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JUAN DE FUCA WATER DISTRIBUTION COMMISSION
 Notice of Meeting on **Tuesday, July 4, 2023 at 12 pm**
 Goldstream Conference Room, 479 Island Highway, Victoria, BC

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

G. Baird (Chair)
 J. Rogers (Vice Chair)
 S. Donaldson
 D. Grove

C. Harder
 K. Pearson
 M. Wagner
 A. Wickheim

AGENDA

- 1. TERRITORIAL ACKNOWLEDGEMENT**
- 2. APPROVAL OF AGENDA**
- 3. ADOPTION OF MINUTES3**
Recommendation: That the minutes of the May 2, 2023 meeting be adopted.
- 4. CHAIR'S REMARKS**
- 5. PRESENTATIONS/DELEGATIONS**
Delegations will have the option to participate electronically. Please complete the [online](#) application for "Addressing the Board" on our website and staff will respond with details.
Alternatively, you may email your comments on an agenda item to the Juan de Fuca Water Distribution Commission at awsadministration@crd.bc.ca. Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.
- 6. GENERAL MANAGER'S REPORT**
- 7. COMMISSION BUSINESS**
 - 7.1. Juan de Fuca Water Distribution Service Mid-Year Update.....6**
There is no recommendation, this report is for information only.
 - 7.2. Summary of Recommendations from Other Water Commissions11**
There is no recommendation, this report is for information only.

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

7.3. Water Watch Report13

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

8. NOTICE(S) OF MOTION

9. NEW BUSINESS

10. ADJOURNMENT

Next Meeting: Tuesday, September 5, 2023



MINUTES OF A MEETING OF THE Juan de Fuca Water Distribution Commission, held Tuesday, May 2, 2023 at 12 p.m., Goldstream Meeting Room, 479 Island Highway, Victoria, BC

PRESENT: Commissioners: G. Baird; S. Donaldson; D. Grove (EP); K. Pearson; M. Wagner; A. Wickheim

Staff: I. Jesney, Acting General Manager; S. Irg, Senior Manager, Water Infrastructure Operations; J. Marr, Acting Senior Manager, Infrastructure Engineering; J. Kelley, Manager, Capital Projects; D. Dionne (Recorder)

ABSENT: C. Harder; J. Rogers

EP = Electronic Participation

The meeting was called to order at 12:01 pm.

1. TERRITORIAL ACKNOWLEDGEMENT

The Chair provided a Territorial Acknowledgement.

2. APPROVAL OF AGENDA

MOVED by Commissioner Wickheim, **SECONDED** by Commissioner Wagner, That the agenda be approved.

CARRIED

3. Adoption of Minutes

MOVED by Commissioner Donaldson, **SECONDED** by Commissioner Wagner, That the minutes of the March 7, 2023 meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The Chair made the following remarks:

- He thanked S. Irg for providing him with an in-depth tour of the construction work on Goldstream Avenue.
- He advised that he is working with staff on providing two tours to the Regional Water Supply Commission and the Water Advisory Committee and will extend the invitation to this Commission as well. One tour will be of the watershed and the other will be of the more urban parts of the system.

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. GENERAL MANAGER'S REPORT

I. Jesney advised that there will likely not be a meeting in June and that staff are planning to bring forward a mid-year capital project progress report in July.

7. COMMISSION BUSINESS

7.1. Small Diameter Pipe Replacement Program Update

J. Marr provided a summary of the staff report. Discussion ensued and staff responded to questions from the Commission regarding:

- High priority replacements due to age of pipe or pipes that are failing.
- The life span of Asbestos Cement (AC) pipe is estimated at 50 to 70 years.
- Risk of failure of AC pipes that get damp on the outside of the pipe.
- Rezoning/upzoning and new development impacts or influence on project scheduling.
- Juan de Fuca's proactive pipe replacement program.

I. Jesney spoke to a recent news report on asbestos in the water from AC pipe used for water distribution. He noted that the report raised some questions from the public as it highlighted the current pipe replacement project in Langford along Goldstream Avenue. He responded to some claims made in the report and noted the following:

- The tests referred to in the report were from the United States (US). There are no accredited tests in Canada. Health Canada does not require asbestos testing of water. There are a couple of labs in Canada that can do the test, but the data that was reported is US-based.
- According to the US test, the maximum allowable number of fibers in the water is seven million fibers per liter. The news report indicated a test they did in the US where it showed 350,000 fibers in a liter of water, which is about 5% of the allowable number.
- There are more watermain breaks in the winter in the prairie provinces due to the freezing weather which also is why they are unable to properly flush the water mains, so there could be some construction asbestos in the pipe after a break. Freezing isn't an issue here so when there is a break, it is flushed properly.
- Staff will be conducting tests at the end of some AC pipe to form baseline data so that if there is another AC watermain break staff will be able to compare that data with a test downstream of the break.

There is no recommendation. The report was for information only.

7.2. Summary of Recommendations from Other Water Commissions

There were no questions from the Commission.

There is no recommendation. The report was for information only.

7.3. Water Watch Report

I. Jesney spoke to the report noting that the dam is still spilling. The water level for this time of year is higher than it has been for the past five years.

There was no recommendation. The report was for information only.

8. NOTICE(S) OF MOTION

There were none.

9. NEW BUSINESS

There was a discussion regarding a dam on Charter's Creek. Staff advised that the dam is active and still holds water.

10. ADJOURNMENT

MOVED by Commissioner Pearson, **SECONDED** by Commissioner Wagner,
That the May 2, 2023 meeting be adjourned at 12:44 pm.

CARRIED

CHAIR

SECRETARY



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JWDC 23-04

**REPORT TO JUAN DE FUCA WATER DISTRIBUTION COMMISSION
MEETING OF TUESDAY, JULY 4, 2023**

SUBJECT Juan de Fuca Water Distribution Service Mid-Year Update

ISSUE SUMMARY

To provide the Juan de Fuca (JDF) Water Distribution Commission with a mid-year update on the JDF Water Distribution System (the System) capital program and operations updates.

BACKGROUND

Capital Program Update

The System capital program reflects the planned capital spending for the next five years and forms part of the annual service budget that is approved in March each year by the Capital Regional District (CRD) Board. In 2023, 33 capital projects were identified with an expenditure estimated at \$26,845,000. Of the total amount budgeted, there is \$23,110,000 worth of projects progressing in 2023. The status of the major projects progressing in 2023 is detailed in Appendix A. Additional smaller projects, such as smaller planning studies and a hydraulic model update, totaling \$125,000 are also underway in 2023.

Operations Update

Water Operations maintains and operates the System which includes planned and unplanned maintenance. Examples of unplanned maintenance include a pump failure or a water main break. The annual 2023 operating budget totals \$5.5 Million. Operating accounts are on track year to date with no major variances anticipated for the remainder of the year. The following are highlights, to date in 2023, of capitalized activities undertaken by Water Operations.

Emergency response:

The System is remotely monitored 24/7 by the Goldstream Water Treatment Plant. A Water Operator is on call continuously outside of regular work hours and responds to emergency callouts. Ten callouts per week is not uncommon and are typically meter and service line related. To date, there has been one water main break on Glen Lake Road in Langford.

Flushing Program:

The annual uni-directional flushing program has concluded the winter/spring session and will commence again in September. Flushing of the 538 kilometers (km) of water mains within the System is on a 2-year cycle, with approximately half of the system flushed each year.

Victoria General Hospital (VGH) Meter replacement:

New meter connection and backflow prevention to VGH, with the ability to supply water from Regional Water Supply Main No. 1 or Main No. 4 adding seismic resiliency and redundancy.

Post Disaster Program:

One JDF resilient (blue) hydrant was installed at VGH and one at Rocky Point Pump Station in Metchosin, one more is planned in 2023 at Goldstream Avenue/Spencer School. One hundred

Juan de Fuca Water Distribution Commission – July 4, 2023
Juan de Fuca Water Distribution Service Mid-Year Update

2

(100) meters (m) of 150-millimeter (mm) diameter High Density Polyethylene (HDPE) emergency water main was procured that would be used for a temporary repair, jumper between two mains, or overland from a reservoir to a main.

Meter and Service Line Replacement:

Year to date, Water Operations has replaced approximately 251 residential meters and 54 service lines that were leaking or at end of service life.

Developer Connections:

Expansion of the System continues, driven by development. To date approximately 30 developer connections have been completed with 20 to 30 more anticipated by the end of 2023.

CONCLUSION

This report provides the Juan de Fuca Water Distribution Commission with updates on ongoing capital programs for the Juan de Fuca Water Distribution System. In addition, information has been provided regarding operational issues.

RECOMMENDATION

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

Submitted by:	Joseph Marr, P.Eng., Acting Senior Manager, Infrastructure Engineering
Submitted by:	Shayne Irg, P.Eng., Senior Manager, Water Infrastructure Operations
Concurrence:	Ian Jesney, P. Eng., Acting General Manager, Integrated Water Services
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT(S)

Appendix A: Juan de Fuca Water Distribution System Capital Program – Current Status

Appendix A

JDF Water Distribution System Capital Program – Current Status

Project Number	Project Title	Total Budget	Status
16-05	Comprehensive Pump Station Upgrades (10 year Program)	\$5,000,000	Construction of Ludlow fire pump station is substantially complete as of June 2023. The facility has been commissioned and is operational. Stantec Engineering was awarded the design of the Coppermine Pump Station #1 in May 2023 and is expected to complete the design in the fall such that construction can begin in winter 2023/early 2024. The total value of work for 2023 is \$2,300,000.
18-02	JDF Reservoir Upgrades	\$1,250,000	Walfred reservoir valve and piping upgrades were completed in 2023 with some minor electrical improvements still underway. The total value of work for 2023 is forecast at \$400,000.
18-05	Rocky Point Upgrades	\$9,724,000	The project consists of the replacement of an existing pumpstation, upgrading of an existing pumpstation, installation of new watermain and construction of a new bolted steel tank. Approximately \$1,710,000 of construction work is remaining and is expected to be complete by August 2023.
20-03	AC Pipe Replacement Program	\$25,200,000	A notice of award has been provided to Colquitz Engineering to complete the 2023 design and construction administration services into 2024 with options to extend to future years. Current scope includes Milburn Dr, Lagoon, Ocean Blvd and Painter Rd in Colwood as well as Sooke Road in the District of Sooke. 2023 budget is \$3.9 million but given that CRD crews are completing Goldstream Ave, it is anticipated that a large portion of these funds will carry into 2024.
20-04	William Head & VGH Meter Replacement	\$700,000	The VGH meter replacement is underway, by CRD forces, and is expected to be complete in July 2023. The William Head meter is expected

Appendix A

Project Number	Project Title	Total Budget	Status
			to be deferred until 2024 due to other project priorities.
20-07	Goldstream AC Replacement	\$5,800,000	Replacement of approximately 1.6km of asbestos cement (AC) watermain on Goldstream Avenue between Veteran's Memorial Parkway (VMP) and Hartsdale Drive. Project is currently under construction and approximately 50% complete and is anticipated to be complete by end of 2023.
22-01	East Sooke Interconnect Water Main	\$500,000	Construction of approximately 430m of watermain for better redundancy and system flows. Consulting services for this project are being awarded to Colquitz Engineering along with 20-03 AC Pipe Replacement Program. Design work will be progressed in 2023 and construction is anticipated to be completed in 2024.
22-02	Microwave Radio Upgrades	\$550,000	Installation of high-bandwidth microwave radio infrastructure to accommodate CRD Infrastructure. CRD staff continues to progress in 2023.
16-06	Vehicle & equipment replacement (funding from replacement fund)	\$2,094,000	Replacement of vehicles and equipment used by CRD Integrated Water Services for the day-to-day operation and maintenance of the JDF distribution system. These replacements are funded from the JDF Vehicle and Equipment Replacement Fund. To date, approximately 50% of 2023's \$1,080,000 budget has been spent. The CRD anticipates spending the full 2023 budget by the end of the year.
17-12	Large Meters/Meter Vaults Components Replacement	\$1,250,000	Annual provisional of \$250,000 for the replacement or repairs to components in large meters/vaults as required. Seven vaults throughout View Royal, Langford and Sooke are being assessed and designed in 2023. Some of these will progress to construction in 2023 with the remainder being completed in 2024.

Appendix A

Project Number	Project Title	Total Budget	Status
21-03	Hydrant & Flush Replacement, Upgrades and Additions	\$1,125,000	Annual provisional for replacing old and outdated hydrants, flushes and associated works and access, as well as adding new hydrants to the system where requested by the municipalities or fire departments. CRD anticipates spending the full 2023 budget of \$225,000.
21-04	Residential Service & Meter Replacement	\$6,500,000	Annual provisional for replacing failed residential services and meters, as well as proactively replacing services and meters in areas with historically large number of breaks. CRD anticipates spending the full 2023 budget of \$1,300,000.
21-05 21-06 21-07 21-09	Pump Station, SCADA, Reservoir Equipment Replacement and Valve Replacement	\$2,750,000	Annual provisional budgets for replacing failed or failing pump station, SCADA, and reservoir equipment and valves. Currently, the CRD is on target to spend the combined 2023 budget of \$550,000.
16-07	Update DCC Bylaw	\$295,000	Currently completing the comprehensive DCC update. The final report is expected to be completed by the end of 2023. The 2023 budget is \$170,000. The Bylaw update is expected to be complete in 2024.
23-01	South Skirt Water Upgrades Project	\$9,110,000	This project consists of two new pump stations and a new bolted steel tank at South Skirt Mountain. Approximately \$5,000,000 of construction work remains with substantial completion expected by August 2023 and total completion expected by the end of October 2023.

Project Numbers refer to project numbers from the 2023 Capital Plan.



Capital Regional District HOTSHEET AND ACTION LIST Regional Water Supply Commission

Wednesday, May 17, 2023

11:30 AM

CRD Boardroom
625 Fisgard Street
Victoria, BC

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

3. ADOPTION OF MINUTES

That the minutes of the April 19, 2023 meeting be adopted.

CARRIED

8. COMMISSION BUSINESS

8.1 Bylaw No. 4099 – Water Conservation Amendment

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

1. *That Bylaw No. 4549, "Capital Regional District Water Conservation Bylaw No. 1, 2016, Amendment Bylaw No. 3, 2023", be introduced and read a first, second, and third time; and*
2. *That Bylaw No. 4549 be adopted.*
3. *That Bylaw No. 4553 "Capital Regional District Ticket Information Authorization Bylaw 1990, Amendment Bylaw No. 76, 2023" be introduced and read a first, second, and third time; and*
4. *That Bylaw No. 4553 be adopted.*

CARRIED

8.2 Greater Victoria Drinking Water Quality – 2022 Annual Report

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

That the Greater Victoria Drinking Water Quality 2022 Annual Report be approved.

CARRIED

8.4 Proposed Regional Water Supply Service Development Cost Charge Program and Bylaw

Recommendation: *That the Regional Water Supply Commission direct Capital Regional District staff to proceed with the next phases of developing and implementing a Development Cost Charge program and bylaw.*

The following were received for information:

- 8.3 Water Quality Summary Report – January to March 2023**
- 8.5 Summary of Recommendations from Other Water Commissions**
- 8.6 Water Watch Report**

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued June 26, 2023

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	June 30 5 Year Ave		June 30/22		June 25/23		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	82,943	18,247	88,574	19,486	82,742	18,203	89.2%
Goldstream	7,358	1,619	9,821	2,161	9,187	2,021	92.7%
Total	90,301	19,866	98,395	21,647	91,929	20,224	89.6%

2. Average Daily Demand:

For the month of June	196.5 MLD	43.22 MIGD
For week ending June 25, 2023	196.8 MLD	43.30 MIGD
Max. day June 2023, to date:	237.1 MLD	52.15 MIGD

3. Average 5 Year Daily Demand for June

Average (2018 - 2022)	176.8 MLD ¹	38.89 MIGD ²
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¹MLD = Million Litres Per Day ²MIGD = Million Imperial Gallons Per Day

4. Rainfall June:

Average (1914 - 2022):	35.4 mm
Actual Rainfall to Date	11.8 mm (33% of monthly average)

5. Rainfall: Sep 1- Jun 25

Average (1914 - 2022):	1,582.5 mm
2022/2023	1,021.8 mm (65% of average)

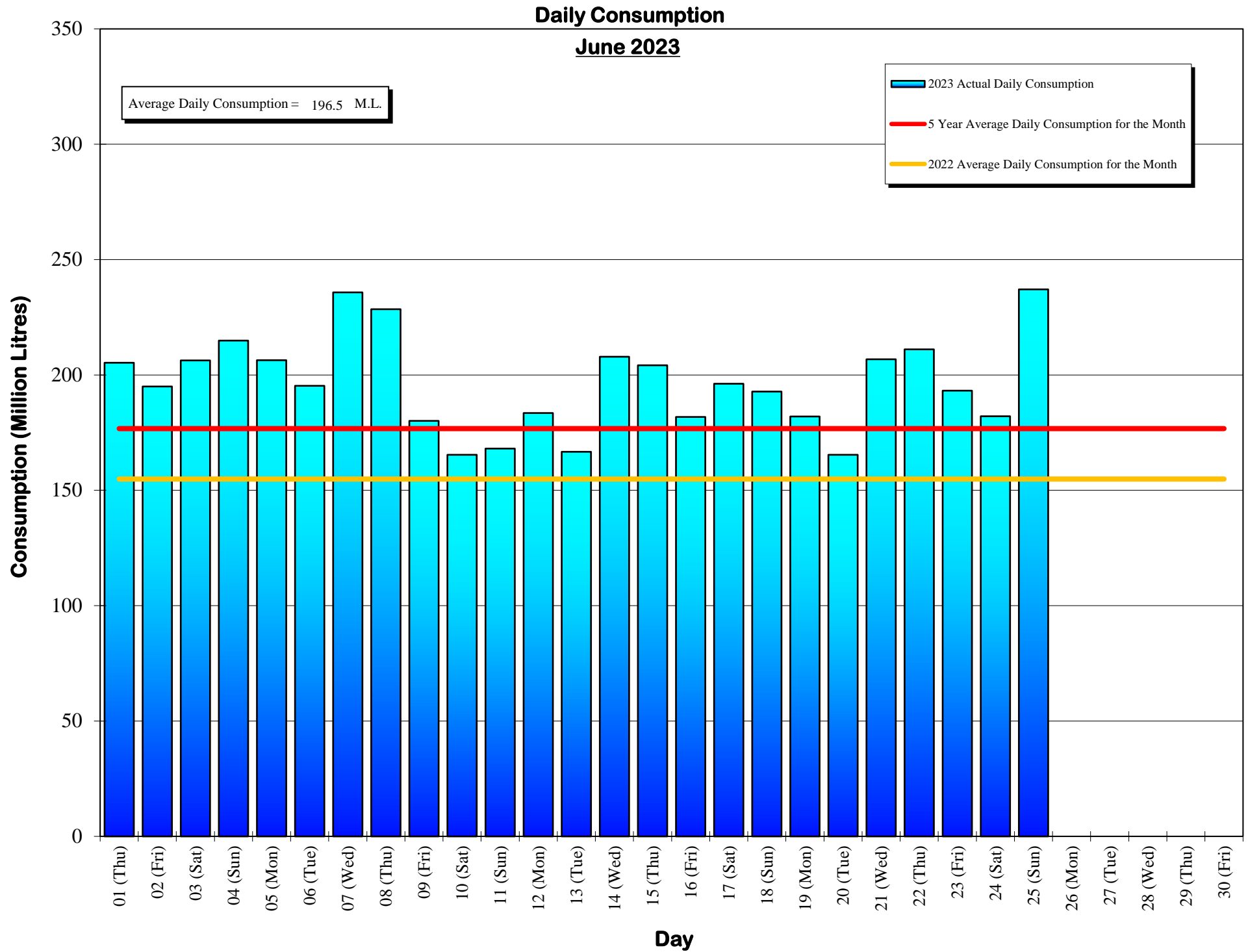
6. Water Conservation Action Required:

CRD's Stage 1 Water Conservation Bylaw is now in effect through September 30, 2023
Visit our website at www.crd.bc.ca/water for scheduling information.

If you require further information, please contact:

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

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



Daily Consumptions: - June 2023

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 (Thu)	205.3		21	7	Sunny / P. Cloudy	0.0	0.0	0.0
02 (Fri)	195.0		22	8	Sunny	0.0	0.0	0.0
03 (Sat)	206.3		22	9	Sunny	0.0	0.0	0.0
04 (Sun)	214.9		22	7	Sunny	0.0	0.0	0.0
05 (Mon)	206.4		23	7	Sunny	0.0	0.0	0.0
06 (Tue)	195.3		28	8	Sunny	0.0	0.0	0.0
07 (Wed)	235.8		30	11	Sunny	0.0	0.0	0.0
08 (Thu)	228.5		26	13	Sunny	0.0	0.0	0.0
09 (Fri)	180.1		17	12	Cloudy / Showers	7.1	0.0	7.1
10 (Sat)	165.4		16	11	Cloudy / P. Sunny / Showers	4.1	0.0	4.1
11 (Sun)	168.1		23	11	Sunny	0.0	0.0	0.0
12 (Mon)	183.5		29	13	Sunny / P. Cloudy	0.0	0.0	0.0
13 (Tue)	166.7		18	10	Sunny / P. Cloudy	0.0	0.0	0.0
14 (Wed)	207.9		19	11	Cloudy / P. Sunny	0.0	0.0	0.0
15 (Thu)	204.2		21	9	Sunny / P. Cloudy	0.0	0.0	0.0
16 (Fri)	181.8		21	12	Sunny / P. Cloudy	0.0	0.0	0.0
17 (Sat)	196.2		16	10	Sunny / P. Cloudy	0.0	0.0	0.0
18 (Sun)	192.8		17	6	Cloudy / P. Sunny	0.0	0.0	0.0
19 (Mon)	182.0		15	6	Cloudy / P. Sunny / Showers	0.4	0.0	0.4
20 (Tue)	165.4	<=Min	18	10	Cloudy / P. Sunny / Showers	0.2	0.0	0.2
21 (Wed)	206.8		21	10	Sunny / P. Cloudy	0.0	0.0	0.0
22 (Thu)	211.1		24	10	Sunny	0.0	0.0	0.0
23 (Fri)	193.2		26	12	Sunny	0.0	0.0	0.0
24 (Sat)	182.1		23	12	Sunny	0.0	0.0	0.0
25 (Sun)	237.1	<=Max	26	11	Sunny / P. Cloudy	0.0	0.0	0.0
26 (Mon)								
27 (Tue)								
28 (Wed)								
29 (Thu)								
30 (Fri)								
TOTAL	4911.9 ML	1080.6 MIG				11.8	0	11.8
MAX	237.1	52.15	30	13		7.1	0	7.1
AVG	196.5	43.22	21.8	9.8		0.5	0	0.5
MIN	165.4	36.38	15	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 (1914-2022)	35.4 mm
Actual Rainfall: June	11.8 mm
% of Average	33%
Average Rainfall (1914-2022): Sept 01 - Jun 25	1,582.5 mm
Actual Rainfall (2022/23): Sept 01 - Jun 25	1,021.8 mm
% of Average	65%

Number days with precip. 0.2 or more
4

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

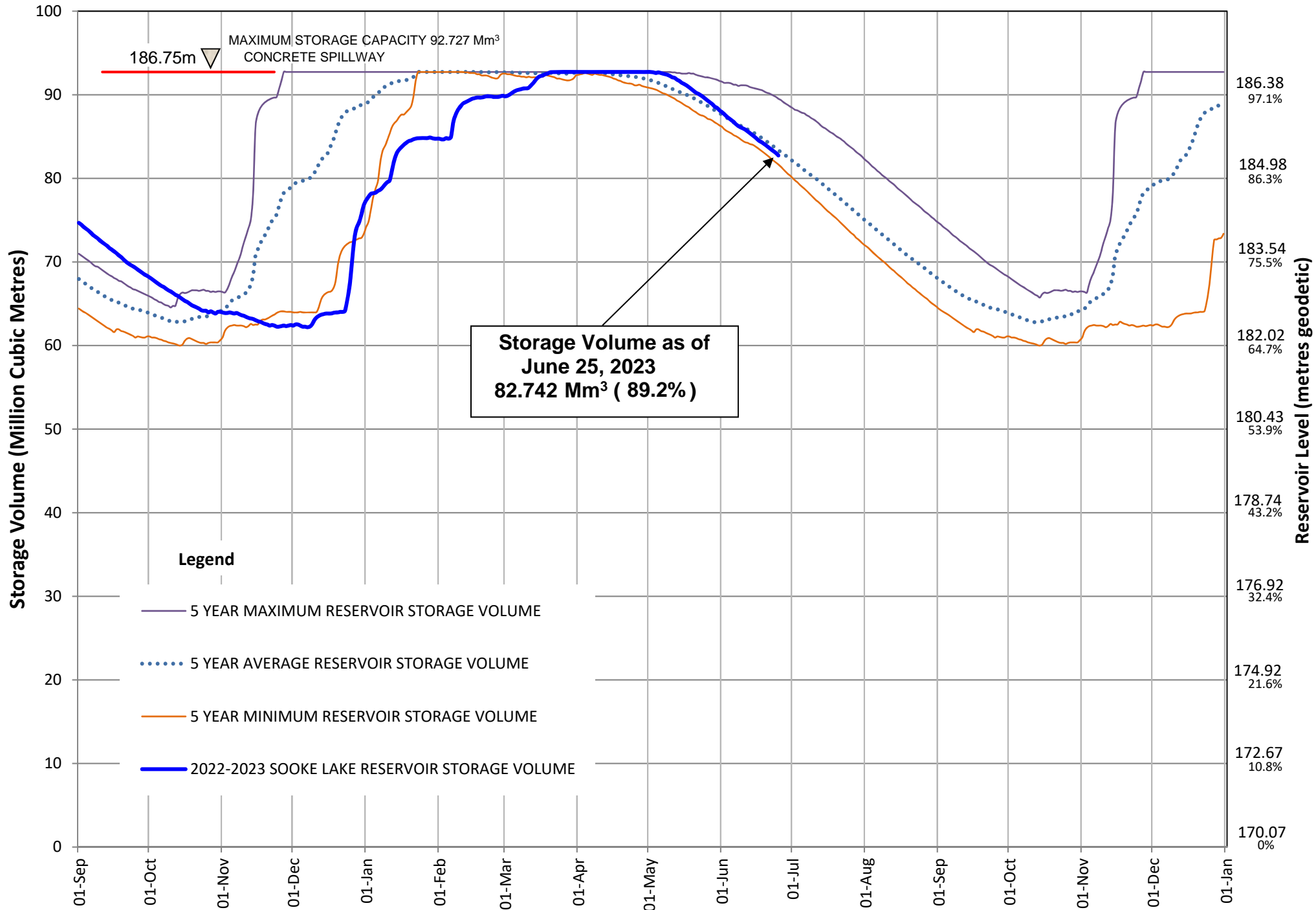
0.99 Billion Imperial Gallons

=

4.50 Billion Litres

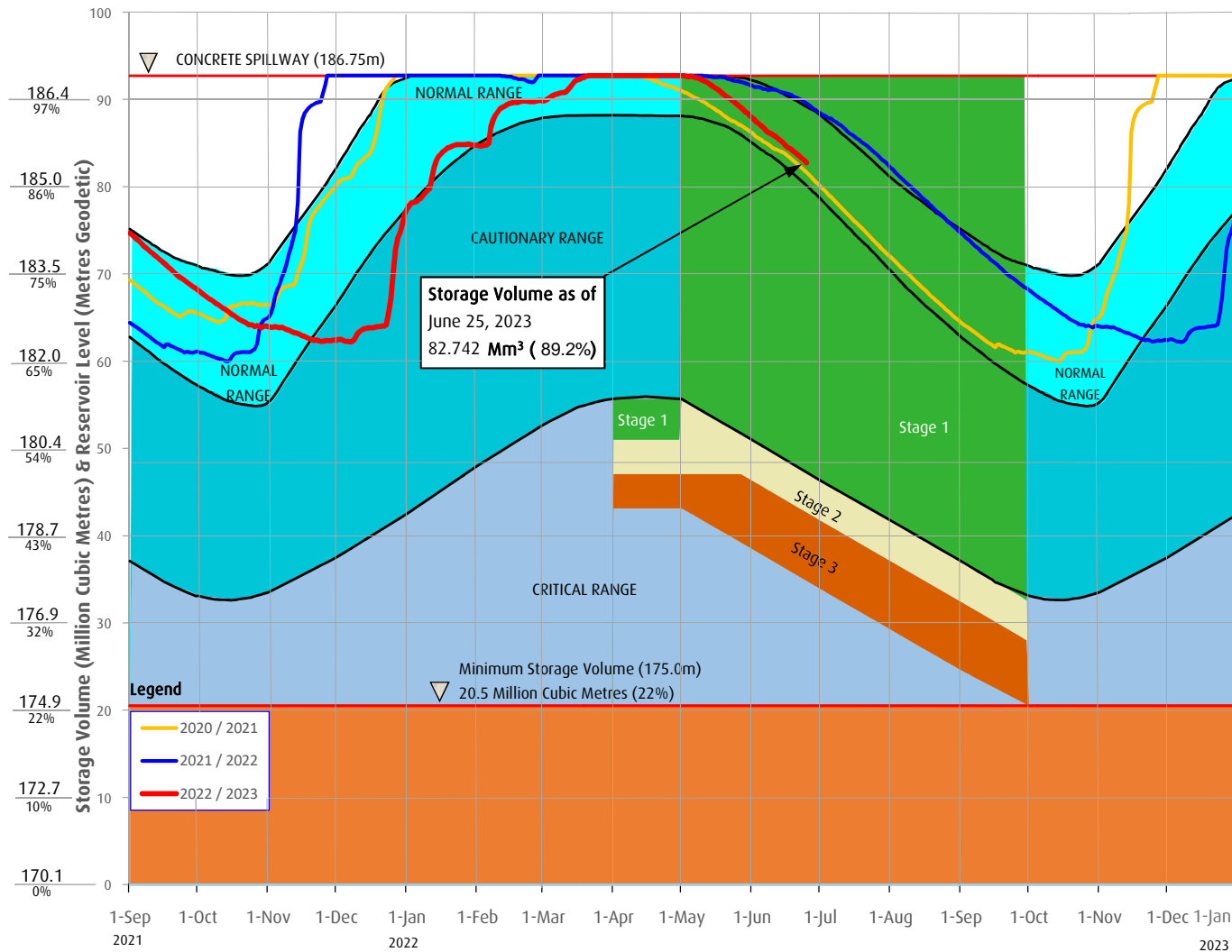
SOOKE LAKE RESERVOIR STORAGE SUMMARY

2022 / 2023



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

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Useable Reservoir Volumes in Storage for June 25, 2023

