



Notice of Meeting and Meeting Agenda Regional Water Supply Commission

Wednesday, April 16, 2025

1:30 PM

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

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; T. Morrison;
K. Pearson; 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. [25-0448](#) Minutes of the Regional Water Supply Commission Meeting of March 19, 2025

Recommendation: That the minutes of the Regional Water Supply Commission meeting of March 19, 2025 be adopted as circulated.

Attachments: [Minutes - March 19, 2025](#)

4. CHAIR'S REMARKS

5. PRESENTATIONS/DELEGATIONS

The public are welcome to attend CRD meetings in-person.

Delegations will have the option to participate electronically. Please complete the online application at www.crd.ca/address no later than 4:30 pm two days before the meeting and staff will respond with details.

Alternatively, you may email your comments on an agenda item to the Regional Water Supply Commission at legserv@crd.bc.ca.

6. CONSENT AGENDA

- 6.1. [25-0449](#) Summary of Recommendations from Other Water Commissions

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

Attachments: [Hotsheet: JDF Water Distribution Commission - April 1, 2025](#)
[Hotsheet: Saan Pen Water Commission - March 20, 2025](#)
[Hotsheet: WAC - March 25, 2025](#)

6.2. [25-0450](#) Water Watch Report

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

Attachments: [Water Watch Report - April 8, 2025](#)

7. COMMISSION BUSINESS**7.1.** [25-0393](#) General Manager's Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

7.2. [25-0451](#) Goldstream Water Treatment Plant Ultraviolet and Controls Upgrade Project Update and Capital Plan Amendment

Recommendation: That the Regional Water Supply Commission recommends to the Capital Regional District Board:

That the 2025 Regional Water Supply Five Year Capital Plan be amended to reallocate the \$750,000 of remaining budget from Capital Project #18-07-Replacement of Ultraviolet System and Controls Upgrades to a new Capital Project, #25-24-Water Treatment Plant Improvements Program.
(WA)

Attachments: [Staff Report: GWTP Ultraviolet and Controls Upgrade Project Update](#)

[Appendix A: Summary of RWS Capital Project #18-07](#)

[Appendix B: Site Photos](#)

[Appendix C: SCADA Screens](#)

[Appendix D: Capital Plan Amendment - Capital Project #18-07 #25-24](#)

8. NOTICE(S) OF MOTION**9. NEW BUSINESS****10. MOTION TO CLOSE THE MEETING****10.1.** [25-0454](#) Motion to Close the Meeting

Recommendation: That the meeting be closed for intergovernmental negotiations in accordance with Section 90(2)(b) of the Community Charter. [1 item]

11. ADJOURNMENT

The next meeting is May 21, 2025.

To ensure quorum, please advise Megan MacDonald (mmmacdonald@crd.bc.ca) if you or your alternate cannot attend.

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, March 19, 2025

1:30 PM

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

PRESENT: G. Baird (Chair), K. Harper (Vice Chair), N. Chambers, Z. de Vries, S. Duncan (EP), C. Graham (EP), S. Gray, C. Harder (for K. Guiry), S. Kim (EP), K. Loughton (for J. Caradonna), T. Morrison (EP), K. Pearson, T. Phelps Bondaroff (1:31) (EP), J. Rogers, C. Stock, M. Wagner, M. Westhaver (1:31 pm) (EP), A. Wickheim

STAFF: T. Robbins, Chief Administrative Officer, A. Fraser, General Manager, Infrastructure and Water Services; G. Harris, Acting General Manager, Parks, Recreation and Environmental Services; D. Gosper, Manager, Dam Safety; J. Kelly, Manager, Infrastructure and Water Services Capital Projects; J. Ussery, Manager, Watershed Resource Planning; M. Lagoa, Deputy Corporate Officer; S. Orr, Senior Committee Clerk, Megan MacDonald, Legislative Services Coordinator (Recorder)

Regrets: J. Caradonna, C. Coleman, C. Green, K. Guiry, S. Hammond, K. Jordison

EP – Electronic Participation

The meeting was called to order at 1:30 pm.

1. TERRITORIAL ACKNOWLEDGEMENT

Chair Baird provided a territorial acknowledgement.

2. APPROVAL OF THE AGENDA

**MOVED by Commissioner Chambers, SECONDED by Commissioner Stock,
That the Agenda for the Regional Water Supply Commission meeting of March
19, 2025 be approved.**

CARRIED

3. ADOPTION OF MINUTES

3.1. [25-0298](#) Minutes of the Regional Water Supply Commission Meeting of January 15, 2025

**MOVED by Commissioner Wagner, SECONDED by Vice Chair Harper,
That the minutes of the Regional Water Supply Commission meeting of January
15, 2025 be adopted as circulated.**

CARRIED

4. CHAIR'S REMARKS

The Chair noted that Commissioners and Capital Regional District (CRD) staff recently attended a ceremony to sign a bulk water purchase agreement with Beecher Bay First Nation.

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. CONSENT AGENDA

**MOVED by Commissioner Stock, SECONDED by Commissioner Pearson,
That the Consent Agenda items 6.1. and 6.2. be approved.
CARRIED**

6.1. [25-0299](#) Summary of Recommendations from Other Water Commissions and Committees

The Chair stated that the Juan de Fuca Water Distribution Commission summary noted the Vice Chair incorrectly, Commissioner Wagner is the Vice Chair for 2025.

This report was received for information.

6.2. [25-0300](#) Water Watch Report

This report was received for information.

7. COMMISSION BUSINESS

7.1. [25-0324](#) General Manager's Verbal Update

A. Fraser presented Item 7.1. for information and provided the following updates:

- World Water Day is coming up on March 22, 2025
- status of the Kapoor Lumber Company Lands purchase
- Regional Water Supply Strategic Plan progress
- recent earthquake activity has not impacted water infrastructure

- 7.2. [25-0225](#) Water Quality Summary Report for Greater Victoria Drinking Water System
- September to December 2024

G. Harris presented item 7.2 for information.

Discussion ensued regarding:

- Firesmart fuel reduction techniques that have been implemented for water infrastructure
- watershed fire protection crews are in place in the event of a wildfire

- 7.3. [24-1320](#) Canada Housing Infrastructure Fund

A. Fraser presented item 7.3 for information.

Discussion ensued regarding:

- grant funding considerations
- municipal consultation and next steps

8. NOTICE(S) OF MOTION

There were no notice(s) of motion.

9. NEW BUSINESS

There was no new business.

10. ADJOURNMENT

MOVED by Commissioner Gray, **SECONDED** by Commissioner Stock,
That the Regional Water Supply Commission meeting of March 19, 2025 be
adjourned at 2:07 pm.
CARRIED

CHAIR

RECORDER



HOTSHEET AND ACTION LIST

Juan De Fuca Water Distribution Commission

The following is a quick snapshot of the FINAL decisions made at the Juan de Fuca Water Distribution Commission 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.

Tuesday, April 1, 2025

1:30 PM

Goldstream Conference Room
479 Island Hwy
Victoria BC V9B 1H7

6. Commission Business

6.1. 25-0393 General Manager's Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

A. Fraser

6.2. 25-0386 Juan de Fuca Water Distribution Development Cost Charge Program Update

Recommendation: The Juan de Fuca Water Distribution Commission recommends to the Capital Regional District Board:

1. That Bylaw No. 4669, "Development Cost Charge Bylaw (Juan de Fuca Water Distribution), No. 1, 2000, Amendment Bylaw No. 10, 2025", be introduced and read a first, second and third time.

2. That Bylaw No. 4669 be forwarded to the Inspector of Municipalities for approval.

A. Fraser

6.3. 25-0379 Summary of Recommendations from Other Water Commissions

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

A. Fraser

6.4. 25-0378 Water Watch Report

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

A. Fraser

8.1. Invasive Species in Sooke River

Action: Contact Dr. Harris

A. Fraser



Capital Regional District

625 Fisgard St.,
Victoria, BC V8W 1R7

HOTSHEET AND ACTION LIST

Saanich Peninsula Water Commission

Thursday, March 20, 2025

9:30 AM

Sidney Community Safety Building
2245 Oakville Ave., Sidney, BC

The following is a quick snapshot of the FINAL 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

- 3.1. **25-0303** Minutes of the Saanich Peninsula Water Commission Meetings of October 17, 2024 and January 16, 2025

Recommendation: That the minutes of the Saanich Peninsula Water Commission meetings of October 17, 2024 and January 16, 2025 be adopted as circulated.

CARRIED

6. Commission Business

- 6.1. **25-0338** General Manager’s Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

A. Fraser

- 6.2. **25-0304** Summary of Recommendations from Other Water Commissions

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

A. Fraser

- 6.3. **25-0300** *Water Watch Report*

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

A. Fraser



HOTSHEET AND ACTION LIST

Water Advisory Committee

The following is a quick snapshot of the FINAL decisions made at the Water Advisory Committee 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.

Tuesday, March 25, 2025

12:00 PM

Goldstream Meeting Room
479 Island Hwy
Victoria BC V9B 1H7

2. Election of Vice Chair

Kathleen Zimmerman elected as Vice Chair for 2025

7. Committee Business

7.1. 25-0338 General Manager's Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

A. Fraser

7.2. 25-0372 Regional Water Supply Strategic Plan Verbal Update

Recommendation: There is no recommendation. This verbal update is for information only.

A. Fraser

7.3. 25-0373 Letter to Brenda Bailey, Minister of Finance, re: Review of Conditions Required for Farm Classification by BC Assessment Authority

Recommendation: There is no recommendation. This item is for information only.

A. Fraser

7.4. 25-0367 Risk Assessments Relating to Wildfire in a Changing Climate

Recommendation: There is no recommendation. This presentation is for information only.

A. Fraser

7.5. 25-0368 Summary of Recommendations from Regional Water Supply Commission

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

A. Fraser

7.6. 25-0369 Water Watch Report

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

A. Fraser

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued April 08, 2025

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	April 30 5 Year Ave		April 30/24		April 6/25		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	91,755	20,186	91,352	20,097	92,727	20,400	100.0%
Goldstream	9,331	2,053	9,825	2,162	9,906	2,179	99.9%
Total	101,086	22,239	101,177	22,259	102,633	22,579	100.0%

2. Average Daily Demand:

For the month of April	108.6 MLD	23.88 MIGD
For week ending April 06, 2025	109.0 MLD	23.98 MIGD
Max. day April 2025, to date:	110.4 MLD	24.29 MIGD

3. Average 5 Year Daily Demand for April

Average (2020 - 2024)	116.1 MLD ¹	25.55 MIGD ²
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¹MLD = Million Litres Per Day ²MIGD = Million Imperial Gallons Per Day

4. Rainfall April:

Average (1914 - 2024):	89.5 mm
Actual Rainfall to Date	16.1 mm (18% of monthly average)

5. Rainfall: Sep 1- Apr 6

Average (1914 - 2024):	1,429.9 mm
2024/2025	1,331.7 mm (93% 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 for more information.

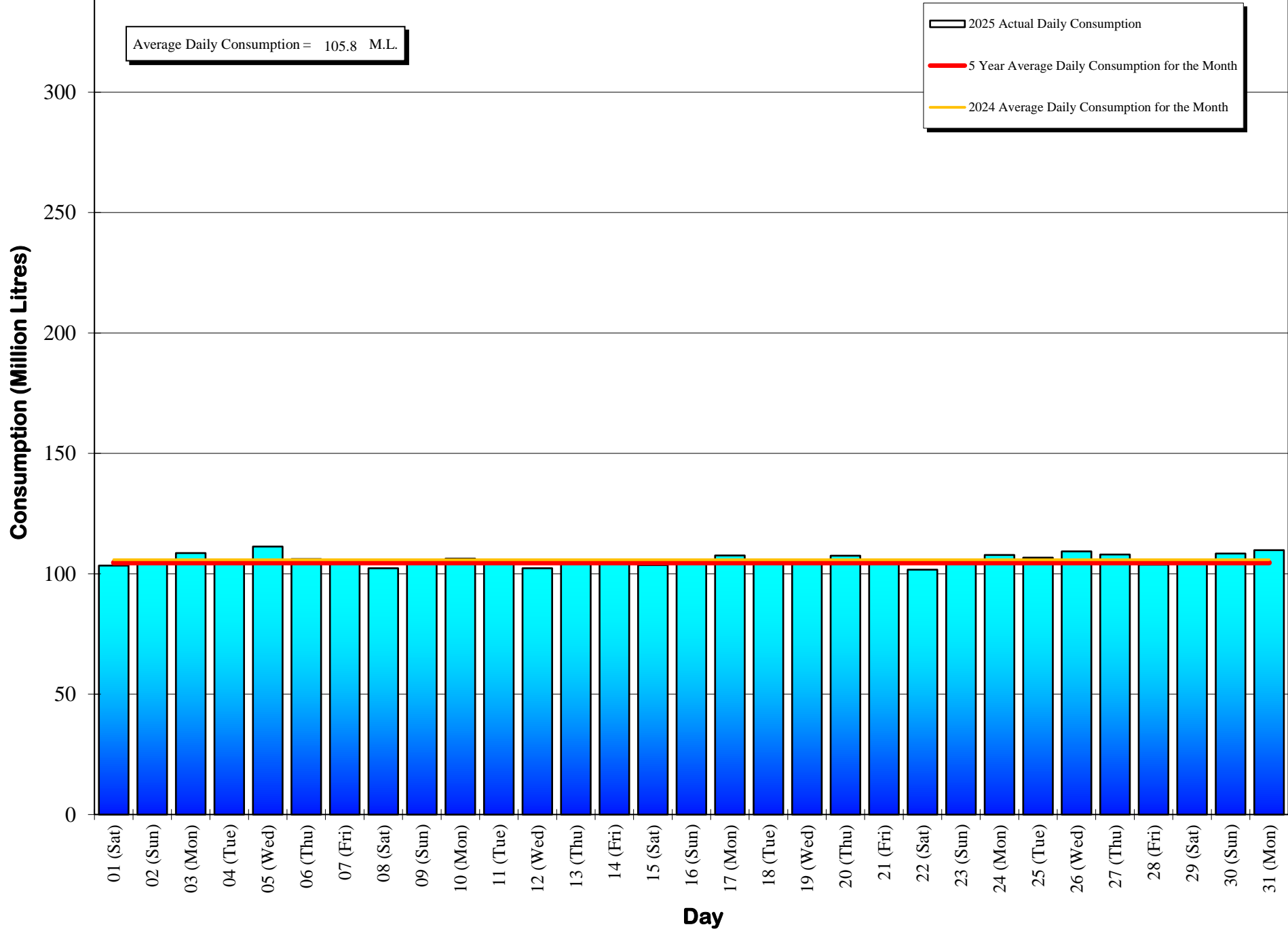
If you require further information, please contact:

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

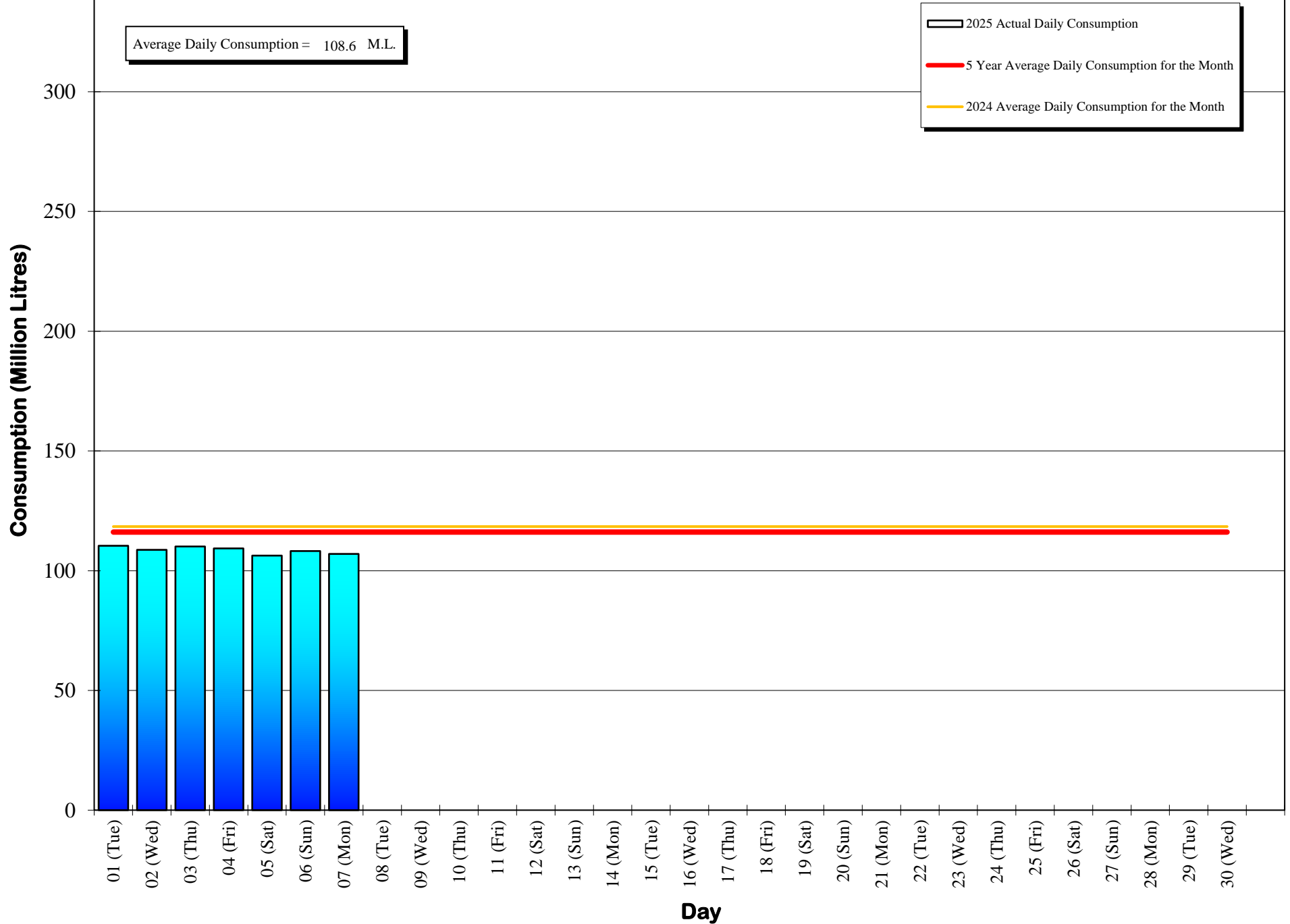
Daily Consumption

March 2025



Daily Consumption

April 2025



Daily Consumptions: - March 2025

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 ² (mm)	Total Precip.	
01 (Sat)	103.4		22.8	12	4	Cloudy / P. Sunny	0.0	0.0	0.0
02 (Sun)	104.3		22.9	12	6	Cloudy / Showers	0.2	0.0	0.2
03 (Mon)	108.6		23.9	11	5	Cloudy / P. Sunny	0.0	0.0	0.0
04 (Tue)	104.6		23.0	8	4	Cloudy / Showers	7.4	0.0	7.4
05 (Wed)	111.3	<=Max	24.5	9	2	Cloudy / P. Sunny / Showers	0.4	0.0	0.4
06 (Thu)	106.1		23.4	11	1	Sunny / P. Cloudy	0.0	0.0	0.0
07 (Fri)	104.2		22.9	10	1	Cloudy / P. Sunny / Showers	0.2	0.0	0.2
08 (Sat)	102.3		22.5	9	5	Cloudy / Rain	27.0	0.0	27.0
09 (Sun)	104.8		23.1	8	1	Cloudy / Showers	7.9	0.0	7.9
10 (Mon)	106.3		23.4	9	0	Cloudy / P. Sunny	0.0	0.0	0.0
11 (Tue)	105.3		23.2	6	2	Cloudy / Showers	8.2	0.0	8.2
12 (Wed)	102.3		22.5	8	3	Cloudy / Showers	9.2	0.0	9.2
13 (Thu)	105.3		23.2	7	1	Cloudy / P. Sunny / Showers	4.1	0.0	4.1
14 (Fri)	105.7		23.2	8	1	Cloudy / Showers	1.7	0.0	1.7
15 (Sat)	103.6		22.8	7	2	Cloudy / Rain	17.6	0.0	17.6
16 (Sun)	105.5		23.2	8	2	Cloudy / P. Sunny / Showers	8.7	0.0	8.7
17 (Mon)	107.6		23.7	9	1	Cloudy / P. Sunny	0.0	0.0	0.0
18 (Tue)	104.8		23.1	9	0	Cloudy / P. Sunny	0.0	0.0	0.0
19 (Wed)	105.0		23.1	9	3	Cloudy / P. Sunny / Showers	6.5	0.0	6.5
20 (Thu)	107.5		23.7	8	3	Cloudy / P. Sunny / Rain	25.7	0.0	25.7
21 (Fri)	105.9		23.3	7	3	Cloudy / Rain	15.7	0.0	15.7
22 (Sat)	101.7	<=Min	22.4	9	2	Cloudy / P. Sunny / Showers	2.9	0.0	2.9
23 (Sun)	104.1		22.9	11	4	Rain	64.6	0.0	64.6
24 (Mon)	107.8		23.7	11	8	Rain	26.6	0.0	26.6
25 (Tue)	106.7		23.5	15	8	Cloudy / P. Sunny	0.0	0.0	0.0
26 (Wed)	109.3		24.0	14	8	Cloudy / P. Sunny / Rain	16.7	0.0	16.7
27 (Thu)	108.0		23.8	12	7	Cloudy / P. Sunny / Showers	1.7	0.0	1.7
28 (Fri)	103.8		22.8	12	5	Cloudy / P. Sunny / Showers	2.9	0.0	2.9
29 (Sat)	104.7		23.0	11	4	Cloudy / P. Sunny / Showers	0.5	0.0	0.5
30 (Sun)	108.4		23.9	13	3	Cloudy / P. Sunny / Showers	1.8	0.0	1.8
31 (Mon)	109.8		24.2	12	5	Cloudy / P. Sunny / Showers	1.7	0.0	1.7
TOTAL	3278.7 ML	721.31 MIG					259.9	0	259.9
MAX	111.3	24.48	15	8			64.6	0	64.6
AVG	105.8	23.27	9.8	3.4			8.4	0	8.4
MIN	101.7	22.36	6	0			0.0	0	0.0

1. ML = Million Litres

2. 10% of snow depth applied to rainfall figures for snow to water equivalent.

Average Rainfall for March (1914-2024)	159.0 mm
Actual Rainfall: March	259.9 mm
% of Average	163%
Average Rainfall (1914-2024): Sept 01 - Apr 06	1,429.9 mm
Actual Rainfall (2023/24): Sept 01 - Apr 06	1,331.7 mm
% of Average	93%

Number days with precip. 0.2 or more
24

Water spilled at Sooke Reservoir to date (since Sept. 1) =

3.21 Billion Imperial Gallons

14.60 Billion Litres

Daily Consumptions: - April 2025

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am			
	(ML) ¹	<=Max	(MIG) ²	High (°C)		Low (°C)	Rainfall (mm)	Snowfall ² (mm)	Total Precip.
01 (Tue)	110.4	<=Max	24.3	13	5	Cloudy / P. Sunny	0.0	0.0	0.0
02 (Wed)	108.7		23.9	12	4	Cloudy / P. Sunny / Showers	0.2	0.0	0.2
03 (Thu)	110.1		24.2	13	2	Cloudy / P. Sunny	0.0	0.0	0.0
04 (Fri)	109.3		24.0	15	3	Cloudy / P. Sunny	0.0	0.0	0.0
05 (Sat)	106.3	<=Min	23.4	16	4	Cloudy / P. Sunny	0.0	0.0	0.0
06 (Sun)	108.2		23.8	11	6	Cloudy / P. Sunny / Showers	12.2	0.0	12.2
07 (Mon)	107.0		23.5	12	6	Cloudy / Showers	3.7	0.0	3.7
08 (Tue)									
09 (Wed)									
10 (Thu)									
11 (Fri)									
12 (Sat)									
13 (Sun)									
14 (Mon)									
15 (Tue)									
16 (Wed)									
17 (Thu)									
18 (Fri)									
19 (Sat)									
20 (Sun)									
21 (Mon)									
22 (Tue)									
23 (Wed)									
24 (Thu)									
25 (Fri)									
26 (Sat)									
27 (Sun)									
28 (Mon)									
29 (Tue)									
30 (Wed)									
TOTAL	760.0 ML		167.19 MIG				16.1	0	16.1
MAX	110.4		24.29	16	6		12.2	0	12.2
AVG	108.6		23.88	13.1	4.3		2.3	0	2.3
MIN	106.3		23.38	11	2		0.0	0	0.0

1. ML = Million Litres

2. 10% of snow depth applied to rainfall figures for snow to water equivalent.

Average Rainfall for April (1914-2024)	89.5 mm
Actual Rainfall: April	16.1 mm
% of Average	18%
Average Rainfall (1914-2024): Sept 01 - Apr 06	1,429.9 mm
Actual Rainfall (2023/24): Sept 01 - Apr 06	1,331.7 mm
% of Average	93%

Number days with precip. 0.2 or more
3

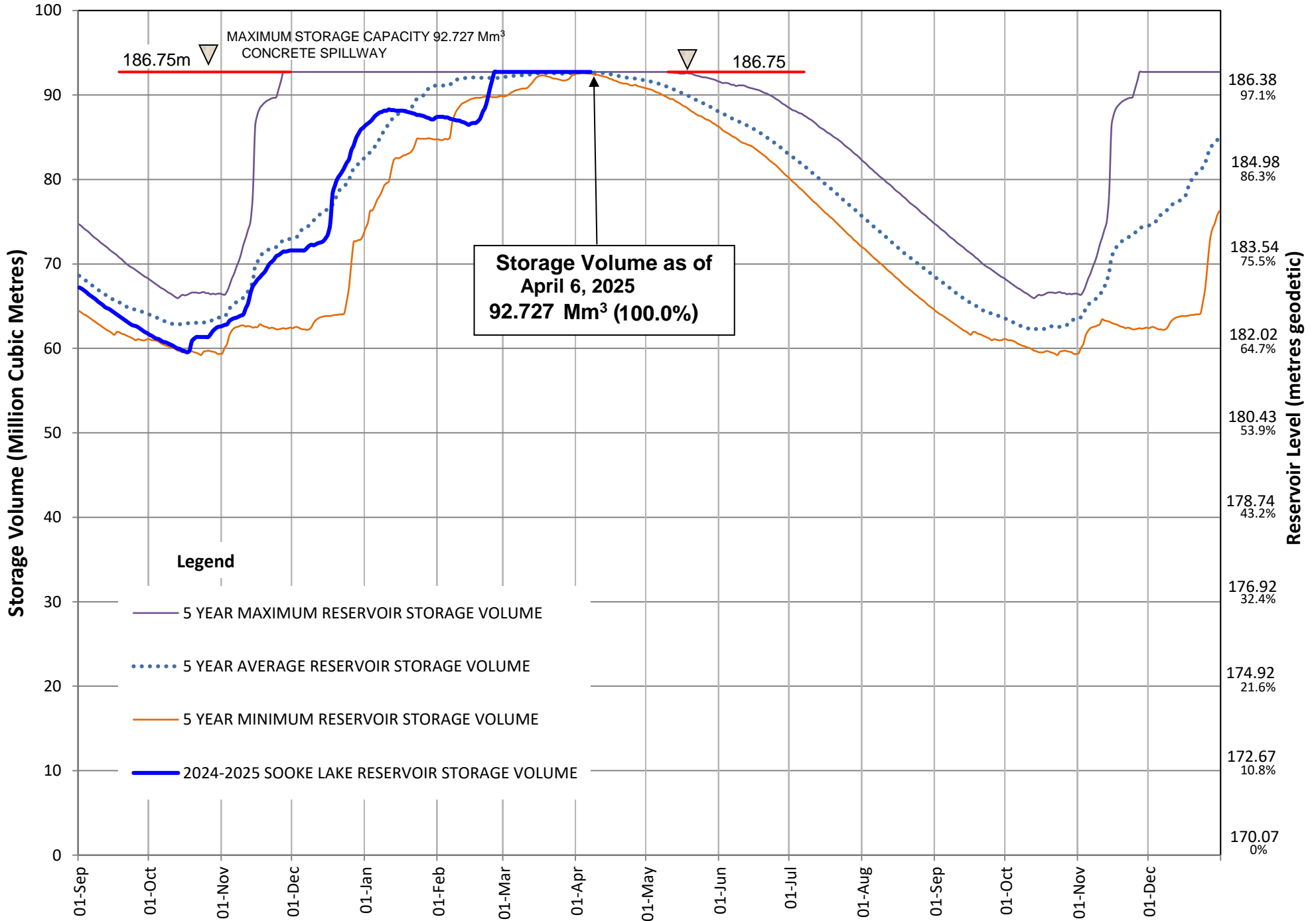
Water spilled at Sooke Reservoir to date (since Sept. 1) =

3.21 Billion Imperial Gallons

14.60 Billion Litres

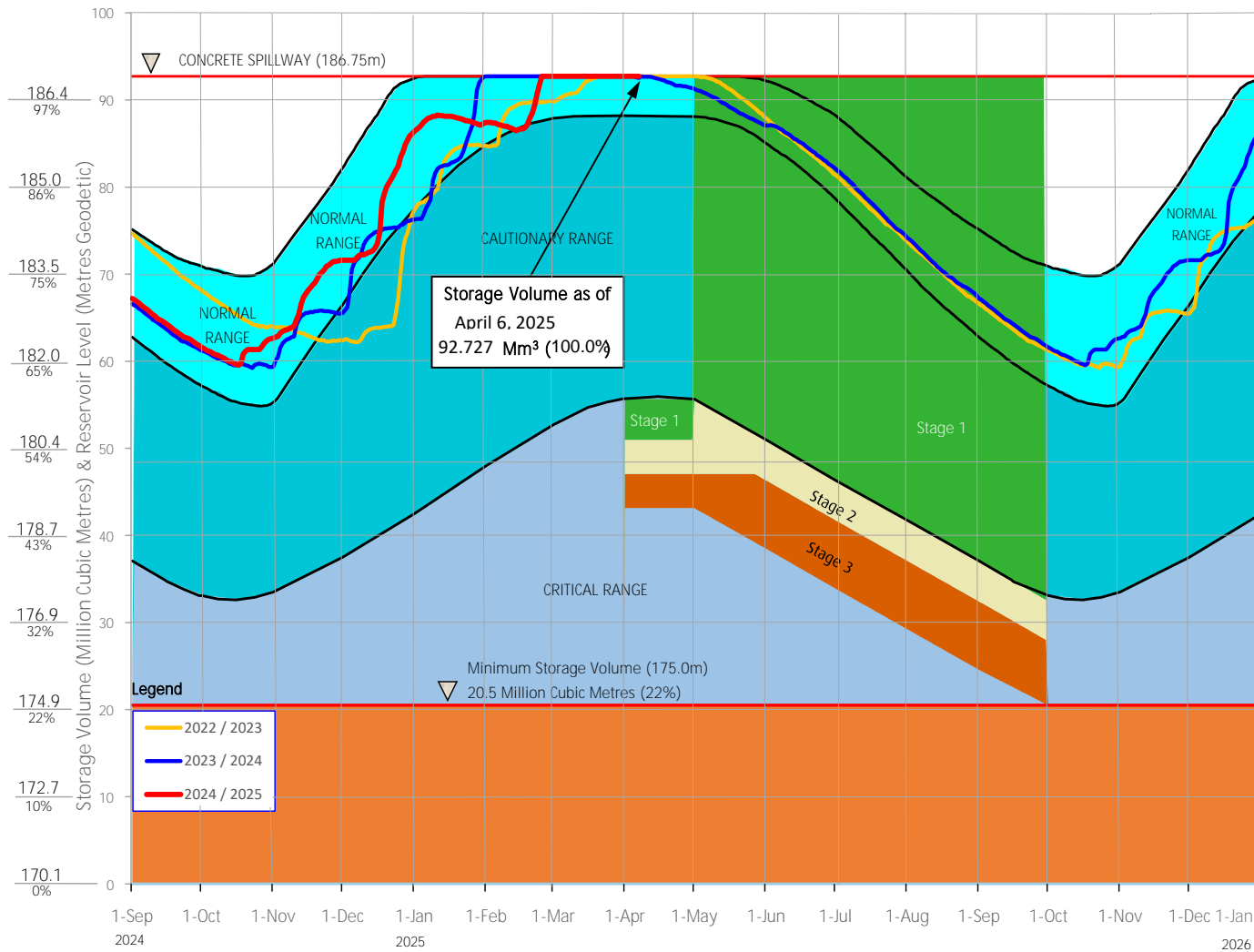
SOOKE LAKE RESERVOIR STORAGE SUMMARY

2024 / 2025



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.

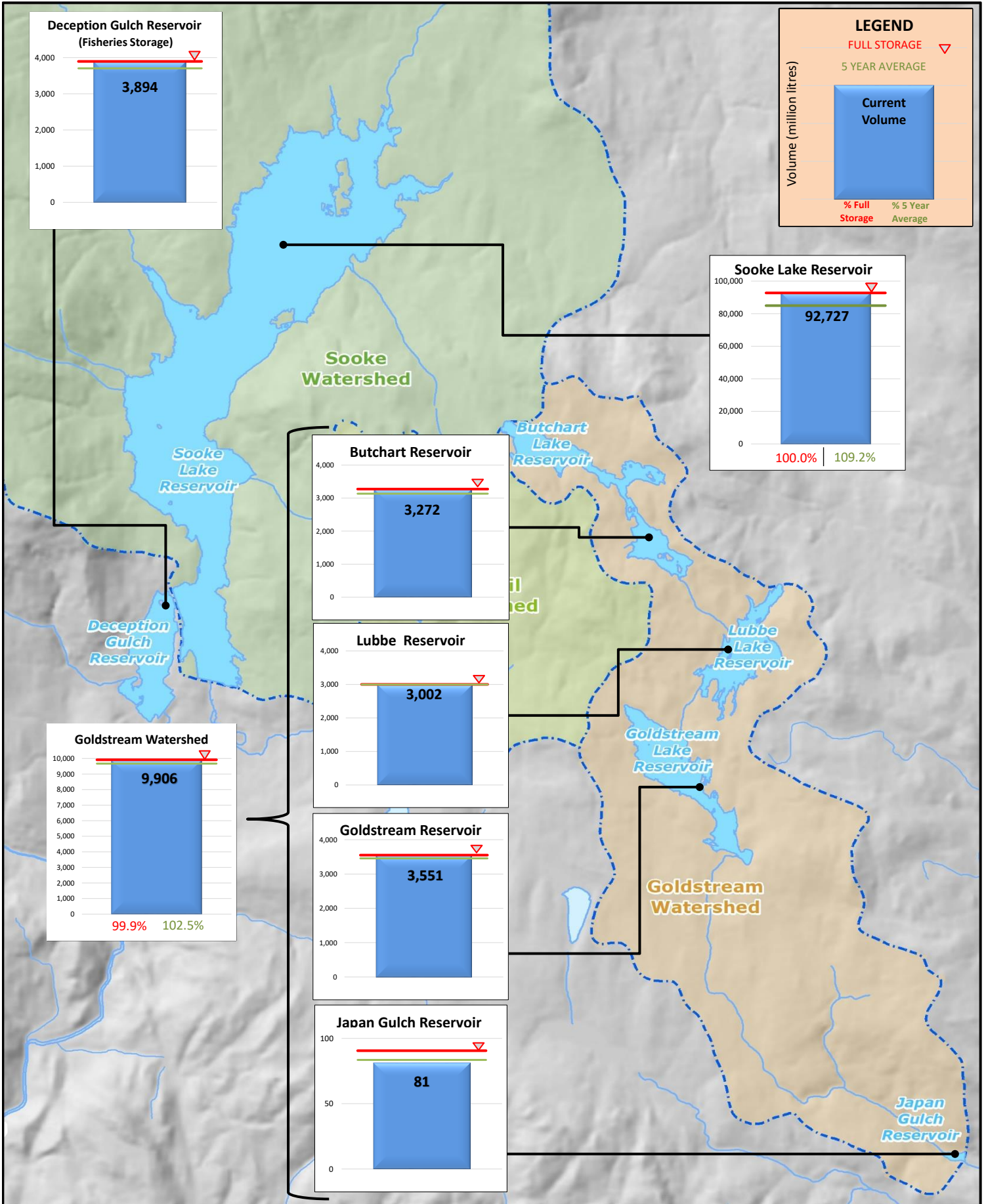
Stage 1 is normally initiated every year from May 1 to September 30 to manage outdoor use during the summer months. During this time, lawn watering is permitted twice a week at different times for even and odd numbered addresses.

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 April 06, 2025





Making a difference...together

**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, APRIL 16, 2025**

SUBJECT Goldstream Water Treatment Plant Ultraviolet and Controls Upgrade Project Update and Capital Plan Amendment

ISSUE SUMMARY

To provide a status update on the completion of the Goldstream Water Treatment Plant Ultraviolet (UV) and Controls Upgrade Project and to request authorization for a Capital Plan Amendment to utilize remaining project budget on additional improvements at the Goldstream and Sooke Water Treatment Plants.

BACKGROUND

The Goldstream Water Treatment Plant (GWTP) treats an average of 130 million litres of water per day for a population of nearly 400,000. Primary treatment is provided by a series of UV reactors, followed by the addition of free chlorine. Further downstream, ammonia is added to form chloramines, which provides secondary (residual) disinfection.

When the existing UV disinfection system was commissioned in 2004, the Capital Regional District (CRD) was considered an early adopter for UV disinfection at this scale, which was the largest of its type in North America. As this technology has become more commonplace, the technology and energy efficiency has also improved. In 2019 and 2020, a series of assessments were conducted that resulted in the recommendation to replace the existing reactors at the end of their 20-year recommended service life and to schedule this work in conjunction with other electrical and controls upgrades at the GWTP. Key design parameters required to meet ongoing demands and compliance with the operating permit are outlined in Table 1.

Table 1 – Design Parameters / Permit Requirements

Parameter	Objective
Design Flowrate (max. instantaneous)	532 Million litres per day
Design Flowrate (min. instantaneous)	25 Million litres per day
UV Transmissivity	85%
UV Reactor Redundancy	N+1
4:3:2:1 Treatment Standard	4-log (99.99%) reduction in viruses 3-log (99.9%) inactivation of viable cysts 2 treatment processes 1 NTU or lower turbidity

The GWTP upgrade was authorized under Regional Water Supply (RWS) *Capital Project #18-07 - Replacement of UV System and Controls Upgrades* which funded the replacement of fifteen (15) existing reactors with eight (8) new, higher capacity reactors. In addition to the improved reliability of the new UV reactors, the increased efficiency is anticipated to result in an annual energy savings of 1,16kWh and was supported by BC Hydro in the form of a \$330,345 Incentive Agreement. The project also provided significant electrical, controls and Supervisory Control and Data Acquisition (SCADA) upgrades that supported the chlorine and ammonia systems at the

GWTP. Given the requirement to maintain ongoing water treatment while actively replace existing UV Reactors, a stipulation of this project was that the entire scope of work needed to be completed during the low demand period of October to March and the facility needed to remain operational at all times.

The project is now substantially complete and the requirements of the contract have been achieved, including meeting the scope, schedule and budget criteria, while maintaining continuous water service. Currently, \$10.93 Million has been expended from the project budget.

Infrastructure upgrade projects at operational sites are uniquely challenging and to be able to complete this work without impact to water supply or water quality is worth acknowledging. This project could not have been a success without the significant contributions and collaborations of the many teams and individuals involved and we would like to acknowledge:

- **CRD Water Infrastructure Operations**, for their expertise, professionalism and flexibility which was paramount to the successful completion of this work;
- **CRD Systems Maintenance**, including the SCADA and Controls staff who provided their early input and guidance and will continue to support with ongoing improvements and support throughout the life of this facility and the many others;
- **CRD Infrastructure Engineering**, who managed the delivery of the capital project and facilitated the contracted supports required;
- **Associated Engineering (B.C.) Ltd.** for the design services and continued support throughout construction and implementation;
- **Trojan Technologies Group ULC**, for the support and support of the UV Equipment.
- **Industra Construction Corp.** as prime contractor and their subcontractors **Fettback & Heesterman Energy Ltd.**, **Western Systems Controls Ltd.** and **QCA Systems Ltd.**, who were able to provide such a strong construction and integration team and work so collaboratively with all of CRD's working groups;
- **CRD Water Quality**, for the guidance, support and facilitation with Island Health;
- **CRD Climate Action** and **BC Hydro** for the Incentive Agreement that provided support funding and validation of the energy efficiency improvements associated with this project;
- **CRD procurement, contracts, legal and the many other support staff** for the support they provide to this project and the many other initiatives at the CRD;
- **CRD senior leadership** for the ongoing commitment and support they provide to their working groups; and,
- **Regional Water Supply Commission**, for your guidance, interest and the trust that you place in the Infrastructure and Water Services department.

A detailed overview of the progression of this Capital Project is summarized in Appendix A and photos and SCADA Screen shots can be found in Appendix B and Appendix C respectively.

This project carried schedule and financial risk and as such, contingency budget was in place. At current forecast the project is ahead of schedule and approximately \$900,000 under the approved \$11,830,346 budget. While some of this budget will be utilized in general close-out costs related to the project, there is opportunity to allocate some remaining budget to support other timely

improvements and initiatives at our water treatment facilities. Staff are requesting authorization to complete a Capital Plan Amendment to re-purpose \$750,000 to a new “Capital Project #25-24 Water Treatment Plant Improvements Program”, which would be utilized to initiate a continued program for small to mid-sized improvements at the Goldstream and Sooke River Road Water Treatment Plants. The details of this Capital Plan Amendment have been included in Appendix D.

ALTERNATIVES

Alternative 1

That the Regional water Supply Commission recommends to the Capital Regional District Board: That the 2025 Regional Water Supply Five Year Capital Plan be amended to reallocate the \$750,000 of remaining budget from Capital Project #18-07-Replacement of Ultraviolet System and Controls Upgrades to a new Capital Project, #25-24 Water Treatment Plant Improvements Program.

Alternative 2

That the Regional water Supply Commission recommends to the Capital Regional District Board: That Capital Project #18-07-Replacement of Ultraviolet System and Controls Upgrades be closed out after all current scope is completed and that any remaining funds be repurposed on future year Capital Budgets.

Alternative 3

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

IMPLICATIONS

Financial Implications

Utilizing the remaining budget from the GWTP UV and Controls Upgrade project will allow staff to initiate a new program to address further small to mid-scale incremental improvements at the GWTP. This budget can be built upon in future years and will allow staff the flexibility to maintain the collaboration and momentum developed during this project and continue with planning and executing improvements, such as those initially outlined in Appendix D.

Service Delivery Implications

Maintaining the momentum and collaboration from this project to continue implementing improvements will allow staff the budget and flexibility to progress additional initiatives, which are not of significant enough scale or fully developed sufficiently for standalone project budgets.

CONCLUSION

The Goldstream Water Treatment Plant Ultraviolet and Controls Upgrade Project has been completed under budget and is progressing into a two-year warranty period. This was a challenging project on an active, critical facility and it would not have been successful without the dedication and collaboration between the Consultants, Contractors, Subcontractors and Capital Regional District contributing groups mentioned earlier. With the remaining budget available from this project, an opportunity exists to develop a new program level budget that will allow staff to

collaborate further among departments and allocate budget to other beneficial improvements at our water treatment facilities.

RECOMMENDATION

That the Regional Water Supply Commission recommends to the Capital Regional District Board: That the 2025 Regional Water Supply Five Year Capital Plan be amended to reallocate the \$750,000 of remaining budget from Capital Project #18-07-Replacement of Ultraviolet System and Controls Upgrades to a new Capital Project, #25-24-Water Treatment Plant Improvements Program.

Submitted by:	Joseph Marr, P.Eng., Senior Manager, Infrastructure Engineering
Concurrence:	Alicia Fraser, P. Eng., General Manager, Infrastructure and Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer, GM Finance & IT
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

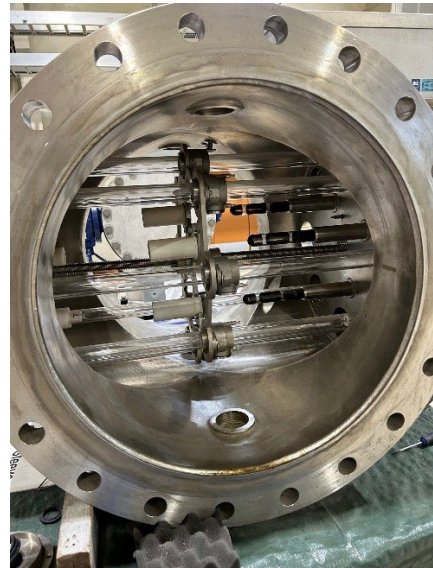
ATTACHMENT(S)

- Appendix A: Summary of Regional Water Supply Capital Project #18-07
- Appendix B: Site Photos
- Appendix C: SCADA Screens
- Appendix D: Capital Plan Amendment – Capital Project #18-07 #25-24

Summary of RWS Capital Project #18-07

Calendar Year	Milestones/Updates
2018	Regional Water Supply (RWS) Capital Project #18-07 authorized to study installing two additional Ultraviolet (UV) reactors at Goldstream Water Treatment Plant (GWTP) that had been decommissioned from Sooke River Road Disinfection Facility and to investigate replacement requirements for all existing UV reactors.
2019	Contract awarded to Stantec Consulting Ltd. on Aug 31, 2019 to study UV reactor replacement options.
2020	<p>A series of three technical memoranda finalized between February and November 2020.</p> <p>Assessment determined that repurposing existing equipment for GWTP reactors 9 and 10 would provide limited value, given that the equipment is no longer supported and existing units had been utilized for spare parts required on other reactors. Recommendation to replace all existing reactors at end of 20-year recommended service life.</p> <p>Capital Project #18-07 updated in Capital Plan to include replacement of all UV Reactors at GWTP.</p>
2021	Contract awarded to Associated Engineering (B.C.) Ltd. on Sept 16, 2021 for design and construction oversight for the replacement of the UV System.
2022	<p>Preliminary Design completed in May 2022 with an Opinion of Probable Cost of \$11.0 million (M).</p> <p>Decision made to pre-procure UV Reactors competitively, given long lead times.</p>
2023	<p>UV Reactor Supply Contract awarded to Trojan Technologies Group ULC on May 24, 2023 for \$2.28M, following competitive Request for Proposals (RFP) process.</p> <p>Target design conditions, including the 532 Million Litres per day (MLD) at 85% Ultraviolet Transmittance (UVT) design condition, were deemed to achievable with only eight reactors (N+1 redundancy), a reduction from the 15 reactors currently utilized.</p> <p>60% and 90% Design Packages delivered, incorporating details associated with the Supply Contract.</p> <p>Regional Water Supply Commission (RWSC) approve 2024 budget increase to \$11.5M and project description expanded to include controls upgrades with the UV replacement project.</p>
2024	<p>Construction RFP released to procure Contractor to complete installation of UV Reactors and to undertake controls upgrades related to all processes at GWTP.</p> <p>Only one bid received by Industra Construction Corp. Contractor team determined to be competent to complete the work, but financial submission exceeds available budget.</p> <p>Negotiations between CRD and Industra Construction Corp. revise terms and risk allocation such that price is negotiated from \$8.68M to \$6.99M.</p> <p>Staff report written to RWSC for June 19, 2024 meeting and RWSC accepts staff recommendation to award Contract to Industra Construction Corp. for \$6.99M with authorization up to an additional \$600k in contingency funds for this Contract. Contract is executed on July 17, 2024. Critical subcontractors included Fettback & Heesterman Energy Ltd. and QCA Systems Ltd.</p> <p>BC Hydro Incentive Agreement awarded to the project and executed on August 7, 2024, adding an additional \$330,346 in funding.</p> <p>Contractor mobilizes to site in August 2024.</p> <p>Plant operated on half of existing UV reactors in the fourth quarter (Q4) of 2024 while first stage of UV Reactors (units 5 to 8) were installed and in operation before year end.</p> <p>Ammonia building improvements—Programmable Logic Controller (PLC) and Supervisory Control and Data Acquisition (SCADA) improvements—completed in Q4 of 2024.</p>
2025	<p>Second stage of UV Reactors (units 1 to 4) were installed while plant operated on new reactors 5 to 8. All eight reactors were commissioned and operational by end of Q1 2025.</p> <p>Hypochlorite building improvements (PLC/SCADA upgrades) completed in Q1 of 2025.</p> <p>Certificate of Completion issued the week of April 7, 2025.</p>

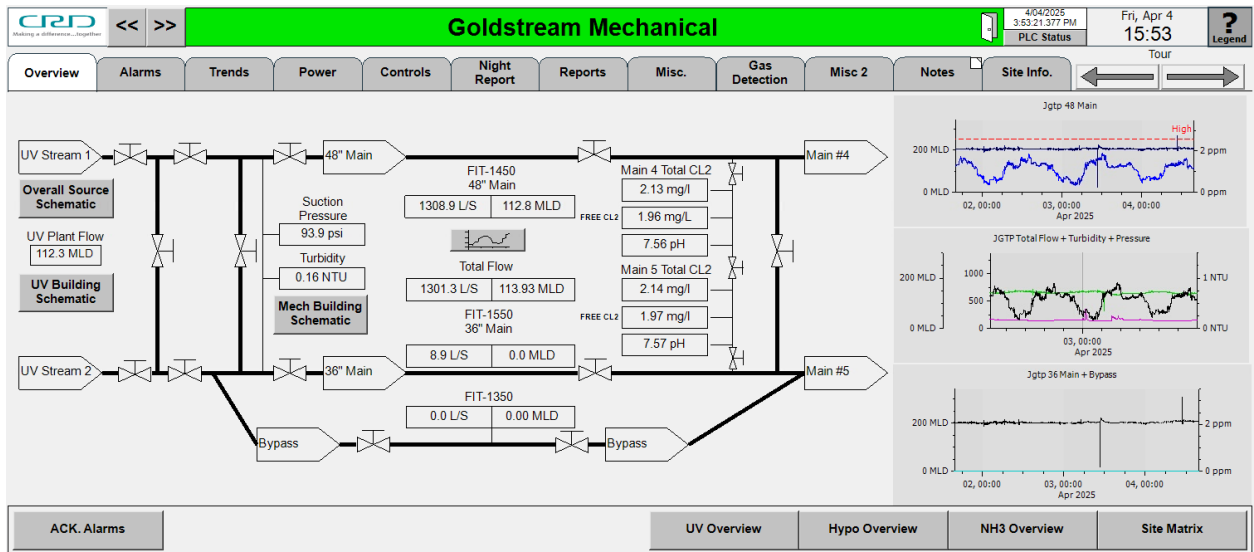
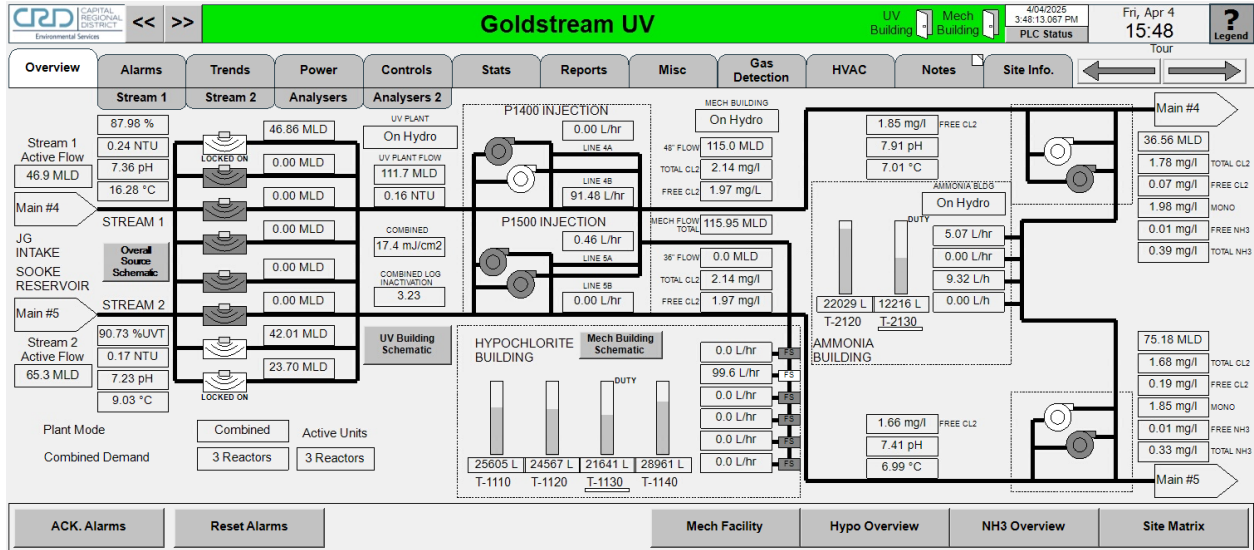
Goldstream Water Treatment Plant – Site Photos

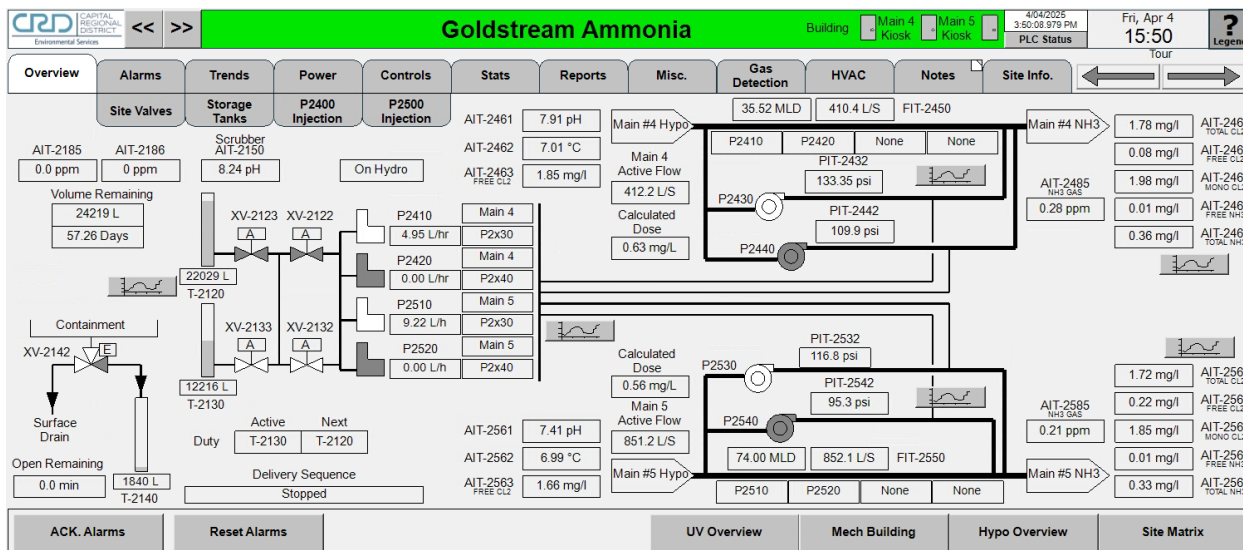
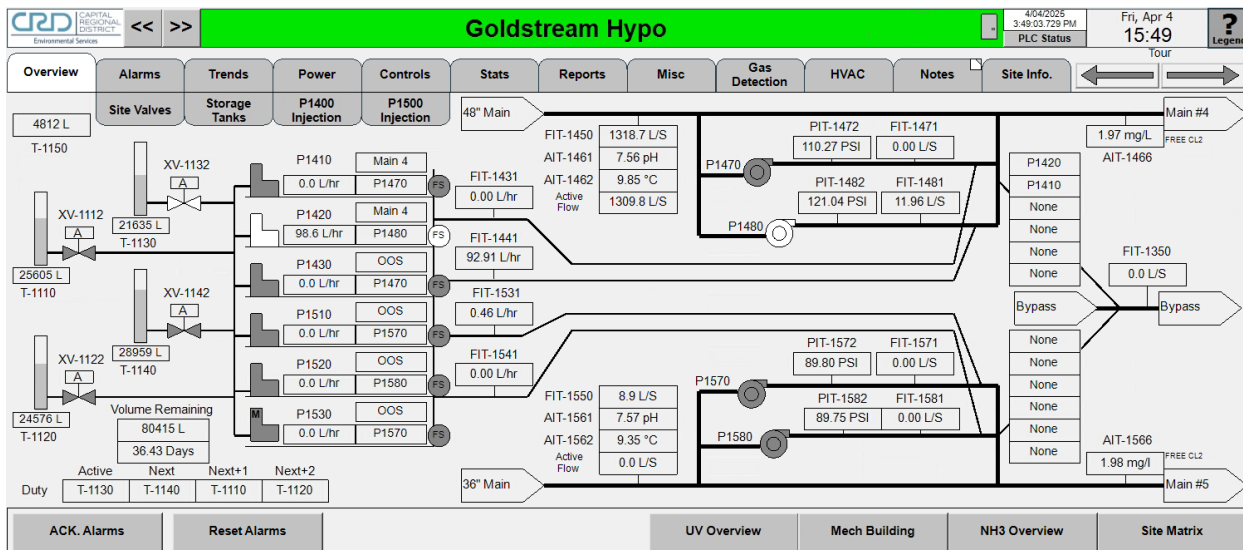






Goldstream Water Treatment Plant – SCADA Screens





CAPITAL REGIONAL DISTRICT

5 YEAR CAPITAL PLAN

2025 - 2029

Service #: 2.670
 Service Name: Regional Water Supply

PROJECT DESCRIPTION				PROJECT BUDGET & SCHEDULE									
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2024	2025	2026	2027	2028	2029	5 - Year Total
WATERSHED PROTECTION													
Planning													\$ -
25-01	Study	Forest Resilience Studies and Assessments	Modelling, studies and assessments of forest fuels, forest health and efficacy of forest treatments in promoting forest resilience.	\$ 495,000	L	WU	\$ 70,000	\$ 160,000	\$ 100,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 395,000
25-02	New	Public Engagement for Regional Water Supply	Public engagement plans and products.	\$ 130,000	L	WU	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 130,000
25-03	Study	GVWSA Risk Assessments & Procedures	Risk assessments and updating procedures for security, biosecurity, spills	\$ 200,000	L	WU	\$ 10,000	\$ 10,000	\$ 60,000	\$ -	\$ 70,000	\$ -	\$ 140,000
25-04	Study	North Basin Intake Siting Studies	Data collection and studying stream flows and water quality entering the North Basin to inform location of a North Basin Intake	\$ 450,000	S	WU	\$ -	\$ 145,000	\$ 150,000	\$ 155,000	\$ -	\$ -	\$ 450,000
25-05	Study	Forest Management Plan for the GVWSA	Development of a forest management plan for the GVWSA to enhance forest resilience and mitigate climate change.	\$ 180,000	S	WU	\$ -	\$ 20,000	\$ 55,000	\$ 55,000	\$ 50,000	\$ -	\$ 180,000
Capital													
17-01	Renewal	Historic Goldstream Powerhouse Building	Repairs of historic Goldstream Powerhouse building and work toward making the site accessible to the public	\$ 196,000	B	WU	\$ 76,000	\$ 126,000	\$ -	\$ -	\$ -	\$ -	\$ 126,000
25-06	New	Forest Resilience Treatments	Thinning, juvenile spacing, and forest fuel management treatments to mitigate climate change, reduce wildfire risk and enhance forest resilience.	\$ 2,000,000	L	WU	\$ 917,000	\$ 400,000	\$ 200,000	\$ 400,000	\$ 200,000	\$ 400,000	\$ 1,600,000
25-06	New				L	Other	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ -	\$ 200,000	\$ 600,000
09-01	Renewal	Leech River Watershed Restoration	A 17 year project to restore the Leech WSA lands for water supply.	\$ 5,576,000	L	WU	\$ 246,000	\$ 40,000	\$ 180,000	\$ 200,000	\$ -	\$ -	\$ 420,000
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.	\$ 12,500,000	B	WU	\$ 4,000,000	\$ 6,000,000	\$ 500,000	\$ -	\$ -	\$ -	\$ 6,500,000
16-06	Renewal				B	Other	\$ 4,000,000	\$ 5,000,000	\$ -	\$ -			\$ 5,000,000
25-07	New	Hydromet Upgrades	New and upgraded hydrological and weather sensors and stations.	\$ 872,000	E	WU	\$ 278,825	\$ 300,000	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ 500,000
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.	\$ 1,140,000	S	WU	\$ 840,000	\$ 840,000	\$ 250,000	\$ -	\$ -	\$ -	\$ 1,090,000
25-08	Renewal	Road Improvements	Gravel crushing, road deactivation and road upgrades to service water supply and watershed protection infrastructure and activities in the GVWSA	\$ 1,670,000	L	WU	\$ -	\$ 260,000	\$ 460,000	\$ 110,000	\$ 260,000	\$ 150,000	\$ 1,240,000
25-09	New	Climate Change Mitigations	Equipment, infrastructure and upgrades to harden water supply infrastructure from climate related risks in the GVWSA	\$ 400,000	E	WU	\$ -	\$ 160,000	\$ -	\$ 80,000	\$ -	\$ 100,000	\$ 340,000
25-10	Renewal	Property Management - Assessments and Upgrades	Assessments, planning and implementation of upgrades aimed at newly acquired GVWSA lands.	\$ 658,000	E	WU	\$ 40,000	\$ 258,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 658,000
25-11	Renewal	GVWSA Bridge Supply & Installation	Replacement of undersized culverts with climate ready bridges which allow for fish passage.	\$ 1,755,000	S	WU	\$ 40,000	\$ 30,000	\$ 400,000	\$ 425,000	\$ 450,000	\$ 450,000	\$ 1,755,000
25-12	New	GVWSA Land Acquisition	Acquisition of priority lands for Regional Water Supply	\$ 33,300,000	L	Debt	\$ -	\$ 32,300,000	\$ -	\$ -	\$ -	\$ -	\$ 32,300,000
Watershed Protection Sub-Total				\$ 61,522,000			\$ 10,547,825	\$ 46,279,000	\$ 2,455,000	\$ 1,870,000	\$ 1,225,000	\$ 1,595,000	\$ 53,424,000
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	\$ 45,000	\$ 245,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ -	\$ 845,000
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	\$ 205,000	\$ 205,000	\$ -	\$ -	\$ -	\$ -	\$ 205,000

Service #:

2.670

Service Name:

Regional Water Supply

PROJECT DESCRIPTION				PROJECT BUDGET & SCHEDULE									
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2024	2025	2026	2027	2028	2029	5 - Year Total
19-04	Study	Seismic Assessment of Critical Facilities Phase 2	Second phase seismic assessment of critical facilities will now be undertaken.	\$ 275,000	S	WU	\$ 170,000	\$ 170,000	\$ -	\$ -	\$ -	\$ -	\$ 170,000
19-15	New	Hydraulic Capacity Assessment and Transient Pressure Analysis	Detailed level-of-service assessment for the RWSC transmission system and 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	\$ 700,000	S	WU	\$ 15,000	\$ 215,000	\$ 40,000	\$ -	\$ -	\$ 10,000	\$ 265,000
20-10	Study	Condition & Vulnerability Assessment	Conduct a condition assessment of critical supply infrastructure and assess its possibility of risk.	\$ 200,000	S	WU	\$ 120,000	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
21-05	Study	Level of Service and Transfer Agreements	Develop level-of-service agreements for participating municipalities to address hydraulic capacity of infrastructure.	\$ 400,000	S	WU	\$ 140,000	\$ 50,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ -	\$ 300,000
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
27-01	Study	Regional Water Master Plan Update	Future update to the Regional Water Master Plan	\$ 500,000	S	WU	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ -	\$ 500,000
23-12	Study	Project Delivery Strategy and Planning Studies	Develop a strategy to deliver the identified projects from the 2022 RWS Master Plan.	\$ 700,000	S	WU	\$ 75,000	\$ 375,000	\$ 300,000	\$ -	\$ -	\$ -	\$ 675,000
23-13	Study	Filtration Plant Planning & Design	Conduct a siting, conceptual design and detailed design for a filtration plant (identified as T2, T4 & M2 in the 2022 Master Plan)	\$ 16,300,000	S	WU	\$ -	\$ -	\$ 400,000	\$ 500,000	\$ 5,400,000	\$ 10,000,000	\$ 16,300,000
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 as M12 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 as S3 in the 2022 Master Plan)	\$ 12,200,000	S	WU	\$ -	\$ -	\$ 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 as M3 in the 2022 Master Plan)	\$ 3,400,000	S	WU	\$ -	\$ -	\$ 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 as M4 in the 2022 Master Plan)	\$ 1,400,000	S	WU	\$ -	\$ 150,000	\$ 150,000	\$ 400,000	\$ 700,000	\$ -	\$ 1,400,000
23-28	New	Goldstream Reservoir Connector	Planning and Design of the Goldstream Reservoir Connector transmission main (identified as M3 & M6 in the 2022 Master Plan)	\$ 4,600,000	S	WU	\$ -	\$ -	\$ 400,000	\$ 2,000,000	\$ 2,200,000	\$ -	\$ 4,600,000
24-09	Study	Agricultural Water Rate Review	Phase 2	\$ 100,000	S	WU	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Capital													
18-07	New	Replacement of UV System and Controls Upgrades	Replacement of the UV system and other electrical upgrades at the Goldstream Water Treatment Plant	\$ 11,080,346	E	WU	\$ 2,200,000	\$ 1,450,000	\$ -	\$ -	\$ -	\$ -	\$ 1,450,000
18-07	New			\$ -	E	Other	\$ -	\$ 330,500	\$ -	\$ -	\$ -	\$ -	\$ 330,500
18-08	Replacement	Bulk Supply Meter Replacement and Backflow Prevention Program	Planned replacement of aging bulk meter replacement based upon a condition assessment and water audit.	\$ 3,700,000	E	WU	\$ 850,000	\$ 850,000	\$ 100,000	\$ 1,000,000	\$ 100,000	\$ 1,000,000	\$ 3,050,000
18-15	Renewal	Corrosion Protection Program	Study deficiencies in the current material protection and implement recommendations.	\$ 1,450,000	S	WU	\$ 400,000	\$ 550,000	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,000,000
18-18	Replacement	Main No.3 Segment Replacement	Replacement of segments of Main No. 3 based upon previous studies.	\$ 15,600,000	S	WU	\$ 1,030,000	\$ 1,030,000	\$ 500,000	\$ 10,590,000	\$ 3,000,000	\$ 200,000	\$ 15,320,000
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	\$ 200,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
19-23	New	Critical Spare Equipment Storage & Pipe Yard	Plan, design and construct a critical equipment storage building.	\$ 1,200,000	S	WU	\$ 135,000	\$ 1,035,000	\$ -	\$ -	\$ -	\$ -	\$ 1,035,000
20-16	Replacement	Cecelia Meter Replacement	Replacement of the Cecelia billing meter as well as its enclosure.	\$ 1,500,000	S	WU	\$ 1,350,000	\$ 1,350,000	\$ -	\$ -	\$ -	\$ -	\$ 1,350,000
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	\$ 450,000	\$ 450,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,450,000
21-09	New	Goldstream Water Chlorination Gas System Removal	Plan and construct provisions for removal of chlorination system	\$ 200,000	S	WU	\$ 4,000	\$ 4,000	\$ -	\$ -	\$ -	\$ -	\$ 4,000
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	\$ 960,000	\$ 960,000	\$ 725,000	\$ 600,000	\$ 300,000	\$ -	\$ 2,585,000

Service #: 2.670
 Service Name: Regional Water Supply

PROJECT DESCRIPTION				PROJECT BUDGET & SCHEDULE									
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2024	2025	2026	2027	2028	2029	5 - Year Total
21-11	Replacement	RWS Supply Main No. 4 Upgrade & Main No. 1 High Pressurizing	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.	\$ 93,000,000	S	WU	\$ 2,860,000	\$ 2,785,000	\$ 14,075,000	\$ 35,000,000	\$ 40,000,000	\$ 400,000	\$ 92,260,000
22-15	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the RWS system, a microwave communications system will be installed.	\$ 1,300,000	S	WU	\$ 445,000	\$ 645,000	\$ 200,000	\$ 100,000	\$ 100,000	\$ -	\$ 1,045,000
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	\$ 150,000	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
23-17	Replacement	Main No. 4 - Mt Newton to Highway 17 & Bear Hill Trunk Extension (RWS Contribution to SPWS Project)	Approximately 2.9km of Main No. 4 concrete cylinder transmission main to replacement from Mt Newton Cross Rd/Central Saanich Rd to Island View Rd and Lochside Drive. This project is also being expanded to partially fund the extension of the Bear Hill Tunk Sewer on East Saanich Road from Wallace Drive to Dean Lower Tank.	\$ 39,000,000	S	WU	\$ 1,815,000	\$ 21,815,000	\$ 10,200,000	\$ -	\$ -	\$ -	\$ 32,015,000
23-17	Replacement				S	Grant	\$ 6,000,000	\$ 6,000,000	\$ -	\$ -	\$ -	\$ -	\$ 6,000,000
28-01	Renewal	Transmission Main Upgrade Program	Identify, conceptually design, detail design and construct transmission main upgrades.	\$ 160,000,000	S	WU	\$ -	\$ -	\$ -	\$ -	\$ 10,000,000	\$ 30,000,000	\$ 40,000,000
24-11	Replacement	IT Core Infrastructure Replacement and cyber security upgrades.	Identify, conceptually design, detail design and construct transmission main upgrades.	\$ 420,000	E	WU	\$ -	\$ 15,000	\$ -	\$ 130,000	\$ 250,000	\$ -	\$ 395,000
24-12	Renewal	Head Tank Valve & Main No. 4&5 Valve Replacement	Supply and installation of valves and actuators at Head Tank and Main #4&5. Includes flushing plan and coordination efforts.	\$ 950,000	E	WU	\$ 440,000	\$ 940,000	\$ -	\$ -	\$ -	\$ -	\$ 940,000
24-19	Renewal	Mount Tolmie Tank Improvements	Structural and infiltration improvements, as well as improvements to controls, piping and other deficiencies.	\$ 5,500,000	E	WU	\$ 270,000	\$ 3,270,000	\$ 1,500,000	\$ 150,000	\$ -	\$ -	\$ 4,920,000
25-24	Renewal	Water Treatment Plant Improvements Program	Ongoing program to address multiple, small to mid-scale capital improvements required at the Goldstream WTP and Sooke River Road WTP.	\$ 750,000	E	WU	\$ -	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ 750,000
Infrastructure Engineering and Operations Sub-Total				\$ 384,275,346			\$ 20,569,000	\$ 46,449,500	\$ 30,840,000	\$ 55,720,000	\$ 68,050,000	\$ 46,910,000	\$ 247,969,500
DAM SAFETY PROGRAM													
19-07	New	Integrate Dam Performance and Hydromet to SCADA	IT driven project to 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	\$ 1,170,000	\$ 1,170,000	\$ -	\$ -	\$ -	\$ -	\$ 1,170,000
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). IT Driven Project	\$ 250,000	E	WU	\$ 245,000	\$ 245,000	\$ -	\$ -	\$ -	\$ -	\$ 245,000
25-13	Study	Sooke Lake & Deception Water Supply Area Dams - Regulatory Compliance, Dam Safety Planning & Analyses	Ongoing projects involving studies, dam safety planning and regulatory requirements activities for the various dams within the Sooke Lake Watershed. Outcomes from the various studies will inform future capital improvements.	\$ 3,500,000	S	WU	\$ -	\$ 900,000	\$ 1,350,000	\$ 750,000	\$ 250,000	\$ 250,000	\$ 3,500,000
25-14	Renewal	Sooke Lake & Deception Water Supply Area Dams - Upgrades and Improvements Program	Ongoing program to complete dam upgrades and improvements from the Dam Safety Risk Register, which have been identified through the Sooke Lake Water Supply Area Dams - Regulatory, Planning & Analysis Program.	\$ 7,250,000	S	WU	\$ -	\$ 4,000,000	\$ 1,500,000	\$ 250,000	\$ 1,000,000	\$ 500,000	\$ 7,250,000
25-15	Study	Goldstream Water Supply Area Dams - Regulatory Compliance, Dam Safety Planning & Analyses	Ongoing projects involving studies, dam safety planning and regulatory requirements activities for the various dams within the Goldstream Watershed. Outcomes from the various studies will inform future capital improvements.	\$ 7,200,000	S	WU	\$ -	\$ 700,000	\$ 1,000,000	\$ 250,000	\$ 5,000,000	\$ 250,000	\$ 7,200,000
25-16	Renewal	Goldstream Water Supply Area Dams - Upgrades and Improvements Program	Ongoing program to complete dam upgrades and improvements from the Dam Safety Risk Register, which have been identified through the Goldstream Water Supply Area Dams - Regulatory, Planning & Analysis Program.	\$ 4,000,000	S	WU	\$ -	\$ 500,000	\$ 1,200,000	\$ 250,000	\$ 750,000	\$ 900,000	\$ 3,600,000
25-17	Study	Charters Dam - Regulatory Compliance, Dam Safety Planning & Analyses	Ongoing projects involving studies, dam safety planning and regulatory requirements activities for Charters Dam. Outcomes from the various studies will inform future capital improvements.	\$ 100,000	S	WU	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
25-18	Renewal	Charters Dam - Upgrades and Improvements Program	Ongoing program to complete dam upgrades and improvements from the Dam Safety Risk Register, which have been identified through the Charters Dam - Regulatory, Planning & Analysis Program.	\$ 200,000	S	WU	\$ -	\$ 25,000	\$ 25,000	\$ -	\$ -	\$ 150,000	\$ 200,000
Dam Safety Program Sub-Total				\$ 23,800,000			\$ 1,415,000	\$ 7,640,000	\$ 5,075,000	\$ 1,500,000	\$ 7,000,000	\$ 2,050,000	\$ 23,265,000

Service #: 2.670
 Service Name: Regional Water Supply

PROJECT DESCRIPTION				PROJECT BUDGET & SCHEDULE										
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2024	2025	2026	2027	2028	2029	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	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000	
25-19	Study	WQ Studies and Research Projects	Ongoing program budget for water quality studies and operation of Sooke Lake Hydrodynamic Model.	\$ 1,000,000	S	WU	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000	
25-20	Replacement	Lab and WQ Equipment Maintenance and Replacement	Ongoing program budget for water quality lab equipment and maintenance.	\$ 1,000,000	S	WU	\$ -	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000	
Water Quality Sub-Total				\$ 2,520,000			\$ 100,000	\$ 600,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 2,200,000	
ANNUAL PROVISIONAL														
17-27	Replacement	Watershed Culvert Replacement	Replacement of small culverts throughout the GVWSA.	\$ 1,300,000	S	WU	\$ -	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 260,000	\$ 1,300,000	
17-28	Replacement	Watershed Security Infrastructure Upgrade & Replacement	New, upgrade and replacement of security infrastructure in the GVWSA.	\$ 1,500,000	E	WU	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000	
17-29	Replacement	Water Supply Area Equipment & Replacement	Hydrometeorological, fireweather and wildfire suppression equipment replacement.	\$ 720,000	E	WU	\$ -	\$ 180,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 140,000	\$ 740,000	
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 and other Water Treatment Components and Parts Replacement	Replacement of incidental equipment and parts associated with the water treatment facilities.	\$ 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 items in the dam safety database/risk registry and to support operations.	\$ 1,675,000	S	WU	\$ -	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000	
19-22	Replacement	SCADA Repairs, Equipment Replacement and Comms upgrades	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	\$ -	\$ 200,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 800,000	
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	\$ 200,000	
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.	\$ 220,000	L	WU	\$ -	\$ 80,000	\$ 80,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 220,000	
Annual Provisional Sub-Total				\$ 10,790,000			\$ -	\$ 2,195,000	\$ 2,155,000	\$ 2,095,000	\$ 2,095,000	\$ 2,095,000	\$ 10,635,000	
CORPORATE ASSET AND MAINTENANCE MANAGEMENT (CMM)														
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	\$ 691,000	\$ 1,376,250	\$ 773,000	\$ 855,000	\$ 495,000	\$ 355,000	\$ 3,854,250	
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	\$ 100,000	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000	
23-22	New	Fuel Truck	Fuel tender truck	\$ 325,000	E	WU	\$ 325,000	\$ 325,000	\$ -	\$ -	\$ -	\$ -	\$ 325,000	
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	\$ 6,500,000	L	WU	\$ 100,000	\$ 100,000	\$ 3,000,000	\$ -	\$ 2,000,000	\$ -	\$ 5,100,000	
24-17	New	Pool Vehicles	2 new EV Pickups & new vehicle for Water Quality	\$ 255,000	V	WU	\$ 180,000	\$ 255,000	\$ -	\$ -	\$ -	\$ -	\$ 255,000	
24-18	New	Vehicle for Watershed Hydrology Program	Replacement pickup truck for watershed hydrology program	\$ 100,000	V	WU	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000	
25-22	New	New Vehicles - Watershed & Water Operations	4 New Electric Vehicles for Watershed & Water Operations	\$ 360,000	V	WU	\$ -	\$ 360,000	\$ -	\$ -	\$ -	\$ -	\$ 360,000	
25-23	New	Enterprise Asset Management System	Development of EAM system, including software and process implementation, for services to maintain assets and report on asset performance.	\$ 4,600,000	E	WU	\$ -	\$ -	\$ -	\$ 375,000	\$ 400,000	\$ 400,000	\$ 1,175,000	
25-23	New	Enterprise Asset Management System			E	Other	\$ 625,000	\$ 200,000	\$ 400,000	\$ 25,000	\$ -	\$ -	\$ 625,000	
CMM Sub-Total				\$ 12,604,250			\$ 2,121,000	\$ 3,216,250	\$ 4,173,000	\$ 1,255,000	\$ 2,895,000	\$ 755,000	\$ 12,294,250	
GRAND TOTAL				\$ 495,511,596			\$ 33,337,825	\$ 106,379,750	\$ 45,098,000	\$ 62,840,000	\$ 81,665,000	\$ 53,805,000	\$ 349,787,750.00	

Service: 2.670 Regional Water Supply

Project Number	25-24	Capital Project Title	Water Treatment Plant Improvements Program	Capital Project Description	Ongoing program to address multiple, small to mid-scale capital improvements required at the Goldstream WTP and Sooke River Road WTP.
Project Rationale	Program Level budget to allow staff to implement small to mid-scale capital improvements required at the Goldstream and Sooke River Road Water Treatment Plants. This budget is initiated from funds left over from the Goldstream UV and Controls Upgrades project but will be carried forward and built upon as a program for term projects needing to be coordinated at the two Regional treatment facilities. Some initial projects include improvements to workstations, buried pipe replacement to replace injection line to mech room bypass, systems control training, GWTP #5 Injection Chamber Analyzer Lines improvements, other small scale piping and monitoring improvements.				