



## Notice of Meeting and Meeting Agenda Regional Water Supply Commission

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Wednesday, January 17, 2024

11:30 AM

6th Floor Boardroom  
625 Fisgard St.  
Victoria, BC V8W 1R7

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### MEMBERS:

G. Baird; J. Caradonna; N. Chambers; C. Coleman; Z. de Vries;  
S. Duncan; C. Graham; S. Gray; C. Green; K. Guiry; S. Hammond;  
K. Harper; K. Jordison; S. Kim; D. Lajeunesse; T. Morrison;  
T. Phelps Bondaroff; J. Rogers; C. Stock; M. Wagner; M. Westhaver;  
A. Wickheim

### 1. TERRITORIAL ACKNOWLEDGEMENT

### 2. ELECTION OF CHAIR

*Pursuant to Section 10 Bylaw No. 2539*

### 3. ELECTION OF VICE CHAIR

### 4. APPROVAL OF THE AGENDA

### 5. ADOPTION OF MINUTES

- 5.1. [24-065](#) Adoption of October 18, 2023 Regional Water Supply Commission Minutes

**Recommendation:** That the October 18, 2023 Regional Water Supply Commission meeting minutes be adopted.

**Attachments:** [October 18, 2023 Regional Water Supply Commission Minutes](#)

### 6. CHAIR'S REMARKS

### 7. PRESENTATIONS/DELEGATIONS

*Delegations will have the option to participate electronically. Please complete the online application for "Addressing the Board" on our website located here <https://www.crd.bc.ca/about/board-committees/addressing-the-board> and staff will respond with details.*

*Alternatively, you may email your comments on an agenda item to the Regional Water Supply Commission at [iwsadministration@crd.bc.ca](mailto:iwsadministration@crd.bc.ca). Delegation requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.*

**8. GENERAL MANAGER'S REPORT****8.1.      [24-064](#)      2024 Regional Water Supply Work Plan**

**Recommendation:** There is no recommendation. The report is for information only.

**Attachments:**      [Regional Water Supply 2024 Work Plan](#)

**8.2. Regional Water Supply Development Cost Charges Program Update [Verbal]****9. COMMISSION BUSINESS****9.1.      [23-782](#)      Greater Victoria Water Supply Area Land Acquisition Reserve Fund Update**

**Recommendation:** 1. That a reserve fund for Greater Victoria Water Supply Area land acquisition be included when considering of a reserve fund for Regional Water Supply System Master Plan projects, and that, until reserves are established, land purchase opportunities continue to be addressed through adjustments to the existing capital program and/or debt financing;

2. That the decision whether to establish a Greater Victoria Water Supply Area land acquisition reserve fund be brought back either, when recommendation 1. above occurs, or when a specific need arises; and,

3. That a report on land acquisition opportunities and progress be provided, in closed meeting, only when Commission decision is required or significant progress is made. (NWA)

**Attachments:**      [Staff Report: GVWSA Land Acquisition Reserve Fund Update](#)

[Appendix A: RWSC 21-08 Staff Report, June 2021](#)

[Appendix B: RWSC 22-07 Staff Report, June 2022](#)

*Postponed from the October 18, 2023 meeting*

**9.2.      [23-786](#)      Motion with Notice: Commissioner Rogers: Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls**

**Recommendation:** That the Regional Water Supply Commission directs staff to explore cost-sharing with municipalities to get the Post Disaster Water Supply Drop Kits in relevant fire halls, for consideration in the next budget cycle.

**Attachments:**      [Motion with Notice - Placement of Post Disaster Water Supply Drop Kits in Rele](#)

*Postponed from the October 18, 2023 meeting*

**9.3.      [24-059](#)      Regional Water Supply 2024 Capital Plan Update**

**Recommendation:** That the Regional Water Supply Commission recommends that the Capital Regional District Board:  
Approve updating the 2024 Regional Water Supply Service Capital Budget and Five Year Capital Plan to include 2024 budget updates for projects 24-19, 20-16, 20-17, 21-03, 19-16, 18-18 and 21-11 as outlined in Appendix A.  
(WA)

**Attachments:**      [Regional Water Supply 2024 Capital Plan Update](#)  
                         [Appendix A: Updated 2024-2028 Regional Water Supply Service Five Year Cap](#)

**9.4.      [23-946](#)      2023 Public and School Tours Summary - Greater Victoria Water Supply Area**

**Recommendation:** There is no recommendation. This report is for information only.

**Attachments:**      [Staff Report: 2023 Public and School Tours Summary - GVWSA](#)

**9.5.      [24-066](#)      Regional Water Supply Commission Representative on the Water Advisory Committee [Verbal]**

**Recommendation:** That the Regional Water Supply Commission appoint its vice chair as its representative on the Water Advisory Committee for a one-year term ending December 31, 2024.  
(NWA)

**9.6.      [24-067](#)      Summary of of Recommendations from Other Water Commissions**

**Recommendation:** There is no recommendation. The summary is for information only.

**Attachments:**      [Summary of Recommendations](#)

**9.7.      [24-068](#)      Water Watch Report**

**Recommendation:** There is no recommendation. The report is for information only.

**Attachments:**      [Water Watch Report](#)

**10. NOTICE(S) OF MOTION****11. NEW BUSINESS****12. MOTION TO CLOSE THE MEETING****12.1.      [24-069](#)      Motion to Close the Meeting**

**Recommendation:** That the meeting be closed in accordance with the Community Charter, Part 4, Division 3 under section 90 (1):  
(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality; and  
(e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality.

**13. RISE AND REPORT**

**14. ADJOURNMENT**

**Voting 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)**

**Next Meeting: February 21, 2024**

**To ensure quorum, please contact [iwsadministration@crd.bc.ca](mailto:iwsadministration@crd.bc.ca) if you or your alternate cannot attend.**

## Meeting Minutes

### Regional Water Supply Commission

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Wednesday, October 18, 2023

11:30 AM

6th Floor Boardroom  
625 Fisgard St.  
Victoria, BC V8W 1R7

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#### PRESENT:

G. Baird (Chair); K. Harper (Vice Chair); J. Caradonna; N. Chambers; C. Coleman;  
Z. de Vries; S. Duncan (EP); C. Graham (EP); S. Gray; C. Green; K. Guiry; S. Hammond (EP);  
K. Jordison (EP); S. Kim; T. Morrison (EP); T. Phelps Bondaroff (EP);  
J. Rogers; C. Stock; M. Wagner; M. Westhaver (EP); A. Wickheim (EP)

#### STAFF:

T. Robbins, CAO; A. Fraser, General Manager, Integrated Water Services;  
N. Chan, CFO; A. Constabel, Senior Manager, Watershed Protection;  
G. Harris, Senior Manager, Environmental Protection; J. Marr, Senior Manager,  
Infrastructure Engineering; S. Irg, Senior Manager, Water Infrastructure Operations;  
L. Westinghouse, Senior Financial Advisor; T. Duthie, Manager, Administration Services; D. Dionne,  
Administrative Coordinator; M. Risvold, Committee and Administrative Clerk; J. Zimmerman,  
Communications Coordinator

REGRETS: D. Lajeunesse

EP = Electronic Participation

The meeting was called to order at 11:30 am

#### 1. TERRITORIAL ACKNOWLEDGEMENT

The Chair provided a Territorial Acknowledgement.

#### 2. APPROVAL OF THE AGENDA

**MOVED** by Commissioner Stock and **SECONDED** by Commissioner Green,  
That the agenda be approved as circulated.

**CARRIED**

#### 3. ADOPTION OF MINUTES

[23-787](#) Adoption of the Minutes of the July 19, 2023 Meeting

Attachments: [Draft Minutes July 19, 2023](#)

**MOVED** by Commissioner Coleman and **SECONDED** by Commissioner Rogers,  
That the Minutes of the July 19, 2023 meeting be adopted.  
**CARRIED**

#### 4. CHAIR'S REMARKS

#### 5. PRESENTATIONS/DELEGATIONS

There were none.

#### 6. GENERAL MANAGER'S REPORT

A. Fraser provided updates on the following:

- Development Cost Charges (DCC)
- Federal grant funding

##### 6.1. No. 4 Watermain Leak, McTavish Road - Update

A. Fraser spoke to item 6.1 and provided updates on the following:

- Location of the leak
- Challenges faced with the repair
- Work plan identified
- Source of the leak

Discussion ensued regarding future risk assessment.

#### 7. COMMISSION BUSINESS

7.1. [23-773](#) Service Planning 2024 - Water Community Need Summary

**Attachments:** [Staff Report: Service Planning 2024 - WaterCommunity Need Summary](#)  
[Appendix A: Community Need Summary - Water](#)

A. Fraser spoke to item 7.1.

Discussion ensued regarding:

- Additional contract staff
- Additional procurement support
- Water sampling staff
- Two staff associated with dam safety
- Water Demand, climate change and Island Health requirements
- Emergency planning services

**MOVED** by Commissioner Stock and **SECONDED** by Commissioner Chambers,

That the Regional Water Supply Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary - Water, be approved as presented and form the basis of the 2024-2028 Financial Plan.

**CARRIED**

**7.2.**     [23-781](#)     Regional Water Service 2024 Operating and Capital Budget

**Attachments:**   [Staff Report: Regional Water Service 2024 Operating and Capital Budget](#)  
                         [Presentation: RWS 2024 Budget Review](#)  
  
                         [Appendix A: Regional Water Supply 2024 Operating And Capital Budget.pdf](#)  
                         [Appendix B: Long Term Debt Obligations Summary](#)  
  
                         [Appendix C: Agricultural Water Volumes and Rate Payments for 2011 – 2022](#)  
                         [Appendix D: Wholesale Water Rate History and Projection](#)

A. Fraser spoke to item 7.2. and provided a presentation.

Discussion ensued regarding:

- Agricultural program
- Estimated decrease DCC's could provide
- Water rates compared to other parts of the world
- Water conservation
- Demand and anticipated growth across the region
- Overcharging / undercharging for water
- Voluntary compliance
- Potential for an exemplar/water star program
- Resiliency
- Filtration plant

**MOVED** by Commissioner Kim and **SECONDED** by Commissioner Chambers,

That the Regional Water Supply Commission recommends that the Committee of the Whole recommend that the Capital Regional District Board:

1. Approve the 2024 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2024 wholesale water rate of \$0.8094 per cubic metre;
3. Approve the 2024 agricultural water rate of \$0.2105 per cubic metre;
4. Direct staff to balance the 2023 actual revenue and expense on the transfer to the water capital fund;
5. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and
6. Direct staff to amend the Water Rates Bylaw accordingly.

**CARRIED**

**Opposed: Hammond**



- 7.3. [23-782](#) Greater Victoria Water Supply Area Land Acquisition Reserve Fund Update

**Attachments:** [Staff Report: GVWSA Land Acquisition Reserve Fund Update](#)  
[Appendix A: RWSC 21-08 Staff Report, June 2021](#)  
[Appendix B: RWSC 22-07 Staff Report, June 2022](#)

**MOVED** by Commissioner Stock and **SECONDED** by Commissioner Green,  
That item 7.3 Greater Victoria Water Supply Area Land Acquisition Reserve  
Fund Update be postponed to the next meeting.

**CARRIED**

- 7.4. [23-783](#) Summary of Recommendations from the Water Advisory Committee

**Attachments:** [Summary Of Recommendations from the Water Advisory Committee](#)

Received for information.

- 7.5. [23-784](#) Summary of Recommendations from Other Water Commissions

**Attachments:** [Summary of Recommendations from other Water Commissions](#)

Received for information.

- 7.6. [23-785](#) Water Watch Report

**Attachments:** [Water Watch Report](#)

Received for information.

## 8. MOTION(S) WITH NOTICE

- 8.1. [23-786](#) Motion with Notice: Commissioner Rogers: Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls

**Attachments:** [Motion with Notice - Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls](#)

**MOVED** by Commissioner Stock, **SECONDED** by Commissioner Rogers,  
That item 8.1 Motion with Notice: Commissioner Rogers: Placement of Post  
Disaster Water Supply Drop Kits in Relevant Fire Halls be postponed to the next  
meeting.

**CARRIED**

## 9. NEW BUSINESS

There was none.

**10. ADJOURNMENT**

**MOVED** by Commissioner Gray and **SECONDED** by Commissioner Kim,  
That the meeting be adjourned at 1:13 pm.

**CARRIED**

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CHAIR

\_\_\_\_\_  
SECRETARY

DRAFT

Regional Water Supply Commission – 2024 Work Plan			
Staff Report Title	Meeting Date	Report Frequency	Author
2023 Watershed Tours Summary	January	Annual	Annette Constabel
2023-2027 Regional Water Supply Service Capital Plan Update	January	As needed	Joseph Marr/ Shayne Irg/ Alicia Fraser
GVWSA Land Acquisition Reserve Fund Update	January	One off	Annette Constabel
Regional Water Supply Master Plan Overview and Status Update	February	Annual	Alicia Fraser
Regional Water Strategic Plan – <ul style="list-style-type: none"> <li>2017 Accomplishments</li> <li>Introduction 2024 Strategic Planning</li> </ul>	February	One off	Alicia Fraser
Water Quality Summary Report for GVDWS - April to December 2023	February	Quarterly	Glenn Harris
Water Quality Summary Report for GVDWS – September to December 2023	February	Seasonal	Glenn Harris
Field Operations Centre – Capital Project	February	One off	Steve May
Regional Water Supply Development Cost Charges	March/April	5 Years	Joseph Marr
Regional Water Strategic Plan – Draft	April	One off	Alicia Fraser
2024 Wildfire Season Update	April	Annual	Annette Constabel
Update on the Regional Growth Strategy	April/TBD	One Off	Emily Sinclair
Water Conservation Strategy	April	One Off	Glenn Harris
Water Quality Summary Report for GVDWS – January to April 2023	June	Seasonal	Glenn Harris
Cyber Security Assessment Finding	June	One-off	Alicia Fraser/Chris Hauff
Regional Water Supply Service 2024 Mid-Year Update	June	Annual	Joseph Marr
Designation of Watershed Security Officers	June	One-off	Annette
Leech Restoration	June	One-off	Annette
Dam Safety Program – Implementation Status	September	Annual	Joseph Marr
Regional Water Supply Development Cost Charges (after open houses/public engagement)	September	5 Years	Joseph Marr
Regional Water Strategic Plan – Draft/Final (depends on Stakeholder Consultation)	September	Annual	Alicia Fraser

Regional Water Supply Commission – 2024 Work Plan			
Staff Report Title	Meeting Date	Report Frequency	Author
Water Quality Summary Report for GVDWS – May to August 2023	October	Seasonal	Glenn Harris
Regional Water Supply 2025 Operating and Capital Budget	October	Annual	FIN / IWS
Service Planning - Water	October	Annual	RPS / IWS
2024-2028 Capital Plan Amendment (if required)	October/Nov	As needed	Joseph Marr

#### Future Year:

- Water Sector Related Risks – Maybe 2025, would like to create a base line for this service in 2024.
- Options for Equitable Water Rates
- Review of Emerging Trends in Water Governance, Treatment and Policy.

Water Advisory Committee – 2024 Work Plan			
Staff Report Title	Meeting Date	Report Frequency	Author
Regional Water Supply Master Plan Overview and Status Update	February	One off	Alicia Fraser
Agricultural Rate Study – Overview	February	One off	Shayne Irg
Regional Water Strategic Plan – <ul style="list-style-type: none"> <li>• 2017 Accomplishments</li> <li>• Introduction 2024 Strategic Planning</li> </ul>	February	One off	Alicia Fraser
Water Conservation Strategy	June	One off	Glenn Harris
Post Disaster Planning <ul style="list-style-type: none"> <li>- Corporate Strategy</li> <li>- IWS Context</li> </ul>	June	One off	Shawn Carby Shayne Irg
Regional Water Strategic Plan – Draft/Final (depends on Stakeholder Consultation)	September	Annual	Alicia Fraser
Master Plan Implementation Plan	September	Annual	Joseph Marr

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, OCTOBER 18, 2023**

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**SUBJECT**      **Greater Victoria Water Supply Area Land Acquisition Reserve Fund Update**

**ISSUE SUMMARY**

To bring forward the June 15, 2022 Greater Victoria Water Supply Area Land Acquisition Reserve Fund Options staff report for further consideration as directed by the Regional Water Supply Commission.

**BACKGROUND**

In 2020, the Regional Water Supply Commission (Commission) adopted the Greater Victoria Water Supply Area (GVWSA) Land Acquisition Priorities and further directed staff to report on options and implications of developing a reserve fund to support the land acquisition goals.

A report on the matter of establishing a reserve fund was brought to the Commission in June 2021 (Appendix A) and in June 2022 (Appendix B). At both meetings, the Commission resolved not to establish a land acquisition reserve fund at that time, but to re-visit the matter in a year's time.

The background, implications, basic alternatives and staff recommendation remain the same in 2023 as they did in 2021 and 2022.

There have been no implications from the decision to not establish a reserve fund, nor do staff anticipate future barriers to acquiring land as a result of not carrying a land acquisition reserve fund. The Grant Lake property acquisition (58.7 hectares) for the GVWSA closed as planned in February 2021 using funds (\$652,729) allocated in the Regional Water Supply Capital Plan, without the need for capital plan amendments or additional borrowing. During the last 24 months no further land acquisition opportunities have developed to the point of requiring funding.

**ALTERNATIVES**

*Alternative 1*

1. That a reserve fund for Greater Victoria Water Supply Area land acquisition be included when considering of a reserve fund for Regional Water Supply System Master Plan projects, and that, until reserves are established, land purchase opportunities continue to be addressed through adjustments to the existing capital program and/or debt financing;
2. That the decision whether to establish a Greater Victoria Water Supply Area land acquisition reserve fund be brought back either, when recommendation 1. above occurs, or when a specific need arises; and,
3. That a report on land acquisition opportunities and progress be provided, in closed meeting, only when Commission decision is required or significant progress is made.

*Alternative 2*

That staff be directed to pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition, starting in the 2025 budget year, and contribute annually to the reserve through the wholesale water rate, with the Regional Water Supply Commission reviewing and approving the contribution amount each year.

**IMPLICATIONS**

Please refer to the Implications section of the 2021 staff report on the matter attached as Appendix A, assuming references to 2022 now refer to 2025.

**CONCLUSION**

In June of 2021 and 2022 the Regional Water Supply Commission resolved not to establish a Greater Victoria Water Supply Area Land Acquisition reserve fund; but to re-visit the decision in one years' time. In the last two years, one land acquisition opportunity was realized (58.7 hectares for \$652,729) using allocated Regional Water Supply Capital funds. The lack of a reserve funds did not hamper efforts to pursue priority acquisition lands during the period; however, there were no other willing sellers that tested the need for readily available funds in a reserve. Given no changes to the financial implications or outlook for land acquisition, the conclusion from 2021 remains the same.

**RECOMMENDATION**

1. That a reserve fund for Greater Victoria Water Supply Area land acquisition be included when considering of a reserve fund for Regional Water Supply System Master Plan projects, and that, until reserves are established, land purchase opportunities continue to be addressed through adjustments to the existing capital program and/or debt financing;
2. That the decision whether to establish a Greater Victoria Water Supply Area land acquisition reserve fund be brought back either, when recommendation 1. above occurs, or when a specific need arises; and,
3. That a report on land acquisition opportunities and progress be provided, in closed meeting, only when Commission decision is required or significant progress is made.

Submitted by:	Annette Constabel, M.Sc., RPF., Senior Manager, Watershed Protection
Concurrence:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

**ATTACHMENT(S)**

Appendix A: RWSC 21-08 Options & Implications of Developing a Reserve Fund for Greater Victoria Water Supply Area Land Acquisition

Appendix B: RWSC 22-07 Greater Victoria Water Supply Area Land Acquisition Reserve Fund Options

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, JUNE 16, 2021**

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**SUBJECT**     **Options & Implications of Developing a Reserve Fund for Greater Victoria Water Supply Area Land Acquisition**

**ISSUE SUMMARY**

To report on the options and implications of developing a reserve fund to support future Greater Victoria Water Supply Area (GVWSA) land acquisitions.

**BACKGROUND**

The Regional Water Supply Commission (Commission) approved GVWSA land acquisition priorities in March 2020 as follows:

- Priority 1: Sooke Lake Reservoir catchment lands
- Priority 2: Sooke Lake Reservoir buffer lands
- Priority 3: Goldstream Water System catchment lands
- Priority 4: Buffer lands providing primary access to the Sooke WSA and the Kapoor Tunnel
- Priority 5: Goldstream Water System buffer lands
- Priority 6: Leech River catchment lands
- Priority 7: Buffer lands containing primary access to the Leech WSA

The Commission also directed staff to take a more active approach in pursuing land acquisition.

Along with approval of the priorities, the Commission passed a motion directing staff to: *“prepare a report on options and implications of developing a reserve fund for land acquisition priorities for the Greater Victoria Water Supply Area”*.

The approved land acquisition priorities total 2,753 hectares (ha), with disposition opportunity of 963 ha, yielding a net land acquisition goal of an additional 1,790 ha.

A recent acquisition of a small GVWSA land parcel settled at \$4,500 per acre (\$11,115 per ha). Using the same selling price as an estimate to achieve all of the land acquisition priorities would cost roughly \$20 million.

Some Commission members expressed a desire to set aside reserve funds in order to pursue land acquisition goals and for the Commission to be agile in acquiring priority land parcels when opportunities arise. A review of the priorities and rough estimates of possible timing and cost are shown in Table 1 below. The costs are based on the most recent selling price but should be considered at the low end of actual future costs.

## Regional Water Supply Commission – June 16, 2021

## Options &amp; Implications of Developing a Reserve Fund for Greater Victoria Water Supply Area Land Acquisition

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Table 1. 20 Year Plan to Achieve All GVWSA Land Acquisition Priorities

Land Acquisition Time Frame	Approx. Area to Acquire	Land Priorities Acquired	Cost (\$ million)	Number of land parcels involved
0 - 5 year goal	700 ha	Priorities 1-3 (Sooke and Goldstream watersheds)	7.8	11
5 - 10 year goal	700 ha	Priority 4 (Buffer lands to main infrastructure/access)	7.8	3
10 – 15 year goal	200 ha	Priority 5 and 6 (Goldstream buffer, Leech catchment)	2.1	12
15 - 20 year goal	200 ha	Priority 7 (Leech buffer)	2.1	6
<b>20 years</b>	<b>1,800 ha</b>	<b>All Priorities</b>	<b>\$ 20 million</b>	<b>32</b>

*\*Acquisition could only occur with a willing land seller, which may not be the case within the proposed acquisition time frames.*

Currently, any land acquisition outlined in the existing 5 year capital plan is planned to be funded by contributions through the wholesale water rate, which includes a mix of water capital fund contributions and debt financing. If an opportunity arises to acquire land that has not been budgeted for in the current capital plan, there may not be the capital funding in place to make the purchase. However, options for purchasing land parcels when opportunities arise can include:

- Amend the capital plan to defer other current year projects, to allow for the purchase of new parcels of land within the existing capital budget;
- Amend the existing capital plan to allow the purchase of new parcels of land, and borrow funds via the existing or new loan authorization (dependent on funding authorization specifications) to fund the acquisition; or,
- Establish a reserve for land acquisition, to enable future land purchases as and when they arise, without impacting funding for other capital priorities. A capital plan amendment would still be required.

#### Examples of Past GVWSA Land Acquisitions

The larger portion (8,791 hectares) of the purchase of the Leech WSA lands from a private forest land holder occurred in 2007. Sixty million dollars were financed in April 2008 for a 15 year term at 4.65% interest for the first 10 years with a rate of 2.60% for the final 5 year term which ends April 2023. In the first 10 years, payments of \$5.8 million were made annually and in the last 5 years \$4.6 million per annum. An approximation of the impact on the wholesale water rate when the financing ends in 2023 is \$0.0956 per cubic metre of water.

The recent acquisition of a 58.7 ha land parcel for \$652,500 included sufficient time to allow for the purchase to be added to the capital plan as part of the regular capital budget planning, approval and financing process, and no amendments or extra financing was required.



Water Advisory Committee Input

A similar report on the options and implications of a reserve fund for GVWSA land acquisition was brought to the Water Advisory Committee on June 3, 2021. The Committee elected to receive the report for information and to provide the Commission with the Q&A and feedback on the report:

- Q: Was the Leech WSA purchase financed? Are there barriers to obtaining financing for \$20 million going forward?

A: Yes, the \$64 million Leech land acquisition was financed. No, financing of \$20 million is not expected to be a barrier now or in future.

- Q: Does Capital Regional District (CRD) have right of first refusal on any of the priority lands? A reserve fund could be established for any right of first refusal lands.

A: Only on one parcel owned by Kapoor Lumber Company. [*The parcel is 155 ha and the right of first refusal was negotiated as part of the 1998 land exchange between the CRD/Province/Kapoor Lumber.*]

- Q: Does the CRD invest reserve funds, or do the funds sit without earning any interest? Funds invested now would be subject to inflation.

A: Yes. [*Collectively across the CRD, all positive balances receive a small amount of internal interest based on investments (typically GICs).*]

- Q: Do the current low interest rates influence the decisions on whether to finance or not?

A: Yes, staff consider the interest rate in making recommendations and decision making.

- Q: There is a discrepancy if Regional Parks has a land acquisition reserve fund but the GVWSA does not. Shouldn't the need/strategy be the same?

A: Some differences include: Parks raises funds through requisitions; the GVWSA lands of interest are specific and fixed.

- Members of the public would support a reserve fund given the value and management of undeveloped private forest land in the region.
- The CRD could undertake multi criteria analysis or intangibles analysis, to try to bring together direct/tangible and indirect/intangible aspects to valuing land parcels to the CRD.
- The purchase of the Leech WSA should be included as a reference or example in the report to the Commission.

**ALTERNATIVES***Alternative 1*

That the Regional Water Supply Commission:

Not pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition at this time, and address any land purchase opportunities through adjustments to the existing capital program and utilize existing capital funding and/or debt financing to fund the acquisition.

*Alternative 2*

That the Regional Water Supply Commission:

Direct staff to pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition, starting in the 2022 budget year, and contribute annually to the reserve through the wholesale water rate. The Commission will be able to review and approve the contribution amount each year.

*Alternative 3*

That this report be referred back to staff for additional information.

**IMPLICATIONS***Financial Implications*

The establishment and annual contribution of funds from the Regional Water Supply Service to a reserve fund for GVWSA land acquisition would impact the wholesale water rate (which distributes the annual cost of the contribution amongst participants based on water consumption, like all other costs of the service) as shown in Table 2. The annual contribution is not required to stay the same but could change from year to year depending on the pressures on the water rate and current land acquisition opportunities. Where land acquisition purchases cannot be fully funded from the reserve, the remainder could be funded from existing capital and/or debt financing.

**Table 2. Wholesale Water Rate Impacts from Annual Contributions to a Reserve Fund**

<b>Annual Contribution</b>	<b>Number of Years Required to Achieve a \$ 20 million Reserve</b>	<b>Wholesale Water Rate Increase (\$/m<sup>3</sup>)</b>	<b>Wholesale Water Rate Increase (%)</b>
\$0.5 million	40 years	\$0.0104	1.5%
\$1.0 million	20 years	\$0.0208	3 %
\$1.4 million	14 years	\$0.0292	4%
\$1.6 million	12.5 years	\$0.0333	5%

To achieve all land acquisition priorities over 20 years to the schedule suggested in Table 1, a contribution schedule of \$1.6 million annually for the first ten years followed by annual contributions of \$0.5 million for the second decade would be needed. The timing and funds necessary should be considered conceptual given uncertainty regarding purchase opportunities, prices and feasibility of parcel subdivisions to limit acquisition of excess land.

To begin contributions in 2022, a reserve bylaw would first need to be enacted for the Regional Water Supply Service, for the specific purpose of establishing a reserve fund for (GVWSA) land acquisition.

**Regional Water Supply Commission – June 16, 2021**  
**Options & Implications of Developing a Reserve Fund for Greater Victoria Water Supply**  
**Area Land Acquisition**

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### Advantages of a Reserve Fund

The advantages of the establishment of a reserve fund for GVWSA land acquisition are:

- the slow accumulation of funds on hand so that larger land purchases do not have a sudden impact on the water rate, capital funding or debt servicing;
- the ability to respond quickly to land sale opportunities as they arise; and,
- demonstration of a commitment and ability to pursue and acquire priority lands as per the GVWSA Land Acquisition Priorities for the protection of the GVWSA and regional water supply.

### Disadvantages of a Reserve Fund

The disadvantage of establishment of a GVWSA land acquisition reserve fund are:

- there would be an increase in the water rate specific to establishing an annual contribution to a land acquisition reserve fund;
- funds may be tied up for years without spending;
- funds are restricted from being used for any other capital spending priorities (other than land acquisition) that the Regional Water Supply Service may have or develop; and,
- today's water consumers pay into a fund that may not benefit them for many years.

### Purchasing Land without a Reserve Fund

Under the existing water rate model the Regional Water Supply Service is funded by a mixture of water rate income and debt to fund capital projects. There is already the ability and flexibility to fund large capital projects under this model with opportunities to borrow funds under the existing loan authorization for long term debt with the Municipal Finance Authority (MFA).

In order to make an unanticipated land purchase, the capital plan would need to be amended. The decision would need to be made whether to reprioritize the existing capital plan (approximately \$25 million each year) to accommodate the land acquisition within the existing budget (defer or cancel projects), or add the land acquisition to the capital plan and increase the capital budget to accommodate it, or a combination of both. If the capital budget is increased, the debt financing that supports the capital plan would be reviewed and further borrowing would be initiated as necessary. As an example, if debt financing were to be considered for a new land acquisition of \$8 million, the current annual principal and interest payment would be approximately \$580,000 per year for 15 years. The existing loan authorization with the MFA allows for borrowing twice annually.

### *Alignment with Existing Plans & Strategies*

The 2017 Regional Water Supply Strategic Plan calls for the CRD to “seek ownership and control of the remaining catchment lands and critical adjacent lands to act as a buffer”. The Commission adopted land acquisition priorities for the GVWSA to guide the acquisition of lands. In principle, establishment of a land acquisition reserve fund provides further commitment to acquire GVWSA

lands, but lack of a reserve fund is likely not a barrier given the ability to acquire financing relatively quickly and easily through existing processes. Long term financing rates available to the Regional Water Supply Service through the MFA are currently 2.9%.

## **CONCLUSION**

The Regional Water Supply Commission adopted Greater Victoria Water Supply Area (GVWSA) Land Acquisition Priorities in 2020 and directed staff to report on options and implications of developing a reserve fund to support the land acquisition goals.

There is a great deal of uncertainty and lack of control over when priority land parcels may become available for purchase, and the price of any land parcels. If established, reserve funds may be wholly insufficient or sit idle for many years, and may charge consumers for service they do not receive.

The current wholesale water rate model, with access to financing for capital projects, provides ability and flexibility to accommodate land purchases as they arise without significantly burdening the wholesale water rate and/or customers of today.

## **RECOMMENDATION**

That the Regional Water Supply Commission:

Not pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition at this time, and address any land purchase opportunities through adjustments to the existing capital program and utilize existing capital funding and/or debt financing to fund the acquisition.

Submitted by:	Annette Constabel, MSc., RPF, Senior Manager, Watershed Protection
Concurrence:	Ted Robbins, B.Sc., CTech., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, JUNE 15, 2022**

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**SUBJECT**      **Greater Victoria Water Supply Area Land Acquisition Reserve Fund Options**

**ISSUE SUMMARY**

To bring forward the June 16, 2021 *Greater Victoria Water Supply Area Land Acquisition Reserve Fund Options* staff report for further consideration as directed by the Regional Water Supply Commission.

**BACKGROUND**

The Regional Water Supply Commission (Commission) adopted the Greater Victoria Water Supply Area (GVWSA) Land Acquisition Priorities in 2020 and further directed staff to report on options and implications of developing a reserve fund to support the land acquisition goals.

A report on the matter of establishing a reserve fund was brought to the Commission June 16, 2021. The Commission decided not to establish a land acquisition reserve fund at that time, but with the resolution below, directed staff to report any implications of the decision and consider the creation of a land acquisition reserve fund a year later.

*“That the Regional Water Supply Commission direct staff to bring this report back in one year’s time to consider the creation of a land acquisition reserve fund.”*

The 2021 report “*Greater Victoria Water Supply Area Land Acquisition Reserve Fund Options*” is included as Appendix A. The background, implications, basic alternatives and staff recommendation remain the same now, as they did in 2021.

Since the report was considered a year ago, there have been no implications from the decision, nor do staff anticipate future barriers to acquiring land as a result of not carrying a land acquisition reserve fund. The Grant Lake property acquisition (58.7 hectares) for the GVWSA closed as planned in February 2021 using funds (\$652,729) allocated in the Regional Water Supply Capital Plan, without the need for capital plan amendments or additional borrowing. During the last 12 months there have been no further land acquisition opportunities.

**ALTERNATIVES**

*Alternative 1*

That the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition not be pursued at this time, and that any immediate land purchase opportunities be addressed through adjustments to the existing capital program and existing capital funding and/or debt financing be utilized to fund the acquisition.

*Alternative 2*

That staff be directed to pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition, starting in the 2023 budget year, and contribute annually to the reserve through the wholesale water rate. The Regional Water Supply Commission will be able to review and approve the contribution amount each year.

**IMPLICATIONS**

Please refer to the Implications section of the 2021 report on the matter attached as Appendix A, assuming references to 2022 now refer to 2023.

**CONCLUSION**

In June of 2021 the Regional Water Supply Commission decided not to establish a Greater Victoria Water Supply Area Land Acquisition reserve fund; but to re-visit the decision in one year's time. During the last 12 months one land acquisition opportunity was realized (58.7 hectares for \$652,729) using allocated Regional Water Supply Capital funds. The lack of a reserve fund did not hamper efforts to pursue priority lands during the period; however, there were no other willing sellers that tested the need for readily available funds in a reserve. Given no changes to the financial implications or outlook for land acquisition, the conclusion from 2021 remains the same.

**RECOMMENDATION**

That the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition not be pursued at this time, and that any immediate land purchase opportunities be addressed through adjustments to the existing capital program and existing capital funding and/or debt financing be utilized to fund the acquisition.

Submitted by:	Annette Constabel, MSc., RPF, Senior Manager, Watershed Protection
Concurrence:	Ted Robbins, BSc., CTech., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

**ATTACHMENT**

Appendix A: *RWSC 21-08 Options & Implications of Developing a Reserve Fund for Greater Victoria Water Supply Area Land Acquisition*

**Motion with Notice Regional Water Supply Commission**

**Wednesday, October 18, 2023**

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**SUBJECT**    Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls

**BACKGROUND**

Motion was introduced at the July 19, 2023 Regional Water Supply Commission meeting and is presented today for consideration.

**RECOMMENDATION**

That the Regional Water Supply Commission directs staff to explore cost-sharing with municipalities to get the Post Disaster Water Supply Drop Kits in relevant fire halls, for consideration in the next budget cycle.

**SUBMITTED BY:**

Commissioner Rogers

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, JANUARY 17, 2024**

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**SUBJECT**     **Regional Water Supply 2024 Capital Plan Update**

**ISSUE SUMMARY**

To recommend updates to the Regional Water Supply Service 2024 Capital Budget and Five Year Capital Plan for six existing projects and one new project.

**BACKGROUND**

On October 18, 2023, the Regional Water Supply Commission (Commission) recommended to the Capital Regional District (CRD) Board, approval of the 2024 Operating and Capital Budget and the Five Year Capital Plan. This staff report outlines adjustments to the Five Year Capital Plan to be incorporated prior to final Board approval. It is proposed to fund the capital project adjustments from within the capital plan at an estimated value of \$1,875,000. There is no financial impact anticipated on the 2024 water rates with these adjustments.

**New Project 24-19 - Mount Tolmie Tank Structural and Infiltration Improvements**

The south cell of Mount Tolmie water storage tank was taken offline for maintenance in the fourth quarter (Q4) of 2023 and a detailed inspection was conducted at that time. Water infiltration and some structural deficiencies were discovered that need to be mitigated. The condition of the north cell will also be subsequently inspected and may contain similar deficiencies. The budget of \$850,000 added into the 2024 Capital Plan is a preliminary estimate to allow CRD staff to continue with planning, engineering, and improvements to the roof slab of the Mount Tolmie Tank. Depending on the extent of the deficiencies, this project is likely to extend into subsequent years and require further funding.

**Project 20-16 - Cecelia Meter Replacement**

The Cecelia Meter Replacement project was tendered in 2023. Two bids were received but pricing exceeded the available budget and the tender was cancelled. The total project budget is being increased to \$1,500,000 to account for this market escalation. The project will be retendered in 2024 after the approval of the revised budget. The added expenses of this replacement are still believed to be justified given the potential lost revenues currently being incurred at this meter location during lower flows.

**Project 20-17 – Decommission & Conceptual Design of the Smith Hill Reservoir Site**

This project previously had \$300,000 in funding available for 2024 with subsequent funding pushed out to 2026. This update is increasing the 2024 funding to \$450,000 to allow CRD a greater buffer in advancing conceptual design of a future reservoir as well as further advancement of interim decommissioning plans. The actual decommissioning work would be conducted in subsequent years with additional funding.



Project 21-03 – Deception Dam – Dam Safety Review 2021 and Improvements

Recent inspections have determined that deficiencies with the Deception Dam low level overflow vent pipe and hydraulic gate need to be prioritized to align with the remediation plan approved by the Dam Safety Officer. The scope of work and detailed estimate are still under development. In the interim, the 2024 budget has been increased from \$400,000 to \$600,000 to address these deficiencies, in addition to other work/studies planned for this Dam.

Project 19-16 – Dam Improvements Annual Provisional Account

The Annual Provisional Account for Dam Safety Improvements has been increased from \$300,000 to \$475,000 in 2024 to provide a larger buffer for CRD staff to advance planning and execution of miscellaneous dam safety improvements from the dam risk register.

Projects 18-18 and 21-11 – Main No. 3 Segment Replacement & RWS Supply Main No. 4 Upgrade

The total project budgets, or current delivery schedule, for these two projects have not been affected but the 2024 funding has been reduced to offset all the previously listed projects. These reductions are justified based on the status of these designs and the cost forecasting indicating that the larger construction costs will not be occurring until later years.

**ALTERNATIVES**

*Alternative 1*

That the Regional Water Supply Commission recommends that the Capital Regional District Board:

Approve updating the 2024 Regional Water Supply Service Capital Budget and Five Year Capital Plan to include 2024 budget updates for projects 24-19, 20-16, 20-17, 21-03, 19-16, 18-18 and 21-11 as outlined in Appendix A.

*Alternative 2*

That this report be referred back to staff for additional information.

**IMPLICATIONS**

*Financial Implications*

There are no net impacts on the capital budget for 2024 or on the 2024 water rates. Updated project forecasting indicates the proposed additionally requested funds will be offset within the capital plan. Appendix A reflects the 5-year Capital Plan revised to include the changes outlined in this report. As directed at the October 18, 2023 Commission Meeting, the Capital Plan will be subsequently updated to capture carry forward changes after year end.

*Service Delivery Implications*

The budget updates are necessary for CRD staff to be able to advance multiple projects that have been given a higher priority based on findings in 2023.

**CONCLUSION**

A Capital Plan update is required to better align funding to advance multiple projects in 2024. The updated expenditures are fully funded and balanced and will not increase the 2024 capital funding requirements or water utility rates beyond what was previously approved by the Regional Water Supply Commission.

**RECOMMENDATION**

That the Regional Water Supply Commission recommends that the Capital Regional District Board:

Approve updating the 2024 Regional Water Supply Service Capital Budget and Five Year Capital Plan to include 2024 budget updates for projects 24-19, 20-16, 20-17, 21-03, 19-16, 18-18 and 21-11 as outlined in Appendix A.

Submitted by:	Jared Kelly, P.Eng., Manager, Capital Projects
Concurrence:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

**ATTACHMENT(S)**

Appendix A: Updated 2024-2028 Regional Water Supply Service Five Year Capital Plan

CAPITAL REGIONAL DISTRICT

5 YEAR CAPITAL PLAN

2024 - 2028

Service #:

2.670

Service Name:

Regional Water Supply

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total
WATERSHED PROTECTION													
Planning													
17-01	Renewal	Historic Goldstream Powerhouse Building	Repairs of historic Goldstream Powerhouse building and work toward making the site accessible to the public	\$ 120,000	B	WU	\$ 20,000	\$ 20,000	\$ 50,000	\$ -	\$ -		\$ 70,000
17-01	Renewal			\$ 376,000	B	Grant		\$ -	\$ 300,000	\$ -	\$ -		\$ 300,000
18-10	Study	Species-at-Risk Wildlife Habitat	Assessments (office and field) and planning for managing wildlife habitat, in particular species-at-risk habitat, in the GVWSA.	\$ 185,000	L	WU	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -		\$ 40,000
19-30	Study	Leech WSA Lakes/Tributaries Assessment	An assessment of the physical, chemical and biological parameters of the lakes in the Leech WSA	\$ 75,000	L	WU	\$ 41,000	\$ 41,000	\$ -	\$ -	\$ -		\$ 41,000
20-05	Renewal	Leech WSA Terrestrial Ecosystem Mapping & Wetland Classification/Mapping	Classification and mapping of terrestrial ecosystems and wetlands and integration with Sooke and Goldstream data.	\$ 180,000	L	WU	\$ 38,000	\$ 38,000	\$ -	\$ -	\$ -		\$ 38,000
20-06	Study	Addressing mining in Leech WSA (impacts, agreements)	Funding to support work to reduce the impact of mining claims in the Leech WSA	\$ 70,000	L	WU	\$ -	\$ 16,000	\$ 12,000	\$ 12,000	\$ -		\$ 40,000
20-27	Study	GVWSA Forest Resilience - wildfire/forest modelling and forest management field trials	Modelling forest and wildfire risk under climate change scenarios & forest/fuel management field trials.	\$ 1,495,000	L	WU		\$ 500,000	\$ -	\$ -	\$ -		\$ 500,000
20-27	Study			\$ -	L	Other	\$ -	\$ 450,000	\$ -	\$ -	\$ -		\$ 450,000
20-28	Study	GVWSA Forest Resilience - Assessments of forest health and resilience.	Field assessments to better understand current forest health and resilience.	\$ 230,000	L	WU	\$ 65,000	\$ 65,000	\$ 60,000	\$ -	\$ -		\$ 125,000
21-20	Study	West Leech Road	Plan followed by construction of a road to access the western portion of the Leech WSA.	\$ 320,000	L	WU	\$ 100,000	\$ 100,000	\$ 100,000	\$ -	\$ -		\$ 200,000
21-02	Renewal	GVWSA LIDAR Mapping	Detailed contour mapping of ground, vegetation and tree cover (3D scanning)	\$ 300,000	L	WU	\$ 65,000	\$ 165,000	\$ -	\$ -	\$ -		\$ 165,000
22-04	Renewal	GVWSA Orthophotography	Annual contribution to capture of regional digital orthophotography for baseline mapping and monitoring.	\$ 95,000	L	WU		\$ -	\$ 35,000	\$ -	\$ 40,000		\$ 75,000
22-09	Study	GVWSA Powerlines Wildfire Risk Mitigation Plan	A detailed assessment, options and plan to reduce the risk of wildfire start from tree fall onto CRD powerlines in the GVWSA.	\$ 110,000	L	WU	\$ 23,000	\$ 43,000	\$ 40,000	\$ -	\$ -		\$ 83,000
22-10	New	GVWSA/RWS Educational Videos	Development of educational videos to address Regional Water Supply issues of interest to the public such as: wildfire risk and mitigation; climate change; water supply master plan update.	\$ 60,000	L	WU	\$ 27,000	\$ 27,000	\$ 30,000	\$ -	\$ -		\$ 57,000
23-05	Study	Spill Management Plan and Implementation	Review, assessment and re-development of a spill management plan for the GVWSA along with potential procurement of additional equipment or supplies.	\$ 70,000	L	WU	\$ 50,000	\$ 70,000	\$ -	\$ -	\$ -		\$ 70,000
24-03	Study	Biosecurity Risk Assessment & Procedures	Assess GVWSA biosecurity risks and develop mitigating protocols/procedures	\$ 50,000	L	WU	\$ -	\$ -	\$ 50,000	\$ -	\$ -		\$ 50,000
Capital													
09-01	Renewal	Leech River Watershed Restoration	A 17 year project to restore the Leech WSA lands for water supply.	\$ 5,756,000	L	WU	\$ 180,000	\$ 380,000	\$ 200,000	\$ -	\$ -		\$ 580,000
16-06	Renewal	Goldstream IWS Field Office	Renewal of Water Quality field office/lab and equipment storage and Watershed Protection office, yard, training space and equipment storage, replacing longstanding temporary facilities.	\$ 12,000,000	B	WU	\$ 100,000	\$ 3,540,000	\$ 2,000,000	\$ -	\$ -		\$ 5,540,000
16-06	Renewal				B	Other	\$ 3,000,000	\$ 4,000,000	\$ 1,000,000	\$ -	\$ -		\$ 5,000,000
17-02	New	Leech River Hydromet System	Installation of a network of hydrometeorological stations to collect water quantity and quality information for the Leech WSA.	\$ 585,000	E	WU	\$ 71,000	\$ 116,000	\$ -	\$ -	\$ -		\$ 116,000
18-05	New	GVWSA Forest Fuel Management/FireSmart Activities	Implementation of forest fuel management and FireSmart actions in strategic locations for wildfire risk management in the GVWSA.	\$ 1,200,000	L	WU	\$ 51,000	\$ 151,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 551,000
19-02	New	Whiskey Creek Bridge Replacement (Sooke WSA)	Replacement of the existing undersized bridge with a longer and higher concrete structure.	\$ 330,000	S	WU	\$ 10,000	\$ 10,000	\$ 300,000	\$ -	\$ -		\$ 310,000
19-19	New	Hydromet Upgrades Sooke and Goldstream	Install additional hydrology monitoring sites on Sooke Lake Reservoir inflow streams and increase instrumentation on meteorological stations in Sooke and Goldstream watersheds.	\$ 400,000	E	WU	\$ 13,000	\$ 183,000	\$ -	\$ -	\$ -		\$ 183,000
20-01	Replacement	Kapoor Main Mile 1 Bridge and Asphalt Upgrade	Replacement of the existing undersized culvert with a large bridge as well as subsequent 500 m road asphalt replacement.	\$ 1,050,000	S	WU	\$ 418,000	\$ 868,000	\$ 160,000	\$ -	\$ -		\$ 1,028,000
20-29	Renewal	GVWSA Gravel Crushing	Production of gravel at existing quarries in Sooke and Goldstream WSAs.	\$ 650,000	S	WU		\$ 100,000	\$ -	\$ 200,000	\$ -		\$ 300,000
21-26	New	Road Deactivation/Rehabilitation in the GVWSA	Deactivate or rehabilitate unneeded roads in the Sooke and Goldstream WSAs.	\$ 360,000	L	WU	\$ 108,000	\$ 108,000	\$ 100,000	\$ 100,000	\$ -		\$ 308,000
21-27	New	Autogate Installations on Primary Access Routes	Install autogates on the main access routes where the Sooke Hills Wilderness Trail and E&N rail line cross to improve security	\$ 600,000	S	WU	\$ -	\$ 50,000	\$ 300,000	\$ -	\$ -		\$ 350,000
22-02	New	Muckpile Bridge Supply and Install (Deception)	Replacement of undersized culverts with bridge which will allow for fish and western toad migration.	\$ 340,000	S	WU	\$ -	\$ -	\$ -	\$ 325,000	\$ -		\$ 325,000
23-04	Renewal	175/Sooke Main Bridge Replacement	Undersized bridge replacement	\$ 315,000	S	WU	\$ -	\$ -	\$ 15,000	\$ -	\$ 300,000		\$ 315,000
22-11	New	Additional Boom Anchors for Sooke Lake Reservoir debris boom.	The log boom protecting the Sooke Lake Reservoir Intake Tower from floating woody debris is inadequately anchored and requiring two additional anchors.	\$ 60,000	E	WU	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ -		\$ 60,000
23-10	New	Work platform for Sooke Lake Reservoir	A towable work platform for conducting stationary on-water work activities such as boom and intake tower maintenance and spill response.	\$ 30,000	E	WU	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -		\$ 10,000
23-11	New	Purchase and Deployment of Second Wildlife Camera for Leech WSA, and Analytic software	A secondary wildlife camera to monitor for heat and smoke signatures in the Leech WSA during fire season.	\$ 100,000	E	WU	\$ -	\$ 50,000	\$ -	\$ -	\$ -		\$ 50,000
23-23	Replacement	Brushcutting head for Excavator	The existing brushcutting head from the excavator used in roadside maintenance has reached end of life and requires replacement.	\$ 30,000	V	WU	\$ 10,000	\$ 10,000	\$ -	\$ -	\$ -		\$ 10,000
24-05	New	Dock for Sooke Lake Reservoir	Sooke Lake Reservoir requires a dock for safe deployment of boats, gear and crew.	\$ 100,000	S	WU	\$ -	\$ 10,000	\$ 90,000				\$ 100,000
25-05	New	Helicopter Fire Tank	A large water tank for helicopter bucketing to be deployed in Goldstream WSA.	\$ 20,000	E	WU		\$ -	\$ 20,000				\$ 20,000
22-13	New	Replace Storage Sheds with Containers	Covered sand storage between sea containers that have been procured.	\$ 50,000	S	WU	\$ -	\$ 30,000					\$ 30,000
24-06	Study	Post Wildfire Assessment Program	Acquiring access to existing software programs to model sediment and debris flows from burned areas.	\$ 55,000	L	WU		\$ 55,000					\$ 55,000
24-07	Replacement	Field Operations Centre - IT Infrastructure Upgrades	The firewall, switches and telephony system are end of life and require replacement. The equipment will be transferred to the new building.	\$ 40,000	E	WU		\$ 40,000					\$ 40,000
Watershed Protection Sub-Total				\$ 27,807,000			\$ 4,500,000	\$ 11,346,000	\$ 4,962,000	\$ 737,000	\$ 440,000	\$ 100,000	\$ 17,585,000
INFRASTRUCTURE ENGINEERING AND OPERATIONS													
Planning													
16-10	New	Post Disaster Emergency Water Supply	Identify and procure emergency systems for post disaster preparedness.	\$ 2,250,000	S	WU	\$ 150,000	\$ 350,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,150,000
17-13	New	Asset Management Plan	Development of a plan to inform future areas of study and highlight critical infrastructure improvements.	\$ 400,000	S	WU	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -		\$ 200,000
19-15	New	Hydraulic Capacity Assessment and Transient Pressure Analysis	Determine the existing level-of-service for the RWSC transmission system and conduct a transient pressure analysis	\$ 250,000	S	WU	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -		\$ 100,000
20-08	Study	Regional Water DCC Program	Design of a Regional DCC Program	\$ 450,000	S	WU	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -		\$ 250,000
20-10	Study	Condition & Vulnerability Assessment	Conduct a condition assessment of critical supply infrastructure and assess its possibility of risk.	\$ 200,000	S	WU	\$ 175,000	\$ 175,000	\$ -	\$ -	\$ -		\$ 175,000
21-05	Study	Level of Service Agreement	From #19-15 & #20-11, develop level-of-service agreements for participating municipalities to address hydraulic capacity of infrastructure.	\$ 150,000	S	WU	\$ 140,000	\$ 140,000	\$ -	\$ -	\$ -		\$ 140,000
22-14	Study	Sooke River Intake Feasibility	A feasibility study for an intake from Sooke River to replace the Main No. 15 salmon fishery contribution, for a variety of reasons.	\$ 50,000	S	WU	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -		\$ 40,000
22-12	Study	Project Delivery Strategy	Develop a strategy to deliver the identified projects from the 2022 RWS Master Plan.	\$ 200,000	S	WU	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -		\$ 100,000
22-13	Study	Filtration Plant Planning & Design	Conduct a siting, conceptual design and detailed design for a filtration plant	\$ 16,300,000	S	WU	\$ 253,125	\$ -	\$ 400,000	\$ 500,000	\$ 5,400,000	\$ 10,000,000	\$ 16,300,000
23-14	Study	Council Creek Crossing Hydrology Review	Conduct a hydrology review of the Council Creek crossing of water mains to ensure pipe resilience during high rainfall events.	\$100,000	S	WU		\$100,000					\$100,000

Service #: 2.670  
Service Name: Regional Water Supply

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total
23-24	New	East-West Connector (Filtration Plant to District of Sooke)	Planning and Conceptual Design of the East- West Supply Main from the proposed filtration plant to the District of Sooke (identified in the 2022 Master Plan)	\$ 400,000	S	WU	\$ -	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 400,000
23-25	New	Deep Northern Intake and Sooke Lake Pump Station	Planning and Design of the Deep Northern Intake and Sooke Lake Pump Station (identified in the 2022 Master Plan)	\$ 12,200,000	S	WU	\$ 506,250	\$ -	\$ 600,000	\$ 3,600,000	\$ 4,000,000	\$ 4,000,000	\$ 12,200,000
23-26	New	Transmission Main - Sooke Lake Pump Station to Head Tank	Planning and Design of the Transmission Main from the Sooke Lake Pump Station to Head Tank (identified in the 2022 Master Plan)	\$ 3,400,000	S	WU	\$ 168,750	\$ -	\$ 200,000	\$ 1,000,000	\$ 1,200,000	\$ 1,000,000	\$ 3,400,000
23-27	New	Gravity Main - Sooke Lake to Head Tank	Planning and Design of a Gravity Transmission Main (redundancy) from Sooke Lake to Head Tank (identified in the 2022 Master Plan)	\$ 1,400,000	S	WU	\$ 84,375	\$ -	\$ 300,000	\$ 400,000	\$ 700,000	\$ -	\$ 1,400,000
23-28	New	Goldstream Reservoir Connector	Planning and Design of the Goldstream Reservoir Connector transmission main	\$ 4,600,000	S	WU	\$ 84,375	\$ -	\$ 400,000	\$ 2,000,000	\$ 2,200,000	\$ -	\$ 4,600,000
24-08	Study	Seismic and Flood Vulnerability Assessment of Supply Main 10 and 11 Spillway Crossing	Engineering Seismic Assessment of the spanned crossing of Supply Main No 10 and 11 over the Sooke Lake Spillway channel	\$ 150,000	S	WU	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
24-09	Study	Aggriultural Water Rate Review	Phase 2	\$ 100,000	S	WU	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
18-07	New	Replacement of UV System	Replacement of the UV system at the Goldstream Water Treatment Plant	\$ 11,500,000	E	WU	\$ 6,600,000	\$ 9,370,000	\$ -	\$ -	\$ -	\$ -	\$ 9,370,000
18-08	Replacement	Bulk Supply Meter Replacement Program	Planned replacement of aging bulk meter replacement based upon a condition assessment and water audit.	\$ 2,050,000	E	WU	\$ 950,000	\$ 950,000	\$ 200,000	\$ 200,000	\$ 150,000	\$ -	\$ 1,500,000
18-15	Renewal	Corrosion Protection Program	Study deficiencies in the current material protection and implement recommendations.	\$ 1,150,000	S	WU	\$ 300,000	\$ 300,000	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ 600,000
18-18	Replacement	Main No.3 Segment Replacement	Replacement of segments of Main No. 3 based upon previous studies.	\$ 15,600,000	S	WU	\$ 500,000	\$ 1,010,000	\$ 10,590,000	\$ 3,600,000	\$ -	\$ -	\$ 15,200,000
19-05	Renewal	Repairs - Kapoor Shutdown	Repair items such as defects in the Kapoor tunnel, replacement of critical valves, intake exterior inspection and actuator replacement while the Kapoor tunnel is shutdown.	\$ 700,000	S	WU	\$ 105,000	\$ 205,000	\$ 100,000	\$ -	\$ -	\$ -	\$ 305,000
19-23	New	Critical Spare Equipment Storage & Pipe Yard	Plan, design and construct a critical equipment storage building.	\$ 1,200,000	S	WU	\$ 250,000	\$ 250,000	\$ 950,000	\$ -	\$ -	\$ -	\$ 1,200,000
20-16	Replacement	Cecelia Meter Replacement	Replacement of the Cecelia billing meter as well as its enclosure.	\$ 1,300,000	S	WU	\$ 450,000	\$ 950,000	\$ -	\$ -	\$ -	\$ -	\$ 950,000
20-17	Replacement	Decommission & Conceptual Design of the Smith Hill Site	Plan for decommission the conceptual design for the replacement of the Smith Hill reservoir site.	\$ 1,450,000	S	WU	\$ 253,125	\$ 450,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,450,000
21-06	Replacement	Sooke Lake Dam Spillway Hoist and Stop Log Replacement	Replacement of the sluice gate spillway hoist and stop logs at Sooke Lake Dam.	\$ 775,000	E	WU	\$ 470,000	\$ 470,000	\$ 250,000	\$ -	\$ -	\$ -	\$ 720,000
21-09	New	Goldstream Water Chlorination Gas System Removal	Plan and construct provisions for removal of chlorination system	\$ 200,000	S	WU	\$ 170,000	\$ 170,000	\$ -	\$ -	\$ -	\$ -	\$ 170,000
21-10	Replacement	SCADA Masterplan and System Upgrades	Update the SCADA Master Plan in conjunction with the Juan de Fuca Water Distribution, Saanich Peninsula Water and Wastewater, and Core Area Wastewater Services.	\$ 2,150,000	E	WU	\$ 750,000	\$ 300,000	\$ 725,000	\$ 600,000	\$ 300,000	\$ -	\$ 1,925,000
21-11	Replacement	RWS Supply Main No. 4 Upgrade	Upgrade vulnerable sections of the RWS Supply Main No. 4 and Main No. 1 to a resilient system to better able to withstand a seismic event. Vulnerable sections are Concrete Cylinder pipe material which is susceptible to failure during a seismic event. This is part of project partnered with the Saanich Peninsula Water system.	\$ 33,900,000	S	WU	\$ 3,000,000	\$ 1,715,000	\$ 1,885,000	\$ 20,000,000	\$ 10,000,000	\$ -	\$ 33,600,000
21-11	Replacement		DMAF Grant portion, grant submitted November 2021 and resubmitted in July 2023.	\$ 14,800,000	S	Grant			\$ 1,200,000	\$ 2,000,000	\$ 3,600,000	\$ 6,000,000	\$ 12,800,000
22-15	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the RWS system, a microwave communications system will be installed.	\$ 1,100,000	S	WU	\$ 240,000	\$ 440,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 840,000
22-16	Renewal	Goldstream WTP Drainage Improvements	Construct drainage improvements for the Goldstream Water Treatment Plant and assess	\$ 200,000	S	WU	\$ 120,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
22-17	New	Goldstream WTP Safety Improvements	Construct employee and public safety improvements such as a trail notification system if there was an ammonia spill.	\$ 200,000	E	WU	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
23-16	Renewal	Humpback Channel Assessment and Upgrades	Hydraulically assess the Humpback Overflow channel and conduct a condition assessment of the culverts at the Gatehouse.	\$ 200,000	S	WU	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
23-17	Replacement	Main No. 4 - Mt Newton to Highway 17	Replacement of a approximately 1.9km of the Main No. 4 concrete pipe from Mt Newton and Central Saanich Road south to where it crosses Highway 17. A Strategic Priorities Fund grant has been applied to fund a portion of the works.	\$ 3,800,000	S	WU	\$ 2,600,000	\$ 2,600,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 3,600,000
23-17	Replacement			\$ 6,000,000	S	Grant	\$ -	\$ 6,000,000	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000
25-03	Renewal	Transmission Main Upgrade Program	Identify, conceptually design, detail design and construct transmission main upgrades.	\$ 40,000,000	S	WU	\$ -	\$ -	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 10,000,000	\$ 40,000,000
23-29	Renewal	Mt. Tolmie Control Valve Replacement	Supply and installation of the Mt. Tolmie Reservoir Control Valve	\$ 800,000	E	WU	\$ 250,000	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ 750,000
24-10	Replacement	Sooke River Road WTP UPS Replacement	UPS at Sooke River Road WTP is 21 years old and in need of replacement.	\$ 50,000	E	WU	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
24-11	Replacement	IT Core Infrastructure Replacement	Replacement of Core IT Infrastructure such as servers, network switches, UPS, etc for equipment end of life. Includes IT equipment located at tower sites within the RWS system.	\$ 420,000	E	WU	\$ -	\$ 25,000	\$ 15,000	\$ -	\$ 130,000	\$ 250,000	\$ 420,000
24-12	Renewal	Head Tank Valve Replacement	Supply and installation of Head Tank valves and actuators.	\$ 450,000	E	WU	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ 450,000
24-19	Renewal	Mount Tolmie Tank Structural and Infiltration Improvements	Initial Budget to address leakage and structural repairs discovered at Mount Tolmie Tank in Q4 2023. Further budget refinement is expected as engineering assessment is further developed.	\$ 850,000	E	WU	\$ -	\$ 850,000	\$ -	\$ -	\$ -	\$ -	\$ 850,000
Infrastructure Engineering and Operations Sub-Total				\$ 183,645,000			\$ 19,610,000	\$ 29,480,000	\$ 29,365,000	\$ 45,450,000	\$ 38,080,000	\$ 31,650,000	\$ 174,025,000
DAM SAFETY PROGRAM													\$ -
16-16	Renewal	Implications from Goldstream Dam Safety Review	Database)	\$ 825,000	S	WU	\$ 418,000	\$ 493,000	\$ -	\$ -	\$ -	\$ -	\$ 493,000
17-25	Renewal	Implications from 2016 Sooke Lake Dam Safety Review	Conduct dam improvements at the Sooke Lake Dam that resulted from the 2016 Dam Safety Review and routine inspections (refer to the Dam Safety Database)	\$ 1,210,000	S	WU	\$ 637,000	\$ 637,000	\$ -	\$ -	\$ -	\$ -	\$ 637,000
18-19	New	Sooke Lake Dam - Instrumentation System Improvements	Complete dam performance instrumentation system/surveillance improvements for the Sooke Lake Dam.	\$ 2,200,000	S	WU	\$ 290,000	\$ 1,230,000	\$ -	\$ -	\$ -	\$ -	\$ 1,290,000
18-20	New	Sooke Lake Dam - Breach Risk Reduction Measures	Implement measures to reduce Sooke Lake Dam breach implications in the unlikely event of dam failure (refer to the WSC Consulting Study).	\$ 600,000	S	WU	\$ 513,000	\$ 513,000	\$ -	\$ -	\$ -	\$ -	\$ 513,000
19-07	New	Integrate Dam Performance and Hydromet to SCADA	Integrate the dam safety instrumentation/surveillance (i.e. piezometers and weirs) and Hydromet stations to report to WUD through the existing SCADA system.	\$ 1,300,000	E	WU	\$ 600,000	\$ 600,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ 1,200,000
19-09	New	Cabin Pond Dams Decommissioning (PES)	The Cabin Pond Dams (x2) have been retired from drinking water service, plan to decommission.	\$ 600,000	S	WU	\$ 600,000	\$ 600,000	\$ -	\$ -	\$ -	\$ -	\$ 600,000
19-12	New	Goldstream Dams Instrumentation Improvements	Conduct dam safety instrumentation/surveillance improvements (refer to report from Thurber Engineering).	\$ 700,000	S	WU	\$ 665,000	\$ 665,000	\$ -	\$ -	\$ -	\$ -	\$ 665,000
19-13	New	Dam Safety Instrumentation	The existing dam safety instrumentation/surveillance equipment is getting older and will need to be replaced/rehabilitated (does not include pending SCADA effort).	\$ 300,000	E	WU	\$ 200,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
20-19	Replacement	Goldstream System High Level Outlet Valve Replacements	The Goldstream and Butchart high level outlet valves have been identified as requiring replacement.	\$ 300,000	S	WU	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
21-03	New	Decoction Dam - Dam Safety Review 2021 & Improvements	Conduct a Dam Safety Review and improvements for the Decoction Dam. Improvements to include recommendations from the DSR as well as Low Level Overflow Vent Pipe and Hydraulic Gate Improvements.	\$ 2,000,000	S	WU	\$ 350,000	\$ 600,000	\$ 400,000	\$ 500,000	\$ 500,000	\$ -	\$ 2,000,000
21-04	New	Saddle Dam - Dam Safety Review 2021 & Improvements	Conduct a Dam Safety Review and improvements for the Saddle Dam.	\$ 800,000	S	WU	\$ 165,000	\$ 450,000	\$ 200,000	\$ 75,000	\$ 75,000	\$ -	\$ 800,000
21-21	Replacement	Goldstream Dams - 4 Low Level Gate Improvements	Several of the water control gates related to the Goldstream dams are in need of repair and possibly replacement.	\$ 150,000	S	WU	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000

Service #:2.670

Service Name:Regional Water Supply

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total
22-08	New	Deception Dam Surveillance Improvements	Replace and supplement the Dam Safety Instrumentation at Deception Dam.	\$ 450,000	S	WU	\$ 150,000	\$ 300,000	\$ 150,000	\$ -	\$ -	\$ -	\$ 450,000
23-07	Study	Sooke Lake Dam Spillway and Gates Retrofit	Detailed design for seismic retrofits for the existing structures initially focusing on the spillway and gates structures. Construction to be budgetted subsequently.	\$ 450,000	S	WU	\$ 150,000	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ 450,000
23-08	Study	Regional Watershed Dams – Flood Forecasting System	Update the existing flood forecasting system (WD4Cast) to a modern version including Standard Operating Procedures and training for staff.	\$ 300,000	S	WU	\$ 100,000	\$ 200,000	\$ 50,000	\$ -	\$ -	\$ -	\$ 250,000
23-09	Study	Sooke Lake Dam - Dam Safety Review 2023	Conduct a Dam Safety Review to meet regulatory requirement.	\$ 200,000	S	WU	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23-18	Renewal	Sooke Lake Dam Spillway Channel Improvements	Construct bank protection for the Sooke Spillway Channel and clear the seepage weir blockage.	\$ 700,000	S	WU	\$ 200,000	\$ 400,000	\$ 300,000	\$ -	\$ -	\$ -	\$ 700,000
23-19	Renewal	Charters Dam - Implications from Dam Safety Review	Carry out recommendations from the 2022 Dam Safety Review for Charters Dam	\$ 200,000	S	WU	\$ 20,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
25-01	Study	Goldstream Dam - Dam Safety Review 2025 & Addressing Implications	Conduct a Dam Safety Review to meet regulatory requirement.	\$ 200,000	S	WU	\$ -	\$ -	\$ 200,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 425,000

# APPENDIX A

Service #: 2.670  
Service Name: Regional Water Supply

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total
25-02	Study	Probable Maximum Flood and Inflow Design Flood Updates	Update the previous edition from 2015 (recommended 10 year review cycle).	\$ 150,000	S	WU	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
25-06	Replacement	Goldstream Dam Spillway Replacement	Replacement of Goldstream Dam Spillway due to deteriorated condition.	\$ 500,000	S	WU	\$ -	\$ -	\$ 100,000	\$ 400,000	\$ -	\$ -	\$ 500,000
24-13	Replacement	Reservoir Log Boom Upgrade Program	Review, analysis and upgrades to log booms, prioritizing Sooke Lake Reservoir.	\$ 500,000	S	WU	\$ -	\$ 200,000	\$ 300,000				\$ 500,000
													\$ -
Dam Safety Program Sub-Total				\$ 14,635,000			\$ 5,508,000	\$ 8,168,000	\$ 2,050,000	\$ 1,250,000	\$ 850,000	\$ 75,000	\$ 12,393,000
WATER QUALITY													\$ -
20-04	New	Sooke Lake HyDi Model Development	Critical data collection, model building-calibration, model utilization for 3 different scenarios	\$ 520,000	E	WU	\$ 100,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
22-06	Study	Sooke Lake Food Web Study	Assess the aquatic food web structure and create an inventory of fish and invertebrate species and distribution in Sooke Lake Reservoir - to be used as indicators of stream health	\$ 100,000	S	WU	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23-06	Study	GDVWS Nitrification Study	Investigate nitrification occurrence and potential impacts on drinking water quality	\$ 50,000	S	WU	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24-02	Replacement	Boat Motor Replacement with Electric Outboards (Sooke and Goldstream Boats)	50hp and 15hp motor replacement due to age and water quality concerns, large electric outboards are already available from Torqeedo for instance	\$ 60,000	E	WU	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24-04	Study	Sooke Lake Drawdown Study	Investigate drawdown effects on Sooke Lake water quality and ecosystem impacts with max drawdown and determine a safe max drawdown level for SOL.	\$ 100,000	S	WU	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
25-04	Replacement	4 x multi-parameter field analyzers (SL1000)	Replace 4 multi-parameter (total/free/mono/ammonia) field analyzers	\$ 20,000	E	WU	\$ -	\$ -	\$ 20,000	\$ -	\$ -	\$ -	\$ 20,000
26-01	New	2 x Floating Water Quality Sensor Platforms	To support and confirm water quality data in SOL for Deep Norther Intake, install 2 floating sensor platforms	\$ 200,000	E	WU	\$ -	\$ -	\$ -	\$ 200,000	\$ -	\$ -	\$ 200,000
27-01	Study	Drinking Water Safety Plan Update	Review and update existing DWSP spreadsheet and risk registry. Consider planned system expansions/upgrades.	\$ 80,000	S	WU	\$ -	\$ -	\$ -	\$ -	\$ 80,000	\$ -	\$ 80,000
24-14	Replacement	Laboratory Equipment Replacements	Replacement of critical laboratory equipment.	\$ 75,000	E	WU	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
24-15	Replacement	Laboratory Renovations	Renovation for main lab cabinetry, floor, aquatic ecology lab and prep room.	\$ 200,000	B	WU	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
24-16	Replacement	WQ Field Office IT Upgrades	The firewall, switches and telephony system are end of life and require replacement.	\$ 10,000	E	WU	\$ -	\$ 10,000	\$ -	\$ -	\$ -	\$ -	\$ 10,000
													\$ -
Water Quality Sub-Total				\$ 1,415,000			\$ 230,000	\$ 505,000	\$ 20,000	\$ 200,000	\$ 80,000	\$ -	\$ 805,000
ANNUAL PROVISIONAL													\$ -
17-27	Replacement	Watershed Bridge and Culvert Replacement	Replacement of small culverts and bridges throughout the GVVSA.	\$ 1,000,000	S	WU	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000
17-28	Replacement	Watershed Security Infrastructure Upgrade and Replacement	New, upgrade and replacement of security infrastructure in the GVVSA.	\$ 600,000	E	WU	\$ -	\$ 200,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
17-29	Replacement	Water Supply Area Equipment Replacement	Hydrometeorological, fireweather and wildfire suppression equipment replacement.	\$ 640,000	E	WU	\$ -	\$ 140,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 640,000
17-30	Replacement	Transmission Main Repairs	Emergency repairs to the transmission mains.	\$ 1,000,000	S	WU	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000
17-31	Replacement	Transmission System Components Replacement	Replacement and repair of transmission components.	\$ 400,000	S	WU	\$ -	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 400,000
17-33	Replacement	Disinfection Equipment Parts Replacement	Replacement of incidental equipment and parts associated with the disinfection system.	\$ 1,000,000	E	WU	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000
17-34	Renewal	Supply System Computer Model Update	Annual update of the regional hydraulic model.	\$ 100,000	S	WU	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000
19-16	Replacement	Dam Improvements	Items not covered by Dam Safety Reviews, but brought up in Dam Safety Inspections and Dam Safety Reviews and address them in the dam safety database/risk registry	\$ 1,675,000	S	WU	\$ -	\$ 475,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,675,000
19-22	Replacement	SCADA Repairs & Equipment Replacement	Items not covered by the SCADA Replacement and SCADA Master Plan, but integral in maintaining the SCADA System and revenue meter system.	\$ 750,000	E	WU	\$ -	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000
21-15	Replacement	Corrosion Protection	Replace corrosion protection assets, such as coatings, for the transmission system when identified.	\$ 250,000	S	WU	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
21-16	Replacement	Valve Chamber Upgrades	Replace failing valves and appurtenances along the RWS supply system.	\$ 1,500,000	S	WU	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000
21-17	Replacement	Water Quality Equipment Replacement	Replacement of water quality equipment for the water quality lab and water quality operations	\$ 250,000	E	WU	\$ -	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 250,000
21-18	Renewal	LIMS support	Support for LIMS database	\$ 125,000	E	WU	\$ -	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 125,000
23-20	Study	Land Exchange/Acquisition	Land survey, appraisals to support decisions regarding land exchange to increase catchment area, buffer water supply areas and other possible land exchange and acquisition within the RWS system.	\$ 400,000	L	WU	\$ -	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 400,000
													\$ -
Annual Provisional Sub-Total				\$ 9,690,000			\$ -	\$ 2,170,000	\$ 1,880,000	\$ 1,880,000	\$ 1,880,000	\$ 1,880,000	\$ 9,690,000
CUSTOMER AND TECHNICAL SERVICES													\$ -
17-35	Replacement	Vehicle & Equipment Replacement (Funding from Replacement Fund)	This is for replacement of vehicles and equipment used by CRD Water Services for the day-to-day operation and maintenance of the supply system.	\$ 2,873,000	V	ERF	\$ -	\$ 1,191,000	\$ 685,250	\$ 773,000	\$ 855,000	\$ 495,000	\$ 3,999,250
20-22	New	Vehicle for the Dam Safety Program	New Transit Van	\$ 100,000	V	WU	\$ 100,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
20-23	New	Vehicle for the CSE Support Program	New Transit Van	\$ 100,000	V	WU	\$ 100,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
21-30	New	Vehicle for Warehouse Operations	New pickup	\$ 90,000	V	WU	\$ 90,000	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000
23-21	New	EV Charging Stations Electrical Infrastructure	Electrical System upgrades at 479 Island Hwy to power up 44 charging stations	\$ 855,000	E	WU	\$ 650,000	\$ 855,000	\$ -	\$ 400,000	\$ -	\$ -	\$ 1,255,000
23-22	New	Fuel Truck	Fuel tender truck	\$ 200,000	E	WU	\$ 200,000	\$ 325,000	\$ -	\$ -	\$ -	\$ -	\$ 325,000
23-30	New	Fast Ship Hoist	Heavy Capacity Hoist for fleet maintenance	\$ 35,000	E	WU	\$ 35,000	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
23-31	New	Purchase of land	Purchasing of land near 479 for future office space	\$ 1,500,000	L	WU	\$ 1,500,000	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
24-17	New	Pool Vehicles	2 new EV Pickups	\$ 180,000	V	WU	\$ -	\$ 180,000	\$ -	\$ -	\$ -	\$ -	\$ 180,000
24-18	New	Vehicle for Watershed Hydrology Program	New pickup truck for watershed hydrology program	\$ 100,000	V	WU	\$ -	\$ 90,000	\$ -	\$ -	\$ -	\$ -	\$ 90,000
													\$ -
Customer and Technical Services Sub-Total				\$ 6,033,000			\$ 2,675,000	\$ 4,541,000	\$ 685,250	\$ 1,173,000	\$ 855,000	\$ 495,000	\$ 7,749,250
GRAND TOTAL				\$ 243,225,000			\$ 30,523,000	\$ 56,210,000	\$ 38,962,250	\$ 50,690,000	\$ 42,185,000	\$ 34,200,000	\$ 222,247,250

**REPORT TO REGIONAL WATER SUPPLY COMMISSION  
MEETING OF WEDNESDAY, JANUARY 17, 2024**

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**SUBJECT**     **2023 Public and School Tours Summary - Greater Victoria Water Supply Area**

**ISSUE SUMMARY**

To provide the Regional Water Supply Commission a summary of the 2023 public and school tours of the Greater Victoria Water Supply Area (GVWSA) and water supply facilities.

**BACKGROUND**

For the past 34 years, Integrated Water Services (IWS) has provided free bus tours of the Greater Victoria Water Supply Area and Water Supply Facilities to the public. School tours have been offered to various grades over the past 11 years, with a focus on grade 5 for the last eight years. Technical tours have been provided to post-secondary institutions, professional associations and partner agencies by request.

The tour programs for 2020 and 2021 were impacted by Public Health Orders due to COVID-19. Time and funding were used instead to develop several videos about the water supply area, water treatment and transmission, valuing and conserving water and GVWSA access orientation.

With the easing of COVID public health orders in 2022, school, public and technical tours were again offered.

**2023 Public Tours**

The public tours provided participants with an opportunity to gain a better understanding of:

- where Greater Victoria's drinking water comes from
- the high quality of water in source reservoirs
- the characteristics of the water supply area and drinking water infrastructure
- the care taken to safeguard the drinking water resource
- future plans for the water supply area with regard to climate change and population growth
- how source water is disinfected
- the value of water conservation
- water pricing

The tours also offered a chance to inform the participants of the 2022 Regional Water Supply Master Plan and water conservation bylaw.

Public tours were offered four days per week (Thursday to Sunday) in the month of June. The five-hour tour followed the path of water from source to tap, with stops at the Sooke Reservoir North Basin Viewpoint, Rithet Creek, a forest walk, Sooke Dam and the Goldstream Water Treatment Facility (viewing of the ultraviolet disinfection pipe gallery). Capital Regional District (CRD) Water bottles were given to all participants.

The following table compares tour participation statistics from 2018 to 2023 (no tours were offered in 2020 and only school tours in 2021). There were 583 participants on the public tours. CRD's online registration system (Sitefinity) was used and most tours were fully booked with a waitlist. Coach buses had 42 seats reservable with an average occupancy of 36 participants (or 87 % full), due predominantly to no-shows on the day.

Tour Type	2018		2019		2021 (Covid impact)		2022		2023	
	Tours	Participants	Tours	Participants	Tours	Participants	Tours	Participants	Tours	Participants
School	18	426	26	770	18	467	23	641	22	627
Public	16	547	16	584	0	0	16	467	16	583
<b>Total</b>	<b>34</b>	<b>973</b>	<b>42</b>	<b>1,354</b>	<b>18</b>	<b>467</b>	<b>39</b>	<b>1,108</b>	<b>38</b>	<b>1,210</b>

### 2023 School Tours

There were 22 free school tours provided to grade 5 or grade 4/5 classes over a span of six weeks in April and May. The 2023 school tours visited Goldstream River, Japan Gulch Reservoir, enjoyed a walk in the forest and on the suspension bridge before visiting the Goldstream Water Treatment Facility. The tour ends with the wildfire fighter challenge relay race and a CRD water bottle as a memento of the field trip.

The school program covered the following topics:

- water on a global scale and the water cycle
- defining a watershed
- learning about our forest and native plants
- where our drinking water comes from and how it's delivered to our homes
- how our drinking water is disinfected
- the risk of a wildfire to our water supply
- what we can do to conserve drinking water

There were 548 students that attended the tours with 79 accompanying adults, for a total of 627 individuals. The online registration information was sent to all schools (public and private) in the Greater Victoria area via the CRD Educator's Newsletter and bookings were made on a first come, first served basis.

The elementary schools that participated in sending one or more classes in 2023 were: Marigold, Oaklands, Campus View, Sir James Douglas, Braefoot, St. Joseph's, Poirier, George Jay, Hillcrest, Lake Hill, Torquay, Deep Cove, and Prospect Lake.

While the school tours remain popular with teachers and students as an outing, staff increasingly feel that the purpose and content is not being received and absorbed as much as hoped. Requests for more in-class resources, free time and games on the already shortened tours lend to this view that perhaps funds and efforts should rather be re-pointed to efforts to inform the general public and actively interested older students and provide information on the water supply system to the in-class program on water provided by outreach staff in Parks and Environmental Services.



### 2023 Technical Tours

Technical tours were requested throughout the year and varied in focus and length. In 2023, a record number of technical tours were requested and provided to approximately 150 people. Technical tours require additional support from staff subject matter experts and are only conducted when staff can be made available.

- University of Victoria Hydrology class
- University of Victoria Restoration of Natural Systems class
- District of Saanich Engineering Department
- Natural Resources Canada, Pacific Forestry Centre
- Ministry of Water, Land, and Resource Stewardship, Water Protection and Sustainability Branch
- University of Victoria, Science Venture STEM (Grade 9-12)
- Chief Medical Health Officer and Staff
- Camosun College, Civil Engineering, Water & Waste Management class
- Environment and Climate Change Canada International Conference: Indigenous and Urban Approaches to Climate Adaptation – tour with delegates and Minister Guilbeault
- Regional Water Supply Commission, Water Advisory Committee and Juan de Fuca Water Distribution Commission

In addition to the technical tours, two CRD Staff tours were provided, one in June and the other in October with a total of 49 CRD staff attending.

Tour Program staff collaborated with other CRD educational program staff (Parks Interpretive Programs, Climate Action and Environmental Protection) on two events:

- Earth Day event hosted at Beaver Lake. This family focused event was an opportunity to promote CRD educational environmental programs; Integrated Water Services staffed a booth and provided a scavenger hunt relating to historic water infrastructure located in the park.
- Teacher Pro-D Day Workshop – Hosted at the Hartland Learning Centre. Presentations to teachers on CRD educational programs and the local environmental resources available, followed by a tour of Hartland Landfill.



*CRD Staff tour June 29, 2023, Sooke Intake Tower*

### Budget

The budget for the 2023 tour program was \$69,125. The cost to deliver the public and school tour program in 2023 totaled \$71,200 (overspending of \$2,081 or 3%) with \$36,480 spent on buses, \$20,820 on auxiliary staff time, and the remainder on advertising, rental of a tent and sanitation facilities, printing posters and brochures, and use of a fleet vehicle.

### Advertising

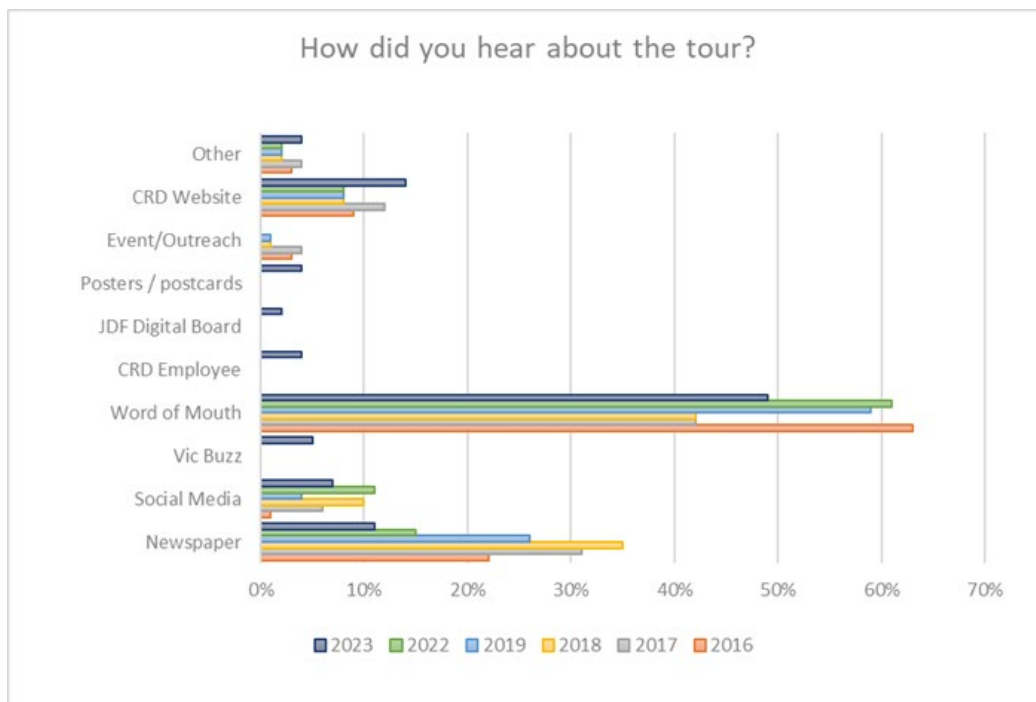
Advertising for the public tours kicked off with a social media campaign on World Water Day (March 22) with online registration open for the June dates. Other advertising was carried out on the CRD Website and social media posts (Facebook, Instagram, and X). Posters and postcards were created with a QR code that linked directly to the registration page and were distributed to strategic community locations like libraries and community centres. New this year was advertising on the Juan De Fuca digital board, using Victoria Buzz for an advertorial, and staff attending a CRD hosted Earth Day event to promote the public tours.

On May 1, Black Press ran a free public interest piece informing residents that the CRD watershed tours were back, and that registration was open. The same story was predominantly featured on the six Greater Victoria Black Press webpages (Victoria, Saanich, Sooke, Goldstream/Westshore, Oak Bay, and The Peninsula News) and print stories were run in two to three papers. The digital stories linked to the watershed overview video, which accounts for a significant increase in viewership from May 1-3. The free news story increased registration to the point that a newspaper advertisement was not required.

### **Link to Black Press Story**

<https://www.saanichnews.com/community/crd-brings-back-watershed-tours-for-the-summer-328811>

The public tour survey provided data on how participants heard about the tours. The below graph illustrates that word of mouth is still the number one mechanism for advertising the public tours with the CRD website, for the first time, taking second place.



### Feedback

A public tour survey was completed by 396 individuals or 68% of the tour participants. Of those who responded, 81% were on a tour for the first time. As in previous years, the tours were well received with 92% of those surveyed rating the tour as “excellent”. The aspects respondents enjoyed most were the forest walk, information presented during the tour, knowledge of tour leaders, seeing Sooke Lake Dam, wildlife, and the opportunity to tour an otherwise restricted area.

Most respondents did not think there was any aspect of the tour that needed improving. However, some wished for more public tour dates and the opportunity for tours in the fall. A few respondents expressed a desire for a longer forest walk or other opportunities to do more walking. The only recurring complaint was regarding the lack of air conditioning on the bus as well as the lack of shade at the lunch stop on the dam during hot days at the end of June. Overall, feedback from the 2023 public tours was very positive and reinforces the public’s appreciation for the opportunity to visit and learn about the watershed and water supply system.

Feedback from teachers on the 2023 school tours was positive, rating the tour as good to excellent. When asked if teachers would use a pre-tour resource kit, the majority answered yes. Feedback from teachers at the Pro-D Day workshop expressed they would like more in-class programs.

### Plans for 2024

Plans for 2024 tours (budget of \$70,500; 2% increase) include:

- providing more tours for the public in the spring and offering tours in the fall
- re-directing school tour efforts to:
  - a) in-class outreach on the topic of drinking water and watersheds in collaboration with CRD Environmental Services schools outreach; and,
  - b) a trial of one or more tours in the fall aimed at students at higher level education institutions – i.e., Camosun College, University of Victoria;
  - c) increasing awareness that technical tours can be requested by high school or higher-level education classes specific to trades, engineering, environmental studies, hydrology and biology.
- continue to work with CRD First Nations Relations and Regional Parks staff to elicit local First Nations context and history that can be provided on tours.

### CONCLUSION

The 2023 “Get to Know Your H<sub>2</sub>O Tours” of the Greater Victoria Water Supply Area and Water Supply Facilities were enthusiastically received by both schools and the public. A total of 1,210 residents participated in one of the 38 tours that were provided. A high percentage of public tour and school participants were on a tour for the first time. Tours will again be offered in 2024 with a new focus on reaching students at higher level education institutions as well as increasing public tour offerings.

**RECOMMENDATION**

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

Submitted by:	Annette Constabel, M.Sc., RPF., Senior Manager, Watershed Protection
Concurrence:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer



# Capital Regional District

## **HOTSHEET AND ACTION LIST**

### Juan de Fuca Water Distribution Commission

Tuesday, January 9, 2024

12 PM

Goldstream Meeting Room  
479 Island Highway  
Victoria, BC

The following is a quick snapshot of the FINAL Juan de Fuca Water Distribution Commission decisions made at the meeting. The minutes will represent the official record of the meeting. A name has been identified beside each item for further action and follow-up.

#### 3. ADOPTION OF MINUTES

That the minutes of the October 3, 2023 meeting be adopted.

**CARRIED**

#### 7. COMMISSION BUSINESS

##### **THE FOLLOWING REPORTS WERE RECEIVED FOR INFORMATION**

- 7.1 Juan de Fuca 2023 Annual Operational Update
- 7.2 Summary of Recommendations from other Water Commissions
- 7.3 Water Watch Report

#### **Actions:**

- Staff to circulate the proposed 2024 JWDC workplan.
- Staff to include consideration of emerging Provincial policy requirements, related to Housing and Emergency Management, and the implications they may have on water supply and distribution. Include consideration in future staff reports coming forward to the Commission.
- Staff to consider inviting Commissioners out to an information and demonstration session related to infrastructure in the Juan de Fuca are (eg. VGH valve chamber).



# Capital Regional District

## HOTSHEET AND ACTION LIST

### Saanich Peninsula Water Commission

Thursday, October 19, 2023

9:30 AM

Sidney Community Safety Building  
2245 Oakville Ave  
Sidney BC

The following is a quick snapshot of the FINAL Saanich Peninsula Water Commission decisions made at the meeting. The minutes will represent the official record of the meeting. A name has been identified beside each item for further action and follow-up.

#### 3. ADOPTION OF MINUTES

That the minutes of the September 28, 2023 meeting be adopted.

**CARRIED**

#### 7. COMMISSION BUSINESS

##### 7.1 Service Planning 2024 – Water Community Need Summary

**Recommendation:** The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:  
That Appendix A, Community Need Summary – Water, be approved as presented and form the basis of the 2024-2028 Financial Plan.

**CARRIED**

##### 7.2 Saanich Peninsula Water Service 2024 Operating and Capital Budget

**Recommendation:** The Saanich Peninsula Water Commission recommends that the Committee of the Whole recommend that the Capital Regional District Board:

1. Approve the 2024 operating and capital budget;
2. Approve the 2024 Saanich Peninsula bulk water rate of \$1.1978 per cubic metre, and the Agricultural Research Station water rate of \$1.2330 per cubic metre, adjusted if necessary by any changes in the CRD Regional Water Supply wholesale water rate;
3. Direct staff to balance the 2023 actual revenue and expense on the transfer to capital reserve fund;
4. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and,
5. Direct staff to amend the Bulk Water Rates Bylaw accordingly.

**CARRIED**

#### **Action:**

The Commission requested that staff provide a progress report on the Asset Management Plan and whether the Asset Management Registry is up to date.

**The following items were received for information:**

**7.1 Recommendations from Other Water Commissions**

**7.2 Water Watch Report**

**8. NOTICE(S) OF MOTION**

**8.1. Speaker Series: Commissioners King, Doehnel and Chair Kelbert**

**Recommendation:** Therefore, be it resolved that the Saanich Peninsula Water Commission direct staff to organize an annual speaker series for the peninsula, dedicated to presentations by researchers and public interest groups that are focused on emerging topics concerning water and wastewater.

**WITHDRAWN**

Staff to provide a report on implications and a potential budget for associated costs to organize an annual speaker series for the peninsula, dedicated to presentations by researchers and public interest groups that are focused on emerging topics concerning water and wastewater.

**CARRIED**

# CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

## Water Watch

Issued January 08, 2024

### Water Supply System Summary:

#### 1. Useable Volume in Storage:

Reservoir	January 31 5 Year Ave		January 31/23		January 7/24		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	91,130	20,049	84,744	18,644	78,012	17,163	84.1%
Goldstream	8,533	1,877	9,825	2,162	9,750	2,145	98.3%
Total	99,663	21,926	94,569	20,805	87,762	19,308	85.5%

#### 2. Average Daily Demand:

For the month of January	99.0 MLD	21.77 MIGD
For week ending January 07, 2024	99.0 MLD	21.78 MIGD
Max. day January 2024, to date:	101.6 MLD	22.35 MIGD

#### 3. Average 5 Year Daily Demand for January

Average (2019 - 2023)	101.4 MLD <sup>1</sup>	22.32 MIGD <sup>2</sup>
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<sup>1</sup>MLD = Million Litres Per Day      <sup>2</sup>MIGD = Million Imperial Gallons Per Day

#### 4. Rainfall January:

Average (1914 - 2023):	272.8 mm
Actual Rainfall to Date	46.6 mm (17% of monthly average)

#### 5. Rainfall: Sep 1- Jan 7

Average (1914 - 2023):	855.6 mm
2023/2024	685.1 mm (80% of average)

#### 6. Water Conservation Action Required:

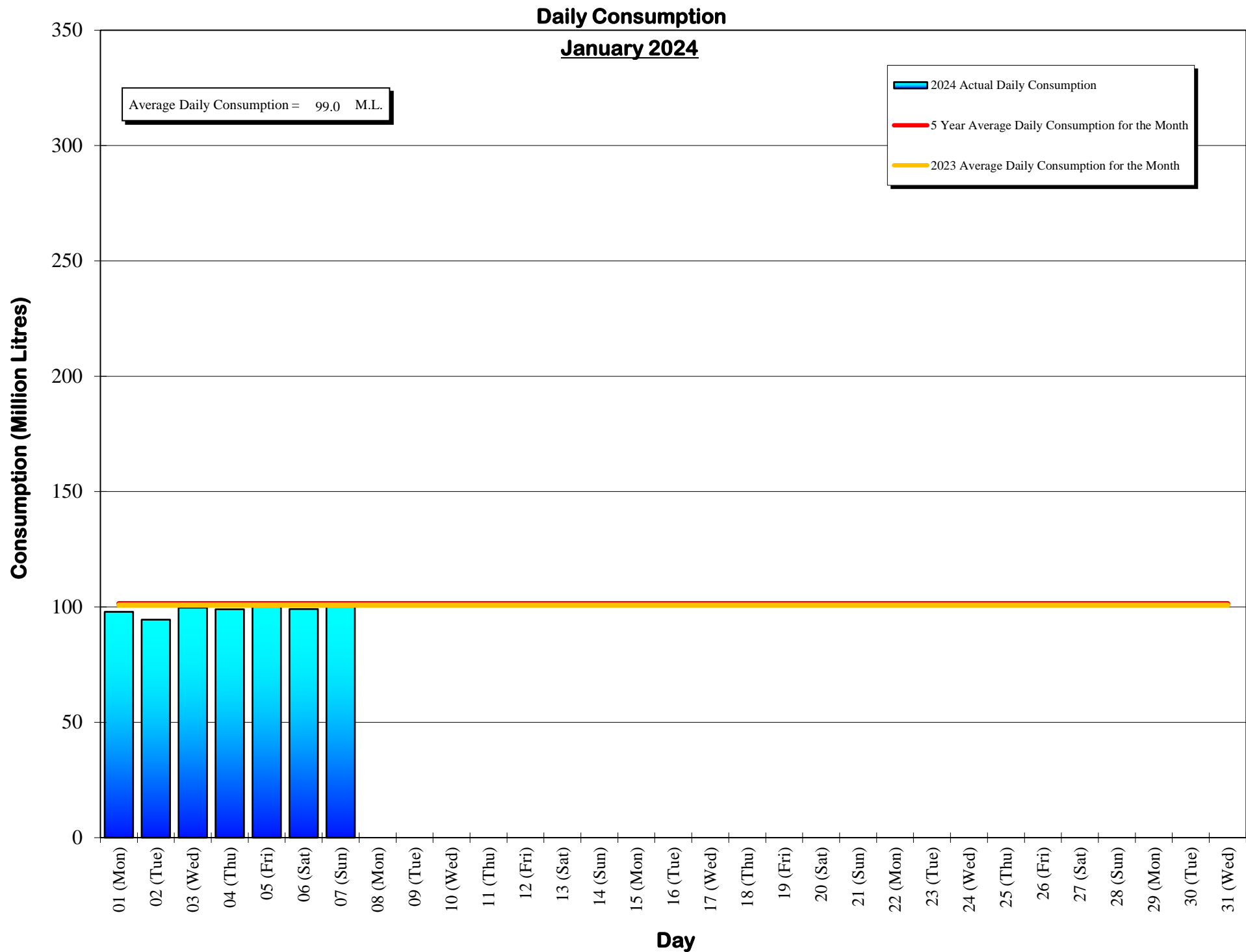
To avoid possible leaks this spring, now is the time to winterize your sprinkler system.  
Visit our website at [www.crd.bc.ca/water](http://www.crd.bc.ca/water) for more information.

If you require further information, please contact:

Alicia Fraser, P. Eng.  
General Manager, CRD - Integrated Water Services  
or  
Glenn Harris, Ph D., RPBio  
Senior Manager - Environmental Protection

Capital Regional District Integrated Water Services  
479 Island Highway  
Victoria, BC V9B 1H7  
(250) 474-9600





Daily Consumptions: - January 2024

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am			
	(ML) <sup>1.</sup>	(MIG) <sup>2.</sup>	High (°C)	Low (°C)		Rainfall (mm)	Snowfall <sup>3.</sup> (mm)	Total Precip.	
01 (Mon)	97.9		21.5	7	4	Cloudy / P. Sunny	0.0	0.0	0.0
02 (Tue)	94.5	<=Min	20.8	7	4	Cloudy / Showers	1.5	0.0	1.5
03 (Wed)	99.7		21.9	8	5	Cloudy / Showers	0.5	0.0	0.5
04 (Thu)	99.0		21.8	8	4	Sunny / P. Cloudy / Showers	3.5	0.0	3.5
05 (Fri)	101.0		22.2	7	3	Cloudy / Rain	38.6	0.0	38.6
06 (Sat)	99.1		21.8	5	0	Sunny / P. Cloudy / Showers	2.5	0.0	2.5
07 (Sun)	101.6	<=Max	22.3	4	0	Cloudy / P. Sunny	0.0	0.0	0.0
08 (Mon)									
09 (Tue)									
10 (Wed)									
11 (Thu)									
12 (Fri)									
13 (Sat)									
14 (Sun)									
15 (Mon)									
16 (Tue)									
17 (Wed)									
18 (Thu)									
19 (Fri)									
20 (Sat)									
21 (Sun)									
22 (Mon)									
23 (Tue)									
24 (Wed)									
25 (Thu)									
26 (Fri)									
27 (Sat)									
28 (Sun)									
29 (Mon)									
30 (Tue)									
31 (Wed)									
TOTAL	692.8 ML	152.41 MIG					46.6	0	46.6
MAX	101.6	22.35		8	5		38.6	0	38.6
AVG	99.0	21.77		6.6	2.9		6.7	0	6.7
MIN	94.5	20.78		4	0		0.0	0	0.0

1. ML = Million Litres      2. MIG = Million Imperial Gallons      3. 10% of snow depth applied to rainfall figures for snow to water equivalent.

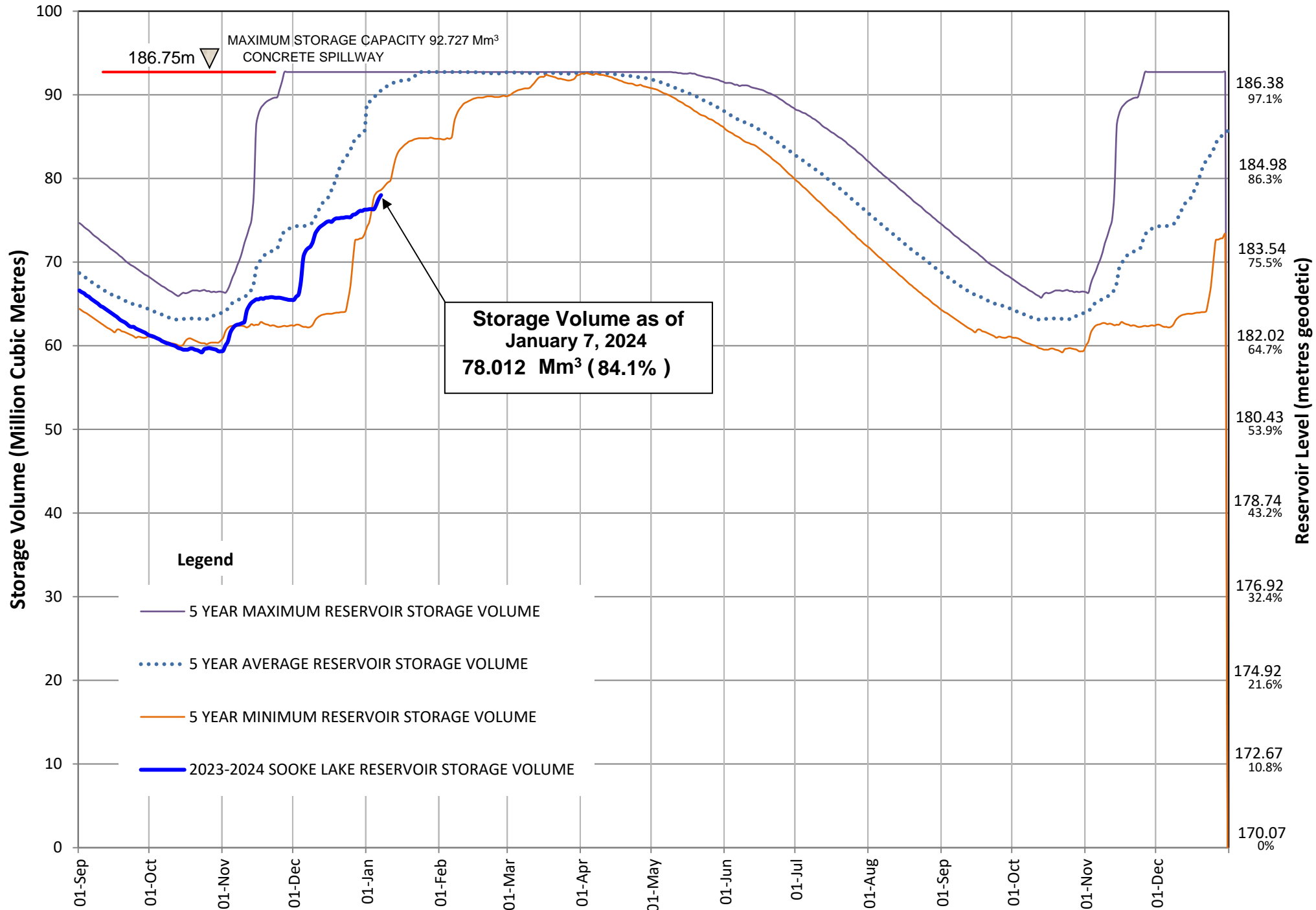
Average Rainfall for January (1914-2023)	272.8 mm
Actual Rainfall: January	46.6 mm
% of Average	17%
Average Rainfall (1914-2023): Sept 01 - Jan 07	855.6 mm
Actual Rainfall (2023/24): Sept 01 - Jan 07	685.1 mm
% of Average	80%

Number days with precip. 0.2 or more
5

Water spilled at Sooke Reservoir to date (since Sept. 1) = 0.00 Billion Imperial Gallons  
= 0.00 Billion Litres

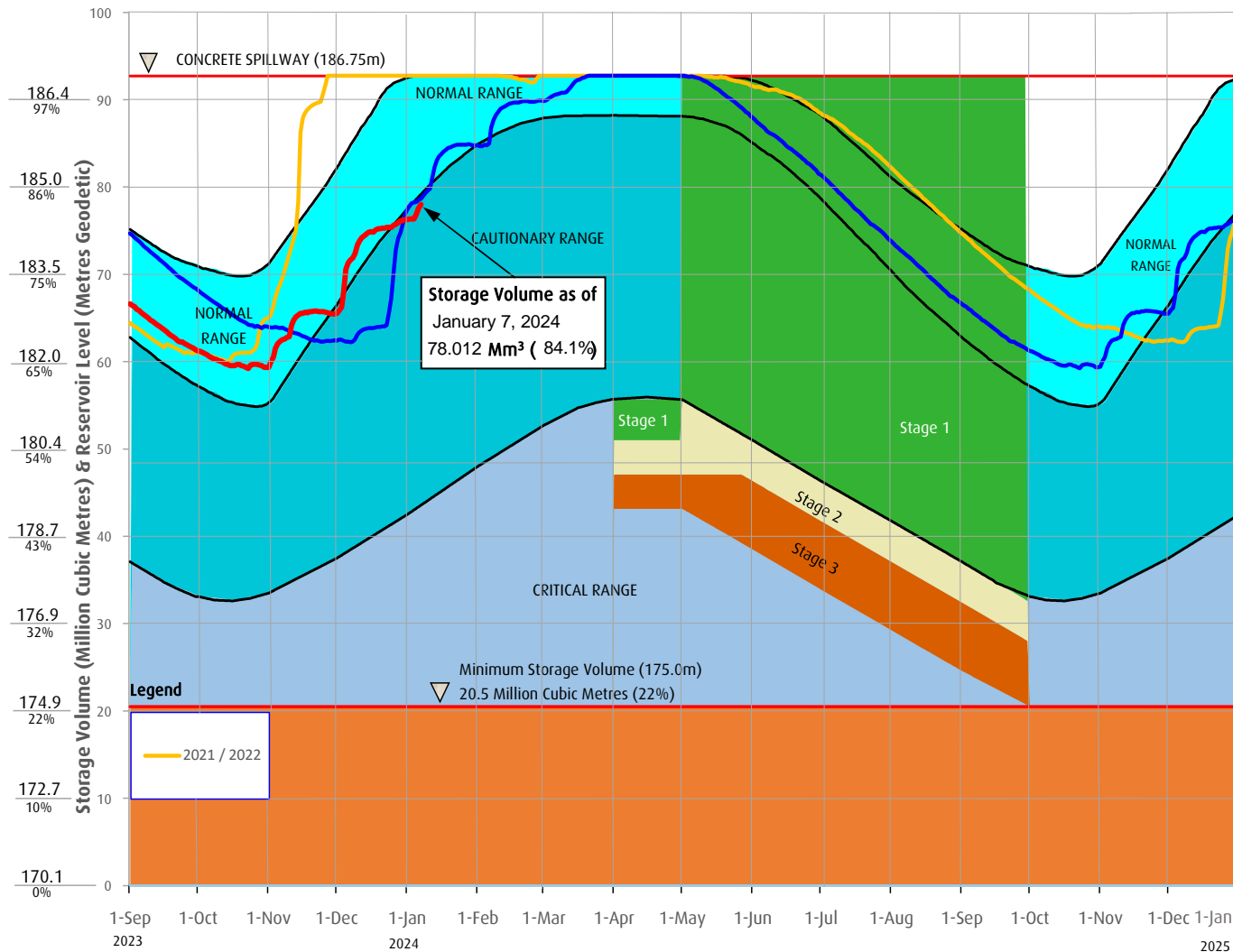
# SOOKE LAKE RESERVOIR STORAGE SUMMARY

2023 / 2024



# Sooke Lake Reservoir Storage Level

## Water Supply Management Plan



## FAQs

### How are water restriction stages determined?

Several factors are considered when determining water use restriction stages, including,

1. Time of year and typical seasonal water demand trends;
2. Precipitation and temperature conditions and forecasts;
3. Storage levels and storage volumes of water reservoirs (Sooke Lake Reservoir and the Goldstream Reservoirs) and draw down rates;
4. Stream flows and inflows into Sooke Lake Reservoir;
5. Water usage, recent consumption and trends; and customer compliance with restriction;
6. Water supply system performance.

The Regional Water Supply Commission will consider the above factors in making a determination to implement stage 2 or 3 restrictions, under the Water Conservation Bylaw.

At any time of the year and regardless of the water use restriction storage, customers are encouraged to limit discretionary water use in order to maximize the amount of water in the Regional Water Supply System Reservoirs available for nondiscretionary potable water use.

Stage 1 is normally initiated every year from May 1 to September 30 to manage outdoor use during the summer months. During this time, lawn watering is permitted twice a week at different times for even and odd numbered addresses.

Stage 2 is initiated when it is determined that there is an acute water supply shortage. During this time, lawn water is permitted once a week at different times for even and odd numbered addresses.

Stage 3 is initiated when it is determined that there is a severe water supply shortage. During this time, lawn watering is not permitted. Other outdoor water use activities are restricted as well.

For more information, visit [www.crd.bc.ca/drinkingwater](http://www.crd.bc.ca/drinkingwater)

**CRD**  
Making a difference...together

# Useable Reservoir Volumes in Storage for January 07, 2024

