	< 0.1	< 0.1		< 0.1	26	< 0.1	< 3
Bismuth	ug/L as Bi	**< 1**	4	< 1	< 1		< 1	22	< 1	< 1
Boron	ug/L as B	**115**	4	109	131	5000 MAC	109	26	< 50	943
Cadmium	ug/L as Cd	**< 0.01**	4	< 0.01	< 0.01	5 MAC	< 0.01	26	< 0.01	0.19
Calcium	mg/L as Ca	**7.605**	4	7.51	8.73	No Guideline Required	7.18	26	2.96	8.39
Chromium	ug/L as Cr	**< 1**	4	< 1	< 1	50 MAC	< 1	26	< 1	< 10
Cobalt	ug/L as Co	**< 0.2**	4	< 0.2	0.32		< 0.2	26	< 0.2	< 20
Copper	ug/L as Cu	**< 0.2**	4	< 0.2	0.34	2000 MAC / ≤ 1000 AO	0.45	26	< 0.2	12
Iron	ug/L as Fe	**< 5**	4	< 5	< 5	≤ 300 AO	< 5	26	< 5	80
Lead	ug/L as Pb	**< 0.2**	4	< 0.2	< 0.2	5 MAC	< 0.2	26	< 0.2	< 0.5
Lithium	ug/L as Li	**< 2**	4	< 2	< 2		< 2	8	< 2	< 5
Magnesium	mg/L as Mg	**5.77**	4	5.64	6.15	No Guideline Required	5.51	26	0.081	6.62
Manganese	ug/L as Mn	**10.15**	4	9.9	10.5	120 MAC / ≤ 20 AO	9.95	26	< 4	12.1
Molybdenum	ug/L as Mo	**< 1**	4	< 1	< 1		< 1	26	< 1	< 20
Nickel	ug/L as Ni	**< 1**	4	< 1	< 1		< 1	26	< 1	< 50
Potassium	mg/L as K	**3.385**	4	3.31	3.64		3.37	26	0.199	3.81
Sulphur	mg/L as S	**< 3**	4	< 3	3.6		< 3	22	< 3	4
Selenium	ug/L as Se	**0.375**	4	< 0.1	1.8	50 MAC	0.135	26	< 0.1	3.04
Silicon	mg/L	**4590**	4	4450	5020		4340	26	1400	7120
Silver	ug/L as Ag	**< 0.02**	4	< 0.02	< 0.02	No Guideline Required	< 0.02	26	< 0.02	< 10
Sodium	mg/L as Na	**28.55**	4	27.2	30.3	≤ 200 AO	26.75	26	23.5	38.2
Strontium	ug/L as Sr	**56.6**	4	54.8	66.4	7000 MAC	52.25	26	42	82
Tin	ug/L as Sn	**< 5**	4	< 5	< 5		< 5	26	< 5	< 20
Titanium	ug/L as Ti	**< 5**	4	< 5	< 5		< 5	26	< 5	< 10
Thallium	ug/L as Tl	**< 0.01**	4	< 0.01	< 0.01		< 0.01	22	< 0.01	< 0.05
Uranium	ug/L as U	**< 0.1**	4	< 0.1	< 0.1	20 MAC	< 0.1	22	< 0.1	< 0.1
Vanadium	ug/L as V	**< 5**	4	< 5	< 5		< 5	26	< 5	22
Zinc	ug/L as Zn	**< 5**	4	< 5	< 5	≤ 5000 AO	< 5	26	< 5	136
Zirconium	ug/L as Zr	**< 0.1**	4	< 0.1	< 0.1		< 0.1	22	< 0.1	< 0.5

APPENDIX A

Table 2

Table 2: 2022 Summary of Treated Water Test Results, Port Renfrew Water System										
PARAMETER		2022 ANALYTICAL RESULTS				CANADIAN GUIDELINES	2011 - 2021 ANALYTICAL RESULTS			
Parameter Name	Units of Measure	Annual Median	Samples Analyzed	Range Minimum	Range Maximum	≤ = Less than or equal to	Median	Samples Analyzed	Range Minimum	Range Maximum
ND means Not Detected by analytical method used										
Physical Parameters/Non-Metallic Inorganics										
Carbon, Total Organic	mg/L as C	**0.595**	4	0.48	0.72		0.705	30	< 0.3	15
Hardness as CaCO3	mg/L	**43.25**	4	42.7	48	No Guideline Required	41.1	23	37.1	48
pH	pH units	**7**	5	6.9	7.2	6.5 - 8.5 AO	7.3	30	6.9	8.28
Turbidity	NTU	Not tested in 2022					0.175	13	< 0.14	0.25
Water Temperature	degrees C	**6.9**	131	2.7	16		10.9	1305	2.2	24.1
Microbial Parameters										
Microbial Parameters										
Coliform, Total	CFU/100 mL	**< 1**	83	< 1	< 2	0 MAC	< 1	503	< 1	26
E. coli	CFU/100 mL	**< 1**	83	< 1	< 1	0 MAC	< 1	503	< 1	2
Hetero. Plate Count, 7 day	CFU/1 mL	Not tested in 2022				No Guideline Required	50	13	< 10	390
Disinfectants										
Chlorine, Free Residual	mg/L as Cl2	**0.42**	150	0.2	0.96	No Guideline Required	0.39	1491	0.02	1.84
Chlorine, Total Residual	mg/L as Cl2	Not tested in 2022				No Guideline Required	0.54	753	0.05	2.14
Disinfection By-Products										
Trihalomethanes (THMs)										
Bromodichloromethane	ug/L	**11.6**	4	< 1	17		13.5	26	1.94	26.7
Bromoform	ug/L	**10.5**	4	9.9	11		8.25	26	< 0.1	20.7
Chloroform	ug/L	**7.95**	4	5.1	9.9		8.15	26	1.84	16.7
Chlorodibromomethane	ug/L	**26.5**	4	15	31		20	26	<0.1	40.3
Total Trihalomethanes	ug/L	**54**	4	39	66	100 MAC	57.5	26	3.78	98.8
Haloacetic Acids (HAAs)										
HAA5	ug/L	Not tested in 2022				80 MAC	8.4	4	< 5	12
Metals										
Aluminum	ug/L as Al	**6.95**	4	6	8.2	2900 MAC / 100 OG	8	23	6.5	102
Antimony	ug/L as Sb	**< 0.5**	4	< 0.5	< 0.5	6 MAC	< 0.5	23	< 0.5	1.25
Arsenic	ug/L as As	**0.14**	4	0.13	0.16	10 MAC	0.14	23	0.11	< 0.5
Barium	ug/L as Ba	**1.5**	4	1.5	2.1	1000 MAC	1.6	23	1	26
Beryllium	ug/L as Be	**< 0.1**	4	< 0.1	< 0.1		< 0.1	23	< 0.1	< 3
Bismuth	ug/L as Bi	**< 1**	4	< 1	< 1		< 1	20	< 1	< 1
Boron	ug/L as B	**116**	4	112	131	5000 MAC	111	23	< 50	505
Cadmium	ug/L as Cd	**< 0.01**	4	< 0.01	< 0.01	5 MAC	< 0.01	23	< 0.01	< 0.1
Calcium	mg/L as Ca	**7.86**	4	7.75	8.78	No Guideline Required	7.56	23	6.31	8.81
Chromium	ug/L as Cr	**< 1**	4	< 1	< 1	50 MAC	< 1	23	< 1	< 10
Cobalt	ug/L as Co	**< 0.2**	4	< 0.2	< 0.2		< 0.2	23	< 0.2	< 20
Copper	ug/L as Cu	**1.88**	4	1.58	2.11	2000 MAC / ≤ 1000 AO	2.54	23	0.2	35
Iron	ug/L as Fe	**6.75**	4	< 5	32.4	≤ 300 AO	15.8	23	< 5	221
Lead	ug/L as Pb	**< 0.2**	4	< 0.2	< 0.2	5 MAC	< 0.2	23	< 0.2	0.792
Lithium	ug/L as Li	**< 2**	4	< 2	< 2		< 2	7	< 2	< 2
Magnesium	mg/L as Mg	**5.775**	4	5.59	6.33	No Guideline Required	5.41	23	4.82	6.32
Manganese	ug/L as Mn	**5.75**	4	4.5	29.6	120 MAC / ≤ 20 AO	7	23	2.7	EXG 217
Molybdenum	ug/L as Mo	**< 1**	4	< 1	< 1		< 1	23	< 1	< 20
Nickel	ug/L as Ni	**< 1**	4	< 1	< 1		< 1	23	< 1	< 50
Potassium	mg/L as K	**3.42**	4	3.3	3.72		3.33	23	3.1	4.1
Selenium	ug/L as Se	**< 0.1**	4	< 0.1	< 0.1	50 MAC	< 0.1	23	< 0.1	0.821
Sulphur	mg/L as S	**< 3**	4	< 3	< 3		< 3	20	< 3	< 3
Silver	ug/L as Ag	**< 0.02**	4	< 0.02	< 0.02	No Guideline Required	< 0.02	23	< 0.02	< 10
Sodium	mg/L as Na	**32.8**	4	31.4	36	≤ 200 AO	30.2	23	24.5	36
Silicon	mg/L	**4600**	4	4440	4990		4360	23	1510	5000
Strontium	ug/L as Sr	**57.7**	4	56.3	67.9	7000 MAC	53.2	23	45	65.6
Tin	ug/L as Sn	**< 5**	4	< 5	< 5		< 5	23	< 5	< 20
Thallium	ug/L as Tl	**< 0.01**	4	< 0.01	< 0.01		< 0.01	20	< 0.01	< 0.01
Titanium	ug/L as Ti	**< 5**	4	< 5	< 5		< 5	23	< 5	< 10
Uranium	ug/L as U	**< 0.1**	4	< 0.1	< 0.1	20 MAC	< 0.1	20	< 0.1	< 0.1
Vanadium	ug/L as V	**< 5**	4	< 5	< 5		< 5	23	< 5	10
Zinc	ug/L as Zn	**< 5**	4	< 5	6.4	≤ 5000 AO	< 5	23	3	17.2
Zirconium	ug/L as Zr	**< 0.1**	4	< 0.1	< 0.1		< 0.1	20	< 0.1	0.12

APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW WATER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2022

	2022	2021
Revenue		
Transfers from government	64,508	60,016
User Charges	64,558	60,200
Other revenue from own sources:		
Transfer from Operating Reserve	13,000	-
Interest earnings	150	-
Other revenue	837	833
Total Revenue	143,053	121,049
Expenses		
General government services	5,355	5,540
Contract for Services	5,665	3,158
CRD Labour and Operating costs	96,235	92,956
Other expenses	21,236	17,341
Total Expenses	128,491	118,995
Net revenue (expenses)	14,562	2,054
Transfers to own funds:		
Capital Reserve Fund	4,562	54
Operating Reserve Fund	10,000	2,000
Annual surplus/(deficit)	-	-
Accumulated surplus/(deficit), beginning of year	-	-
Accumulated surplus/(deficit), end of year $	-	-

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APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW WATER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2022

	Capital Reserve	
	2022	**2021**
Beginning Balance	52,500	80,799
Transfer from Operating Budget	4,562	54
Transfer from Completed Capital Projects	-	5,484
Transfer to Capital Projects	-	(35,093)
Interest Income	1,511	1,256
Ending Balance	58,573	52,500

	Operating Reserve	
	2022	**2021**
Beginning Balance	4,071	2,021
Transfer from Operating Budget	10,000	2,000
Transfer to Operating Budget	(13,000)	-
Interest Income	100	50
Ending Balance	1,171	4,071

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APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW SEWER
Statement of Operations (Unaudited)
For the Year Ended December 31, 2022

	2022	2021
Revenue		
Transfers from government User	62,294	59,456
Charges	62,595	57,308
Recovery Cost	3,477	2,744
Other revenue from own sources:		
Interest earnings	330	9
Other revenue	1,404	1,144
Total Revenue	130,100	120,661
Expenses		
General government services	5,041	4,260
Contract for Services	3,856	3,148
CRD Labour and Operating costs	75,021	85,381
Other expenses	25,780	23,635
Total Expenses	109,698	116,424
Net revenue (expenses)	20,402	4,237
Transfers to own funds:		
Capital Reserve Fund	16,402	2,035
Operating Reserve Fund	4,000	-
Annual surplus/(deficit)	-	2,202
Accumulated surplus/(deficit), beginning of year	-	(2,202)
Accumulated surplus/(deficit), end of year	$ -	-

APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW SEWER
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2022

	Capital Reserve 2022	2021
Beginning Balance	7,612	21,548
Transfer from Operating Budget	16,402	2,035
Transfer from Completed Capital Projects	687	3,849
Transfer to Capital Projects	-	(20,000)
Interest Income	296	180
Ending Balance	24,997	7,612

	Operating Reserve 2022	2021
Beginning Balance	349	21
Transfer from Operating Budget	4,000	-
Transfer from Reserves	-	305
Transfer to Operating Budget	-	-
Interest Income	28	23
Ending Balance	4,377	349

APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW STREET LIGHTING
Statement of Operations (Unaudited)
For the Year Ended December 31, 2022

	2022	2021
Revenue		
Transfers from government	3,485	3,321
User Charges	3,654	3,071
Other revenue from own sources:		
Interest earnings	31	20
Other revenue	254	281
Total Revenue	7,424	6,693
Expenses		
General government services	444	425
Electricity	6,979	6,813
Other expenses	66	83
Total Expenses	7,489	7,321
Net revenue (expenses)	(65)	(628)
Annual surplus/(deficit)	(65)	(628)
Accumulated surplus/(deficit), beginning of year	1,520	2,148
Accumulated surplus/(deficit), end of year	$ 1,455	1,520

APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW REFUSE
Statement of Operations (Unaudited)
For the Year Ended December 31, 2022

	2022	2021
Revenue		
Transfers from government	33,852	33,324
Recovery from Pacheedaht FN	37,262	36,137
Recovery from CRD Solid Waste	17,000	15,590
Recyclables Sales	12,158	14,351
Other revenue from own sources:		
Interest earnings	78	23
Other revenue	347	334
Total Revenue	100,697	99,759
Expenses		
General government services	4,037	3,867
Contract for Services	88,641	89,287
Utilities & Telecommunications	2,781	1,796
Other expenses	168	402
Total Expenses	95,627	95,352
Net revenue (expenses)	5,070	4,407
Transfers to own funds:		
Capital Reserve Fund	4,000	4,000
Equipment Replacement Fund	1,070	407
Annual surplus/(deficit)	-	-
Accumulated surplus/(deficit), beginning of year	-	-
Accumulated surplus/(deficit), end of year	$ -	-

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APPENDIX A

CAPITAL REGIONAL DISTRICT

PORT RENFREW REFUSE
Statement of Reserve Balances (Unaudited)
For the Year Ended December 31, 2022

	Capital Reserve	
	2022	**2021**
Beginning Balance	55,260	73,400
Transfer from Operating Budget	4,000	4,000
Transfer from Completed Capital Projects	463	-
Transfer to Capital Projects	(25,000)	(23,000)
Interest Income	1,327	860
Ending Balance	36,050	55,260

	Equipment Replacement Fund	
	2022	**2021**
Beginning Balance	37,871	37,222
Transfer from Operating Budget	1,070	407
Purchases from ERF	-	-
Interest Income	312	242
Ending Balance	39,253	37,871

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Making a difference...together

REPORT TO PORT RENFREW UTILITY SERVICES COMMITTEE
MEETING OF MONDAY, JUNE 12, 2023

SUBJECT **Capital Project Status Reports and Operational Updates – June 2023**

ISSUE SUMMARY

To provide the Port Renfrew Utility Services Committee with capital project status reports and operational updates.

BACKGROUND

The Port Renfrew Water System is located on the west coast of Vancouver Island in the Juan de Fuca Electoral Area and provides drinking water to approximately 316 Single Family Equivalents (SFE) in a part of the Town of Port Renfrew, known as Beach Camp and Snuggery Cove. The Port Renfrew sewer system serves approximately 98 SFE's in the Beach Camp localized residential area. Capital Regional District (CRD) Integrated Water Services is responsible for the overall operation of the water and sewer systems with day-to-day operation, maintenance, design and construction of water and sewer system facilities provided by the CRD Infrastructure Engineering and Operations Divisions. The quality of drinking water provided to customers in the Port Renfrew Water System is overseen by the CRD Water Quality Section.

CAPITAL PROJECT UPDATE

Port Renfrew Water

20-01 | Hydrant Replacement Program

Project Description: Hydrants are reaching their end of life and require replacement.

Project Rationale: The hydrants in the water system are nearing their end of life. To maintain fire protection planned hydrant replacement is required on an annual basis. Priority is based on Operator and community input.

Project Update and Milestones:

Milestone	Completion Date
2023 works not yet progressed.	

Port Renfrew Sewer

22-01 | Genset Upgrade

Project Description: A new genset is required to provide standby power for the whole Wastewater Treatment Plant (WWTP).

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Project Rationale: The existing genset only provides standby power for the influent pumps. During a power outage, the blowers do not operate, and this puts the WWTP out of compliance with the regulations. A new genset is required to provide standby power for the whole WWTP.
Project Update and Milestones:

Milestone	Completion Date
Generator supply contract awarded to Cummins. Delivery not expected until end of 2023 or early 2024.	Ongoing
A Community Works Fund application is in process for approval. Upon approval, procurement through a quotation process will be used and upon delivery the genset installed at the new facility.	Complete

22-02 | Alternative Approval Process (AAP) – Project Has Been Deferred To 2024

Project Description: Based on information in the Options Study (21-02), carry out an AAP in order to borrow funds for required system renewal (one or multiple phases).

Project Rationale: Based on information in the Options Study (21-02), carry out an AAP in order to borrow funds for required system renewal (one or multiple phases). With the first phase being design and construct a new outfall, planning and acquiring land for a new Wastewater Treatment Plant (WWTP), and repair leaking sewer conveyance piping.

Project Update and Milestones:

Milestone	Completion Date
Project information is being gathered for the communications strategy.	Ongoing
Project funding will have final approval at the CRD Board	March 16, 2022
AAP process will commence with communications and coordination with CRD Legislative Services	Q2
Project deferred	Fiscal 2023

OPERATIONAL UPDATE

Port Renfrew Water

This is an operational update for the reporting period from January 2023 through May 2023.

- System improvement: Operators completed their location efforts for buried valves within the system last year and are in the process of planning to raise these valves later this year to protect form being buried in the future.
- A hazard/danger tree was identified and removed from beside the Water Treatment Plant (WTP).
- Chlorine injection pump corrective maintenance was completed in May.
- Site remediation/clean up was completed on Wickaninnish road from a previous water leak.
- Repairs were made to the backup generator (intake hose, coolant hose, belt, battery, valve cover gasket) and annual load back testing was completed.

Port Renfrew Sewer

This is an operational update for the reporting period from January 2023 through May 2023.

- Late December an outfall blockage caused a backup at the WWTP resulting in a spill to land downstream of the treatment process. Operators were able to respond to the site and remove an outfall coupling to release the effluent, although the end of the pipe remains blocked. A diving contractor was brought in, and they were able to clear the blockage and re-establish flow through the outfall. Replacement of the entire outfall should be included in future Capital improvement work.
- Operations continues to look for ways to optimize and improve the overall treatment Plant process.
- Annual maintenance was completed of the backup generator for the Plant.

Port Renfrew Refuse Disposal

This is an operational update for the reporting period from January 2023 through May 2023.

Ongoing collection continues at the Port Renfrew Garbage and Recycling Depot for the following material streams:

- Garbage
- Paint
- Motor oil
- Scrap metal
- Appliances
- Tires
- Beverage containers
- Propane tanks and canisters.

CRD continues to maintain recycling services for the mixed containers and fibers streams in place of Recycle BC support. Staff have had positive conversations with Recycle BC about re-instating service for the residential sector, which was suspended in November 2022 due to lack of covered collection facility and non-residential sector material being collected at the depot. Recycle BC has informed CRD staff that before they will re-instate service, alternative collection and processing needs to be in place in the community for commercial containers, paper, and cardboard. Staff are investigating options to bring the depot into compliance with Recycle BC program requirements. New signage has been installed at the depot informing customers of the materials collected and collection methods. The fence and gate were repaired following damage sustained after a vehicle impact.

Staff continue to work with partners and Stakeholders including representation from Pacheedaht First Nation, Indigenous Zero Waste Technical Advisory Group (IZWTAG), and Recycle BC to identify long term solutions towards continued financially sustainable operation of the Port Renfrew Refuse Disposal Service in 2024 and onward. Staff will be bringing an update report and options analysis forward in Quarter 3 of 2023.

RECOMMENDATION

There is no recommendation. This report is for information only.

Submitted by:	Jared Kelly, P.Eng., Manager, Capital Projects
Submitted by:	Liz Ferris, M.Sc., PMP, Manager, Policy and Planning, Environmental Resource Management
Submitted by:	Adam Hliva, Manager, Core Area Wastewater Conveyance Operations
Concurrence:	Joseph Marr, P.Eng., Acting Senior Manager, Infrastructure Engineering
Concurrence:	Jason Dales, B.Sc., WD IV., Senior Manager, Wastewater Infrastructure Operations
Concurrence:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Ian Jesney, P.Eng., Acting General Manager, Integrated Water Services