



Notice of Meeting and Meeting Agenda Regional Water Supply Commission

Wednesday, June 19, 2024

11:30 AM

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

MEMBERS:

G. Baird (Chair); K. Harper (Vice Chair); J. Caradonna; N. Chambers; C. Coleman;
Z. de Vries; S. Duncan; C. Graham; S. Gray; C. Green; K. Guiry; S. Hammond;
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. APPROVAL OF THE AGENDA

3. ADOPTION OF MINUTES

3.1 [24-613](#) Adoption of the Minutes of the May 15, 2024 Meeting

Recommendation: That the minutes of the May 15, 2024 Regional Water Supply Commission meeting be adopted.

Attachments: [Draft Minutes, May 15, 2024](#)

4. CHAIR'S REMARKS

5. PRESENTATIONS/DELEGATIONS

5.1 Presentations

5.2 Delegations

5.2.1 [24-642](#) Delegation - Mr. Mehdi Najari; Re: Agenda Item: 6.1. Development Cost Charges Program Engagement Update

5.2.2 [24-645](#) Delegation - Laurence Lemay; Representing Innergex Renewable Energy; Re: Agenda Item: 6.2. Wind Data Collection Pilot Update

5.2.3 [24-646](#) Delegation - Josh Handysides; Representing Malahat Nation; Re: Agenda Item: 6.2. Wind Data Collection Pilot Update

6. GENERAL MANAGER'S REPORT

6.1 Development Cost Charges Program Engagement Update [verbal]

6.2 Wind Data Collection Pilot Update [verbal]

7. MINUTES OF THE WATER ADVISORY COMMITTEE

7.1 [24-616](#) Recommendation from Water Advisory Committee: Agricultural Water Rate Study

Recommendation: That the Agricultural Water Rate Study be paused until further review by the Water Advisory Committee.
(NWA)

Attachments: [Draft Minutes - Water Advisory Committee Meeting](#)

8. COMMISSION BUSINESS

8.1 [24-607](#) Recommendation to Award Contract No. 2024-948, Goldstream Water Treatment Plant Ultraviolet and Controls Upgrade Project

Recommendation: 1. That Contract 2024-948 - Goldstream Water Treatment Plant Ultraviolet and Controls Upgrades, be awarded to Industra Construction Corp. for an amount of \$6,985,946.58 (excluding GST); and
2. That staff be authorized to award up to an additional \$600,000 if required during the execution of the project.
(WA)

Attachments: [Staff Report: Recommendation To Award Contract No. 2024-948](#)

8.2 [24-609](#) Regional Water Supply Service 2024 Capital Plan Amendment

Recommendation: The Regional Water Supply Commission recommends that the Capital Regional District Board:

Amend the 2024 Regional Water Supply Service Capital Plan to move \$180,000 from line item 09-01 Leech River Watershed Restoration; to line item 17-27 Watershed Bridge and Culvert Replacement, to facilitate high priority replacement of a deteriorated major drainage structure in the Goldstream Water Supply Area.
(WA)

Attachments: [Staff Report: RWS Capital Plan Amendment](#)

[Appendix A: Updated 2024-2028 Five Year Capital Plan](#)

8.3 [24-614](#) Summary of Recommendations from Other Water Commissions

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

Attachments: [Summary of Recommendations from Other Commissions](#)

8.4 [24-615](#) Water Watch Report

Recommendation: There is no recommendation, the report is for information only.

Attachments: [Water Watch Report](#)

9. NOTICE(S) OF MOTION

10. NEW BUSINESS

11. MOTION TO CLOSE THE MEETING

11.1 [24-619](#) Motion to Close the Meeting

- Recommendation:** That the meeting be closed in accordance with the Community Charter, Part 4, Division 3:
1. Land Acquisition/Disposition under Section 90 (1)(e) [1 Item]
 2. Intergovernmental Relations under Section 90 (2)(b) [1 Item]
 3. Prohibited from disclosure under FOIPPA under Section 90 (1)(j) [1 Item]

12. RISE AND REPORT

13. 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)

Meeting Minutes

Regional Water Supply Commission

Wednesday, May 15, 2024

11:30 AM

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

PRESENT

COMMISSIONERS: 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); S. Kim; D. Lajeunesse (EP); T. Morrison; T. Phelps Bondaroff; J. Rogers (EP); C. Stock; M. Wagner; M. Westhaver (EP); A. Wickheim

STAFF: T. Robbins, Chief Administrative Officer; A. Fraser, General Manager, Integrated Water Services; A. Constabel, Senior Manager, Watershed Protection; G. Harris, Senior Manager, Environmental Protection; J. Marr, Senior Manager, Infrastructure Engineering; S. Irg, Senior Manager, Infrastructure Water Operations; P. Nyhuus, Associate Legal Counsel, Legal and Risk Management; T. Duthie, Manager, Administration Services, Integrated Water Services; J. Zimmerman, Communications Coordinator; D. Dionne, Administrative Coordinator, Integrated Water Services; M. Risvold, Committee & Administrative Clerk, Integrated Water Services

REGRETS: K. Jordison

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 Kim,
That the agenda be approved as circulated.
CARRIED

3. ADOPTION OF MINUTES

3.1 [24-462](#) Adoption of the Minutes of the April 17, 2024 Meeting

Attachments: [Draft Minutes of the April 17, 2024 Meeting](#)

MOVED by Commissioner Green, and **SECONDED** by Commissioner Morrison,
That the Minutes of the April 17, 2024 Regional Water Supply Commission
meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The chair provided remarks on the following:

- The Capital Regional Districts' Drinking Water Symposium on May 2
- emergency management, disaster response
- new emergency management and disaster act
- Acknowledged staff for their work

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. GENERAL MANAGER'S REPORT

A. Fraser spoke to the following:

- Provided an update on the work plan that was provided at the beginning of 2024
- Watering bylaw and amendments to the bylaw
- Training for irrigation industry
- Summer outreach staff
- Development Cost Charges (DCC) program public engagement coming in June

Staff responded to questions regarding:

- Correspondence from First Nations
- Third party engagement for system design
- Point of time metering for water

Staff to circulate finalized links for the DCC public outreach as it rolls out.

7. COMMISSION BUSINESS

7.1 [24-434](#) Greater Victoria Drinking Water Quality - 2023 Annual Report

Attachments: [Staff Report: Greater Victoria Drinking Water Quality - 2023 Annual Report](#)
[Appendix A: Greater Victoria Drinking Water Quality - 2023 Annual Report](#)

G. Harris spoke to item 7.1.

Staff responded questions regarding:

- Turbidity
- Ability to provide a smaller version for the public - taken as feedback and consideration for future
- Fire and emergency storage balancing
- Smith Hill Reservoir and its ability to be used for emergency storage
- Seismic resilience for dams and regional reservoirs
- Charters creek

The commission thanked staff for the report.

MOVED by Commissioner Phelps-Bondaroff, and SECONDED by Commissioner Coleman,

The Regional Water Supply Commission recommends to the Capital Regional District Board:

That the Greater Victoria Drinking Water Quality 2023 Annual Report be approved.

CARRIED

7.2 [24-459](#) Summary of Recommendations from Other Water Commissions

Attachments: [Summary of Recommendations from Other Commissions](#)

7.3 [24-460](#) Water Watch Report

Attachments: [Water Watch Report](#)

8. NOTICE(S) OF MOTION

There were no notices of motion.

9. NEW BUSINESS

There was no new business.

10. MOTION TO CLOSE THE MEETING

10.1 [24-461](#) Motion to Close the Meeting

The Commission moved into closed session at 12:03 pm.

**MOVED by Commissioner Stock, and SECONDED by Commissioner Green,
That the meeting be closed for Intergovernmental Relations in accordance with
Community Charter, Part 4, Division 3, Section 90(2)(b).
CARRIED**

11. RISE AND REPORT

The Commission rose from its closed session at 12:55 pm without report.

12. ADJOURNMENT

**MOVED by Commissioner Chambers, and SECONDED by Commissioner Guiry,
That the May 15, 2024 Regional Water Supply Commission meeting be adjourned
at 12:55 pm.
CARRIED**

CHAIR

SECRETARY

DRAFT



Making a difference...together

MINUTES OF A MEETING OF THE Water Advisory Committee, held Tuesday, May 28, 2024 at 12 p.m., Goldstream Meeting Room, 479 Island Highway, Victoria, BC

PRESENT: **PRESENT:** **Members:** K. Oppen (Chair); K. Zimmerman (Vice Chair)(EP); M. Doehnel; A. Fernandes (EP); K. Harper; T. Krawczyk (EP); A. McArdle; A. Pakvis (EP); T. Pedersen; J. Rogers; W. Scheuer; M. Turner;
Staff: A. Fraser, General Manager, Integrated Water Services; S Irg, Senior Manager, Infrastructure Water Operations; Annette Constabel, Senior Manager, Watershed Protection; Glenn Harris, Senior Manager, Environmental Protection; Jason Dales, Senior Manager, Infrastructure Wastewater Operations; J. Marr, Senior Manager, Infrastructure Engineering; Shayne Irg, Senior Manager, Infrastructure Water Operations; D. Dionne, Integrated Water Services (Recorder); Mikayla Risvold, Committee & Administrative Clerk
Also in attendance: Gord Baird, Chair, Regional Water Supply Commission; Joanna Winter, Strategic Plan Review Workshop Facilitator

REGRETS: C. Davis; C. Nowakowski; D. Timothy

EP = Electronic Participation

The meeting was called to order at 12:08 pm.

1. TERRITORIAL ACKNOWLEDGEMENT

The Chair provided the Territorial Acknowledgement.

2. APPROVAL OF AGENDA

MOVED by M. Doehnel, **SECONDED** by A. McArdel,
That the agenda be approved.

CARRIED

3. ADOPTION OF MINUTES

MOVED by T. Pedersen, **SECONDED** by W. Scheuer,
That the minutes of the February 27, 2024 Water Advisory Committee meeting be adopted as circulated.

CARRIED

4. CHAIR'S REMARKS

The Chair referred the Committed to her email for the structure of today's meeting. There will be a presentation and a high-level discussion and feedback session today with more detailed feedback to be gathered further on in the process.

5. PRESENTATIONS/DELEGATIONS

There were none.

6. GENERAL MANAGERS REPORT

A. Fraser introduced staff in the room who are present to support the strategic planning process.

7. COMMITTEE BUSINESS

7.1. Regional Water Supply Strategic Plan [Presentation]

A. Fraser introduced Joanne Winter, who will start the presentation and facilitate the workshop portion of the meeting.

Throughout the presentation feedback was gathered from Committee members and comments on proposed priorities are noted in red below.

Internal and External Trends:

As customers, ratepayers, experts, what do you think are the things that we will need to focus on in the next five plus years?

- Climate Instability (drought / extreme weather)
- Cyber Security
- Food Security
- Drinking Water Security
- Emergency Water Sources
- Reconciliation
- Irrigation (risk)

Mission Statement – Discussion / Comments:

Together we provide reliable, high-quality drinking water to help ensure the health and sustainability of the growing communities we serve today and in the future.

- There were concerns raised with limiting the wording to drinking water and excluding other water uses. G. Baird clarified the Regional Water Supply Commission's authority and that its focus is on quality drinking water which can be used for other water uses.
- There was discussion regarding what other mission statements reflect and staff noted that they are all very different depending on the utility and the type of services provided.
- J. Winter reminded the Committee that the plan will be reviewed every five years and can be modified as may be required.

Commitment 1 – comments on proposed priorities noted in red:

Provide high quality, safe drinking water.

1. **Manage Protect (use a more proactive word than manage)** the Greater Victoria Water Supply Area for the protection of long-term sustainable high-quality source water.
2. Ensure drinking water quality with a multi-barrier risk-based approach.
3. Advance our understanding of the water supply area **(or watershed?)** and source water to prepare for the future.

Commitment 1: Comments posted to the online meeting chat:

There should be a formal acknowledgment of outdoor water use / irrigation water in the new Strategic Plan.

Acknowledging irrigation's importance to:

- the local ecology
- restoration of degraded lands
- local food production
- also its associated risks (the irrigation tap turns off when the rains stop).

This matter is somewhat dealt with in the water restriction levels (e.g. no watering of lawns at Stage 4) - but is there another area of the strategic plan to flush out the Capital Regional District's (CRD) commitment to outdoor irrigation water? Are some forms of outdoor use more appropriate than others? Food security is covered to a degree, so we're getting there.

But otherwise, is irrigation water simply a positive externality of producing excess drinking water?

What would the CRD look like with two to three years of no irrigation? I suspect it could become a parched, low-biodiversity, brittle landscape faster than many of us think, especially where soils have been disturbed.

Commitment 2 – comments on proposed priorities noted in red:

Provide an adequate, reliable, long-term supply of drinking water – comments on proposed priorities.

1. Continuously plan and prepare for future water supply needs (**including landscaping, irrigation, agriculture, ecological**).
2. Enhance public ~~connection and~~ confidence **and responsibility** of the water supply and value of water.
3. ~~Maximize~~ **Optimize** our **available sustainable** water supply through adaptive demand management strategies.
4. ~~Act now to~~ implement a sustainable and equitable long-term financial plan.

There was discussion regarding the use of "Act now" in Priority 4, staff stated the intent is to begin now with long-term financial planning, rather than waiting until it is needed.

Commitment 3 – comments on proposed priorities noted in red:

Provide efficient, **effective** and innovative operations of water system infrastructure – comments on proposed priorities.

1. Make ~~data-driven~~ (**science-based or evidence-based**) decisions to ensure reliable system performance and long-term sustainability.
2. Assure long-term sustainability and capacity of water management operations through sufficient resources, robust processes, strategic partnerships, effective tools, and continuous innovation.
3. ~~Protect the public by e~~**Enhancing** the security and sustainability of the water supply by effectively managing risks and enhancing emergency response capabilities.

4. Attract, develop, and retain a diverse, ~~and high performing knowledgeable and~~ **empowered** workforce.

Guiding Principles:

1. Empowering staff for sustainable water management
2. Supporting a growing region with reliable service
3. Respecting and adapting to the changing environment
4. Managing our resources effectively and efficiently
5. Proactively managing internal and external risks
6. Fostering collaborative relationships with customers and partners to improve our service

Things not specifically mentioned (expand to guiding principles):

- Environment
- Food security
- Municipalities
- Inter-connection with other services (agriculture, wastewater etc.)

Next steps:

Staff will incorporate the Water Advisory Committee's feedback and refine the Strategic Plan Actions. There will be a similar workshop for the Regional Water Supply Commission on July 17, 2024 and staff will seek feedback from the Commission. Once guidance from the Commission has been received, the Strategic Plan will go out for public engagement late fall. Staff hope to come back the Water Advisory Committee early in 2025 for final approval.

MOVED by A. McArdle, **SECONDED** by W. Scheuer,
The Water Advisory Committee recommends to the Regional Water Supply Commission the endorsement of the draft 2025 Strategic Plan for the Greater Victoria Water Supply System, as amended by the feedback received during the Water Advisory Committee meeting of May 28, 2024.

CARRIED

7.2. Water Advisory Committee Proposal – Agricultural Water Rates

Water Advisory Committee members prepared a summary of comments related to the Agricultural Water Rate Study which contained several recommendations, including not proceeding with a change to the agricultural water rate. Staff noted that the Committee could request that the Regional Water Supply Commission put the study on hold.

MOVED by W. Scheuer, **SECONDED** by T. Pedersen,
The Water Advisory Committee recommends to the Regional Water Supply Commission that the Agricultural Water Rate Study be paused until further review by the Water Advisory Committee.

CARRIED

7.3. Summary of Recommendations from Regional Water Supply Commission

Received for information.

7.4. Water Watch Report

Received for information.

8. NEW BUSINESS

There was no new business.

9. ADJOURNMENT

MOVED by M. Turner, **SECONDED** by J. Rogers,
That the May 28, 2024 meeting be adjourned at 2:27 pm.

CARRIED

CHAIR

SECRETARY



**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, JUNE 19, 2024**

SUBJECT **Recommendation to Award Contract No. 2024-948, Goldstream Water Treatment Plant Ultraviolet and Controls Upgrade Project**

ISSUE SUMMARY

To seek approval from the Regional Water Supply (RWS) Commission to award Contract 2024-948 for the Goldstream Water Treatment Plant Ultraviolet (UV) and Controls Upgrade Project.

BACKGROUND

The Goldstream Water Treatment Plant consists of four main process buildings and treats an average of 130 million litres per day (MLD) to provide drinking water to nearly 400,000 people. The treatment process consists of UV disinfection followed by chloramination.

The RWS Five-Year Capital Plan includes capital project #18-07 – Replacement of UV System. This work is required as the current UV system is at end of life and operating with lower energy efficiency than more modern equipment. Capital Regional District (CRD) staff have been managing this project and are prepared to proceed with a contract to complete the final construction and integration efforts. Table 1 provides a high-level summary of some key project milestones.

Table 1 - Project Milestones

Milestone	Completion Date
Condition Assessment and Options Analysis - Consultant Contract Execution (awarded to Stantec Consulting Ltd.)	August 2019
Condition Assessment and Options Analysis – Final Report	November 2020
Detailed Design & Construction Services – Consultant Contract Execution (awarded to Associated Engineering B.C. Ltd.)	September 2021
UV Equipment Supply – Contract Execution following RFP process (awarded to Trojan Technologies Group ULC)	May 2023
UV Installation and Controls Upgrades – RFP Closing	May 2024
CRD staff seek RWS Commission Approval to Award Contract for Installation and Integration works	June 19, 2024 (Pending)
Target Project Completion	Q2 2025 (Pending)

The UV replacement project also includes significant controls upgrades that will impact the entire water treatment plant. Given the complexities of the programming, integration and commissioning, and tight timelines dictated by the requirement to limit work to the low water demand period, CRD undertook a Request for Proposal (RFP) procurement method to ensure emphasis was being placed on Key Individuals being proposed to the project team. RFP#2024-948 – Goldstream Water Treatment Plant UV and Controls Upgrade Project, was issued on April 9, 2024 and closed on May 22, 2024. Despite a fair turnout at the pre-bid meeting, several companies combined on this pursuit and ultimately, only a single proposal was received. The single submission was

received from Industra Construction Corp. (“ICC”) and fees exceeded pre-bid estimates and available budget. CRD and Associated Engineering (AE) conducted a detailed review of the proposal and determined that the proposed project team was deemed to have sufficient understanding and experience to carry out the work. As permitted by the terms of the RFP document, CRD and AE entered into negotiations with ICC to look for potential opportunities for cost savings. Negotiations were conducted in a collaborative nature that allowed for dialogue on some of the uncertainty risk that ICC had needed to price into their bid. While the price reduction was spread over several items, some examples of considerable savings include:

- softening of liquidated damages clauses that could allow the option for a portion of work to be delayed to the subsequent year, if required, without penalty to ICC or CRD;
- ICC reviewing the project with their subcontractors to find efficiencies in managing the tasks of the various sub-trades;
- ICC changing of the nominated commissioning manager previously provided; and
- CRD removing a scope item for refurbishment of various valves after discussions revealed that this scope was actually resulting in greater schedule risk than intended for assets that would still not be “new” upon completion.

These negotiations ultimately resulted in a revised proposal that is within the available budget for this project while still meeting the overall project intent. The original bid and revised price are outlined in Table 2.

Table 2 - Procurement Bid Pricing

Proposal Submission	Bid Amount (excl. GST)
Industra Construction Corp. – Original Submission	\$ 8,683,626.47
Industra Construction Corp. – Revised Submission	\$ 6,985,946.58

With a price reduction of \$1,697,679.89 (20% of original submission price), CRD and AE held a subsequent review meeting and agreed that the best option is to proceed to recommend award of this contract. The revised pricing would allow the project to proceed within the existing budget while still retaining some contingency funds to manage unforeseen conditions and potential cost overruns on any of the various contracts. The revised submission is within the allocated construction budget of \$7.6 million*.

As the delegated signing authority limit for the Chief Administrative Officer is \$5 million, the Commission’s approval to award the contract is required.

*Decommissioning of the existing Chlorine Gas System were included in the scope of this project so funding from RWS Capital Project #21-09 would be allocated toward this Construction Contract.

ALTERNATIVES

Alternative 1

1. That Contract 2024-948 – Goldstream Water Treatment Plant Ultraviolet and Controls Upgrades, be awarded to Industra Construction Corp. for an amount of \$6,985,946.58 (excluding GST); and
2. That staff be authorized to award up to an additional \$600,000 if required during the execution of the project.

Alternative 2

That Contract 2024-948 – Goldstream Water Treatment Plant Ultraviolet and Controls Upgrades, not be awarded and that staff cancel or retender the project.

IMPLICATIONS

Financial & Service Delivery Implications

The total approved budget for this multi-year project is \$11.5 million, with \$10.4 million identified in the 2024 Capital Plan to be spent this year. To date, actual expenses and existing commitments on this project total \$3.6 million. As such, alternative 1 is within the approved plan.

CRD staff could cancel this RFP and repackage the work in order to try to attract a larger number of competitive bids. While this option could potentially result in cost savings, it is not a guarantee and could result in additional project risks. Further delays in securing a contract for these services would likely result in missing the low water demand period from fall 2024 to spring 2025, meaning the project would be delayed by a year and subject to further market escalation. Given that the UV equipment is already in fabrication, cancellation would also require interim storage of this equipment which would require coordination to minimize storage costs and to mitigate potential warranty period implications for this equipment. Furthermore, the nature of this work requires a specialized team, which ICC has put together for this project. Rescoping the work in pursuit of a lower bid could result in the unintended consequences of a less qualified team being awarded the project, which would place greater risk on the project delivery, operations and potentially result in larger future costs.

Climate Change Implications

While the primary driver for this project is for the replacement of aging equipment, the newer UV reactors will also have significant improvements in energy efficiency. Early projections indicate that as much as 1,160,000 kilowatt-hours per year of energy savings could be realized from this upgrade. While the exact energy savings will vary depending on final operating philosophy and other factors, this is a project that will have a positive impact on energy consumption and climate change. CRD is currently in discussions with BC Hydro with the hopes of being able to receive a \$200,000 Custom Project Incentive for this project.

CONCLUSION

The Goldstream Water Treatment Plant Ultraviolet and Controls Upgrades is a critical project for the Regional Water Service. While the Capital Regional District always prefers to have multiple competitive bid submissions, it is not always obtainable in the current market conditions. This project is already well underway with significant effort and cost already expended to date. The project team proposed by Industria Construction Corp. are expected to be competent and capable of completing this work. The delegated signing authority limit for the Chief Administrative Officer is \$5 million, therefore approval of the award of contract by the Regional Water Supply Commission is required.

RECOMMENDATION

1. That Contact 2024-948 – Goldstream Water Treatment Plant Ultraviolet and Controls Upgrades, be awarded to Industra Construction Corp. for an amount of \$6,985,946.58 (excluding GST); and
2. That staff be authorized to award up to an additional \$600,000 if required during the execution of the project.

Submitted by:	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:	Kristen Morley, J.D., General Manager, Corporate Services & Corporate Officer
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer



**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, JUNE 19, 2024**

SUBJECT Regional Water Supply Service 2024 Capital Plan Amendment

ISSUE SUMMARY

To recommend amendment of the Regional Water Supply (RWS) Service 2024 Capital Plan for Project 17-27 Watershed Bridge and Culvert Replacement.

BACKGROUND

The Capital Regional District (CRD) Board approved the 2024 Operating and Capital Budget and the Five Year Capital Plan on March 13, 2024. RWS Capital Project 17-27, Watershed Bridge and Culvert Replacement, contains annual provisional funding of \$200,000 per year. This budget amount is sufficient to supply and install a number of culverts each year, but it is generally not enough to supply and install a bridge.

Early in 2024, during routine inspection, a major drainage structure (culvert G112) downstream of the Goldstream Lake Reservoir spillway, was found to be damaged and badly deteriorated compromising the integrity and carrying capacity of the structure. Given the location for passing flows from the spillway and as a tributary of the Goldstream River, the removal and replacement of the culvert is a high priority. Engineering, hydrology and fish biology assessment of this stream indicate the need to replace the culvert with a small bridge. An 11-metre concrete slab girder bridge has been designed by CRD’s consultant Stonecroft Engineering Ltd. to replace the undersized, deteriorated and non-fish friendly culvert.

An Invitation-to-Tender contract opportunity was held and the lowest bid received was \$320,213 to remove the culvert, supply and install the bridge. A further \$30,000 is required for engineering, supply of gravel, riprap and project management. The Bridge and Culvert provisional account has \$170,000 remaining for the bridge replacement project.

RWS Capital Project 09-01, Leech River Watershed Restoration, has funding available of \$570,000 in 2024, however based on current project schedules these funds will not be required in 2024. Staff propose a budget amendment to re-allocate \$180,000 from Project 09-01 to Project 17-27 Bridge and Culvert Replacement for 2024. There is no financial impact on the RWS 2024 Capital Plan bottom line or water rates. The revised complete capital plan is attached in Appendix A, and a summary of the two amended project line items is found below:

Project Number & Title	Capital Type	Total Project Budget	Carry Forward	2024	2025	2026	2027	2028	5-Year Total
09-01 Leech River Watershed Restoration	Renewal	\$5,756,000	\$370,000	\$390,000	\$200,000	\$ 0	\$ 0	\$0	\$590,000
17-27 Watershed Bridge & Culvert Replacement	Replacement	\$1,000,000	\$ 0	\$380,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,180,000

ALTERNATIVES

Alternative 1

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

Amend the 2024 Regional Water Supply Service Capital Plan to move \$180,000 from line item 09-01 Leech River Watershed Restoration; to line item 17-27 Watershed Bridge and Culvert Replacement, to facilitate high priority replacement of a deteriorated major drainage structure in the Goldstream Water Supply Area.

Alternative 2

That the Capital Plan amendment not be approved and the culvert replacement be deferred to 2025.

IMPLICATIONS

Financial Implications

There are no net impacts on the capital budget for 2024 or on the 2024 water rates. A review of the Leech River Watershed Restoration capital project will be conducted to determine if additional funding should be requested in 2025 or subsequent years. Beginning in 2025 the Watershed Bridge and Culvert Replacement capital project will be reviewed to determine if the annual provisional budget should be increased going forward.

Service Delivery Implications

The re-allocation of available funding in the 2024 Capital Plan will allow the replacement of a badly deteriorated major drainage structure to be completed in a timely manner, which is important work to maintain Service Delivery. The re-allocation will not otherwise impact operational and capital work.

CONCLUSION

A deteriorated major drainage structure below the Goldstream Lake Reservoir spillway requires replacement as a priority. Current schedule expectations have identified that funds are available from another capital project within the 2024 Regional Water Supply Capital Plan to provide the necessary additional funding to carry out the replacement without impacting the overall 2024 Capital Plan.

RECOMMENDATION

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

Amend the 2024 Regional Water Supply Service Capital Plan to move \$180,000 from line item 09-01 Leech River Watershed Restoration; to line item 17-27 Watershed Bridge and Culvert Replacement, to facilitate high priority replacement of a deteriorated major drainage structure in the Goldstream Water Supply Area.

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: 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													
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	\$ 370,000	\$ 390,000	\$ 200,000	\$ -	\$ -		\$ 590,000
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	\$ 1,000,000	\$ 4,440,000	\$ 2,000,000	\$ -	\$ -		\$ 6,440,000
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	\$ 140,000	\$ 240,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 640,000
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 Wildfire Camera for Leech WSA, and Analytic software	A secondary wildfire 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	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -		\$ 30,000
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			\$ 6,101,000	\$ 12,767,000	\$ 4,962,000	\$ 737,000	\$ 440,000	\$ 100,000	\$ 19,006,000

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
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	\$ 20,000	\$ 220,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,020,000
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	\$ 60,000	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 60,000
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	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
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
23-12	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
23-13	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.	\$ 510,000	S	WU	\$ -	\$ 510,000	\$ -	\$ -	\$ -	\$ -	\$ 510,000
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	Agricultural Water Rate Review	Phase 2	\$ 100,000	S	WU	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Capital													\$ -
18-07	New	Replacement of UV System	Replacement of the UV system and other electrical upgrades at the Goldstream Water Treatment Plant	\$ 11,500,000	E	WU	\$ 7,600,000	\$ 10,370,000	\$ -	\$ -	\$ -	\$ -	\$ 10,370,000
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	\$ 650,000	\$ 650,000	\$ 200,000	\$ 200,000	\$ 150,000	\$ -	\$ 1,200,000
18-15	Renewal	Corrosion Protection Program	Study deficiencies in the current material protection and implement recommendations.	\$ 1,150,000	S	WU	\$ 275,000	\$ 275,000	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ 575,000
18-18	Replacement	Main No.3 Segment Replacement	Replacement of segments of Main No. 3 based upon previous studies.	\$ 15,600,000	S	WU	\$ 750,000	\$ 1,260,000	\$ 10,590,000	\$ 3,600,000	\$ -	\$ -	\$ 15,450,000
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.	\$ 1,500,000	S	WU	\$ 990,000	\$ 1,490,000	\$ -	\$ -	\$ -	\$ -	\$ 1,490,000
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	\$ 3,500,000	\$ 2,215,000	\$ 1,885,000	\$ 20,000,000	\$ 10,000,000	\$ -	\$ 34,100,000
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	\$ 270,000	\$ 470,000	\$ 200,000	\$ 200,000	\$ -	\$ -	\$ 870,000
22-16	Renewal	Goldstream WTP Drainage Improvements	Construct drainage improvements for the Goldstream Water Treatment Plant and assess	\$ 200,000	S	WU	\$ 130,000	\$ 130,000	\$ -	\$ -	\$ -	\$ -	\$ 130,000
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	\$ 105,000	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ 105,000
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	\$ 195,000	\$ 195,000	\$ -	\$ -	\$ -	\$ -	\$ 195,000
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

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
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	\$ 300,000	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ 800,000
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			\$ 21,370,000	\$ 31,240,000	\$ 29,365,000	\$ 45,450,000	\$ 38,080,000	\$ 31,650,000	\$ 175,785,000
DAM SAFETY PROGRAM													
Database)													\$ -
16-16	Renewal	Implications from Goldstream Dam Safety Review	Conduct dam improvements at the Goldstream dams that resulted for the Dam Safety Review and routine inspections (refer to the Dam Safety Database).	\$ 825,000	S	WU	\$ 450,000	\$ 525,000	\$ -	\$ -	\$ -	\$ -	\$ 525,000
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	\$ -	\$ -	\$ -	\$ -	\$ 1,650,000
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	\$ 650,000	\$ 1,650,000	\$ -	\$ -	\$ -	\$ -	\$ 1,650,000
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 NHC Consulting study).	\$ 600,000	S	WU	\$ 550,000	\$ 550,000	\$ -	\$ -	\$ -	\$ -	\$ 550,000
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 WIO through the existing SCADA system.	\$ 1,300,000	E	WU	\$ 1,200,000	\$ 1,200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ 1,800,000
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	Deception Dam - Dam Safety Review 2021 & Improvements	Conduct a Dam Safety Review and improvements for the Deception 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
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 budgeted 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 (WDCast) to a modern version including Standard Operating Procedures and training for staff.	\$ 300,000	S	WU	\$ 130,000	\$ 230,000	\$ 50,000	\$ -	\$ -	\$ -	\$ 280,000
23-09	Study	Sooke Lake Dam - Dam Safety Review 2023	Conduct a Dam Safety Review to meet regulatory requirement.	\$ 200,000	S	WU	\$ 200,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
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	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
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
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			\$ 6,697,000	\$ 9,357,000	\$ 2,050,000	\$ 1,250,000	\$ 850,000	\$ 75,000	\$ 13,582,000

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
WATER QUALITY													
20-04	New	Sooke Lake HyDy 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	GVDWS 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 Northern 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 GVWSA.	\$ 1,000,000	S	WU	\$ -	\$ 380,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,180,000
17-28	Replacement	Watershed Security Infrastructure Upgrade and Replacement	New, upgrade and replacement of security infrastructure in the GVWSA.	\$ 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 surveys, 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			\$ -	\$ 2,350,000	\$ 1,880,000	\$ 1,880,000	\$ 1,880,000	\$ 1,880,000	\$ 9,870,000
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.	\$ 4,169,250	V	ERF	\$ 170,000	\$ 1,361,000	\$ 685,250	\$ 773,000	\$ 855,000	\$ 495,000	\$ 4,169,250
20-22	New	Vehicle for the Dam Safety Program	New Transit Van	\$ 120,000	V	WU	\$ 100,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
20-23	New	Vehicle for the CSE Support Program	New Transit Van	\$ 120,000	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	\$ 1,255,000	E	WU	\$ 650,000	\$ 855,000	\$ -	\$ 400,000	\$ -	\$ -	\$ 1,255,000
23-22	New	Fuel Truck	Fuel tender truck	\$ 325,000	E	WU	\$ 200,000	\$ 325,000	\$ -	\$ -	\$ -	\$ -	\$ 325,000
23-30	New	Fleet Shop Hoist	Heavy Capacity Hoist for fleet maintenance	\$ 70,000	E	WU	\$ 35,000	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
23-31	New	Purchase of land	Purchasing of land near 479 for future office space or other land acquisition opportunities relative to Regional Water Supply Service	\$ 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				\$ 7,929,250			\$ 2,845,000	\$ 4,711,000	\$ 685,250	\$ 1,173,000	\$ 855,000	\$ 495,000	\$ 7,919,250
GRAND TOTAL				\$ 245,121,250			\$ 37,243,000	\$ 60,930,000	\$ 38,962,250	\$ 50,690,000	\$ 42,185,000	\$ 34,200,000	\$ 226,967,250



Capital Regional District

HOTSHEET AND ACTION LIST

Saanich Peninsula Water Commission

Thursday, May 16, 2024

10:15 AM

Meeting Room 2
Sidney Community Safety Building
2245 Oakville Ave.
Victoria, 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

The minutes of the March 21, 2024 meeting were adopted as circulated.

6. GENERAL MANAGER'S REPORT

6.1. Speaker Series: Recommendation to Regional Water Supply Commission

Staff to add to the 2025 Strategic Plan:

The Saanich Peninsula Water Commission recommends that the Regional Water Supply Commission consider the inclusion of an ongoing virtual speaker series as part of the 2025 Strategic Plan. The speaker's series would be coordinated by the CRD and include presentations by third party experts on emerging topics concerning water.

7. COMMISSION BUSINESS

The following reports were received for information.

7.1 Summary of Recommendations from Other Water Commissions

7.2 Water Watch Report

11. RISE AND REPORT

The Commission rose from its closed session without report.

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued June 10, 2024

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	June 30 5 Year Ave		June 30/23		June 9/24		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	82,829	18,222	81,534	17,937	86,327	18,992	93.1%
Goldstream	7,968	1,753	9,013	1,983	9,680	2,130	97.6%
Total	90,797	19,975	90,547	19,920	96,007	21,122	93.5%

2. Average Daily Demand:

For the month of June	152.4 MLD	33.52 MIGD
For week ending June 09, 2024	156.4 MLD	34.41 MIGD
Max. day June 2024, to date:	184.0 MLD	40.49 MIGD

3. Average 5 Year Daily Demand for June

Average (2019 - 2023)	176.8 MLD ¹	38.89 MIGD ²
-----------------------	------------------------	-------------------------

¹MLD = Million Litres Per Day ²MIGD = Million Imperial Gallons Per Day

4. Rainfall June:

Average (1914 - 2023):	35.3 mm
Actual Rainfall to Date	45.2 mm (128% of monthly average)

5. Rainfall: Sep 1- Jun 9

Average (1914 - 2023):	1,562.0 mm
2023/2024	1,329.5 mm (85% of average)

6. Water Conservation Action Required:

CRD's Stage 1 Water Conservation Bylaw is now in effect through September 30, 2024
Visit our website at www.crd.bc.ca/water for more information.

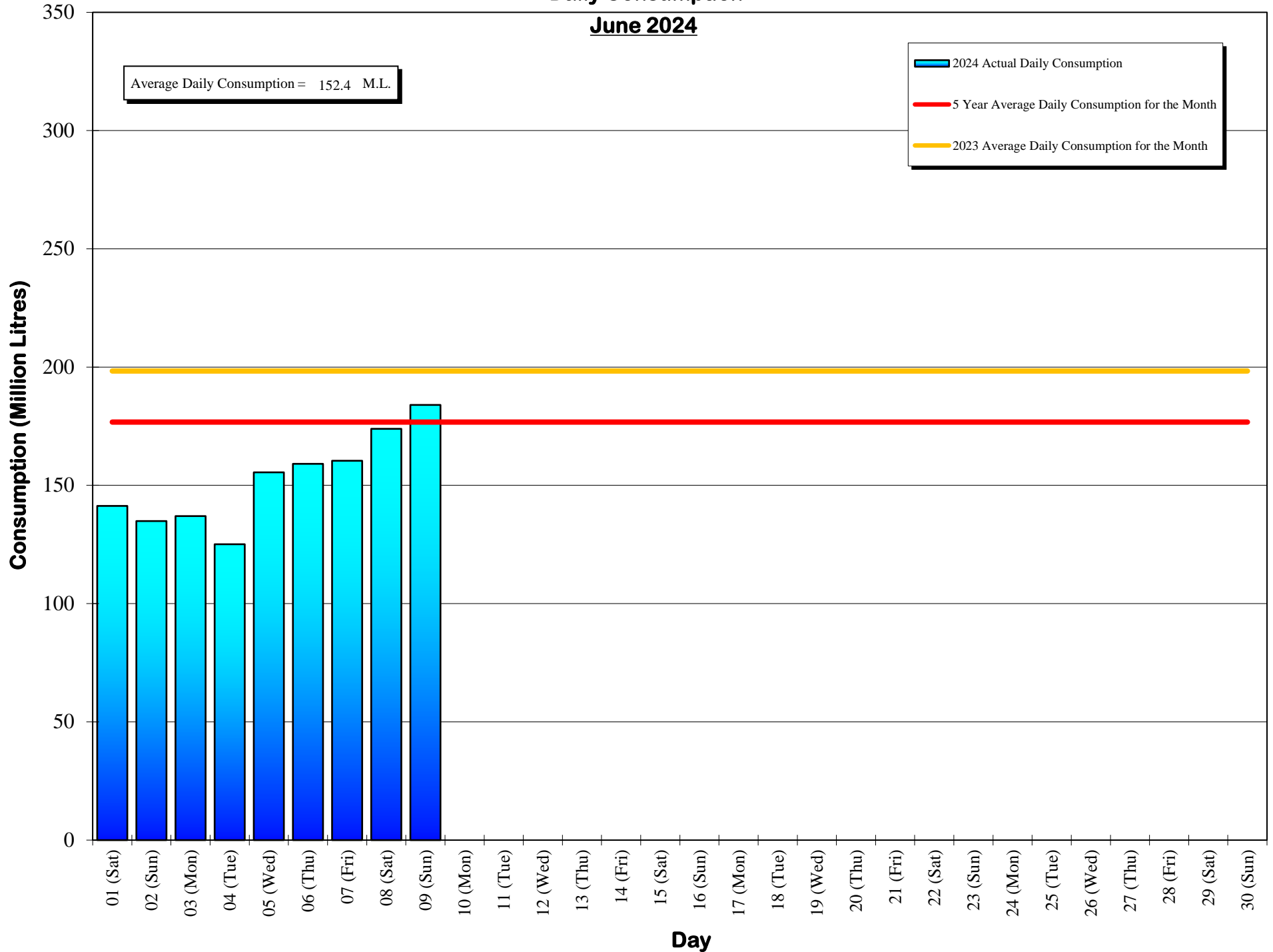
If you require further information, please contact:

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 Consumption

June 2024



Daily Consumptions: - June 2024

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am			
	(ML) ¹	(MIG) ²	High (°C)	Low (°C)		Rainfall (mm)	Snowfall ³ (mm)	Total Precip.	
01 (Sat)	141.3		31.1	18	11	Cloudy / Showers	1.3	0.0	1.3
02 (Sun)	134.9		29.7	13	11	Rain	19.8	0.0	19.8
03 (Mon)	137.0		30.1	13	9	Cloudy / P. Sunny / Rain	18.5	0.0	18.5
04 (Tue)	125.1	<=Min	27.5	15	7	Cloudy / P. Sunny / Showers	5.6	0.0	5.6
05 (Wed)	155.5		34.2	18	6	Sunny / P. Cloudy	0.0	0.0	0.0
06 (Thu)	159.1		35.0	21	7	Sunny / P. Cloudy	0.0	0.0	0.0
07 (Fri)	160.4		35.3	24	8	Sunny	0.0	0.0	0.0
08 (Sat)	173.9		38.3	27	11	Sunny / P. Cloudy	0.0	0.0	0.0
09 (Sun)	184.0	<=Max	40.5	23	11	Sunny / P. Cloudy	0.0	0.0	0.0
10 (Mon)									
11 (Tue)									
12 (Wed)									
13 (Thu)									
14 (Fri)									
15 (Sat)									
16 (Sun)									
17 (Mon)									
18 (Tue)									
19 (Wed)									
20 (Thu)									
21 (Fri)									
22 (Sat)									
23 (Sun)									
24 (Mon)									
25 (Tue)									
26 (Wed)									
27 (Thu)									
28 (Fri)									
29 (Sat)									
30 (Sun)									
TOTAL	1371.2 ML	301.66 MIG					45.2	0	45.2
MAX	184.0	40.49	27	11			19.8	0	19.8
AVG	152.4	33.52	19.1	9.0			5.0	0	5.0
MIN	125.1	27.53	13	6			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.

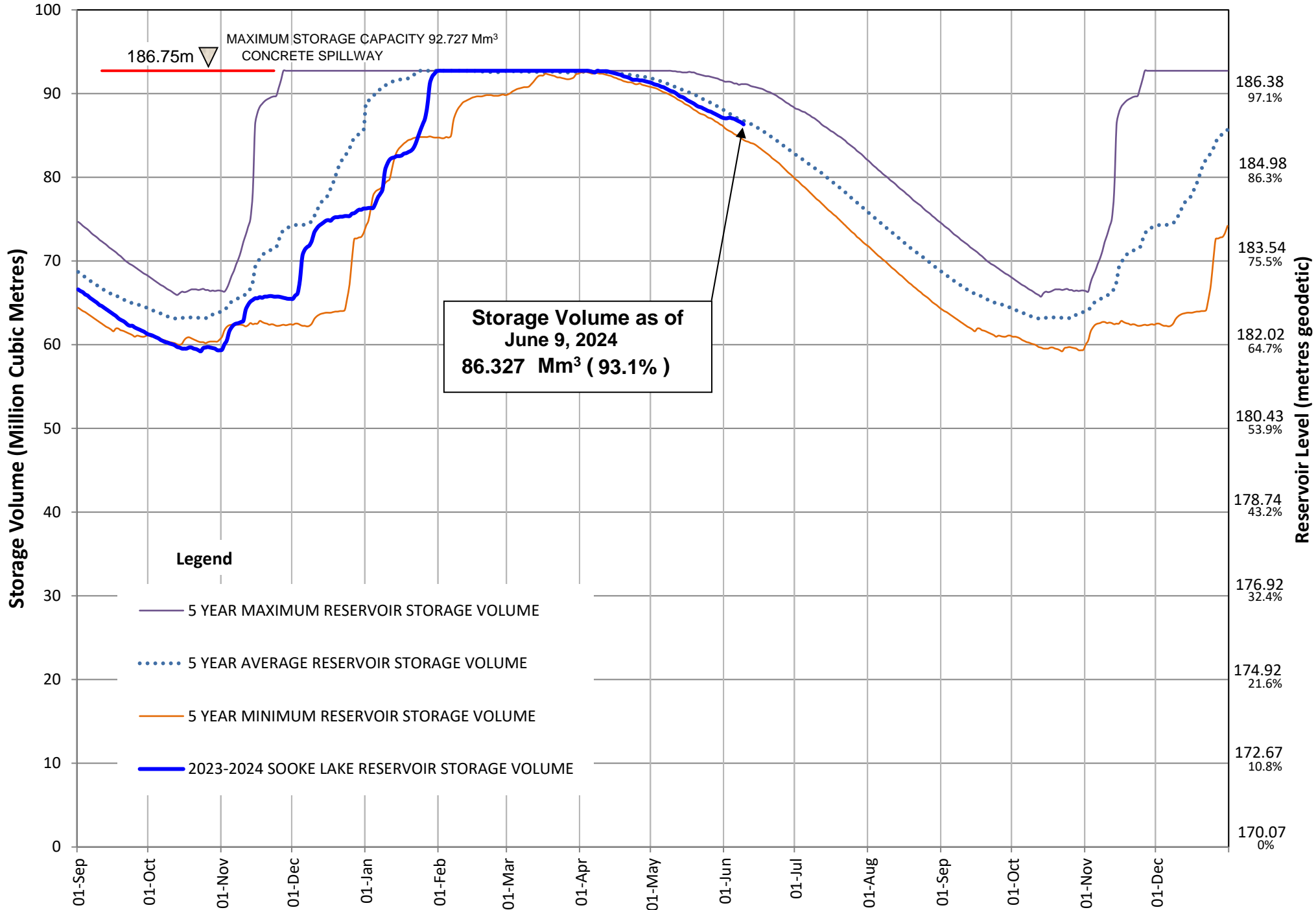
Average Rainfall for June (1914-2023)	35.3 mm
Actual Rainfall: June	45.2 mm
% of Average	128%
Average Rainfall (1914-2023): Sept 01 - Jun 09	1,562.0 mm
Actual Rainfall (2023/24): Sept 01 - Jun 09	1,329.5 mm
% of Average	85%

Number days with precip. 0.2 or more
4

Water spilled at Sooke Reservoir to date (since Sept. 1) = 2.46 Billion Imperial Gallons
 = 11.20 Billion Litres

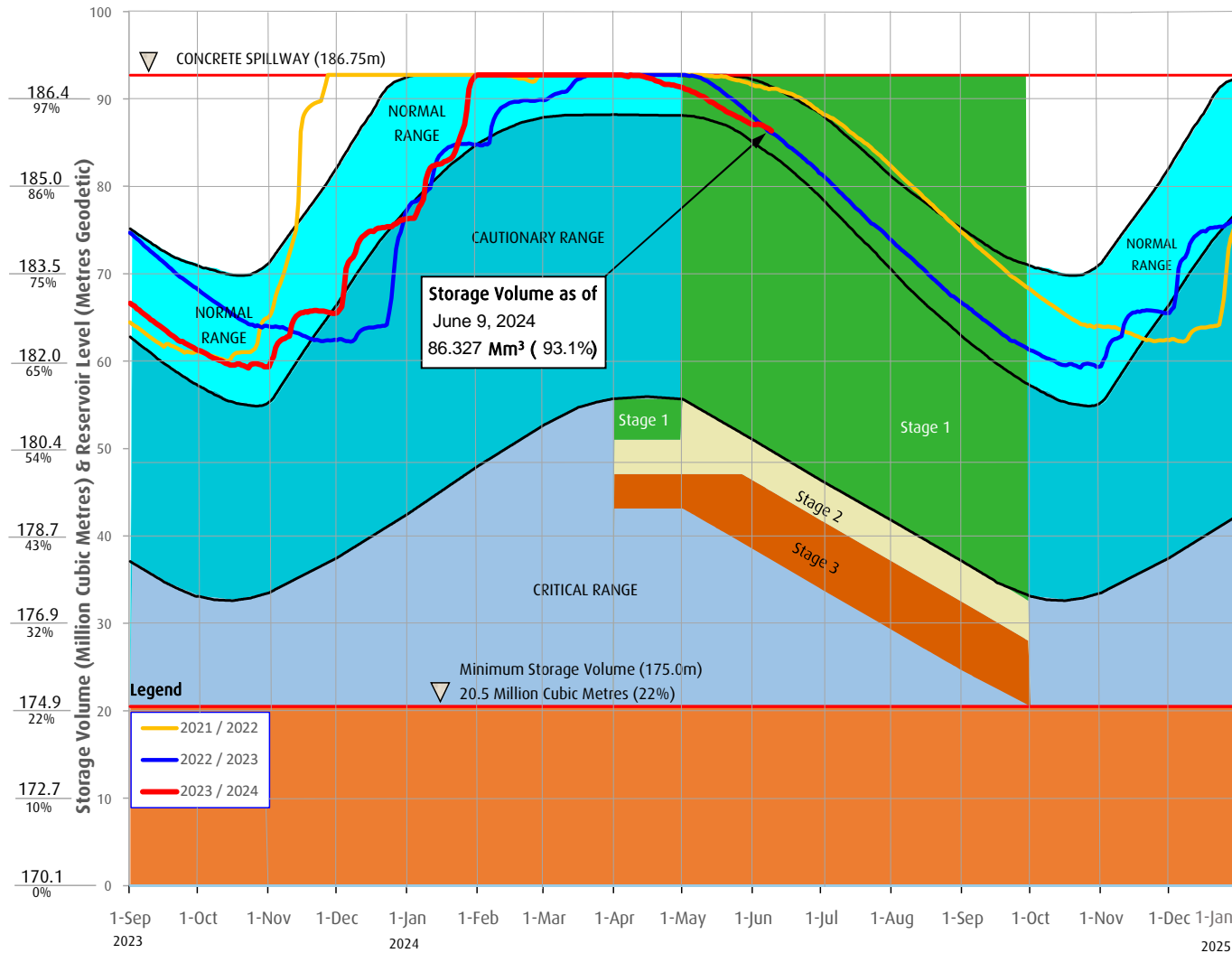
SOOKE LAKE RESERVOIR STORAGE SUMMARY

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



Useable Reservoir Volumes in Storage for June 09, 2024

