



Making a difference...together

WILDERNESS MOUNTAIN WATER SERVICE COMMISSION
 Notice of Meeting on **Friday, November 10, 2023 at 9:30 a.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.

D. Pepino (Chair) M. Lechowicz (Vice Chair) L. Cutler A. Wickheim (EA Director)

AGENDA

1. APPROVAL OF AGENDA

2. ADOPTION OF MINUTES3

Recommendation: That the minutes of the June 12, 2023 meeting be adopted.

3. CHAIR'S REMARKS

4. SENIOR MANAGER'S REPORT

5. 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 Wilderness Mountain Water Service Commission at iwsadministration@crd.bc.ca.

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

6. COMMISSION BUSINESS

6.1. Project and Operations Update7

There is no recommendation, this report is for information only.

6.2. Lake Profiler Discussion [verbal]

6.3. 2024 Operating and Capital Budget Report9

Recommendation: *That the Wilderness Mountain Water Services Commission:*

1. *Approve the 2024 operating and capital budget as presented and that the 2023 actual operating surplus or deficit be balanced on the 2023 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund).*
2. *Recommends that the Electoral Areas Committee recommend that the Capital Regional District Board approve the 2024 Operating and Capital Budget and the five-year Financial Plan for the Wilderness Mountain Water Service as presented.*

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

7. CORRESPONDENCE

7.1. Wilderness Mountain Update to Island Health – July 13, 2023

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7.2. Wilderness Mountain Water Service Commission Reply to Staff – July 16, 2023

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7.3. Wilderness Mountain Water Service Permit to Operate – Island Health – August 3, 2023

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8. NEW BUSINESS

9. ADJOURNMENT

Next Meeting: At the call of the Chair



Making a difference...together

MINUTES OF A MEETING OF THE Wilderness Mountain Water Service Commission, held Monday, June 12, 2023 at 9:30 a.m., In the Goldstream Meeting Room, 479 Island Highway, Victoria, BC

PRESENT: Commissioners: D. Pepino (Chair); M. Lechowicz (Vice Chair); A. Wickheim (EA Director); L. Cutler

Staff: S. Irg, Senior Manager, Water Infrastructure Operations; G. Harris, Senior Manager, Environmental Protection; M. Risvold (Recorder)

The meeting was called to order at 9:30 am.

1. APPROVAL OF AGENDA

MOVED by M. Lechowicz, **SECONDED** by L. Cutler,
That the agenda be approved.

CARRIED

2. ADOPTION OF MINUTES

MOVED by A. Wickheim, **SECONDED** by M. Lechowicz,
That the minutes of the February 6, 2023 meeting be adopted.

CARRIED

3. CHAIR'S REMARKS

The Chair provided the following remarks:

"Since taking the role of Chair in 2022, I have attempted to ensure clarity of intentions by both reviewing the Capital Regional District's (CRD) stated goals and mission, and by communicating to the CRD the messages from the Wilderness Mountain Water Service (WMWS) community.

To date my perception remains that we are in a stalemate, which ultimately leads to a lose/lose outcome.

I want to attempt again today to provide clear input from the community to the CRD about the issues that are important, which stated as completely as I can are these:

The community was told that starting in 2008, they would receive a potable water service that met all health regulations. The CRD, as the only authorized service supplier, had delivered input to the government on appropriate upgrades needed, and in response was awarded a grant in 2005 to upgrade the private system to comply. In exchange, the community agreed in 2007 to a large financial burden increase (on the order of a 500% annual increase) to gain that degree of confidence in the water supply.

Since that time, instead of the communicated reduction in rates and more users were added, the financial burden per connected household has increased by 45.9% from \$1,515.00 to currently \$2,210.00 per year.

This places Wilderness Mountain water rates near the highest rates anywhere in the Province of British Columbia.

**Wilderness Mountain Water Service Commission
Minutes – June 12, 2023**

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We now fully understand those initial 2012 upgrades never met, and today 11 years on still do not meet those regulations.

The only solutions so far presented by the CRD, seem to expect the WMWS community to increase those already too high rates by anywhere from 350% to over 400%, a stunning annual rate approaching \$9,000.00 per year.

What remains unspoken is why? Why is the CRD going down this path? Other solutions exist at much lower cost.

Today I look forward to understanding where we go from here that will change the current trajectory to financial ruin for the WMWS Community.”

4. PRESENTATIONS/DELEGATIONS

There were none.

5. SENIOR MANAGER’S REPORT

S. Irg advised the Electoral Areas Water Conservation Bylaw was approved by the Board and is now in effect. Sandwich boards have been placed in the community and staff are working on a communication plan for the public. Staff noted the bylaw is similar to the Juan de Fuca and Greater Victoria water conservation bylaws, and all the electoral areas will be affected. If there is a compliance issue, a CRD bylaw officer will attend to the area.

Staff advised that prior to the meeting, treated water turbidity was at 0.7 NTU (Nephelometric turbidity units). There was a minor event at the end of April where treated water was above 1 NTU for one day. The event was resolved by shutting down the plant and replacing the filters.

Discussion ensued regarding:

- The possible cause of the filters clogging.
- How well water affects water conservation.

6. COMMISSION BUSINESS

6.1. 2022 Annual Report

S. Irg spoke to Item 6.1.

Staff responded to a question from the commission regarding the drawdown over the years. Staff advised the 2021 drawdown was due to the heat dome. There was no significant impact from the auto flush in 2018.

Discussion ensued regarding:

- Reporting on the pipe distribution side.
- Any indicators of items that should be addressed.

Staff advised treated water is monitored to ensure there is no bacteria in the residual supply and all parameters are met for potability.

Staff responded to a question from the commission regarding a potential major rebuild approaching. Staff advised the system is Polyvinyl Chloride (PVC) pipe which is approximately 33 years into an 80-year lifespan. The connections and saddles on the mains will see failure over time, like the Juan de Fuca water system. Sections can be fixed as necessary.

6.2. Project and Operations Update

S. Irg spoke to Item 6.2 and noted the following:

- There are currently no capital projects for 2023.
- Monthly inspections are being completed at the dams.
- The platform at the dam has become a safety concern.
- A structural engineer has reviewed the platform and advised the structure is near end of life.
- Only one person is permitted to be on the platform at any time.
- A sign has been made indicating a lifejacket is required while on the platform.

Staff responded to a question from the commission regarding the ultraviolet (UV) power supply. Staff advised there are three reactors installed noting two are required at one time. There is one additional reactor on standby if needed.

6.3. Budget Discussion [Verbal]

S. Irg advised the wooden platform on the lake is a safety concern. Informal quotes received estimate the cost to be between \$30 and \$35,000. Staff recommend including this work in the 2024 capital plan. Director Wickheim will determine if \$45,000 of Community Works Funds can be used towards the platform. Discussion ensued regarding potential changes to the plant and the current intake.

Staff informed the commission of an internal grant opportunity for Growing Communities. The grant would fund 75% and the commission would be responsible to pay 25%. The minimum grantable portion is \$100,000. Staff advised the application has been prepared if the commission would like it submitted.

Staff responded to questions from the commission regarding water sampling. Staff advised samples are taken from the current platform and tested for turbidity, temperature, overflow, bacteriological and chloroform profiles. The samples are provided to the lab for testing and reports will be provided. Additional tests can be done at an additional cost. The commission provided information on an instrument they would like to purchase and use for water sampling. The commission will provide further details on the instrument to staff after the meeting. Discussion ensued.

MOVED BY M. Lechowicz, **SECONDED BY** L. Cutler,
That staff apply for the Growing Communities internal grant for \$150,000.

CARRIED

Staff reiterated that if the grant is successful, it will fund 75% and the commission would be responsible to pay the remaining 25%.

7. CORRESPONDENCE

7.1. Letter from Island Health – Wilderness Mountain Water System (CRD) – 706 Cains Way, Sooke BC

S. Irg spoke to Item 7.1.

Staff responded to the following questions:

- Plans for a response to Island Health. Staff advised there are no capital projects planned to improve the system. There are potential projects for 2024.
- Regulation interpretation. Staff advised Island Health has been clear on interpretation, and staff will not speak on behalf of Island Health.
- Whether Wilderness Mountain would be required to follow Island Health's regulations if it became a private water system. Staff advised the water system can become an Improvement District water system again, however, it would still operate under Island Health's requirements.
- If the commission and staff can meet with Island Health. S. Irg will request a meeting with Island Health after the summer.

8. NEW BUSINESS

A. Wickheim advised he spoke with the owners of a property located around the lower reservoir. The owners advised they have provided the fire department with access to their property in the event of an emergency.

9. ADJOURNMENT

MOVED by L. Cutler, **SECONDED** by M. Lechowicz,
That the June 12, 2023 meeting be adjourned at 10:49 am.

CARRIED

CHAIR

SECRETARY

**REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION
MEETING OF FRIDAY, NOVEMBER 10, 2023**

SUBJECT Capital Project Status Reports and Operational Updates – November 2023

ISSUE SUMMARY

To provide the Wilderness Mountain Water Service Commission with capital project status reports and operational updates.

BACKGROUND

The Wilderness Mountain Water System is located near the top of Mount Matheson in East Sooke on Vancouver Island in the Juan de Fuca Electoral Area and provides drinking water to approximately 74 customers. Capital Regional District (CRD) Integrated Water Services is responsible for the overall operation of the water system with day-to-day operation, maintenance, design and construction of water system facilities provided by the CRD Infrastructure Engineering and Operations Divisions. The quality of drinking water provided to customers in the Wilderness Mountain Water System is overseen by the CRD Water Quality Section.

CAPITAL PROJECT UPDATE

There are currently no capital projects.

OPERATIONAL UPDATE

Throughout the months of July and August algal activity continued to increase in the raw water source. Increased activity resulted in significant and frequent clogging of the filters, therefore additional filter changes were required on a regular basis to keep the treated water turbidity below 1 NTU.

- June 14: Dam inspections and site safety inspections
- June 29: Additional filter change
- July 5: Additional filter change
- July 10: Additional filter change
- July 11: Dam inspections and site safety inspections
- July 12: Additional filter change
- July 14: Additional filter change
- July 16: Additional filter change
- July 21: Additional filter change
- July 22: Replace UV solenoid
- July 24: Additional filter change
- July 27: Additional filter change
- August 4: Additional filter change
- August 5: Additional filter change
- August 6: Additional filter change
- August 9: Additional filter change
- August 11: Additional filter change

Wilderness Mountain Water Service Commission – November 10, 2023
Capital Project Status Reports and Operational Updates – November 2023

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- August 13: Additional filter change
- August 16: Additional filter change
- August 17: Additional filter change
- August 18: Additional filter change
- August 20: Additional filter change
- August 21: Additional filter change
- August 23: Additional filter change
- August 24: Additional filter change
- August 14: Dam inspections and site safety inspections
- September 13: Dam inspections and site safety inspections
- October 12: Replace ammonia solution tank and added secondary containment

RECOMMENDATION

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

Submitted by:	Shayne Irg, P.Eng., Senior Manager, Water Infrastructure Operations
Concurrence:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Alicia Fraser, P.Eng., General Manager, Integrated Water Services

**REPORT TO WILDERNESS MOUNTAIN WATER SERVICE COMMISSION
MEETING OF FRIDAY, NOVEMBER 10, 2023**

SUBJECT **Wilderness Mountain Water Service 2024 Operating and Capital Budget**

ISSUE SUMMARY

To present the 2024 Operating and Capital Budget for Commission approval, pursuant to Bylaw No 3511, "Wilderness Mountain Water Service Commission Bylaw No. 1, 2008".

BACKGROUND

The Capital Regional District (CRD) is required by legislation under the *Local Government Act* (LGA) to prepare an annual operating and capital budget and a 5-year financial plan including Operating Budgets and Capital Expenditure Plans annually. CRD staff have prepared the financial plan shown in Appendix A for the Wilderness Mountain Water Service.

The Operating Budget includes the regular annual costs to operate the service. The Capital Expenditure Plan shows the anticipated expenditures for capital additions. These may include purchases of new assets or infrastructure as well as upgrades or improvements to existing assets.

In preparing the Operating Budget, CRD staff considered:

- Actual expenditures incurred between 2021 and 2023
- Anticipated changes in level of service (if any)
- Maximum allowable tax requisition
- Annual cost per taxpayer and per Single Family Equivalent (SFE)

Factors taken into consideration in the preparation of the Capital Expenditure Plan included:

- Available funds on hand
- Projects already in progress
- Condition of existing assets and infrastructure
- Regulatory, environmental, and health and safety factors

Adjustments for surpluses or deficits from 2023 may be made in January 2024. The CRD Board will give final approval to the budget and financial plan in March 2024.

The Financial Plan for years 2025 to 2028 may be changed in future years.

BUDGET OVERVIEW

Operating Budget

It is projected that 2023 operating expenses will be approximately \$877 over budget. The operating overage is due to unanticipated filter changes at the treatment plant resulting from prolonged algal activity.

It is projected that the 2023 operating revenue will be approximately \$210 over budget.

As a result, there is an overall estimated operating deficit of \$667. To balance the 2023 operating budget, it is proposed that the actual deficit amount be recovered from the Operating Reserve Fund (ORF) in 2023.

Wilderness Mountain Water Service Commission – November 10, 2023
Wilderness Mountain Water Service 2024 Operating and Capital Budget

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Otherwise, the resulting deficit in 2023 must immediately be included as an expenditure to be recovered from revenue in the 2024 financial plan as required by the Local Government Act (LGA) Section 374(11).

Operating costs for 2024 (excluding one-time cyclical program funded by ORF in 2023 for PRV maintenance and pump station walkway repairs in the amount of \$5,000 and 2024 for system flushing and valve exercising in the amount of \$4,000) has been increased by \$4,233 (3.3%) compared to 2023. The increase is primarily to account for inflation and increased supply costs.

Municipal Finance Authority (MFA) Debt

Loan Authorization Bylaw 3504 (LA3504) to borrow \$281,000, was approved and adopted in 2008 to upgrade/construct water supply and distribution facilities in Wilderness Mountain Service Area. Table 1 below summarizes the detailed information for existing MFA debt issue related to LA3504.

Table 1 – Existing Debt Summary

MFA Issues	Term	Borrowing Year	Retirement Year	Refinance Year	Original Interest Rate	Current Interest Rate	Principal	Principal Payment	Interest Payment	Total Annual Debt Cost
LA3504-118	15	2012	2027	2022	3.40%	3.39%	\$281,000	\$16,138	\$9,526	\$25,664

Operating Reserve Fund

The Operating Reserve Fund is evaluated as outlined in the CRD Operating Reserve Guidelines endorsed by the CRD Board in 2023 and is used to fund cyclical maintenance activities, equipment and supplies purchases that typically do not occur on an annual basis which creates swings in expenses. The ORF is the financial strategy to mitigate the corresponding fluctuation in revenue requirement on an annual basis. Typical maintenance activities include reservoir cleaning, valve exercising, and distribution system flushing. Additionally, the operating reserve is also used to respond to unforeseen events and operating emergencies.

It is proposed that 2024 transfers to the operating reserve be set at \$7,000. The Operating Reserve Fund balance at the end of 2023 is projected to be approximately \$175. There is \$32,000 of planned maintenance to be funded by the Operating Reserve Fund over the next five years.

Capital Reserve Fund (CRF)

The Capital Reserve Fund is to be used to pay for capital expenditures that are not funded by other sources such as grants, operating budget, or debt.

It is proposed that the budgeted transfer to the CRF be set at \$2,000 in 2024. The reserve fund transfer planning is influenced by the funding required to support the five-year capital expenditure plan, the emergency response to infrastructure failures and is further guided by Capital Reserve Funding Guidelines endorsed by the CRD Board in aiming to achieve the optimal reserve fund level to ensure long-term prudent and sustainable management of service delivery objectives through capital investments. The balance of the CRF at the end of 2023 is projected to be approximately \$45,823.

The prudent financial planning for ORF and CRF funding contribution is required and critical for sustainable essential service delivery of potable water to the community.

Capital Expenditure Plan

The 5-year capital plan includes \$2,635,000 of expenditures to be funded by a combination of the service's CRF, grant funding, and new debt (debt funded projects are not approved until after the Alternate Approvals Process is complete).

Wilderness Mountain Water Service Commission – November 10, 2023
Wilderness Mountain Water Service 2024 Operating and Capital Budget

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Wooden Intake Platform Replacement (24-10) is proposed to be funding by \$5,000 from CRF to pay for the CRD labour, and \$45,000 in grant funding for the balance. The Raw Water Quality Sampling Study (24-02) and New Floating Intake (25-01) are proposed to be completed if CRD is successful in securing grant funding. Treatment Plant upgrades (25-02) to comply with Island Health requirements is proposed to be funded by \$200,000 of debt and grant funding for the balance of \$1,800,000. The CRD will continue to look for grant funding opportunities for this project. An Alternative Approval Process (AAP) (24-03) is to be funded through the CRF for a total of \$10,000 in 2024 and is required to obtain elector input into borrowing strategies for the Treatment Plant Upgrade (25-02).

Table 2 below provides the future debt servicing cost simulation for analytical purposes only with the indicative interest rate provided by MFA at the time of simulation.

Table 2 – Future New Debt Simulation

Future Borrowing Estimation	Term	Borrowing Year	Retirement Year	Estimated Interest Rate	Principal	Principal Payment	Interest Payment	Total Annual Debt Cost
	25	2025	2050	4.30%	\$200,000	\$5,067	\$8,600	\$13,667

At the commencement of each loan, 1% of the gross amount borrowed is withheld and retained by MFA as Debt Reserve Fund (DRF). To provide the full amount to fund the capital project, this 1% DRF amount is budgeted in the operating budget in the year of borrowing. However, there is no principal payment required in the year of borrowing. The estimated debt servicing cost of \$13,667 equates to approximately \$168.73 cost per parcel.

Capital Projects Fund

As specific capital projects are approved, the funding revenues for them are transferred into this Capital Projects Fund from multiple funding sources if applicable, including CRF, grant funding, external contributions, and debt. Any funds remaining upon completion of a project will be transferred back to its original funding source(s).

User Charge and Parcel Tax

The service is funded by parcel tax, fixed user charges, and fixed water consumption charge. Properties connected to the water system pay the annual user charge and water consumption charge, and all properties within the local service area are responsible for the parcel tax. The 2024 water rate for consumption charge has increased to \$261.62 per SFE compared to 2023 being \$240 per SFE.

Table 3 below summarizes the 2024 over 2023 changes for parcel tax, user charge and fixed water consumption charge.

Table 3 – Parcel Tax and User Charge Summary

Budget Year	Parcel Tax	Taxable Folios	Parcel Tax per Folio*	User Charge	SFE Numbers	User Charge per SFE	Water Consumption Charge per SFE	Total Charges
2023	\$61,900	81	\$804.32	\$73,467	74	\$992.80	\$240.00	\$2,037.12
2024	\$67,495	81	\$877.02	\$80,106	74	\$1,082.51	\$261.62	\$2,221.15
Change (\$)	\$5,595	0	\$72.70	\$6,639	0	\$89.72	\$21.62	\$184.03
Change (%)	9.0%	0.0%	9.0%	9.0%	0.0%	9.0%	9.0%	9.0%

* Includes the 5.25% admin fee charged by the Ministry of Finance (not CRD revenue)

Wilderness Mountain Water Service Commission – November 10, 2023
Wilderness Mountain Water Service 2024 Operating and Capital Budget

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RECOMMENDATIONS

That the Wilderness Mountain Water Services Commission:

1. Approve the 2024 operating and capital budget as presented and that the 2023 actual operating surplus or deficit be balanced on the 2023 Reserve Funds transfer (Capital Reserve Fund and/or Operating Reserve Fund).
2. Recommends that the Electoral Areas Committee recommend that the Capital Regional District Board approve the 2024 Operating and Capital Budget and the five-year Financial Plan for the Wilderness Mountain Water Service as presented.

Submitted by	Shayne Irg, P.Eng., Senior Manager, Water Infrastructure Operations
Submitted by	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Submitted by	Rianna Lachance, B.Com, CPA, CA, Senior Manager, Financial Services
Concurrence	Alicia Fraser, P.Eng., General Manager, Integrated Water Services
Concurrence	Ted Robbins, B.Sc., C.Tech., Chief Administrative Officer

ATTACHMENT

Appendix A: 2024 Wilderness Mountain Water Service Budget

CAPITAL REGIONAL DISTRICT

2024 Budget

Wilderness Mountain Water

Commission Review

NOVEMBER 2023

Service: 2.691 Wilderness Mountain Water Service

Committee: Electoral Area

DEFINITION:

To finance, operate and maintain the supply, conveyance, treatment, storage and distribution of water to the Wilderness Mountain Local Service area that is within the JDF Electoral Area. The service was established by Bylaw No. 3503, adopted on May 14, 2008.

PARTICIPATION:

Wilderness Mountain Local Service Area

MAXIMUM LEVY:

Greater of \$130,000 or \$3.27/ \$1,000 of actual assessed value of land and improvements. To a maximum of \$329,424.

MAXIMUM CAPITAL DEBT:

Maximum Authorized:	\$281,000 (MFA Bylaw No.3504, Wilderness Mountain Water Service adopted on May 14, 2008)
Borrowed:	\$281,000 (MFA Bylaw No.3504, Wilderness Mountain Water Service)

COMMISSION:

Wilderness Mountain Water Service Commission established by Bylaw No. 3511 (July 9, 2008).

FUNDING:

Consumption Charge:

Water Consumption charge will be collected from each Single Family Equivalent connected to the water system

User Charge:

Collected as a fixed user fee charged quarterly to each Single Family Equivalent connected to the system

Parcel Tax:

Charged to each taxable parcel in the service area whether connected or not.

RESERVE FUND # 1075:

Approved by Bylaw No. 3535 adopted on November 12, 2008.

2.691 - Wilderness Mountain Water

	2023		BUDGET REQUEST				FUTURE PROJECTIONS			
	BOARD BUDGET	ESTIMATED ACTUAL	CORE BUDGET	ONGOING	ONE-TIME	TOTAL	2025	2026	2027	2028
<u>OPERATING COSTS</u>										
Contract for Services	5,930	10,119	960	-	4,000	4,960	10,980	5,000	11,020	5,040
Allocations	10,434	10,434	10,547	-	-	10,547	10,757	10,973	11,191	11,416
Electricity	6,900	6,720	7,090	-	-	7,090	7,230	7,370	7,520	7,670
Supplies	25,050	28,971	25,930	-	-	25,930	26,450	26,980	27,520	28,070
Labour Charges	72,150	64,121	74,780	-	-	74,780	76,279	77,799	79,352	80,938
Insurance	1,440	1,440	1,450	-	-	1,450	1,520	1,590	1,670	1,750
Water Testing	9,180	8,712	9,500	-	-	9,500	9,693	9,888	10,085	10,284
Other Operating Expenses	2,030	3,474	2,090	-	-	2,090	2,130	2,170	2,210	2,250
TOTAL OPERATING COSTS	133,114	133,991	132,347	-	4,000	136,347	145,039	141,770	150,568	147,418
*Percentage Increase over prior year			-0.58%		3.0%	2.4%	6.4%	-2.3%	6.2%	-2.1%
<u>DEBT / RESERVES</u>										
Transfer to Capital Reserve Fund	-	-	2,000	-	-	2,000	7,190	4,050	9,835	31,785
Transfer to Operating Reserve Fund	-	-	7,000	-	-	7,000	10,000	10,000	10,000	10,000
MFA Debt Reserve Fund	60	60	60	-	-	60	2,060	60	60	-
MFA Debt Principal	16,138	16,138	16,138	-	-	16,138	16,138	21,205	21,205	5,067
MFA Debt Interest	9,526	9,526	9,526	-	-	9,526	11,676	18,126	13,363	8,600
TOTAL DEBT / RESERVES	25,724	25,724	34,724	-	-	34,724	47,064	53,441	54,463	55,452
TOTAL COSTS	158,838	159,715	167,071	-	4,000	171,071	192,103	195,211	205,031	202,870
<u>FUNDING SOURCES (REVENUE)</u>										
Transfer from Operating Reserve Fund	(5,600)	(6,267)	-	-	(4,000)	(4,000)	(10,000)	(4,000)	(10,000)	(4,000)
User Charges	(73,467)	(73,467)	(80,106)	-	-	(80,106)	(87,323)	(91,691)	(93,521)	(95,390)
Sale - Water	(17,760)	(17,760)	(19,360)	-	-	(19,360)	(21,100)	(22,160)	(22,600)	(23,050)
Other Revenue	(111)	(321)	(110)	-	-	(110)	(110)	(110)	(110)	(50)
TOTAL REVENUE	(96,938)	(97,815)	(99,576)	-	(4,000)	(103,576)	(118,533)	(117,961)	(126,231)	(122,490)
REQUISITION - PARCEL TAX	(61,900)	(61,900)	(67,495)	-	-	(67,495)	(73,570)	(77,250)	(78,800)	(80,380)
*Percentage increase over prior year										
User Charge			9.0%			9.0%	9.0%	5.0%	2.0%	2.0%
Water Sale			9.0%			9.0%	9.0%	5.0%	2.0%	2.0%
Requisition			9.0%			9.0%	9.0%	5.0%	2.0%	2.0%
Combined			9.0%			9.0%	9.0%	5.0%	2.0%	2.0%

Wilderness Mountain Reserves
Summary Schedule
2024 - 2028 Financial Plan

Reserve/Fund Summary

	Estimated	Budget				
	2023	2024	2025	2026	2027	2028
Operating Reserve Fund	175	3,175	3,175	9,175	9,175	15,175
Capital Reserve Fund	45,823	32,823	40,013	44,063	53,898	85,683
Total	45,998	35,998	43,188	53,238	63,073	100,858

Reserve Schedule

Reserve Fund: 2.691 Wilderness Mountain - Operating Reserve Fund - Bylaw 4242
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The Operating Reserve Fund is used to undertake maintenance activities that typically do not occur on an annual basis.
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Reserve Cash Flow

Fund: Fund Centre:	1500 105540	Estimated	Budget				
		2023	2024	2025	2026	2027	2028
Beginning Balance		6,277	175	3,175	3,175	9,175	9,175
Transfer from Ops Budget		-	7,000	10,000	10,000	10,000	10,000
Transfer to Ops for Core Budget		(600)					
Transfer to Ops Budget		(5,000)	(4,000)	(10,000)	(4,000)	(10,000)	(4,000)
Planned Maintenance Activity		PRV Maintenance And pump station walk way repair	Distribution System Flushing, Valve Exercising	Reservoir Cleaning and Inspection	Distribution System Flushing, Valve Exercising	Reservoir Cleaning and Inspection	Distribution System Flushing, Valve Exercising
Deficit Recovery		(667)					
Interest Income*		165					
Ending Balance \$		175	3,175	3,175	9,175	9,175	15,175

<u>Assumptions/Background:</u>

* Interest is included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

Reserve Schedule

Reserve Fund: 2.691 Wilderness Mountain Water - Capital Reserve Fund - Bylaw 3535
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<p>The capital Reserve Fund established to provide for capital expenditures for or in respect of capital projects, land purchases, machinery or equipment necessary for them and extension or renewal of existing capital works or related debt servicing payments.</p>

Reserve Cash Flow

Fund: Fund Centre:	1075 101994	Estimated	Budget				
		2023	2024	2025	2026	2027	2028
Beginning Balance		43,553	45,823	32,823	40,013	44,063	53,898
Transfer from Ops Budget		-	2,000	7,190	4,050	9,835	31,785
Transfer from Cap Fund		-					
Transfer to Cap Fund		-	(15,000)	-	-	-	-
Interest Income*		2,270					
Ending Balance \$		45,823	32,823	40,013	44,063	53,898	85,683

<u>Assumptions/Background:</u>

<p>* Interest is included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.</p>
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CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028

Service No. 2.691	Carry Forward from 2023	2024	2025	2026	2027	2028	TOTAL
Wilderness Mountain Water Service							

EXPENDITURE

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$0	\$235,000	\$2,400,000	\$0	\$0	\$0	\$2,635,000
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$235,000	\$2,400,000	\$0	\$0	\$0	\$2,635,000

SOURCE OF FUNDS

Capital Funds on Hand	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debenture Debt (New Debt Only)	\$0	\$0	\$200,000	\$0	\$0	\$0	\$200,000
Equipment Replacement Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants (Federal, Provincial)	\$0	\$220,000	\$2,200,000	\$0	\$0	\$0	\$2,420,000
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$0	\$15,000	\$0	\$0	\$0	\$0	\$15,000
	\$0	\$235,000	\$2,400,000	\$0	\$0	\$0	\$2,635,000

2024 - 2028

Service Nam	Wilderness Mountain Water Service
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20

Service: 2.691 Wilderness Mountain Water Service					
<div><div><div>Project Number</div><div>24-01</div></div><div><div>Capital Project Title</div><div>Wooden Intake Platform Replacement</div></div><div><div>Capital Project Description</div><div>The intake platform is in dangerous condition and needs to be replaced.</div></div></div> <div><div>Project Rationale</div><div>Replace platform to maintain current level of service.</div></div>					
<div><div><div>Project Number</div><div>24-02</div></div><div><div>Capital Project Title</div><div>Raw Water Quality Sampling Study</div></div><div><div>Capital Project Description</div><div>Conduct a study for raw water quality sampling.</div></div></div> <div><div>Project Rationale</div><div>Raw water seampling study to collect sufficient background data to inform options regarding raw water intake and water treatment improvements.</div></div>					
<div><div><div>Project Number</div><div>24-03</div></div><div><div>Capital Project Title</div><div>Alternative Approval Process</div></div><div><div>Capital Project Description</div><div>Alternative Approval Process</div></div></div> <div><div>Project Rationale</div><div>Alternative approval process for debt requirement for Treatment Plant Upgrades</div></div>					
<div><div><div>Project Number</div><div>25-01</div></div><div><div>Capital Project Title</div><div>New Floating Intake</div></div><div><div>Capital Project Description</div><div>Installation of new floating intake.</div></div></div> <div><div>Project Rationale</div><div>New adjustable floating intake, based on results of water quality sampling and further options assessment.</div></div>					

Service: 2.691 Wilderness Mountain Water Service			
Project Number	25-02	Capital Project Title	Treatment Plant Upgrades
Capital Project Description	Treatment Plant Upgrades		
Project Rationale	Upgrades to achieve compliance with SWOT		

2.691 - Wilderness Mountain Water

Capital Projects

Updated @ Oct 14, 2023

Year	Project#	Status	Capital Project Description	Total Project Budget	Spending		Total Funding in Place
					Expenditure Actuals	Remaining Spending	
2021	CE.731.4601	Open	Source Water Protection Plan	34,000	27,357	6,643	34,000
2022	CE.731.4602	Open	Water Treatment Plant Conceptual Design	50,000	47,866	2,134	50,000
			Totals	84,000	75,223	8,777	84,000

Service: **2.691 Wilderness Mountain Water**

Committee: Electoral Area

<u>Year</u>	<u>Taxable Folios</u>	<u>Parcel Tax</u>	<u>SFE's</u>	<u>User Charge</u>	<u>Water Rate</u>	<u>Tax & Charges</u>	<u>Bylaw</u>	<u>Actual Assessments \$(000's)</u>
2012	82	\$704.39	69	\$558.81	\$216.00	\$1,479.20	3847	47,205.84
2013	82	\$782.41	69	\$570.59	\$216.00	\$1,569.00	3892	43,642.64
2014	82	\$811.73	70	\$566.50	\$216.00	\$1,594.23	3924	46,751.04
2015	82	\$853.94	70	\$613.43	\$216.00	\$1,683.37	3987	42,680.24
2016	82	\$584.39	70	\$613.43	\$216.00	\$1,413.82	4074	43,178.41
2017	82	\$715.44	71	\$748.59	\$240.00	\$1,704.03	4170	49,803.30
2018	82	\$774.36	71	\$849.72	\$240.00	\$1,864.08	4233	55,346.64
2019	82	\$796.95	73	\$892.11	\$240.00	\$1,929.06	4274	61,377.64
2020	82	\$819.66	73	\$899.42	\$240.00	\$1,959.08	4337	64,880.94
2021	82	\$763.96	73	\$951.26	\$240.00	\$1,955.22	4389	69,421.04
2022	82	\$794.51	74	\$992.80	\$240.00	\$2,027.31	4471	90,310.94
2023	81	\$804.32	74	\$992.80	\$240.00	\$2,037.12	4524	100,741.14
2024	81	\$877.02	74	\$1,082.51	\$261.62	\$2,221.15		

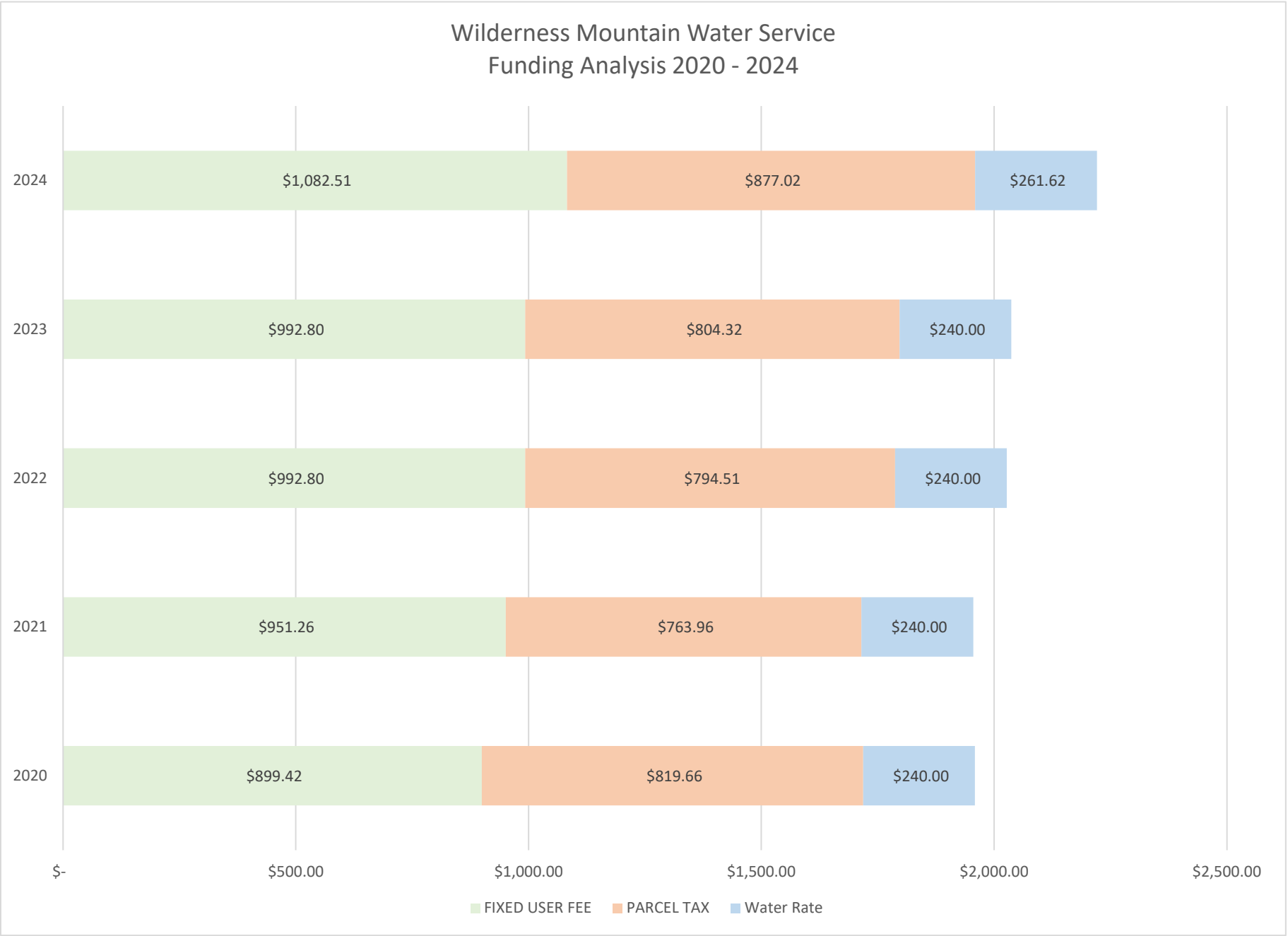
Change from 2023 to 2024

\$72.70
9.0%

\$89.71
9.0%

\$21.62
9.0%

\$184.03
9.0%



July 13, 2023

File: 5240-20
Wilderness Mountain – Water

Rory Beise
Land Use/Drinking Water Consultant
Island Health, Gateway Village Health Unit
Suite 201 – 771 Vernon Avenue
Victoria, BC V8X 5A7

Dear Mr. Beise:

**RE: WILDERNESS MOUNTAIN WATER SYSTEM (CAPITAL REGIONAL DISTRICT), 706
CAINS WAY, SOOKE, BC**

Thank you for your letter of May 17, 2023 indicating that Island Health is updating the Wilderness Mountain Water System (WMWS) operating conditions. Capital Regional District (CRD) staff understand that this letter supersedes previous correspondence where Island Health indicated a filtration deferral would remain in place if a drinking water source (watershed) protection plan was implemented. (December 6, 2017).

As confirmed in your letter the filtration exemption/deferral for this service has been removed. Island Health's proposed operating conditions generally consist of the following:

1. Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia (STWO) implementation plan and completion dates by June 30, 2023.
2. Achieve compliance with SWTO by June 30, 2024.

In November 2022 the WMWS Commission decided to not include any capital projects related to water treatment in the 2023 capital budget. Note that funding and timelines are subject to WMWS Commission and CRD Board approval.

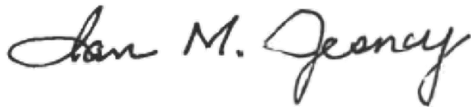
A Commission meeting for the 2024 capital budget is scheduled for November 2023. At this time staff will confirm and obtain approval from the Commission for any water treatment related capital projects for 2024. And then Island Health will be notified of the 2024 capital plan.

Mr. Beise – July 13, 2023
Wilderness Mountain Water System (Capital Regional District),
706 Cains Way, Sooke, BC

2

Should you wish to discuss this further or require additional information, please contact Shayne Irg at sirg@crd.bc.ca or 250.474.9661. I will be leaving the CRD at the end of July and will no longer be involved with this file.

Yours truly,



Ian Jesney, P.Eng.
Acting General Manager, Integrated Water Services

cc: Mike Benusic, Medical Health Officer
Shayne Irg, P.Eng., Senior Manager, Water Infrastructure Operations

WMWS Commission response to the staff assessment received by email on Thursday, July 13, 2023

1. *The proposed fluorometric lake profiler is not recommended as a replacement for sampling and algae counting as per study report provided by the Commission. There is uncertainty about its ability to properly identify different algae groups especially below 2m depth.*

Staff miss the point here: We have never proposed replacing Christoph's sampling program, which provides a definitive record of the seasonal and interannual variation in the Wilfred Reservoir planktonic community. Designing and managing a floating intake requires only knowing the depth profile of total chlorophyll, not necessarily the precise taxonomic composition of the phytoplankton community. The relevant attributes of the BBE Fluoroprobe are its accurate estimate of total chlorophyll and that "*The FP performed three measurements per second, resulting in an average of 25 datapoints per m of the water column. Mean values for every 20 cm depth were calculated and used for statistical analyses and comparison with results from microscopy.*" (cf. Hartmann et al. 2019, page 3, FP data acquisition). Only these rapidly acquired data during an algal bloom can determine where to place a floating intake to tap "...a lens of superior water quality".

2. *This lake profiler is likely not going to be able to find and identify a lens of superior water quality in the lake, because such thing likely does not exist. Moving the intake more offshore and into a bit deeper water will likely slightly improve the raw water quality supplied to the treatment plant, regardless of the deployment of this lake profiler. It therefore bears the question: why bother with this profiler?*

This staff assertion that "*a lens of superior water quality in the lake ...likely does not exist*" flies in the face of 25 years of limnological research! A Google Scholar query this morning for "deep chlorophyll maximum lakes" found "About 95,200 results". It would be astonishing if there is not a DCM in Wilfred Reservoir.

Similarly, what evidence supports the staff assertion that "*Moving the intake more offshore and into a bit deeper water will likely slightly improve the raw water quality supplied to the treatment plant*"? So far as we know all available data are from grab samples taken at only one depth off the nearshore dock. Hence, we do need to "...bother with this profiler" to gather the data needed both to justify funding the construction of a floating intake and to manage the depth deployment of that intake through the seasons and in the event of an algal bloom.

3. *If the service was to purchase or rent this profiler, it still leaves the question of who would collect the data. CRD staff does not have the capacity to have 2 people plus boat deploying this profiler once or even twice per month over a year. Plus data analysis. It would require the services of a contractor at costs that are similar to the recent quotes received (\$100k+). With the data uncertainty mentioned under 1) this seems to be a very high cost for little gain.*

Regarding "...the services of a contractor at costs that are similar to the recent quotes received (\$100k+)", bear in mind that the Commission has repeatedly offered the services of highly qualified individuals in the community willing to work with a contractor to help carry out the necessary preliminary sampling and do the data analyses at no cost. We already have provided numerous, authoritative and well documented analyses of the Wilfred Reservoir monitoring data.

Furthermore, bear in mind that the estimated costs associated with assessing a floating intake are set against the astronomically higher debt and service costs estimated by Associated Engineering for improved filtration (capital \$1,920,000, annual operations \$5,274/household) or DAF (capital \$5,270,000, annual operations \$2270/household).

Finally, the operational costs associated with a floating intake should not involve frequent sampling. Once a floating intake is in place, it is likely that the intake could be deployed at a default seasonal depth (i.e. unstratified vs stratified water column) requiring adjustment only in the event of an algal bloom. Ancillary sampling at the onset of a bloom would reduce the duration of the boil water advisory, reducing operational costs associated with increased monitoring during an otherwise extended advisory as well as pleasing VIHA and the WMWS community.

Staff concludes that this proposed equipment does not pass a reasonable cost/benefit test for the Wilderness Mountain Water Service.

Sorry, but for the reasons stated above the Commissioners resolutely reject this conclusion. We refer this issue back to staff to respond to our comments and ask that they reconsider their recommendation well before the November meeting of the Commission.



HEALTH PROTECTION

PERMIT

to OPERATE

A WATER SUPPLY SYSTEM

Water System Name: Wilderness Mountain Water System
Premises Number: 64006902
Premises Address: 706 Cains Way
Sooke, BC V9Z 1C5
Water System Owner: Capital Regional District Water

Capital Regional District Water is hereby permitted to operate the above potable water supply system and is required to operate this system in accordance with the *Drinking Water Protection Act* and in accordance with the conditions set out in this operating permit and conditions established as part of any construction permit.

The water supply system for which this operating permit applies is generally described as:

Service Delivery Area: Wilderness Mountain Water System
Source Water: Wilfred Reservoir
Water Treatment methods are: Cartridge Filtration
Water Disinfection methods are: UV & Chlorine
Number of Connections: 15 – 300 Connections

Operating conditions specific to this water supply system are in Appendix A.

Date: August 3, 2023

Issued By: _____
Environmental Health Officer

**This permit must be displayed
in a conspicuous place and is not transferable**

Place Decal Here

APPENDIX A

**WATER SYSTEM OPERATING CONDITIONS FOR
Wilderness Mountain Water System
706 Cains Way
Sooke, BC V9Z 1C5**

1. Drinking Water Treatment Objectives (Microbiological) for Surface Water Supplies in British Columbia (STWO) implementation plan and completion dates by December 31, 2023.
2. Achieve compliance with SWTO by December 31, 2024.

Date: August 3, 2023

Issued By:
Environmental Health Officer

