



Making a difference...together

JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Notice of Meeting on **Tuesday, October 3, 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) | C. Harder |
| J. Rogers (Vice Chair) | K. Pearson |
| S. Donaldson | M. Wagner |
| D. Grove | A. Wickheim |

AGENDA

- 1. TERRITORIAL ACKNOWLEDGEMENT**
- 2. APPROVAL OF AGENDA**
- 3. ADOPTION OF MINUTES 3**

Recommendation: That the minutes of the July 4, 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 iwsadministration@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**
- 6.1. General Manager's Introduction**

7. COMMISSION BUSINESS

- 7.1. 2024 Service Planning – Water 6**

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

To ensure quorum, advise [iwsadministratio@crd.bc.ca](mailto:iwsadministration@crd.bc.ca) if you cannot attend.

7.2. Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget.... 26

Recommendation: The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend that the Capital Regional District Board:

1. Approve the 2024 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2024 Juan de Fuca Water Distribution Service retail water rate of \$2.6927 per cubic metre, adjusted if necessary, by any change in the Regional Water Supply wholesale water rate;
3. Approve the increase of Equipment Replacement Fund expenditure for 2023 to \$1,287,000;
4. Direct staff to balance the 2023 actual operating deficit or surplus on the 2023 capital fund transfer;
5. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and
6. Direct staff to amend the Water Distribution Local Service Conditions, Fees and Charges Bylaw accordingly.

7.3. Summary of Recommendations from other Water Commissions..... 76

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

7.4. Water Watch Report..... 79

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

8. NOTICE(S) OF MOTION

9. NEW BUSINESS

10. ADJOURNMENT

Next Meeting: Tuesday, December 5, 2023



Making a difference...together

MINUTES OF A MEETING OF THE Juan de Fuca Water Distribution Commission, held Tuesday, July 4, 2023 at 12 p.m., Goldstream Conference Room, 479 Island Highway, Victoria, BC

PRESENT: Commissioners: G. Baird (Chair); J. Rogers (Vice Chair)(12:35); S. Donaldson (EP); D. Grove ; C. Harder (EP); K. Pearson (EP); M. Wagner; A.Wickheim
Staff: I. Jesney, Acting General Manager; S. Irg, Senior Manager, Infrastructure Water Operations; J. Marr, Acting Senior Manager, Infrastructure Engineering; J. Kelley, Manager, Capital Projects; D. Dionne (Recorder)

REGRETS:

EP = Electronic Participation

The meeting was called to order at 12:05.

1. TERRITORIAL ACKNOWLEDGEMENT

The Chair provided the Territorial Acknowledgement.

2. APPROVAL OF AGENDA

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

CARRIED

3. ADOPTION OF MINUTES

MOVED by Commissioner Wagner, **SECONDED** by Commissioner Grove, That the minutes of the May 2, 2023 meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The Chair made the following remarks:

- He thanked staff for the tour of the water treatment plant and the Goldstream dam. He noted that it was extremely successful, and that staff did a great job of responding to questions from all the different Commission and Committee members.
- He thanked Ian Jesney, who has been Acting General Manager this past year. He expressed his appreciation for his leadership and guidance as he moves to retirement.

5. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

6. GENERAL MANAGER'S REPORT

I. Jesney provided an asbestos testing update noting that staff tested water from four locations. The tests were conducted based on the United States (US) standards for asbestos testing. The US standard is seven million fibers greater than 10 microns in size per liter of water. When staff conducted the tests, all four locations showed there were zero fibers greater

than 10 microns in size. There were .28 million fibers within the 5-to-10-micron range. Staff will conduct another test following an Asbestos Cement (AC) watermain break, which would be a worst-case scenario. Staff may look at conducting these tests once a year.

7. COMMISSION BUSINESS

7.1. Juan de Fuca Water Distribution Service Mid-Year Update

Staff provided a Capital Projects and Operations update as outlined in Appendix A.

Staff responded to questions regarding:

- The cause of a recent watermain break: An AC main that had an old sewer crossing that was under the main, the ground settled over time and the watermain cracked.
- Predictability of watermain failures: AC pipe are the typical pipes that fail, continue with the AC replacement program.
- Replacement material used to repair AC pipe when it breaks: repair couplings that will transition to either ductile or Polyvinyl Chloride (PVC) pipe.
- Placement of post disaster water hydrants: typically installed on the larger steel supply mains that would have the most likelihood of surviving a seismic event. Location is determined by proximity to fire or emergency or the ability to tie into the pipe and have a hydrant. Also consider locations that are close to a school with a parking lot where the equipment can be set up.
- Vehicle replacement program: Fleet and Regional Parks vehicles are being replaced with electric vehicles, as part of the climate action plan.

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

7.2. Summary of Recommendations from Other Water Commissions

I. Jesney advised that the water conservation amendment bylaw will be going to municipalities for municipal consent.

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

7.3. Water Watch Report

Discussion ensued and staff responded to questions regarding:

- water use
- lack of rain
- sustained periods of heat
- water temperature

J. Rogers joined the meeting.

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

8. NOTICE(S) OF MOTION

There were no notices of motion.

9. NEW BUSINESS

There was no new business.

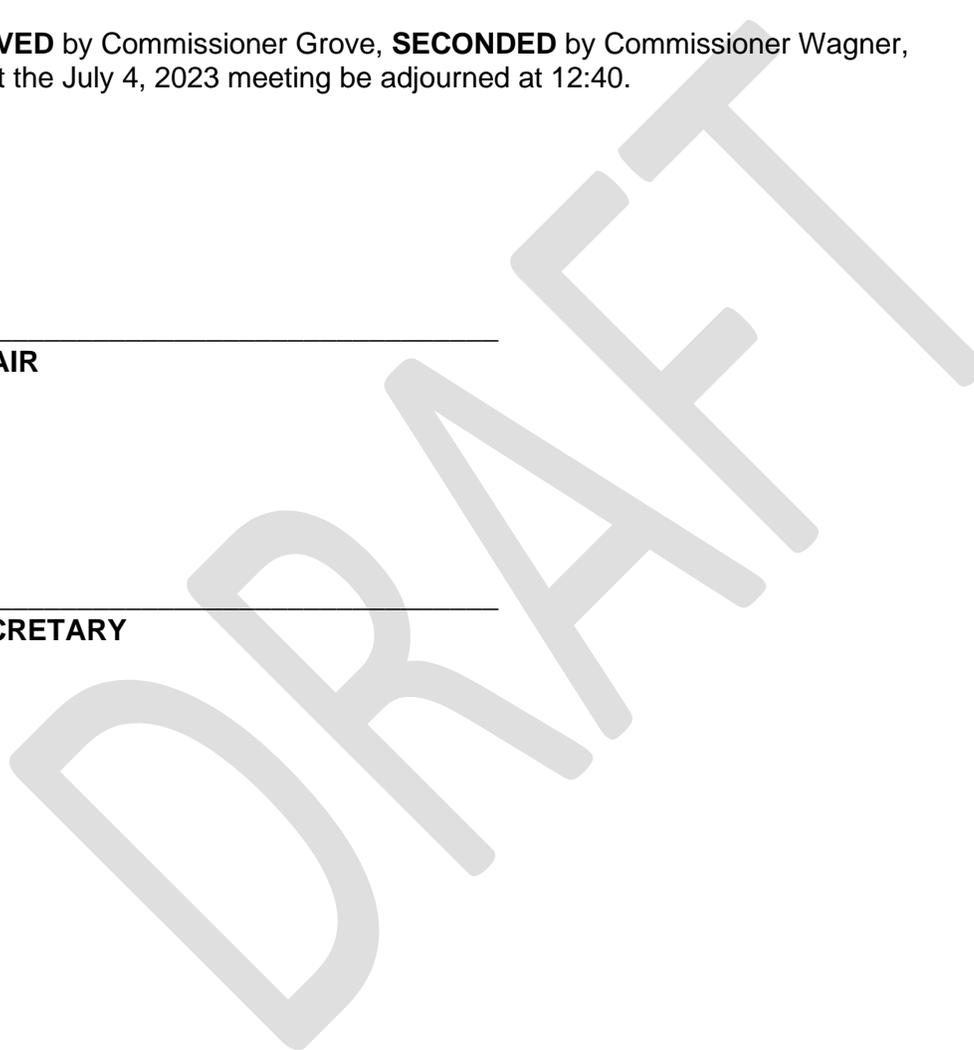
10. ADJOURNMENT

MOVED by Commissioner Grove, **SECONDED** by Commissioner Wagner,
That the July 4, 2023 meeting be adjourned at 12:40.

CARRIED

CHAIR

SECRETARY





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**REPORT TO JUAN DE FUCA WATER DISTRIBUTION COMMISSION
MEETING OF TUESDAY, OCTOBER 3, 2023**

SUBJECT **Service Planning 2024 – Water Community Need Summary**

ISSUE SUMMARY

To provide strategic context and an overview of services, initiatives and performance data related to the Water Community Need.

BACKGROUND

The Capital Regional District (CRD) Board approved the 2023-2026 Board Priorities on March 8, 2023. Staff then developed the 2023-2026 CRD Corporate Plan which was approved by the CRD Board on April 12, 2023.

The CRD Corporate Plan presents the work the organization needs to deliver over the four-year term, along with the critical regional, sub-regional and local services, to meet the region's most important needs (i.e., Community Needs) and advance the Board's Vision and Priorities. Board Priorities, Corporate Plan initiatives and core service delivery form the foundation of the five-year financial plan.

The 2024 planning cycle marks the first year of the implementation of the 2023-2026 CRD Corporate Plan. The CRD's annual service plans, known as Community Need Summaries, provide an overview of the operational and strategic context, services levels, initiatives, and performance data for each Community Need. They also provide details of the initiatives, associated staffing, timing and service levels required to advance the work in future years.

The Water Community Need Summary is attached as Appendix A. The desired outcome is safe drinking water and a resilient water supply.

The CRD reports on the progress of its initiatives and services on a regular basis. The Board receives updates about the Board Strategic Priorities through the Chief Administrative Officer Quarterly Progress Reports. The Board also receives an overview of progress made on delivering the Corporate Plan twice a year at the strategic check-in and provisional budget meetings, which take place in the spring and fall respectively. The next strategic check-in will take place in spring 2024. During the year, standing committees and commissions also fulfill an oversight and advisory role in relation to the work.

ALTERNATIVES

Alternative 1

The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

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

Alternative 2

The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

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

IMPLICATIONS

Governance Implications

In 2024, staff have prioritized programs and initiatives that:

- Advance 2023-2026 Board Priorities or Corporate Plan initiatives;
- Operationalize capital investments; and/or
- Are necessary to maintain a core service level following a regulatory change or where there is a safety risk to customers, communities, or staff.

The Executive Leadership Team (ELT) has reviewed and assessed all business cases and confirmed alignment with the criteria. ELT has determined that the consolidated package of work is appropriate and a proportional response to the CRD Board's and communities' expectations of the organization.

Financial Implications

To exercise constraint and cost containment, the CRD Board directed staff to keep the core inflationary adjustment to 3.5% through the 2024 Service and Financial Planning Guidelines. Staff and management have taken the necessary steps to mitigate the financial impact of proposed initiatives as well as cost escalation and high inflation rate experienced in 2022 through to 2023.

The 2024 operating costs include non-negotiable collective agreement increases coupled with chemical cost escalations that were effective for 2024, as well as retroactively capturing increases from 2023 which were finalized after the 2023 water rate approval. As a result, the 2024 core operating cost increase exceeds the 3.5% threshold.

Financial and staff impacts for initiatives will be summarized and included in the October 3, 2023 Juan de Fuca Distribution Service 2024 Operating and Capital Budget report, and in the provisional budget which will be presented at the Committee of the Whole meeting scheduled for October 25, 2023. Starting this year, this will also include a five-year forecast of staffing level changes, which will be reviewed annually.

Service Delivery Implications

Appendix A includes information about existing service delivery, operational considerations and performance. Additional information has been provided below about the proposed changes for 2024/2025.

Juan de Fuca Water Distribution Commission – October 3, 2023
Service Planning 2024 – Water Community Need Summary

1. *Proposed changes for 2024*

Staff are proposing to advance four new initiatives for the Water Community Need that have financial implications for 2024, as shown in Table 1. The key drivers for the initiatives are:

1. advancing a Board or Corporate Plan Priority;
2. operationalizing capital investments; and
3. adjustments to core service levels to maintain safety.

Table 1. Water Community Need Initiatives (2024)

Initiative	Implementation year(s)	Staff impacts (2024)	Incremental cost (2024)	Funding source
2a-2.1 Contracts Coordinator	2024–ongoing	1 Auxiliary Converted	\$92,000	Fee-for-service
2a-2.2 Purchaser	2024–ongoing	1 New Ongoing	\$205,000	Fee-for-service & Requisition
2a-8.1 Water Quality Sampling Technician	2024-ongoing	Increase to daily hours	\$38,000	Other
2b-1.1 Dam Safety Program – Integrated Water Services	2024–ongoing	2 New Ongoing	\$375,000	Fee-for-service

The information in Table 1 reflects the business case costs which ELT reviewed as part of their annual assessment of initiatives. The financial impacts reflect full program costs, including cost of staffing.

2a-2.1 Contracts Coordinator

Timely contract assembly and completion is essential to reducing financial risks (e.g., from rapid increases in material costs) and schedule risks (e.g., from inability to start projects as planned). The Integrated Water Services Administration division has experienced an exponential increase in the volume of contract-related work due to the growth of the water and wastewater capital programs, the expanded CA Wastewater service and the adoption of the 30-year Regional Water Supply 2022 Master Plan.

Initiative 2a-2.1 seeks to convert existing auxiliary hours to one regular ongoing Contracts Coordinator position to meet the increasing demand for contract management, coordination and related contracts and records management functions within the department.

2a-2.2 Purchaser

The Integrated Water Services purchasing division has operated with one purchaser for over a decade. Integrated Water Services' staff, budgets, and purchasing needs, both for operating and capital, have increase significantly over that period. With more buying comes more legal and financial risk, and trained purchasers provide critical first-stage advice to avoid later stage disputes or litigation matters.

Initiative 2a-2.2 seeks to create a new regular ongoing Purchaser position in the Legal & Risk Management division to increase support for the Integrated Water Services centralized purchasing function and increase organizational capacity by freeing up specialized staff to focus on service delivery and spend less time on procurement activities.

2a-8.1 Water Quality Sampling Technician (Regular)

The CRD is required to meet drinking water monitoring requirements to ensure compliance with provincial laws. Keeping monitoring and system oversight in step with regional growth in drinking water is part of its commitment to provide high-quality and safe drinking water to the region. The Greater Victoria Drinking Water System is rapidly expanding to meet the region's growth. Regulatory requirements for drinking water monitoring are growing relative to population growth and additional water sampling staff resources are needed to keep up.

Initiative 2a-8.1 seeks to increase existing Environmental Protection staff hours from a 7h per workday to 8h workday to achieve this.

2b-1.1 Dam Safety Program - Integrated Water Services

Integrated Water Services manages 23 water supply dams, 15 of which are directly related to the Regional Water Supply System. The remaining eight dams are located within three other water services: Magic Lake Estates on North Pender Island (4), Lyall Harbour/Boot Cove on Saturna Island (1), and Wilderness Mountain near East Sooke (3).

Integrated Water Services is responsible for the operation, maintenance, and surveillance of the dams, as well as regulatory compliance activities and resolving safety issues through capital and operational safety improvements. Dams are essential for storing water for delivery to customers, but they are inherently risky. The failure of a dam can result in catastrophic consequences, including loss of life, economic impacts (e.g., property damage), and environmental and social impacts.

The Dam Safety program is currently led by the Infrastructure Engineering division, with support from various divisions in Integrated Water Services and other parts of the organization. In accordance with regulatory requirements, staff conduct regular safety reviews and studies to assess the state of the infrastructure and compare the CRD's dam management approaches against best management practices. This monitoring has highlighted that the number of safety issues has been trending up since 2017. It has now become clear that to successfully manage dam-related risks moving forward the department needs a proactive strategy and dedicated, experienced staff with a robust understanding of the complexities of dam safety projects.

Initiative 2b-1.1 seeks to consolidate resources and create a dedicated Dam Safety division with operational and engineering staff to operate, maintain and monitor dams in a 'safe condition', prioritize and resolve known deficiencies, identify and manage new risks, adapt to changing climatic conditions, and ensure compliance with the Dam Safety Regulation and Water Sustainability Act.

Juan de Fuca Water Distribution Commission – October 3, 2023
Service Planning 2024 – Water Community Need Summary

As a starting point, the division seeks to create two new regular ongoing positions in 2024 in the Infrastructure Engineering and the Water Infrastructure Operations divisions to start this process. Additional resources requests are expected to follow in 2025 and 2026 as the function becomes established.

2. Planned changes in 2025

There is one initiative planned for 2025, shown in Table 2. The CRD Board will consider approval next year.

Table 2. Forecast of Future Initiatives: Water Community Need

Initiative	Implementation year(s)	Staff impacts (2025)	Incremental cost (2025)	Funding source
2b-2.1 Utility Operator Team Lead – Water Operations	2025-ongoing	1 New Ongoing	\$153,000	Fee-for-service & Requisition

The information in Table 2 also reflects the business case costs.

2b-2.1 Utility Operator - Water Operations

The Water Operations division maintains and operates the Juan de Fuca Water Distribution system for Colwood, Langford, Metchosin, View Royal, Sooke, Highlands and the Juan de Fuca Electoral Area (East Sooke), serving approximately 60,000 customers. The system continues to expand due to development and, as the system ages, additional maintenance and infrastructure renewal is required. The Water Operations division has identified several challenges related to the system's reliability, and efficiency including aging infrastructure, maintenance frequency, and increasing demand.

To address these challenges, initiative 2b-2.1 seeks to create one new regular ongoing Utility Operator position. This position will be responsible for ensuring operational activities are planned in a safe manner and compliant with regulatory requirements, while increasing the resilience of the drinking water systems.

CONCLUSION

Capital Regional District (CRD) staff are progressing initiatives identified in the 2023-2026 CRD Corporate Plan, including the Board Priorities. The CRD Board and commissions with delegated authorities determine resourcing through the annual review and approval of the provisional financial plan. To support decision-making, staff provide recommendations on funding, timing and service levels through the service and financial planning processes.

RECOMMENDATION

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

Submitted by:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

ATTACHMENT

Appendix A: Community Need Summary – Water

2 Water



Safe drinking water and a resilient water supply

01 Strategy

STRATEGIES & PLANS

- › Regional Water Supply Strategic Plan
- › Regional Water Supply Master Plan 2022-2050
- › Regional Growth Strategy

CORPORATE PLAN GOALS

- 2a High quality, safe drinking water
- 2b Reliable & efficient drinking water transmission system

02 Contacts

Alicia Fraser, General Manager, Integrated Water Services	@ email	T. 250.360.3061
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Glenn Harris , Senior Manager, Environmental Protection	@ email	T. 250.360.3090
Jan Van Niekerk, Senior Manager, Customer & Technical Services	@ email	T. 250.474.9655
Joseph Marr , Senior Manager, Infrastructure Engineering	@ email	T. 250.474.9656
Shayne Irg, Senior Manager, Water Infrastructure Operations	@ email	T. 250.474.9661

03 Operating Context

ACHIEVEMENTS IN 2023

Infrastructure Engineering:

1. Started procurement of a design consultant for replacement of sections of Regional Supply Main No.3 and No.4. These projects will replace aging infrastructure and improve seismic resilience in the regional transmission system. High quality, safe drinking water.
2. Completed Phase 1 and started Phase 2 of the Regional Water Development Cost Charge Program. The need for such a program was identified in the CRD 2023-2026 Corporate Plan and will be used to fund future growth-related regional water supply system improvements.
3. Completed major projects in the Juan de Fuca Water distribution system including two new pump stations and three water storage tanks. These projects replaced aging infrastructure and provided additional capacity for growth within the Juan de Fuca Water Distribution system.

Watershed Protection:

1. Completion of two autogates to prevent recreation driven trespass into the Greater Victoria Water Supply Area and public safety around the Goldstream Water Treatment Facilities.
2. Completion of an upgraded Goldstream Entrance to the Greater Victoria Water Supply Area to provide more functional access control, security and visible security presence.
3. Implementation of an infrared wildfire detection camera on a tower on Mount Healy for more effective surveillance and monitoring of any wildfire starts in the Sooke Water Supply Area (WSA).

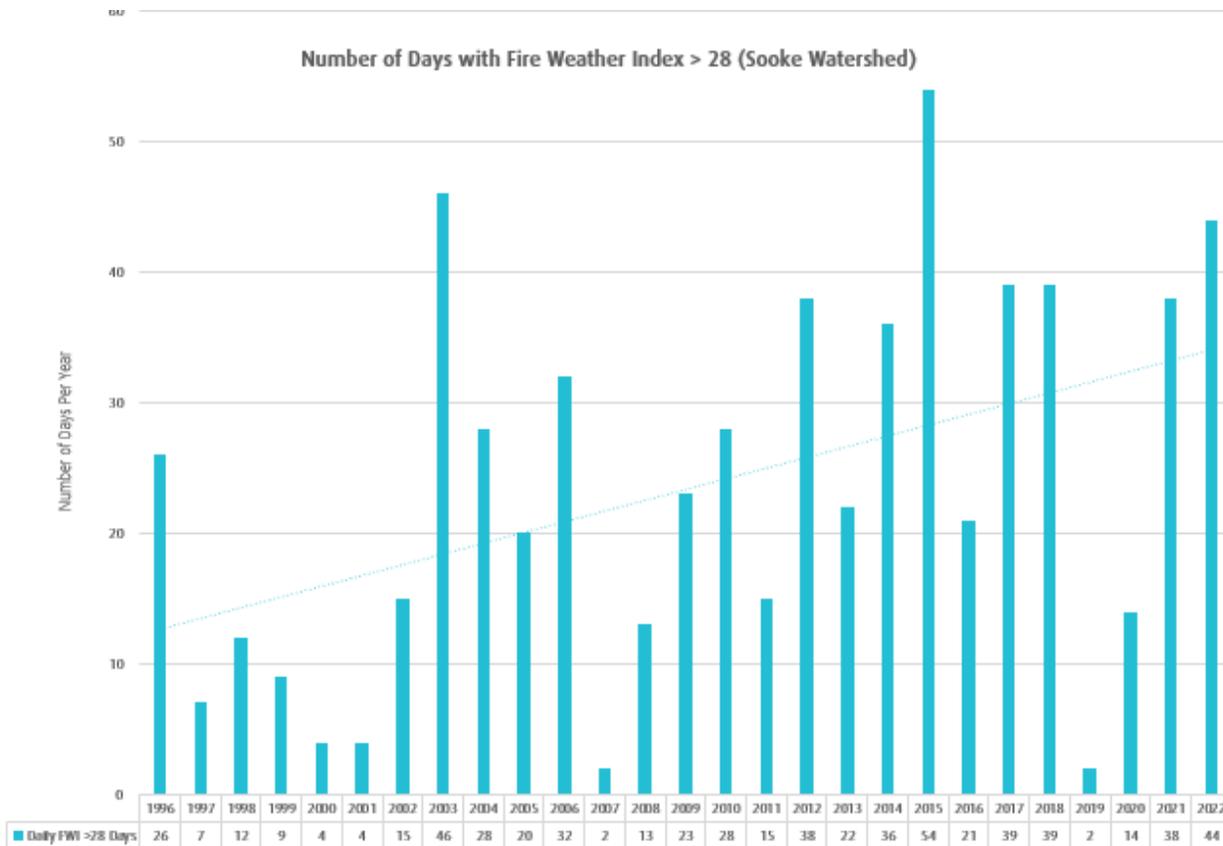
FACTORS THAT WILL AFFECT OUR OPERATIONS IN 2024 AND BEYOND

- **Security and patrols:** there is an ongoing need to monitor for and respond to recreational pressure into the Greater Victoria Water Supply Area from Sooke Hills Wilderness Regional Park and from the rapidly developing residential area around Langford and Goldstream. During Extreme Fire Danger Rating, this creates additional risk to the Greater Victoria Water Supply Area and additional pressure on the Watershed team.
- **Climate Action:** the most significant risks for water services relate to climate and environmental changes. Predicted trends of drier, hotter summers will impact the water services in several ways:
 - Demand for water, including for local agricultural activities – this is monitored closely and evaluated against historical trends. Model predictions are updated for areas exhibiting higher than predicted demands. This will inform future infrastructure upgrades to meet growing demands.
 - Water quality may be affected due to increased biological growth in the source water and distribution system. The 2022 Regional Water Supply Master Plan recommends implementing filtration as a step in the treatment process by 2037.
 - In the Greater Victoria Water Supply Area, increasing periods of elevated wildfire risk, peak flows from winter storms, drought stress on trees which could lead to increased mortality and forest pests/diseases.
 - Increased risk of power outages.

- **Infrastructure Vulnerability, Resiliency, and Emergency Preparedness:** there are increases in operational and system maintenance demands from a growing region combined with aging infrastructure. The 2022 Regional Water Supply Master Plan identified a strategy to address supply (quantity) and critical delivery infrastructure (redundancy) needs over the next 30 years. In addition to continuing to replace and refresh our existing assets to ensure they remain in a state of good repair, preliminary studies will also commence on the large elements identified in the Regional Water Supply Master Plan.
- **Asset Management:** the ongoing trend in reviewing, updating and completing asset management plans and the continuous upgrading, replacement and growth of assets in the water and wastewater systems rely on having an up-to-date asset registry, as well as an asset onboarding process. Both the Scottish Water Review in 2018 and the EMA Readiness Assessment of 2020 highlighted the need for a reliable asset registry for Water and Wastewater.
 - The risk of assets not being maintained, replaced in a timely manner and failing could impact the CRD's ability to provide the expected water and wastewater level of service and could even result in environmental and public health and safety risks.
 - The asset registry is an important step in ensuring that assets are captured in the Maintenance Management System and Preventative Maintenance Plans are developed. This information is also critical with regards to capital and financial planning for the utility services.
- **Operational cost increases:** the costs of essential water system operating supplies, such as disinfection chemicals, have been increasing 30-40% year over year which is impacting the cost-of-service delivery. This trend has been seen across North America.
- **Regional Water Supply Strategic Plan (2017):** Actions and initiatives to support the strategic priorities and commitments will be updated, starting in 2023. The revised plan, which will be published in 2024, will look to address future needs for the 2025-2029 period.
- **Rate Structure Review:** A new service delivery model for First Nations water servicing is being advanced with implementation expected in late 2023/early 2024. Through the agreement, the Regional Water Supply Service will become the service provider for participating First Nations governments.

OPERATIONAL STATISTICS

An example of the effect of climate change on the number of days of elevated wildfire risk for the Greater Victoria Water Supply Area:



04 Services

The services listed below rely on the support of several corporate and support divisions to operate effectively on a daily basis. More information about these services is available in the Corporate Services and Government Relations Community Need Summaries.

Water Supply & Distribution

Wholesale water supply to approximately 400,000 consumers in Greater Victoria and residents in three municipalities on the Saanich Peninsula, water distribution system within Langford, Sooke, View Royal, Colwood, East Sooke, Metchosin and Highlands and the small water systems in the Electoral Areas (EAs) supported through the following key service areas:

SERVICE BUDGET REFERENCES¹

- › 2.670 Regional Water Supply
- › 2.680 Juan de Fuca Water Distribution
- › 2.610 Saanich Peninsula Water
- › Small water systems in the Electoral Areas

1. WATER SYSTEMS OPERATIONS AND MAINTENANCE

Description

Water treatment, supply and distribution system operation and monitoring. System and facility maintenance, consumables management and preventative maintenance. Respond to water main breaks and other system emergencies.

What you can expect from us

- ▶ 24/7 water treatment operations for two facilities for Greater Victoria
- ▶ Supply and distribution system operation
- ▶ System monitoring
- ▶ Customer service
- ▶ System and facility maintenance
- ▶ Consumables management
- ▶ Component preventative maintenance
- ▶ 24/7 emergency response to water main breaks and other system emergencies

Staffing Complement

Water Infrastructure Operations: **61 FTE (including 5 Managers and Administrative Support)**

¹ Service budget(s) listed may fund other services

2. INFRASTRUCTURE PLANNING

Description

Strategic asset management for all services/systems including modeling and capacity analysis, vulnerability assessment, infrastructure renewal plans.

What you can expect from us

- ▶ Asset management and capital planning
- ▶ Adjust plans for 15 water services
- ▶ System expansion and growth planning
- ▶ Proactive capital planning for all 15 water services with a 15-year outlook
- ▶ Ongoing condition assessment to inform the capital program and ensure water systems assets remain in a state of good repair
- ▶ Incorporating growth and expansion demands into future plans

Staffing Complement

Water Supply Engineering and Planning: **4 FTE**

Water Distribution Engineering and Planning: **6 FTE (including 1 Manager)**

3. CAPITAL PROJECT DELIVERY

Description

Project design, procurement and delivery of capital projects annually on time/budget. Main installations, dam upgrades, equipment replacement and capital projects support.

What you can expect from us

- ▶ Infrastructure renewal and upgrades
- ▶ Capital Program for 15 water services (including Salt Spring Island)
- ▶ Engineering support of utility operations for the 15 water services.

Staffing Complement

Capital Projects **8 FTE (including 1 Manager)**

Watershed Protection

Forest land management of the 20,611 hectares of the Greater Victoria Water Supply Area to ensure high-quality source drinking water for the Regional Water Supply System through following service areas:

SERVICE BUDGET REFERENCE²

- › 2.670 Regional Water Supply

5. WILDFIRE, SECURITY & EMERGENCY RESPONSE

Description

Watershed security, wildfire and spill preparedness, prevention and response.

What you can expect from us

- ▶ 24/7 watershed emergency duty officer standby
- ▶ Security/wildfire patrols and standby (weekends and holidays; daily during elevated fire conditions)
- ▶ Wildfire detection air patrol during high and extreme fire hazard; infrared camera detection for the Sooke WSA

Staffing Complement

Watershed Protection: 8 FTE (including 1 Manager and Administrative Support) + leadership support

6. WATERSHED OPERATIONS

Description

Silviculture, forest health and forest fuel management; invasive plant management; vegetation management and road maintenance, upgrades and rehabilitation

What you can expect from us

- ▶ Winter/summer road maintenance
- ▶ Culvert and bridge upgrades to accommodate higher peak flows to higher standards and changing climate
- ▶ Forest fuel and forest resilience treatments and fire smarting maintenance including brushing, thinning and chipping or burning of woody debris
- ▶ Brushing dam faces and around facilities, gates and fences
- ▶ Danger tree assessment and removal along roads and powerlines
- ▶ Invasive plants management

Staffing Complement

Watershed Protection: 10 FTE (including 1 Manager) + leadership support

² Service budget(s) listed may fund other services

7. RESOURCE PLANNING

Description

Wildlife management, ecological inventories and analyses, risk assessment and management, and GIS and data management.

What you can expect from us

- ▶ Development of a comprehensive watershed hydrology monitoring program
- ▶ Annual forest health survey
- ▶ Partnering in climate change and other research in the Greater Victoria Water Supply Area
- ▶ Management of beaver, Canada geese and bullfrogs
- ▶ School and public tours of the Water Supply Area and facilities

Staffing Complement

Watershed Protection: 8 FTE (including 1 Manager) + leadership support

ENVIRONMENTAL PROTECTION

Regulatory and non-regulatory services and a support role across the organization that focuses on enhanced integration of drinking water quality protection programs and integration of communication initiatives.

SERVICE BUDGET REFERENCES:³

- | | |
|---|---|
| › 1.531 Stormwater Quality Management - Sooke | › 3.707 On Site System Management Program |
| › 1.576 Environmental Engineering Services | › 3.720 Saanich Peninsula Liquid Waste Management Plan - Implementation |
| › 1.578 & 1.579 Environmental Protection | › 3.755 Regional Source Control Program |
| › 3.701 Millstream Remediation | |

8. WATER QUALITY 1.0

Description

Monitoring, data analysis, assessment, reporting and technical advice to meet water quality regulatory requirements.

What you can expect from us

- ▶ Source water and distribution system monitoring, assessment and reporting
- ▶ Physical, chemical and biological analytical services, assessment and reporting

Staffing Complement

Environmental Protection: 6 + lab staff FTE + leadership support

³ Service budget(s) listed may fund other services

9. DEMAND MANAGEMENT

Description

Research and data to inform capital planning, water conservation, and communications and education.

What you can expect from us

- ▶ Accurate data
- ▶ Per capita targets (residential and Industrial, Commercial and Institutional)

Staffing Complement

Environmental Protection: **1.0 FTE + leadership support**

10. CROSS CONNECTION CONTROL

Description

Identification, registration, tracking and reporting of potential cross connection contamination sources in the Greater Victoria Drinking Water System.

What you can expect from us

- ▶ Contamination prevention through facility inspections, testing and education for backflow prevention devices
- ▶ Monitor and track (>28,000) backflow prevention devices

Staffing Complement

Environmental Protection: **4.6 FTE**

11. COMMUNICATIONS & ENVIRONMENTAL EDUCATION

Description

Public education and engagement in the region to promote sustainable behavior through campaigns, initiatives and services. Position is shared 80:20 with Wastewater communications support.

What you can expect from us

- ▶ Increased public awareness of CRD messages and subsequent behavior changes (declining trend in per capita and per sector water use)

Staffing Complement

Environmental Protection: **0.8 FTE + leadership support**

05 Initiatives

Below are the initiatives listed in the [Capital Regional District 2023-2026 Corporate Plan](#) and the related initiative business cases (IBCs), including financial and staffing impacts, proposed for 2024. The financial impacts reflect full program costs, including cost of staffing.

Initiative	Implementation year(s)	Impacts in 2024
2a-1 Update the Regional Water Supply Strategic Plan	2023	-
2a-2 Implement the 2022-2050 Regional Water Supply Master Plan	Ongoing	-
▶ NEW IBC 2a-2.1 Contracts Coordinator	2024-ongoing	\$92K fee-for-service 1 Auxiliary Converted
▶ NEW IBC 2a-2.2 Purchaser	2024-ongoing	\$205K fee-for-service + requisition 1 New Ongoing
2a-3 Review water rates in service agreements with First Nations	2024	Continued negotiation and implementation
2a-4 Review and determine appropriate level of water subsidy used for agriculture	2024	Ongoing, no change in subsidy in 2024
2a-5 Active forest/ecological management to enhance forest health and resilience in the Water Supply Areas	Planned for 2025	-
2a-6 Collect and analyze information for climate adaptation, reservoir management and the siting of new major infrastructure	Ongoing	-
2a-7 Implement a development cost charge program for the Regional Water Service	2024	-
▶ NEW IBC 2a-8.1 Water Quality Sampling Technician*	2024-ongoing	\$38K other Increase from 7 to 8-hour shifts

Initiative	Implementation year(s)	Impacts in 2024	
2b-1 Enhance safety of aging dams, meet increasing regulatory requirements and mitigate against the risk of failures ▶ NEW IBC 2b-1.1 Dam Safety Program – Integrated Water Services	2024 2024-ongoing	\$375K <small>fee-for-service</small>	2 New Ongoing
2b-2 Invest in and maintain capital assets, and undertake regulatory monitoring, to service current and future population and climate adaptation ▶ FUTURE IBC 2b-2.1 Utility Operator Team Lead – Water Operations	2024 Planned for 2025	\$153K <small>fee-for-service + requisition</small>	1 New Ongoing

**Not captured in the 2022-2026 Corporate Plan*

06 Performance

GOAL 2A: HIGH QUALITY, SAFE DRINKING WATER

Targets & Benchmarks

The performance measures link to the CRD's goals of safe, sustainable and resilient water resources for the Capital Region.

Measuring Progress

Performance Measure(s)	Service	Type	2022 Actual	2023 Forecast	2024 Target
1. Regulatory Compliance¹	Regional Water Supply	Quantity	None	None	None
	Juan de Fuca Water Distribution	Quantity	None	None	None
	Saanich Peninsula Water Supply	Quantity	None	None	None
	Local Services	Quantity	8	3	None
2. Water Quality Sampling (raw)²	Regional Water Supply	Quantity	15,589	17,174	17,174
	Local Services	Quantity	3,670	4,218	4,218
3. Water Quality Sampling (treated)³	Regional Water Supply	Quality	1,787	1,888	1,888
	Juan de Fuca Water Distribution	Quality	7,531	7,378	7,762
	Saanich Peninsula Water Supply	Quality	2,102	3,701	3,701
	Local Services	Quality	24,904	17,893	17,893
4. Demand⁴	Regional Water Supply	Quantity	359	340	340
	Juan de Fuca Water Distribution	Quantity	314	300	300
	Saanich Peninsula Water Supply	Quantity	479	420	420
	Local Services	Quantity	227.8	216.5	215.8

¹ Non-compliance with Island Health, provincial and federal regulatory requirements and operational certificates that result in Boil Water Advisories or Do Not Consume Events

² Water quality samples analyzed annually from source reservoirs (raw water)

³ Water quality samples analyzed annually from transmission/distribution systems (treated water)

⁴ Average day per capita water use (litres per capita per day)

Discussion

Measure 4. Demand: average day per capita water use (litres per capita per day)

- Regional Water Supply: Demand is plateauing due to the replacement of inefficient appliances and a surge of new high-density buildings with built-in water efficiencies
- Saanich Peninsula Water Supply: Driven by agricultural demand and lack of residential densification
- Local Services: Values represent the average of twelve services

GOAL 2B: RELIABLE & EFFICIENT DRINKING WATER TRANSMISSION SYSTEM

Target & Benchmarks

The performance measures link to the CRD’s goals of safe, sustainable and resilient water resources for the capital region.

Measuring Progress

Performance Measure(s)	Service	Type	2022 Actual	2023 Forecast	2024 Target
5. Operating cost⁵	Regional Water Supply	Quantity	\$111	\$112	\$115
6. Energy usage⁶	Regional Water Supply	Quantity	62.5	66	66
7. Watershed water release⁷	Regional Water Supply	Quantity	11,229	11,500	12,000
8. Water-main leak repairs⁸	Juan de Fuca Water Distribution	Quantity	8.2	10	8
	Local Services	Quantity	1	1	1
9. Preventative maintenance⁹	Regional Water Supply	Quality	86%	96%	98%
	Juan de Fuca Water Distribution	Quality	84%	94%	96%
	Saanich Peninsula Water Supply	Quality	97%	98%	98%
	Local Services	Quality	91%	98%	98%

⁵ Annual operating cost per megaliter of drinking water treated and supplied/distributed

⁶ Annual energy use (kWh) per megaliter of drinking water treated and supplied/distributed

⁷ Volume of raw water released annually from Regional Water Supply watersheds to rivers to support fish habitat (megaliters)

⁸ Number of water-main leak repairs and service line leaks annually per 100 kilometers of pipe (distribution systems)

⁹ Preventative maintenance completed (% of planned)

Discussion

- N/A

07 Business Model

Water Supply & Distribution, Watershed Protection

PARTICIPANTS **Regional Water Supply:** All Municipalities, Juan de Fuca Electoral Area, First Nations (via Distribution Systems)

Saanich Peninsula Water Supply: Municipalities (Central Saanich, North Saanich, Sidney)

JDF Water Distribution: Langford, Colwood, View Royal, Metchosin, Highlands, Sooke, Juan de Fuca Electoral Area

Local Water Service Areas in the Electoral Areas

FUNDING SOURCES **Regional Water Supply:** Bulk water sales revenue

Juan de Fuca Water Distribution System: Retail water sales revenue in West Shore Municipalities

Saanich Peninsula Water: Wholesale water sales revenue

GOVERNANCE [Regional Water Supply Commission](#)
[Water Advisory Committee](#)
[Saanich Peninsula Water Commission](#)
[Juan de Fuca Water Distribution Commission](#)
[Various Local Services Commissions](#)

Environmental Protection

PARTICIPANTS **Water Quality Service:** Allocation from Integrated Water Services and Local Service Areas (LSA) from the municipalities of Regional Water Supply area, Juan de Fuca and various local service areas, Sidney, North Saanich, Central Saanich and Peninsula First Nations

Demand Management, Cross Connection Control Services: water rate from all Municipalities and Electoral Areas

Communications and Environmental Education: all Municipalities and Electoral Areas

FUNDING SOURCES Water rate and requisition

GOVERNANCE [Regional Water Supply Commission](#)
[Water Advisory Committee](#)
[Saanich Peninsula Water Commission](#)
[Juan de Fuca Water Distribution Commission](#)
[Various Local Services Commissions](#)



Making a difference...together

**REPORT TO JUAN DE FUCA WATER DISTRIBUTION COMMISSION
MEETING OF TUESDAY, OCTOBER 3, 2023**

SUBJECT **Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget**

ISSUE SUMMARY

To provide an overview of the draft 2024 Juan de Fuca Water Distribution Service budget, highlighting the proposed significant changes from the 2023 budget. The report generally follows the sequence of information provided in the attached draft budget document (Appendix A).

BACKGROUND

The draft 2024 Juan de Fuca (JDF) Water Distribution Service budget has been prepared for the JDF Water Distribution Commission's (Commission) consideration. The Commission will make budget recommendations to the Capital Regional District (CRD) Board through the Committee of the Whole in October. As in previous years, the draft 2024 JDF Water Distribution Service budget has been prepared considering the CRD Board's 2024 service planning and financial expectations, which include identifying opportunities to realign or reallocate resources and seek potential efficiencies between departments and services, reviewing adjustments related to regulatory compliance, and undertaking infrastructure improvements to maintain service levels across the service area, including incremental ongoing operational and maintenance requirements in the expanding service area. The following sets out the key components of the budget.

2023 Year End Financial Projections

Year-end revenue and expenditure projections have been established and estimated variances are summarized as follows:

Budget Item	Projected Variance (\$)	Projected Variance (%)
Distribution System operating expenditures	-\$32,407	-0.4%
Bulk water purchase cost	\$223,240	3.1%
Capital expenditures and transfers	\$495,081	6.7%
Debt servicing - principal and interest expenditures	-\$3,680	-0.2%
Revenue	\$682,234	2.8%

The Equipment Replacement Fund (ERF) expenditure allowance made in the 2023 budget from ERF was \$1,080,000, however is projected to exceed budget by \$206,464 as a result of early replacement of vehicles due to failure and inflationary costs associated with electric vehicles.

Rate Base

The rate base for 2024 has increased by \$10,792,473 from 2023. This increase relates to physical plant additions, including distribution pipes, water meters and services, and pump station upgrades (Pages 3 & 4 of the budget document).

Juan de Fuca Water Distribution Commission – October 3, 2023**Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget**Revenue Requirement

The revenue requirement for 2024 has increased by \$1,308,649 over 2023. This is resulting from an increase in operational expenses of \$292,147, increased depreciation expenses of \$282,606 net of expired depreciation on existing assets, and a net increase in the return on the rate base of \$703,300. The increase in the return on the rate base is a result of the growing asset base (Page 5 of the budget document).

Operating Budget

The 2024 operating budget reflects an increase in non-discretionary expenses such as negotiated wage/salary increases, corporate support service allocation increases, maintenance expenses due to new infrastructure additions, and other operating expense increases such as electricity costs. The net core 2024 operating budget increase is \$292,147. Operating budget forecasts for 2025 through 2028 have been presented for information.

As reported in recent years the distribution system continues to expand at an accelerated rate due to continued growth in new land development in the service area over the last several years. For context, the following summarizes the additions in 2023 (over 2022) to the asset units in the major categories, all of which require regular maintenance to ensure reliable performance:

		5 Year Increase
Water distribution mains (m)	3,000	4.5%
Service laterals	400	9.7%
Fire hydrants	35	13.0%
Line valves	140	12.8%
Flush, air and check valves	21	13.0%
Water meters <50mm	350	8.9%
Water meters =/>50mm	50	29.1%

As noted previously, with at least four major developments underway in the service area, including South Skirt Mountain, Bear Mountain, Royal Bay and Centre Mountain, it is expected that the water system asset base will continue to grow significantly in the near future as initial water servicing infrastructure is installed which will impact operating and maintenance costs. Given the size of the developments and anticipated phasing and build-out timelines, it is expected that there will be an element of 'revenue lag' before revenue generated from retail water sales in these and other developments offsets the initial infrastructure operating and maintenance costs. Staff have been directed to examine this issue and possible rate options to mitigate the budget implications through a Water Rate Methodology and Option Study. Due to this study being delayed, any potential changes to the rate methodology will be presented to the Commission in 2024.

Capital Budget

There are several capital projects planned for 2024 with a total value of \$20,440,000 including \$8,065,000 in projects that are in progress or are multi-year projects, and \$1,020,000 in Development Cost Charge (DCC) projects. There are also \$2,910,000 in projects cost-shared with the Regional Water Supply Service. See pages 10 to 23 of the budget document for capital plan details.

A large portion of the work in progress and resulting capital expenditure is related to several major projects summarized below:

Juan de Fuca Water Distribution Commission – October 3, 2023**Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget****3**

1. Project 16-05 Comprehensive Pump Station Upgrades - This project is to upgrade aging pump stations within the JDF Water Distribution system. In 2024 the planned upgrades are to Copper Mine Pumpstation #1 and #2 located in East Sooke. The planned carry-forward of \$1,100,000 is a result of delays encountered during the construction phase of the previous pump station project related to supply chain issues. The project is currently being designed in 2023 with tendering being completed in the first quarter of 2024 and construction expected to be completed by the first quarter of 2025.
2. Project 20-03 Asbestos Cement (AC) Pipe Replacement Program - The planned carry-forward of \$3,000,000 is related to the majority of 2023 pipe replacement projects being delayed until 2024 as focus was shifted to Goldstream Avenue Water main upgrade project in 2023. Design for replacements will be completed in 2023 and construction will take place in 2024. Project locations include Sooke Road and Belvista Place (Sooke), Painter Road (Colwood), Milburn Drive (Colwood), Ocean Boulevard (Colwood) and Lagoon Road (Colwood).
3. Project 24-01 Charters Road – This project includes replacement of watermain on Charters Road as part of larger transportation project being undertaken by the District of Sooke
4. Project 24-02 Highway 14 Water Main Relocation – This project includes relocation of CRD watermain in Ministry of Transportation and Infrastructure (MOTI) right of way. Project work is proposed to be bundled within MOTI's overall project.
5. Project 21-01 Sooke Henlyn Supply and Distribution Main – The start of this DCC project is dependent on development work. This work will not be complete in 2023, therefore the \$1,000,000 project has been carried-forward to 2024.

More than 70% of the 2024 capital plan is related to existing water infrastructure asset renewal. A five-year capital plan is presented for information. The total five-year (2024-2028) capital plan budget is currently \$58,874,000.

Capital and Debt Expenditures

JDF has multiple sources of funding for capital expenditures, including operating transfer to the water capital fund, equipment replacement fund reserve, DCC reserves and debt. The water capital fund is applied prior to drawing debt financing. For 2024, the operating transfer to the water capital fund is budgeted at \$7,346,169, with up to a maximum of \$4,500,000 debt funding. Additional projected water sales revenue and corresponding capital reserve fund transfer is expected to reduce the borrowing needs in 2024.

A loan authorization in the amount of \$14,800,000 was approved in 2021 to allow continued partial funding of the five-year capital plan. The upcoming debt retirements on existing borrowings are summarized as follows:

Loan Number	Retirement Date	Loan Amount
LA3782-118	April 2027	\$2,500,000
LA3782-124	April 2028	\$4,500,000
LA3782-127	April 2029	\$5,000,000
LA3981-137	April 2031	\$2,000,000
LA3981-145	April 2033	\$3,000,000
LA3981-150	April 2035	\$5,100,000
LA4379-15X	April 2038-2040	\$14,200,000

Juan de Fuca Water Distribution Commission – October 3, 2023**Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget**

When assessing key financial health indicators, the service maintains an affordable level of debt over the next five years. The percentage of revenue dedicated to debt costs is forecast to be between 9 and 11%, which is less than an annual benchmark rate of 25%, and debt funding for capital investment in each of the next five years does not exceed 40%. A summary indicator table is provided below:

Year	% Revenue for Debt	Capital Funded by Debt
2024	9.43%	22.02%
2025	10.43%	27.58%
2026	10.50%	11.13%
2027	10.07%	0.0%
2028	8.97%	0.0%

2024 debt expenditures for existing and new debt servicing are budgeted to be \$2,411,815, an increase of \$548,521 from 2023.

For 2024, the transfer to the vehicle/equipment replacement fund was increased to \$647,507 to reflect the growth in cost of future vehicle replacement. The reserve fund balance is estimated at \$549,196 at year end 2023 (See reserve schedule – Page 26 of the budget document).

The DCC projects will be funded entirely from the DCC reserve fund, which is projected to have a balance of \$10,717,005 at year end 2023 (See reserve schedule – Page 25 of the budget document).

Bulk Water Purchase

Based on the proposed 2024 budgeted water demand and Regional Water Supply wholesale water rate, the bulk water purchase budget has been set at \$7,689,300.

Water Demand

Total water demand in the service area is generally anticipated to continue to increase year over year, primarily due to growth in the service area. The 2023 year-end demand is projected to be 290,000 cubic metres over budget at 9,500,000 cubic metres.

The recommended 2024 water rate was calculated using a budget demand of 9,500,000 cubic metres (Page 7 of the budget document), which is an increase of 290,000 cubic metres from the volume used in the 2023 budget, but in alignment with the 2023 projected actuals.

Proposed 2024 Wholesale Water Rate

The proposed 2024 wholesale water rate is \$0.8094 per cubic metre, a 5.14% increase from the 2023 rate, subject to the Regional Water Supply Commission's approval.

Proposed Agricultural Water Rate

The proposed 2024 agricultural water rate was maintained at the 2023 rate of \$0.2105 per cubic metre, subject to the Regional Water Supply Commission's approval. The Regional Water Supply agricultural water rate budget funds the difference between the municipal retail water rate and the agricultural water rate. As directed by the Regional Water Supply Commission, the agricultural water rate is currently under review.

Juan de Fuca Water Distribution Commission – October 3, 2023**Juan de Fuca Water Distribution Service 2024 Operating and Capital Budget**

5

Proposed 2024 Juan de Fuca Water Distribution Service Retail Water Rate

The recommended retail water rate has taken into consideration the revenue required to meet operating and capital expenditures, debt obligations, the bulk water purchase expense, and the budget demand volume established for 2024. The proposed 2024 JDF Water Distribution Service retail water rate is \$2.6927 per cubic metre, a 5.74% increase from the 2023 rate (Page 8 of the budget document).

Retail and Wholesale Water Rate History and Projection

The retail and wholesale water rate history and projection is attached (Appendix C). The rates may be adjusted in the future to reflect actual revenue and expenditure circumstances and water demand volumes.

ALTERNATIVES*Alternative 1*

The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend that the Capital Regional District Board:

1. Approve the 2024 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2024 Juan de Fuca Water Distribution Service retail water rate of \$2.6927 per cubic metre, adjusted if necessary, by any change in the Regional Water Supply wholesale water rate;
3. Approve the increase of Equipment Replacement Fund expenditure for 2023 to \$1,287,000;
4. Direct staff to balance the 2023 actual operating deficit or surplus on the 2023 capital fund transfer;
5. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and
6. Direct staff to amend the Water Distribution Local Service Conditions, Fees and Charges Bylaw accordingly.

Alternative 2

That the Juan de Fuca Water Distribution Commission directs staff to bring back a revised 2024 Operating and Capital Budget for the Commission's consideration.

IMPLICATIONS*Financial Implications*

There are no financial implications of 2023 ERF funding increase, reserve balances are sufficient to fund the increase.

The 2024 operating and capital budget and resulting annual water rate have been prepared to meet the needs of the service. The proposed 2024 water rate generally aligns with the rate previously presented in the five-year rate projections, although the implications of the new approach to servicing First Nations were not previously reflected in the rate projections. The proposed 2024 rate would result in a \$34.19 annual increase in the cost of water for an average household.

CONCLUSION

The draft 2024 Juan de Fuca Water Distribution Service budget has been prepared for the Juan de Fuca Water Distribution Commission’s consideration. The Commission will make budget recommendations to the Capital Regional District Board through the Committee of the Whole in October. The draft 2024 Juan de Fuca Water Distribution Service budget has been prepared considering the requirement to maintain regulatory compliance, the on-going need to undertake infrastructure renewal to ensure the system operates reliably, and annual operational adjustments, including incremental maintenance requirements associated with new development infrastructure in the expanding service area.

RECOMMENDATION

The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend that the Capital Regional District Board:

1. Approve the 2024 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2024 Juan de Fuca Water Distribution Service retail water rate of \$2.6927 per cubic metre, adjusted if necessary, by any change in the Regional Water Supply wholesale water rate;
3. Approve the increase of Equipment Replacement Fund expenditure for 2023 to \$1,287,000;
4. Direct staff to balance the 2023 actual operating deficit or surplus on the 2023 capital fund transfer;
5. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and
6. Direct staff to amend the Water Distribution Local Service Conditions, Fees and Charges Bylaw accordingly.

Submitted by:	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

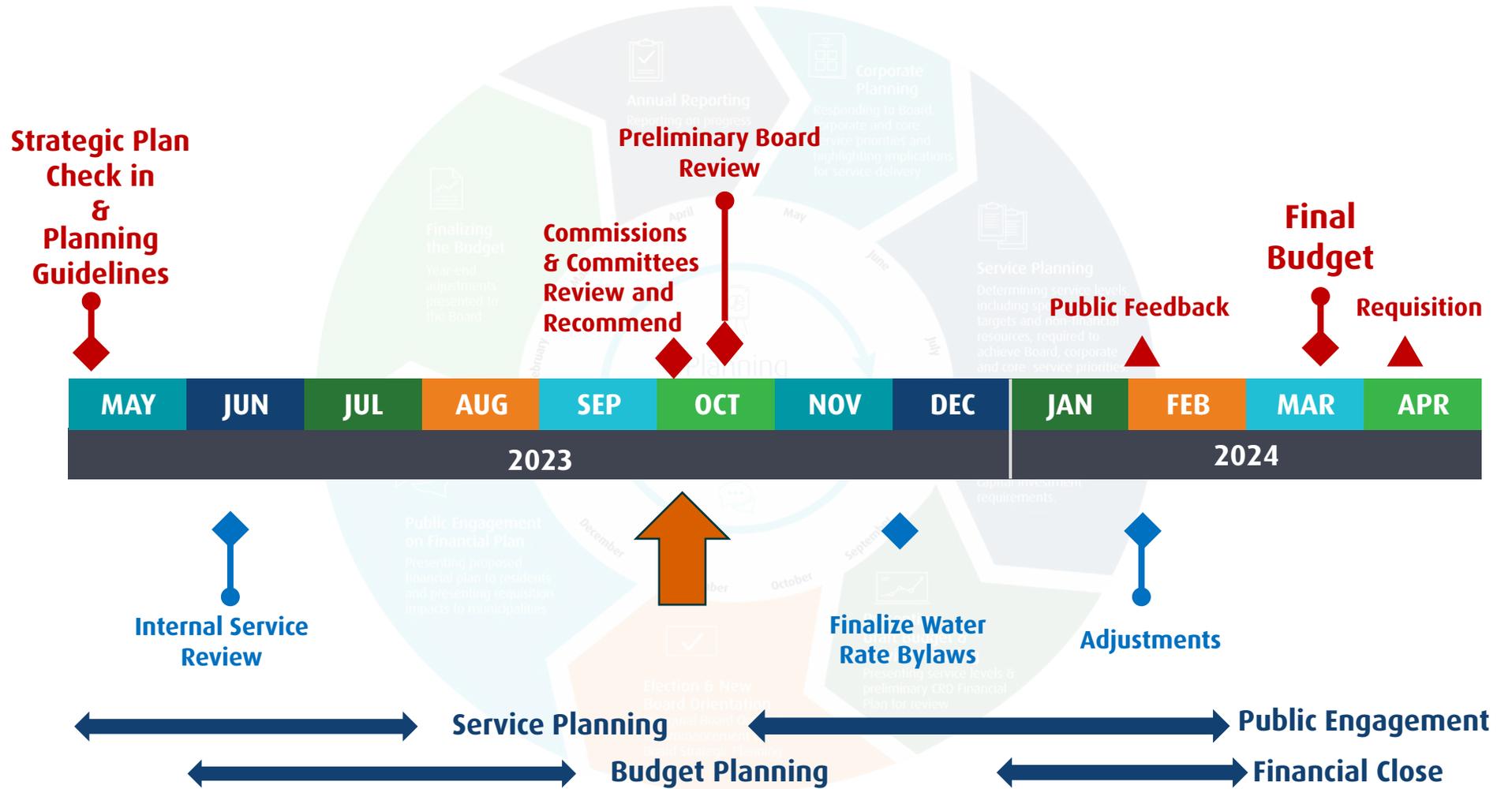
ATTACHMENTS

- Presentation: Juan de Fuca Water Distribution Service 2024 Budget Review
- Appendix A: 2024 Juan de Fuca Water Distribution Service Budget
- Appendix B: Long Term Debt Obligations Summary
- Appendix C: Retail and Wholesale Water Rate History and Projection

Juan de Fuca Water Distribution Service 2024 Budget Review

Juan de Fuca Water Distribution Commission
October 3, 2023

Budget Process Overview





2024 Budget Considerations

- 2023 Budget – year end budget projections
- Community Needs Summary
- Existing Asset Condition, Infrastructure Growth and Resiliency Needs
- Operating budget adjustments
- Capital funding & debt servicing
- Water demand projection and trends

Current System Overview

26,300 Service Connections



539 kilometers of Distribution Main



21 Operational Staff



2023 Year End Projections

Budget Item	Projected Variance (\$)	Projected Variance (%)
Distribution System operating expenditures	-\$32,407	-0.4%
Bulk water purchase cost	\$223,240	3.1%
Capital expenditures and transfers	\$495,081	6.7%
Debt servicing - principal and interest expenditures	-\$3,680	-0.2%
Revenue	\$682,234	2.8%

Equipment Replacement Fund (ERF) expenditure:
Projected to exceed budget by \$206,464

2024 Rate Base & Revenue Requirement

2024 Rate Base: \$10,792,473 Increase

2024 Cash Working Capital	\$971,809
Resulting 2024 change in physical plant	\$21,666,023
2024 construction work in progress (projected)	\$3,226,207

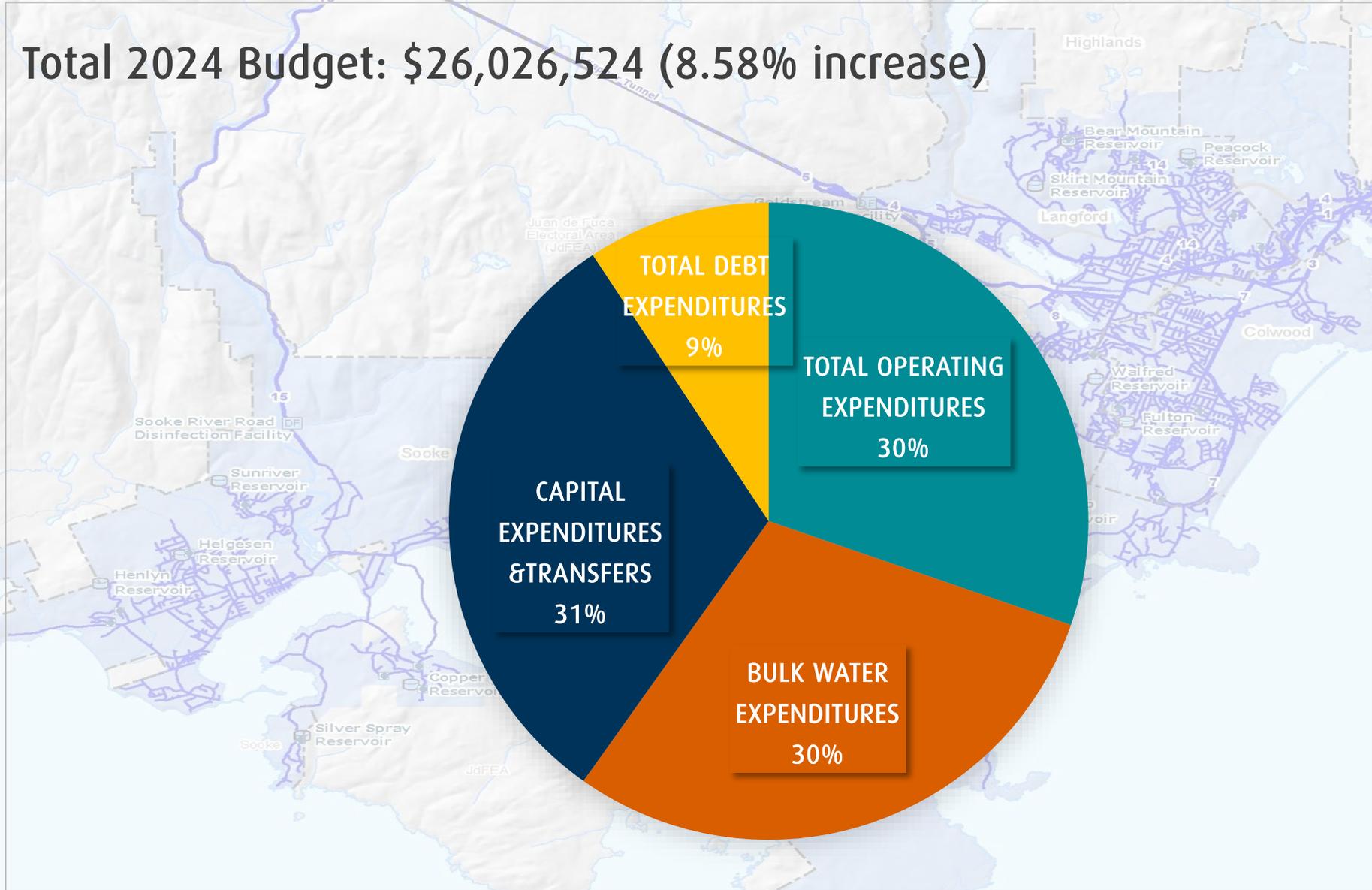
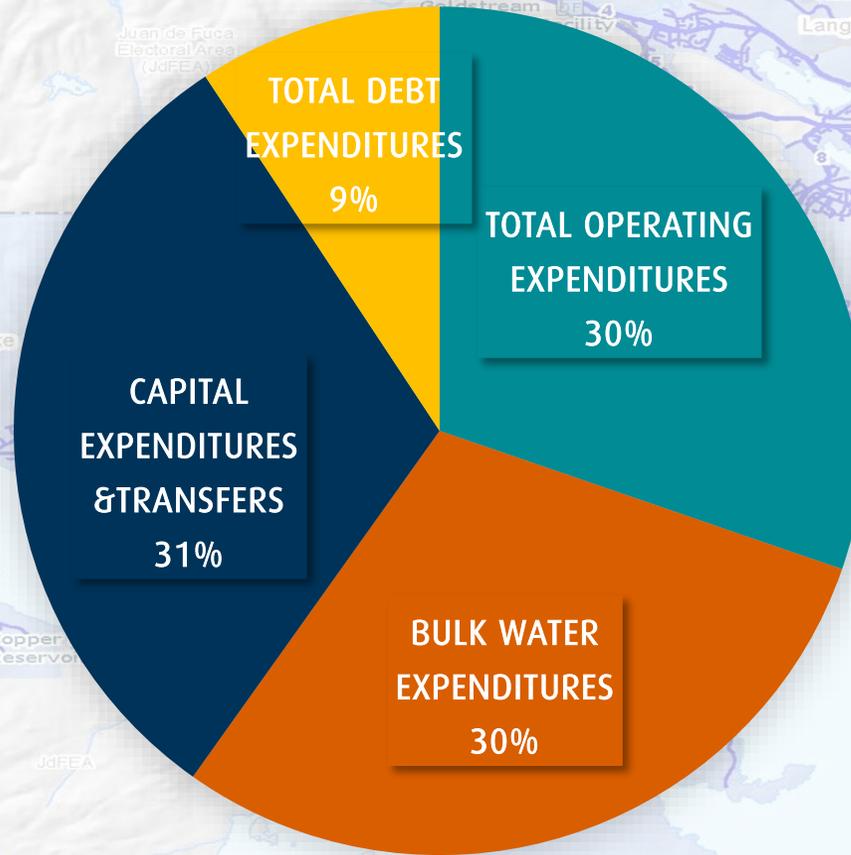
2024 Revenue Requirement: \$1,308,649 Increase

2024 - 2025 O&M expense (change)	\$292,147
2024 - 2025 depreciation (change)	\$282,606
Return on rate base (change)	\$703,300

2024 Budget Overview

Breakdown of Expenditures

Total 2024 Budget: \$26,026,524 (8.58% increase)

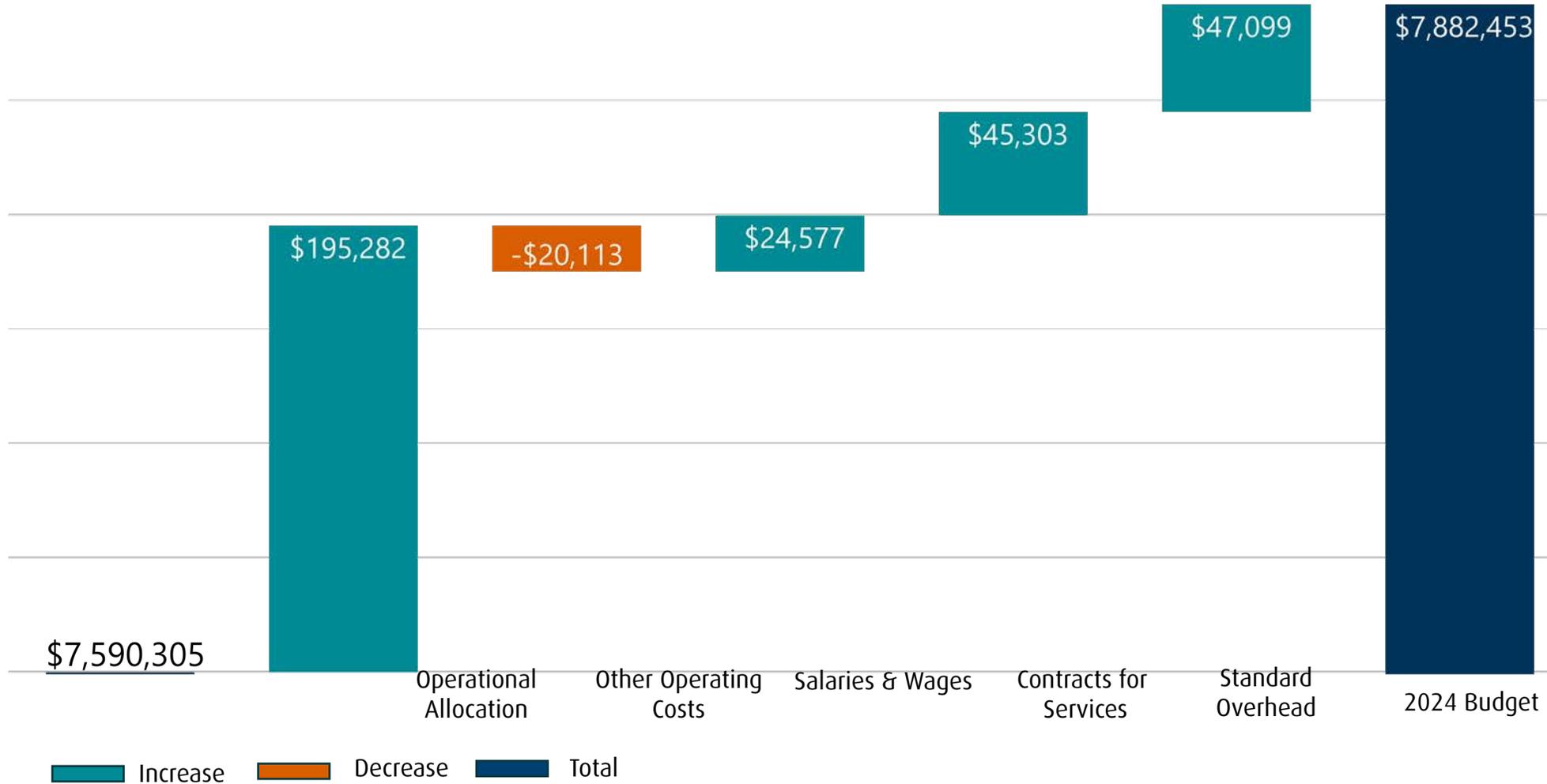


2024 Budget Overview Operating Expenditures

Overview:
Core Operations: \$7,882,453 (+3.85%)

Highlights:

- No service level change within JDF
- Continued Growth within Service
- Increase associated with inflationary increases



2024 Budget Overview

Capital Budget

Overview (millions)	JDF	50% of JDF/RWS Combo	Total	40
Project in Progress	\$ 8.065	\$ 1.060	\$ 9.125	
2024 JDF Capital Budget	\$20.440	\$ 1.455	\$21.895	
5-Year JDF Capital Budget	\$58.874	\$ 2.378	\$61.252	

+70% capital budget related to existing water infrastructure asset renewal

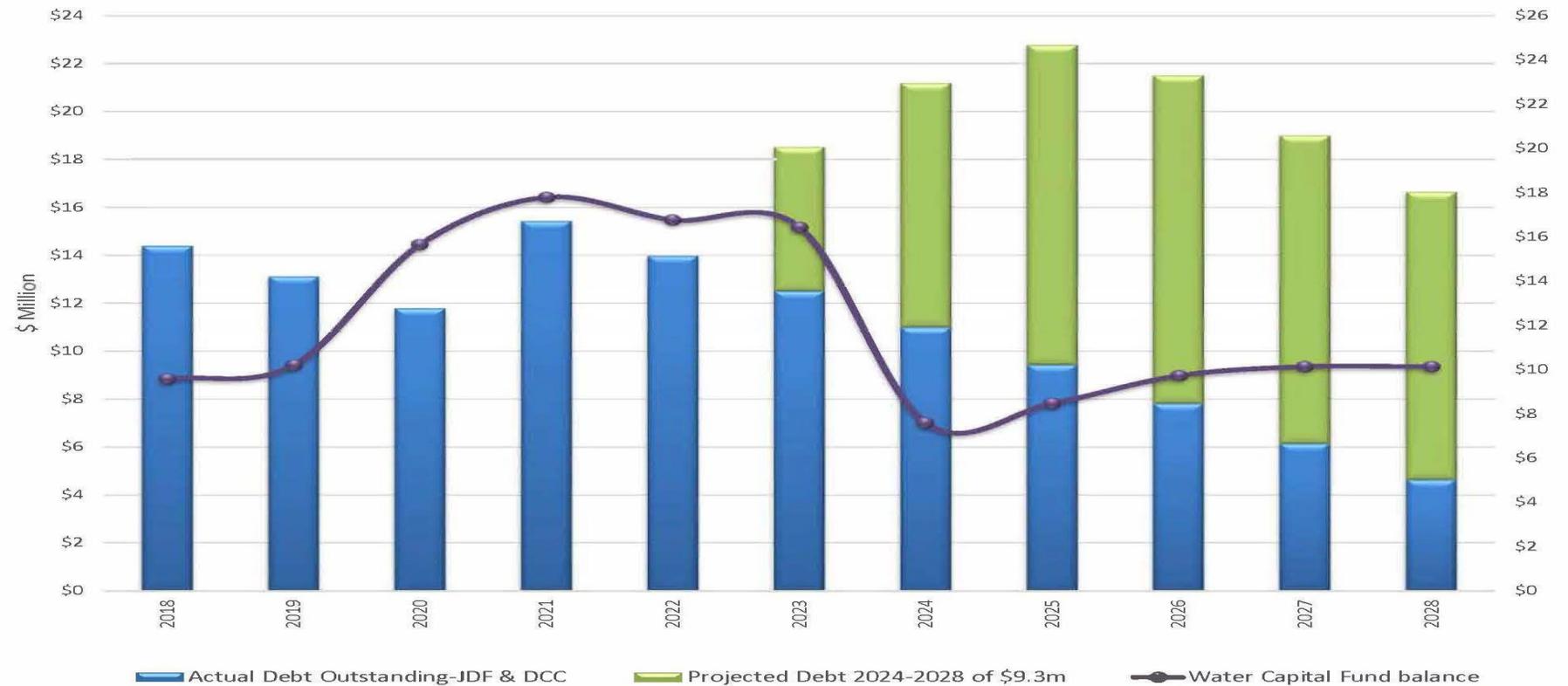


Key Projects:

- Comprehensive Pump Station Upgrades
- Asbestos Cement (AC) Pipe Replacement Program
- Charters Road Watermain Replacement
- Highway 14 Water Main Relocation
- Sooke Henlyn Supply and Distribution Main (DCC)

Outstanding Debt & Capital Funding

2024 Transfer	2024 Budget	Budget change (over 2023)
Water Capital Fund	\$7,346,169	\$604,969
Debt Reserve Fund	\$96,280	-\$47,000
Equipment Replacement Fund	\$647,507	\$58,050



2024 Budget Overview

Bulk Water Expenditure

Overview:

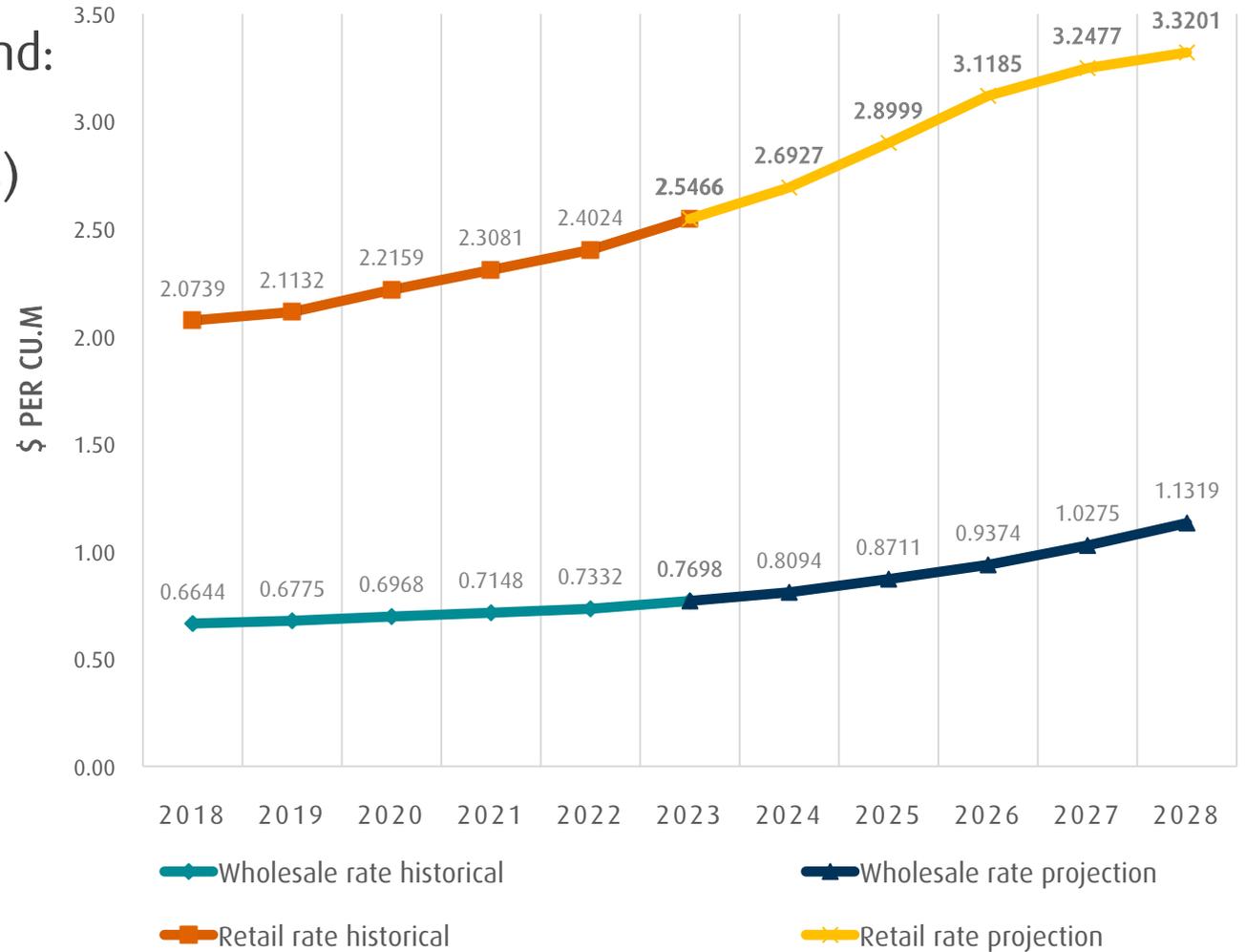
2024 Projected Water Demand:
9,500,000 cubic metres
(+290,000 cubic metres)

2023 Wholesale Rate:
\$0.7698

2024 Wholesale Rate:
\$0.8094 (+5.14%)

2024 rate is below rate indicated for 2024 in 2023 budget (\$0.8228)

CRD WATER WHOLESALE & RETAIL RATE



2024 Budget Overview Water Demand and Rates

- 2024 Budget Water Demand:
9,500,000 cubic metres (+290,000 cubic metres)
- 2024 Regional Water Supply Wholesale Rate:
\$0.8094 / cubic metre (+5.14%)
- 2024 Agricultural Rate:
\$0.2105 / cubic metre (0%)
- 2024 JDF Water Distribution Rate:
\$2.6927 / cubic metre (+6.0%)
*2024 retail rate is \$0.0756 (3%)
lower than 2023 projection*
- Annual cost increase to average household:
\$34.19 /per household



Budget Overview

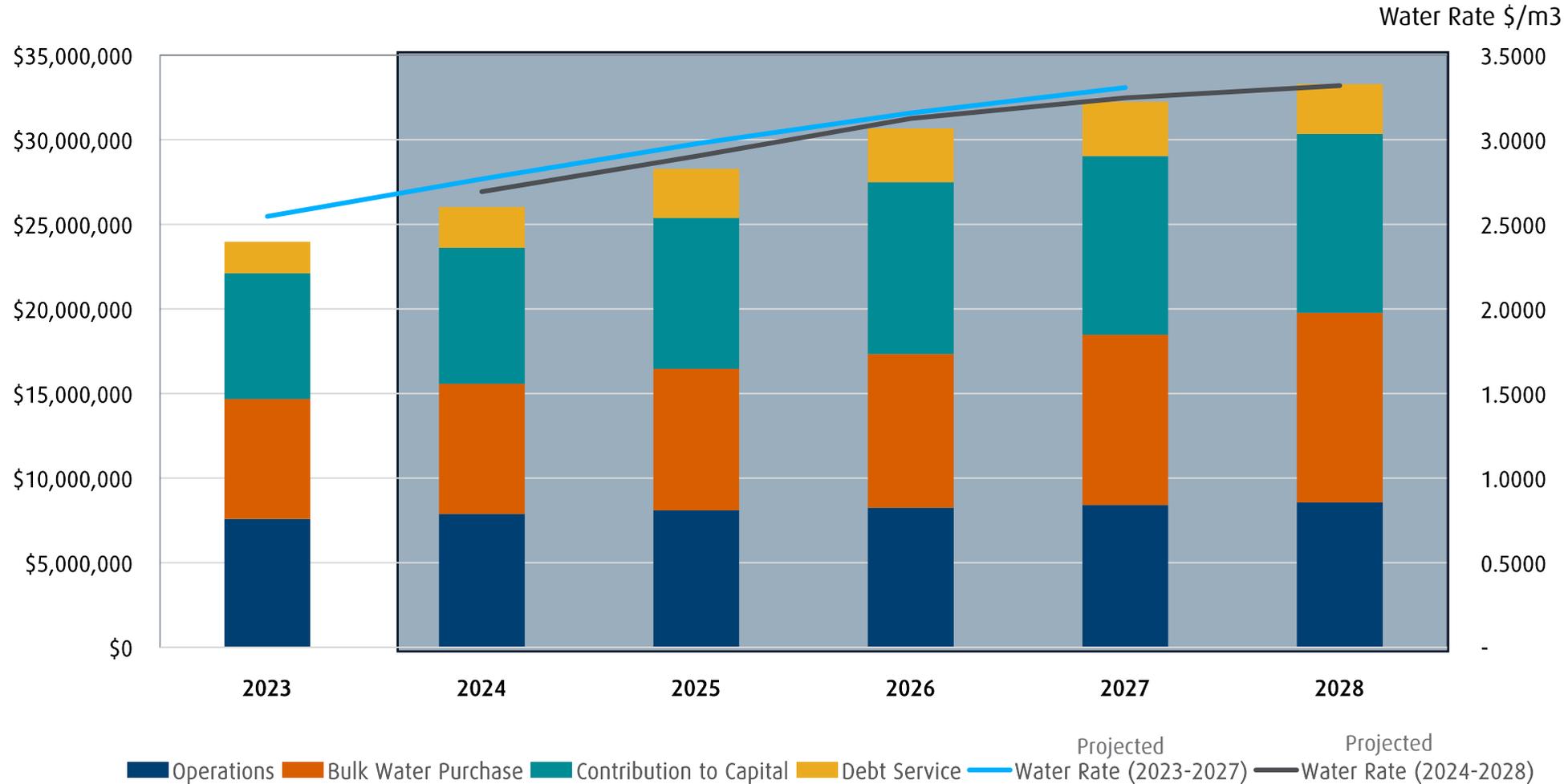
Multi-Year Projection

Overview:

- 2023 JDF budget: \$23,970,396
- 2024 JDF budget: \$26,026,524 (+8.58%)

Drivers:

- Growing Capital Program linked to development and aging infrastructure
- Bulk Water Rate



Budget Recommendations



1. Approve the 2024 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2024 Juan de Fuca Water Distribution Service retail water rate of \$2.6927 per cubic metre, adjusted if necessary, by any change in the Regional Water Supply wholesale water rate;
3. Approve the increase of Equipment Replacement Fund expenditure for 2023 to \$1,287,000;
4. Direct staff to balance the 2023 actual operating deficit or surplus on the 2023 capital fund transfer
5. Direct staff to update carry forward balances in the 2024 Capital Budget for changes after year end; and
6. Direct staff to amend the Water Distribution Local Service Conditions, Fees and Charges Bylaw accordingly.



Thank you

 @crdvictoria

 Capital Regional District

 CRDVictoria

 Crd.bc.ca

CAPITAL REGIONAL DISTRICT

2024 BUDGET

JDF Water Distribution

COMMISSION REVIEW

OCTOBER 2023

Service:	2.680	JDF Water Distribution	Commission: Juan De Fuca Water Distribution
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DEFINITION:

To finance the administration, development, maintenance, and operational expenses, of the Juan de Fuca Water Distribution local service in the Western Communities of the Capital Regional District, as per the Water Distribution Local Service Area Establishment Bylaw No. 2538.

The establishment and operation of a Juan de Fuca water Distribution Commission is done by Bylaw No. 2540.

SERVICE DESCRIPTION:

Juan de Fuca Water Distribution Service provides retail water distribution system to participants within the Western Communities. The service administration and operation is provided by the Integrated Water Services Department.

PARTICIPATION:

City of Colwood	District of Metchosin
City of Langford	District of Sooke
Town of View Royal	District of Highlands
Juan de Fuca Electoral Area	

MAXIMUM LEVY:

The maximum amount that may be requisitioned is NIL.

MAXIMUM CAPITAL DEBT:

Authorized: Pre Consolidated MFA Loan Authorizations - Juan de Fuca Water Distribution Facilities			\$19,000,000
Borrowed:			\$17,500,000
Remaining: Expired			\$1,500,000
Authorized: MFA Bylaw No. 3981 - Juan de Fuca Water Distribution Facilities			\$14,800,000
Borrowed:			\$10,100,000
Remaining: Expired			\$4,700,000
Authorized: MFA Bylaw No. 3164 - Juan de Fuca Water Distribution Facilities Development-DCC			\$10,000,000
Borrowed:			\$3,500,000
Remaining: Expired			\$6,500,000
Authorized: MFA Bylaw No. 4379 - Juan de Fuca Water Distribution Facilities	2021		\$14,800,000
Borrowed:			\$6,000,000
Remaining: Active			\$8,800,000

FUNDING:

Costs are recovered from Water Sales, and transfer from DCC reserves to service DCC debt.

Change in Budget 2023 to 2024			
Service:	2.680 Juan de Fuca Water Distribution	Total Expenditure	Comments
2023 Budget		23,970,395	
Change in Labour:			
		172,838	Labour charges (salaries and overhead)
	Total Change in Labour	<u>172,838</u>	
Other Changes:			
	Bulk Water Purchase	599,440	
	Transfers to Capital Fund	604,969	
	Principal & Interest Payments	548,521	New Debt Issue \$6m Fall 2023
	Transfer to Equipment Replacement Fund (ERF)	58,050	Growth of ERF contribution driven by future vehicle replacement costs
	Standard Overhead Allocation	47,099	
	Contract for Services	45,303	
	Other Costs	(20,091)	
	Total Other Changes	<u>1,883,291</u>	
2024 Budget		26,026,524	
Summary of % Expense Increase			
	Increased transfers to capital	2.5%	
	Principal and Interest costs	2.3%	
	Additional cost due to increased bulk water rate	1.5%	
	Increased bulk water consumption	1.0%	
	Additional required ERF contribution	0.2%	
	Support services increase	0.2%	
	Balance of increase	0.8%	
	% expense increase from 2023:	8.6%	

Overall 2023 Budget Performance
(expected variance to budget and surplus treatment)

Favourable revenue and water sales variance of \$740,000 (3.15%) due to higher than budgeted water demand largely a result of dry summer weather. The additional revenue will be partially offset by bulk water purchase overages. The net surplus of \$530,000 will be transferred to the Service's Water Capital Fund.

Rate Base for 2024 Revenue Year

	<u>2022 Applic</u>	<u>2023 Applic.</u>	<u>End of 2023 for '24 Applic.</u>	<u>Change</u>	
Retail System					
Physical Plant	\$ 179,090,334	\$ 182,123,781	\$ 203,789,803	\$ 21,666,023	Note 1
Construction Work In Progress	5,668,389	14,101,175	3,226,207	(10,874,969)	Note 1
Cash Working Capital	880,685	970,390	971,809	1,419	
Inventory	<u>525,000</u>	<u>525,000</u>	<u>525,000</u>	<u>-</u>	
Total Retail Rate Base	\$ 186,164,408	\$ 197,720,346	\$ 208,512,819	\$ 10,792,473	

Note 1: Refer to the Schedule of Change in Physical Plant & Work in Progress for details.

Schedule of Change in Physical Plant & Work In Progress

Retail

Projected Asset Additions	<u>Projected Assets Capitalized</u>
Pipes	\$ 12,097,299
Pump Stations	8,234,463
Meters	1,550,000
Reservoir Rehabilitation and Upgrades	479,597
Hydrants	371,750
SCADA	233,366
Valve Replacement	200,000
Building Modification	71,915
Other Projects (13 minor projects under \$50k)	170,173
Total projected assets capitalized	\$ 23,408,563
Less: current year's depreciation	(5,073,431)
Add (Less): change in prior year forecast addition estimates, & disposals.	3,330,891
Change in Physical Plant	<u>\$ 21,666,023</u>

Projected Construction Work In Progress (CWIP)

Pipes	\$ 1,524,591
Pump Stations	481,509
Radio Upgrades	281,339
Studies	182,303
Disaster Response Plan	174,589
Update Procedures	164,492
Meters	130,914
Reservoir Demolition	89,244
SCADA	73,386
Strategic Planning	50,254
Reservoir Assessment	50,000
Other Projects (3 minor projects under \$50k)	23,586
Projected CWIP	<u>\$ 3,226,207</u>
Less Prior year's projected CWIP	<u>(14,101,175)</u>
Change in CWIP	<u>\$ (10,874,969)</u>

Schedule of Change in Physical Plant & Work In Progress

Revenue Requirements for 2024 Year

	2022 Application	2023 Application	2024 Application	Change	
Retail					
Operations & maintenance	\$ 7,143,332	\$ 7,590,306	\$ 7,882,453	\$ 292,147	
Depreciation	4,935,985	5,222,481	5,505,087	282,606	
Return on rate base	<u>3,649,200</u>	<u>3,974,900</u>	<u>4,678,200</u>	<u>703,300</u>	Note 1
Subtotal of above	\$ 15,728,517	\$ 16,787,687	\$ 18,065,740	\$ 1,278,053	
Non-rate revenue	(174,500)	(174,500)	(174,500)	-	
DCC Repayment	<u>(30,596)</u>	<u>(30,596)</u>	<u>-</u>	<u>30,596</u>	
Total retail	\$ 15,523,421	\$ 16,582,591	\$ 17,891,240	\$ 1,308,649	

Note 1: Return on rate base is calculated with reference to the long term Canada bond rate & the average debt rate.

Schedule A
Asset Useful Life Assignments - PSAB

<u>Classes:</u>	<u>Code</u>	<u>Asset Categories</u>	<u>Useful Life, Years</u>
Land	LAND	Land & Rights of Way * (Note 1)	N/A
Building	BLDG	Building, Permanent	50
	BLOT	Building, Temporary/ Portable	20
	BLFX	Building fixture (<i>sprinklers</i>)	20
Equipment	BOAT	Boats & Marine Equipment	10
	COMP	Computer Equipment (<i>includes software</i>)	5
	ELEC	Electronic Equipment(<i>hydromet, weather stn eqpt</i>)	5
	FIRE	Fire & Safety Equipment	10
	GENT	Generator	20
	HYDR	Hydrants and Standpipes	20
	HYDY	Hydrology	10
	MTRS	Meters	20
	OFFE	Office Equipment	5
	OFFF	Office Furniture	10
	SCDA	SCADA Equipment	10
	SCRN	Intake Screens/Membranes (<i>stop logs</i>)	20
	SHOP	Shop Equipment	10
	TELE	Telecommunication Eqpt (<i>radios, phone systems</i>)	10
	WEQP	Water Works Eqpt(<i>W.Quality lab, Wshed eqpt</i>)	10
	NEW GRP	Weather stn & communication tower	15
Vehicle	VEHC	Vehicles	8
Engineering	BRDG	Bridge	50
Structure	CANL	Canal	50
	DAMS	Dam Structures	100
	PIPE	Pipelines, includes Vaults, Kiosks, Valve chambers	75
	PIPF	Pipelines, fittings	20
	PLPV	Parking lot paved	40
	PSEQ	Pump Station Equipment	20
	PSHS	Pump Station Housing	50
	PRVS	Valves, Flushes & PRV's	20
	RDGR	Roads gravel	20
	RDPV	Roads paved	40
	RESS	Reservoirs (steel & concrete)	50
	REST	Reservoirs (tower/tank)	35
	TANK	Storage tank	40
	TELP	Telephone and Power Lines	50
	TUNN	Tunnel, Culvert and Diversions	50
	WATP	Water Treatment Plant	25
	WELL	Wet well/ Well	50
Other Assets	CSTU	Capital Management Studies	5
	FENC	Fences	15
	LIMP	Land & Yard Improvements	20

Note 1: Land is not depreciated so a useful life assignment is not applicable.

2024 Demand Estimate

Retail Demand

Years	Actual Demand cu.metre	Budgeted Demand cu.metre
2017	8,595,300	8,000,000
2018	8,853,800	8,200,000
2019	8,911,315	8,600,000
2020	9,345,130	8,900,000
2021	10,270,472	8,900,000
2022	9,990,739	9,300,000
2023	9,500,000 *	9,210,000 **
2024 Demand Estimate	9,500,000	

* Projected consumption for 2023

** 2023 Demand estimate reduction reflects First Nations becoming wholesale customers of Regional Water Supply

Summary of Retail Water Rates

	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Change</u>	
Retail (direct) water rate							
Unit cost per cu.m.	\$2.2159	\$2.3081	\$2.4024	\$2.5466	\$2.6927	\$0.1461	5.74%

**Retail Water Rate Increase
Impact on Residential Water Bill**

Average consumption per 2 month billing cycle: * 39.0 cubic meters (annual = 234.0 cu.m)

<u>Charge for Two Months Consumption</u>	<u>Year</u>	<u>Bi monthly Charge</u>	<u>Annual Charge</u>	<u>2024 Annual Change \$</u>
Average Consumption	2023	\$ 99.32	\$ 595.90	
	2024	\$ 105.02	\$ 630.09	\$ 34.19
Half Average Consumption	2023	\$ 49.66	\$ 297.95	
	2024	\$ 52.51	\$ 315.05	\$ 17.09
Twice Average Consumption	2023	\$ 198.63	\$ 1,191.81	
	2024	\$ 210.03	\$ 1,260.18	\$ 68.37

CAPITAL REGIONAL DISTRICT

Program Group: CRD-JDF Water Distribution SUMMARY	2024						FUTURE PROJECTIONS			
	2023 BOARD BUDGET 1 2	2023 ESTIMATED ACTUAL 3	2024 CORE BUDGET 4	2024 ONGOING 5	2024 ONE-TIME 6	TOTAL (COL 4, 5 & 6) 7	2025 8	2026 9	2027 10	2028 11
OPERATING EXPENDITURES										
ALLOCATION - OPERATIONS	5,140,686	5,114,556	5,335,968	-	-	5,335,968	5,499,687	5,610,013	5,721,833	5,836,360
OPERATING - OTHER COSTS	809,318	806,278	789,205	-	-	789,205	791,637	796,842	802,326	806,816
SALARIES AND WAGES	565,643	547,956	590,220	-	-	590,220	604,267	618,635	633,347	648,387
CONTRACT FOR SERVICES	353,087	367,537	398,390	-	-	398,390	418,490	425,560	433,866	442,340
ALLOCATION - STANDARD OVERHEAD	721,571	721,571	768,670	-	-	768,670	784,043	799,724	815,718	832,033
TOTAL OPERATING EXPENDITURES	7,590,305	7,557,898	7,882,453	-	-	7,882,453	8,098,124	8,250,774	8,407,090	8,565,936
Percentage increase over prior year's board budget			3.85%			3.85%	2.74%	1.89%	1.89%	1.89%
BULK WATER PURCHASE	7,089,860	7,313,100	7,689,300	-	-	7,689,300	8,362,560	9,092,780	10,069,500	11,205,810
BULK WATER EXPENDITURES	7,089,860	7,313,100	7,689,300	-	-	7,689,300	8,362,560	9,092,780	10,069,500	11,205,810
			8.45%			8.45%				
CAPITAL EXPENDITURES & TRANSFERS										
TRANSFER TO WATER CAPITAL FUND	6,741,200	7,272,561	7,346,169	-	-	7,346,169	8,220,318	9,522,047	9,933,712	9,933,712
TRANSFER TO DEBT RESERVE FUND	96,280	60,000	49,280	-	-	49,280	41,770	15,770	4,770	4,770
TRANSFER TO EQUIPMENT REPLACEMENT FUND	589,457	589,457	647,507	-	-	647,507	655,457	613,566	621,837	630,274
TOTAL CAPITAL EXPENDITURES & TRANSFERS	7,426,937	7,922,018	8,042,956	-	-	8,042,956	8,917,545	10,151,383	10,560,319	10,568,756
DEBT SERVICING										
DEBT - INTEREST & PRINCIPAL	1,863,294	1,859,614	2,411,815	-	-	2,411,815	2,903,661	3,176,048	3,205,713	2,948,889
TOTAL DEBT EXPENDITURES	1,863,294	1,859,614	2,411,815	-	-	2,411,815	2,903,661	3,176,048	3,205,713	2,948,889
TOTAL EXPENDITURES	23,970,396	24,652,630	26,026,524	-	-	26,026,524	28,281,890	30,670,985	32,242,622	33,289,391
SOURCES OF FUNDING										
REVENUE - SALES	(23,454,020)	(24,192,530)	(25,580,244)	-	-	(25,580,244)	(27,838,670)	(30,249,225)	(31,827,232)	(32,869,281)
REVENUE - OTHER	(301,376)	(460,100)	(446,280)	-	-	(446,280)	(443,220)	(421,760)	(415,390)	(420,110)
TOTAL SOURCE OF FUNDING FROM OPERATIONS	(23,970,396)	(24,652,630)	(26,026,524)	-	-	(26,026,524)	(28,281,890)	(30,670,985)	(32,242,622)	(33,289,391)
SOURCES OF OTHER FUNDING										
TRANSFER FROM DCC RESERVES TO FUND DCC DEBT	-	-	-	-	-	-	-	-	-	-
TRANSFER FROM PRIOR YEAR	-	-	-	-	-	-	-	-	-	-
TRANSFER TO FOLLOWING YEAR										
TOTAL SOURCES OF ALL FUNDING	(23,970,396)	(24,652,630)	(26,026,524)	-	-	(26,026,524)	(28,281,890)	(30,670,985)	(32,242,622)	(33,289,391)
Percentage increase over prior year's board budget			8.58%			8.58%	8.67%	8.45%	5.12%	3.25%
Water Rate \$ per cu. m.	\$ 2.5466					\$ 2.6927				
Percentage increase	6.00%					5.74%				

**CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028**

Service No.	2.680	Carry Forward from 2023	2024	2025	2026	2027	2028	TOTAL
	JDF Water Distribution							

EXPENDITURE

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$7,865,000	\$19,475,000	\$12,510,000	\$9,110,000	\$6,765,000	\$6,910,000	\$54,770,000	
Vehicles	\$200,000	\$965,000	\$905,000	\$774,000	\$710,000	\$750,000	\$4,104,000	
	\$8,065,000	\$20,440,000	\$13,415,000	\$9,884,000	\$7,475,000	\$7,660,000	\$58,874,000	

SOURCE OF FUNDS

Capital Funds on Hand	\$7,065,000	\$14,155,000	\$7,890,000	\$7,990,000	\$6,745,000	\$6,745,000	\$43,525,000	
Debenture Debt (New Debt Only)	\$0	\$4,500,000	\$3,700,000	\$1,100,000	\$0	\$0	\$9,300,000	
Equipment Replacement Fund	\$0	\$765,000	\$905,000	\$774,000	\$710,000	\$750,000	\$3,904,000	
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Reserve Fund	\$1,000,000	\$1,020,000	\$920,000	\$20,000	\$20,000	\$165,000	\$2,145,000	
	\$8,065,000	\$20,440,000	\$13,415,000	\$9,884,000	\$7,475,000	\$7,660,000	\$58,874,000	

**CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028**

Service No.	2.670/2.680 Regional Water Supply & JDF Water Distribution Combo	Carry Forward from 2023	2024	2025	2026	2027	2028	TOTAL
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EXPENDITURE

Buildings	\$20,000	\$160,000	\$80,000	\$80,000	\$80,000	\$80,000	\$80,000	\$480,000
Equipment	\$2,100,000	\$2,730,000	\$465,000	\$350,000	\$365,000	\$266,000	\$266,000	\$4,176,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$100,000
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$2,120,000	\$2,910,000	\$565,000	\$450,000	\$465,000	\$366,000	\$366,000	\$4,756,000

SOURCE OF FUNDS

Capital Funds on Hand	\$2,120,000	\$2,910,000	\$565,000	\$450,000	\$465,000	\$366,000	\$366,000	\$4,756,000
Debenture Debt (New Debt Only)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Replacement Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$2,120,000	\$2,910,000	\$565,000	\$450,000	\$465,000	\$366,000	\$366,000	\$4,756,000

Service: **2.680** **JDF Water Distribution**

Project Number 16-03 **Capital Project Title** Asset Management Plan **Capital Project Description** Combine past studies to plan out future capital expenditures.

Project Rationale Several studies have been completed and are in progress to assess the JDF assets and programs and the proposed Strategic Asset Management Plan will consolidate the findings of the previous studies in a comprehensive approach to identify and prioritizes future capital expenditures and programs.

Project Number 21-14 **Capital Project Title** Fire Storage Analysis **Capital Project Description** Assess and update the fire flow upgrade program to inform future capital works.

Project Rationale In order to meet Fire Underwriters Survey recommendations for fire protection, it is necessary to provide certain volumes of water storage. It is proposed to assess fire storage volume requirements for different parts of the system and determine any required upgrades. Funding is required to retain a consultant to complete the analysis.

Project Number 16-05 **Capital Project Title** Comprehensive Pump Station Upgrades (10 year Program) **Capital Project Description** Continue pump station condition assessments, plan and carry out upgrades.

Project Rationale A previous capital project was completed by Delcan Corp. in 2012 which assessed each existing pump station and identified building deficiencies. This study concluded that on average approximately \$1.0M per year for the next ten years is needed to upgrade existing pump stations. Design and construction of the Ludlow Pump Station replacement was undertaken in 2020 and 2021. Ludlow has been delayed due to supply chain issues until late in 2022. Funds in 2023 are for design of and to start construction of the Coppermine PS and Bear Mountain PS #1.

Project Number 18-03 **Capital Project Title** JDF Site Decommissioning Program **Capital Project Description** Decommissioning of facilities that are no longer in use based on preliminary work from Annual Provisional

Project Rationale Numerous pump station and PRV facilities have been made redundant or have been decommissioned within the JDF system. Sites have been identified as part of the annual provisional project and funds are required to complete decommission of the sites and then demolish them. In 2021 the Treanor pump station demolition was carried out. The Townsview PS and Tank started planning in 2021 and will continue through 2023.

Service: **2.680** **JDF Water Distribution**

Project Number	18-06	Capital Project Title	Disaster Response Plan for Water Supply and Distribution	Capital Project Description	Determine and supply response equipment for disaster response.
Project Rationale	Proposed work includes developing a response plan to disasters to the Juan de Fuca water supply or distribution system. Funds are required to procure equipment and carry out works developed the in 2018 plan in conjunction with the Regional Water Supply disaster response Plan.				

Project Number	19-09	Capital Project Title	Distribution System Seismic Resiliency Improvements	Capital Project Description	Determine and commence improvements to the distribution system to provide seismic resiliency.
Project Rationale	Determine and commence improvements to the distribution system to provide resiliency. In 2023, sites will be prioritized with design commencing in 2024 and construction starting in 2024.				

Project Number	20-03	Capital Project Title	AC Pipe Replacement Program	Capital Project Description	Replacement of aging asbestos cement pipe year over year as outlined in the May 2023 staff report. Replacement is expected to be phased until 2055 to replace all AC pipe in the distribution network
Project Rationale	Identified through Statement of Works, the William Head and Victoria General Hospital meters require replacement and redundancy to maintain service to the two facilities. In 2021 funds will be utilized to complete design of the two new meters that will allow for construction of the meters while maintaining service. Design will be completed in 2022 with construction starting in 2023.				

Project Number	20-04	Capital Project Title	William Head & VGH Meter Replacement	Capital Project Description	Replacement of the meter and chambers at William Head & VGH with the possibility of resilient connections.
Project Rationale	Identified through Statement of Works, the William Head and Victoria General Hospital meters require replacement and redundancy to maintain service to the two facilities. In 2021 funds will be utilized to complete design of the two new meters that will allow for construction of the meters while maintaining service. Design will be completed in 2022 with construction starting in 2023.				

Service: 2.680 JDF Water Distribution			
Project Number	21-02	Capital Project Title	Sooke Rd - 2,200m of 600mm Pipe - VMP to Jacklin
Capital Project Description	Replacement of aged, large diameter water main from Jacklin Rd to VMP		
Project Rationale	According to corrosion assessment, a 2.2 kilometre section of an existing steel pipe along Sooke Road and Allendale Road (between Wishart to Jacklin) was unprotected and in need of replacement. In 2014, the design of both phases of the water main was completed by a consultant and construction of the main from Wishart to VMP was completed by CRD resources. Due to increased material and construction costs, it is proposed to update the condition assessment to determine whether this project is still required or could be deferred.		
Project Number	21-13	Capital Project Title	SCADA Master Plan Update & Upgrades
Capital Project Description	Update the SCADA Master Plan in conjunction with the RWS, Saanich Peninsula and Core Area infrastructure.		
Project Rationale	The SCADA and radio system utilized by JDF Water System comprises of components ranging from 2-25 years in age. A planned replacement of assets, to be coordinated with the Regional Water Supply and Saanich Peninsula Water & Wastewater Systems is required to create a more resilient and cohesive communications system		
Project Number	22-01	Capital Project Title	East Sooke Interconnect Water Main
Capital Project Description	Construction approximately 430 m of watermain for system improvements.		
Project Rationale	Funds are required to design and construct approximately 430 m of a new watermain interconnection in East Sooke. Interconnection will provide redundancy and improve flows in the area.		
Project Number	22-02	Capital Project Title	Microwave Radio Upgrades
Capital Project Description	Installation of high-bandwidth microwave radio infrastructure to accommodate CRD infrastructure		
Project Rationale	Installation of high-bandwidth microwave radio infrastructure to accommodate CRD infrastructure		
Project Number	24-01	Capital Project Title	Charters Road Watermain Replacement
Capital Project Description	Replacement of watermain on Charters Road as part of larger transportation project being undertaken by District of Sooke.		
Project Rationale	Roads project being completed by District of Sooke with Sooke's contractor replacing CRD AC watermain, as agreed to between CRD and Sooke by Memorandum of Understanding.		

Service: 2.680 JDF Water Distribution

Project Number 24-02 **Capital Project Title** Hwy 14 Watermain Relocation **Capital Project Description** Relocation of CRD watermain in MOTI right of way. Project work to be bundled within MOTI's project.

Project Rationale Relocation of watermains in vicinity Hwy 14 and Idlemore Road. MOTI to manage transportation project with CRD to fund the portion of watermain relocation.

Project Number 16-06 **Capital Project Title** Vehicle & equipment replacement (funding from replacement fund) **Capital Project Description** Vehicle and equipment replacement.

Project Rationale This is for the replacement of vehicles and equipment used by CRD Integrated Water Services for the day-to-day operation and maintenance of the Juan De Fuca distribution system. These replacements are funded from the Juan De Fuca Vehicle and Equipment Replacement Fund.

Project Number 17-07 **Capital Project Title** Site Decommissioning - General **Capital Project Description** Planning for decommissioning of unused sites.

Project Rationale This is a provisional item to allow engineering and planning reviews of old facilities with a view to possible future site uses.

Project Number 23-02 **Capital Project Title** Vehicle to support the meter replacement program **Capital Project Description** Purchase of a Transit Van equipped with tools and equipment to support the meter replacement program

Project Rationale A Transit Van equipped with tools and equipment is required for the on site work to be done during the multi year meter replacement program. It will be more effective to setup a vehicle with the required tools and fittings related to replacing meters rather than having to setup a different vehicle based on the operational needs of the day/week/month.

Project Number 17-07 **Capital Project Title** Site Decommissioning - General **Capital Project Description** Planning for decommissioning of unused sites.

Project Rationale Planning for decommissioning of unused sites.

Project Number 17-09 **Capital Project Title** Emergency Main Replacement **Capital Project Description** Major main replacement under emergencies.

Project Rationale This item is to fund the costs of responding to emergency major main breaks and conducting replacements.

Service: 2.680 JDF Water Distribution

Project Number 17-12 **Capital Project Title** Large Meters/Meter Vaults Components Replacement **Capital Project Description** Replacement or repairs to components in large meters/vaults as required.
Project Rationale This is an annual provision for the replacement of obsolete and worn out large (greater than 2" diameter) meters, adding new meters and upgrading meter vaults.

Project Number 17-13 **Capital Project Title** Site Security Upgrades **Capital Project Description** Upgrading and replacement of security systems for sites as required.
Project Rationale This is an annual allowance for upgrading and maintaining equipment, security and control systems at distribution facilities such as pump stations, PRV chambers and reservoirs. Items such as access hatches, fencing, etc., will be modified to provide a larger degree of security.

Project Number 17-15 **Capital Project Title** Distribution System Improvements **Capital Project Description** Unplanned distribution system improvements or decommissioning.
Project Rationale Historically, opportunities to complete work arise during the year which were not specifically identified and budgeted. This item typically relates to coordinating work programs (i.e. JDF water main replacements and municipal paving programs) with the municipalities or development and taking advantage of opportunities during the year that were not specifically identified.

Project Number 17-16 **Capital Project Title** Hydraulic Model Yearly Update **Capital Project Description** Annual hydraulic model update.
Project Rationale This item is required to input the pipes installed that year into the hydraulic computer model, followed by calibration and testing in order to keep the model up to date for design and planning purposes.

Project Number 21-03 **Capital Project Title** Hydrant & Flush Replacement, Upgrades and Additions **Capital Project Description** Upgrade, replacement or installation of flushes and fire hydrants, and fire flow testing.
Project Rationale This is an annual provision 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.

Project Number 21-04 **Capital Project Title** Residential Service & Meter Replacement **Capital Project Description** Replacement of residential water meters as highlighted by the 2017 KWL Water Audit report.
Project Rationale This is an annual provision for replacing failed residential services and meters, as well as proactively replacing services and meters in areas with historically large number of breaks.

Service: 2.680 JDF Water Distribution

Project Number 21-05 **Capital Project Title** Pump Station Equipment Replacements **Capital Project Description** Unplanned pump station repairs and equipment replacement
Project Rationale This is an annual provision for unplanned pump station repairs and equipment replacement.

Project Number 21-06 **Capital Project Title** SCADA Equipment Replacement **Capital Project Description** Unplanned replacement of SCADA and electrical equipment.
Project Rationale This is an annual provision for unplanned SCADA and electrical equipment replacement.

Project Number 21-07 **Capital Project Title** Reservoir Equipment Replacement **Capital Project Description** Replacement or repairs to components at reservoir sites.
Project Rationale This is an annual provisional for unplanned replacement of equipment, such as safety devices and mechanical fittings, at reservoir sites.

Project Number 21-09 **Capital Project Title** Valve Replacement **Capital Project Description** Unplanned replacement and repair of isolation and line valves, air valves, and pressure control valves.
Project Rationale This is an annual provisional for unplanned replacement of valves, including air valves and check valves.

Project Number 16-07 **Capital Project Title** Update DCC Bylaw (Comprehensive Update in 2022) **Capital Project Description** Planned update of the DCC Bylaw.
Project Rationale This is a provisional item to cover questions that arise and referred to our consultants for advice. Every 5 years a comprehensive update is required and the previous DCC update was completed in 2017, with the next update scheduled to start in 2022.

Project Number 21-01 **Capital Project Title** Sooke Henlyn Supply & Distribution Mains **Capital Project Description** Construction of water mains based upon development predictions from the Helgesen Pump Station westwards.
Project Rationale Proposed work includes the continued installation of the supply and distribution water mains connected to the Helgesen pump station which was previously constructed in 2011 as part of the DCC program. The supply and distribution water mains will continue west as development proceeds towards the proposed Henlyn Tank.

Service:	2.680	JDF Water Distribution
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Project Number	25-02	Capital Project Title	Throup Road Watermain Installation	Capital Project Description	Future budget to install new watermain along Throup Road when District of Sooke completes connector road.
Project Rationale	Budget allocated for future collaboration works to align with Sooke's Throup Road connector project. Schedule to be driven by District of Sooke project.				

CAPITAL REGIONAL DISTRICT

5 YEAR CAPITAL PLAN

2024 - 2028

Service #: 2.670/2.680

Service Name: Regional Water Supply & JDF Water Distribution Combo

Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	PROJECT BUDGET & SCHEDULE										
				Total Project Budget	Asset Class	Funding Source	Carryforward	2024	2025	2026	2027	2028	5 - Year Total	
SYSTEM REPLACEMENT AND UPGRADES THAT BENEFIT REGIONAL WATER SUPPLY AND JUAN DE FUCA DISTRIBUTION														
16-01	Renewal	Upgrades to Buildings at 479 Island Highway	Maintenance and changes to buildings and office layouts.	\$ 320,000	B	WU	\$ 20,000	\$ 160,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 480,000
17-01	Renewal	Voice Radio Upgrade	Replacement of end of life voice radio system repeaters, office, vehicle and handheld radios.	\$ 2,395,000	E	WU	\$ 2,100,000	\$ 2,300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,300,000
20-01	New	Portable Pump Station	Portable pump station and generator to provide backup when a pump station is offline, in construction or to bypass a section of pipe.	\$ 750,000	E	WU	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
24-01	Replacement	IT Core Infrastructure Replacement	Replacement of Core IT Infrastructure such as servers, network switches, UPS, etc for equipment end of life	\$ 250,000	E	WU	\$ -	\$ 80,000	\$ 125,000	\$ 10,000	\$ 25,000	\$ 6,000	\$ -	\$ 246,000
Sub-Total System Replacement and Upgrades That Benefit Regional Water Supply and Juan de Fuca Distribution				\$ 3,195,000			\$ 2,120,000	\$ 2,540,000	\$ 205,000	\$ 90,000	\$ 105,000	\$ 86,000	\$ 3,026,000	
ANNUAL PROVISIONAL CAPITAL ITEMS														
17-03	Replacement	Office Equipment, Upgrades and Replacements	Upgrade and replacement of office equipment as required.	\$ 225,000	E	WU	\$ -	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 45,000	\$ 225,000
17-04	Replacement	Computer Upgrades	Annual upgrade and replacement program for computers, copiers, printers, network equipment as required.	\$ 850,000	E	WU	\$ -	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 170,000	\$ 850,000
17-05	New	Development of the Maintenance Management Systems	Develop maintenance management system.	\$ 150,000	E	WU	\$ -	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 150,000
17-06	Replacement	Small Equipment & Tool Replacement (Water Operations)	Replacement of tools and small equipment for Water Operations as required.	\$ 400,000	E	WU	\$ -	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 80,000	\$ 320,000
17-07	Replacement	Small Equipment & Tool Replacement (Corporate Fleet)	Replacement of tools and small equipment for Fleet as required.	\$ 85,000	E	WU	\$ -	\$ 25,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 85,000
24-02	Study	Capital Projects Delivery Optimization	Ongoing internal improvement of templates, tools and processes used in the delivery of capital projects.	\$ 100,000	S	WU	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000	\$ 100,000
Sub-Total for Annual Provisional Capital Items				\$ 1,650,000			\$ -	\$ 370,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 280,000	\$ 1,730,000
x GRAND TOTAL				\$ 4,845,000			\$ 2,120,000	\$ 2,910,000	\$ 565,000	\$ 450,000	\$ 465,000	\$ 366,000	\$ 4,756,000	

Service: **2.670/2.680** **Regional Water Supply & JDF Water Distribution Combo**

Project Number	16-01	Capital Project Title	Upgrades to Buildings at 479 Island Highway	Capital Project Description	Maintenance and changes to buildings and office layouts.
Project Rationale	The budget includes the following funds to upgrade and renew the buildings at 479 Island Highway: <ul style="list-style-type: none"> • Improvements, Repairs, upgrades and changes to the buildings (provisional \$45,000) • Painting of the buildings. (provisional \$20,000 annually) • Repair and replacement of carpets, floors and walls. (provisional \$40,000 annually) • Climate Action initiatives and feasibility studies (\$55,000) 				

Project Number	17-01	Capital Project Title	Voice Radio Upgrade	Capital Project Description	Replacement of end of life voice radio system repeaters, office, vehicle and handheld radios.
Project Rationale	Service Life and projected replacement: <ul style="list-style-type: none"> • The service life of the mobile and portable units was forecast as 10 years at minimum, 15 years at maximum in 2005. • The present radio models used in the system have just been taken out of production by the manufacturer, there will be no new units available for purchase as of July 1, 2015. • Support for repairs and maintenance of the present radio will continue for the next 3 years at least. • There are no pressing issues with equipment maintenance or repairs, present repair rates suggest we can maintain the system for the next few years, and perhaps reach a 12-15 year lifespan on the present equipment. 				

Project Number	20-01	Capital Project Title	Portable Pump Station	Capital Project Description	Portable pump station and generator to provide backup when a pump station is offline, in construction or to bypass a section of pipe.
Project Rationale	The RWS and JdF operation numerous water mains and pump stations. There are situations, when a pump station fails, construction of a pump station or bypassing a section of pipe, where a portable pump station with a generator is required to maintain the level of service. Funds will be used in 2020 to design and in 2021 to procure a portable pump station and generator.				

Project Number	17-03	Capital Project Title	Office Equipment, Upgrades and Replacements	Capital Project Description	Upgrade and replacement of office equipment as required.
Project Rationale	Funds will be used for the replacement and upgrading of office equipment and furniture, as required.				

Service: **2.670/2.680** **Regional Water Supply & JDF Water Distribution Combo**

Project Number	17-04	Capital Project Title	Computer Upgrades	Capital Project Description	Annual upgrade and replacement program for computers, copiers, printers, network equipment as required.
Project Rationale	<p>This is an annual upgrading and replacement program of computers, photocopiers, network, monitoring and associated equipment, as required. This item has been increased from \$160,000 to \$170,000 annually to reflect actual costs.</p> <p>Capital Budget Network Switch Maintenance \$10,000 Additional Wireless Access Points and Maintenance \$15,000 Photocopier Replacement \$20,000 Additional Data Storage \$15,000 Replacement Computers \$75,000 Equipment Maintenance (contingency) \$23,000 Replace Access Control System - Gates/ Video Cameras \$12,000 Total Capital \$170,000</p>				

Project Number	17-05	Capital Project Title	Development of the Maintenance Management Systems	Capital Project Description	Develop maintenance management system.
Project Rationale	<p>The maintenance management system needs further development to meet user needs and to facilitate reporting. It is proposed that funds be approved for the following projects:- Develop and Asset onboarding process and a fault code reporting process for the CMMS.</p>				

Project Number	17-06	Capital Project Title	Small Equipment & Tool Replacement (Water Operations)	Capital Project Description	Replacement of tools and small equipment for Water Operations as required.
Project Rationale	<p>Funds will be used for replacement of a variety of Operations and Welding equipment such as cutting saws, portable generators, gas detectors, Hilti drills, plasma cutter, wire welder, etc.</p>				

Service: **2.670/2.680** **Regional Water Supply & JDF Water Distribution Combo**

Project Number 17-07 **Capital Project Title** Small Equipment & Tool Replacement (Corporate Fleet) **Capital Project Description** Replacement of tools and small equipment for Fleet as required.

Project Rationale Funds will be used for replacement of a variety of Fleet small equipment and tools as required. This includes provision to replace the Vehicle OBD reader for reading engine codes and the shop air compressor.

Project Number 24-01 **Capital Project Title** IT Core Infrastructure Replacement **Capital Project Description** Replacement of Core IT infrastructure such as servers, network switches, UPS, etc for equipment end of life

Project Rationale Ongoing end of life replacement program for IT Core Infrastructure, including servers, network switches, UPS', and other equipment.

Project Number 24-02 **Capital Project Title** Capital Projects Delivery Optimization **Capital Project Description** Ongoing internal improvement of templates, tools and processes used in the delivery of capital projects.

Project Rationale Ongoing program for small scale optimization of project delivery methods and tools.

**2.680 Juan de Fuca Water Distribution
Summary Schedule
2024 - 2028 Financial Plan**

Asset Profile

Juan de Fuca Water Distribution

Juan de Fuca assets include lands, office buildings, pump stations, pipe lines, meters, equipment, vehicles and other infrastructure.

Reserve/Fund Summary

	Estimated	Budget				
	2023	2024	2025	2026	2027	2028
DCC Reserve Account	11,517,005	13,497,005	15,577,005	18,557,005	21,537,005	24,372,005
Equipment Replacement Fund	549,196	546,453	432,660	388,326	406,663	399,437
Total	12,143,807	14,121,066	16,087,275	19,022,943	22,021,282	24,849,058

2.680 Juan de Fuca Water Distribution
 Development Cost Charges
 2024 - 2028 Financial Plan

Development Cost Charges Reserve Schedule

Reserve Fund: Development Cost Charges for Juan de Fuca Water Distribution (Bylaw # 2758)

Fund: 1055 Fund Center: 101532

	Estimated	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	12,217,005	11,517,005	13,497,005	15,577,005	18,557,005	21,537,005
Transfer to Cap Fund to fund DCC projects	(4,000,000)	(1,020,000)	(920,000)	(20,000)	(20,000)	(165,000)
Payment of P&I on LA 3164	-	-	-	-	-	-
Payment of DCC liability						
DCC's received From Member Municipalities	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Interest Income*	300,000					
Ending Balance \$	11,517,005	13,497,005	15,577,005	18,557,005	21,537,005	24,372,005

General Comments:
 Development Cost Charges Reserve Funds for Juan de Fuca Water Distribution was adopted in year 2000 for the purpose of providing funds for the capital costs of water facilities in the service areas.

These Reserve funds are received from Member Municipalities as Development Cost Charges (DCC's) to provide for the capital costs attributable to water sytem capacity improvements projects specified in the DCC capital expenditure program. Municipalities collect these DCC charges through building permits that are issued to developers for subdivision development.

Future years DCC's received from member municipalities are difficult to predict, due to unknown development activity in the Municipalities, influenced by market conditions. Estimates based on recent annual collections of DCCs, and the cyclical nature of property development.

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

**2.680 Juan de Fuca Water Distribution
Equipment Replacement Reserve
2024 - 2028 Financial Plan**

Equipment Replacement Reserve Schedule

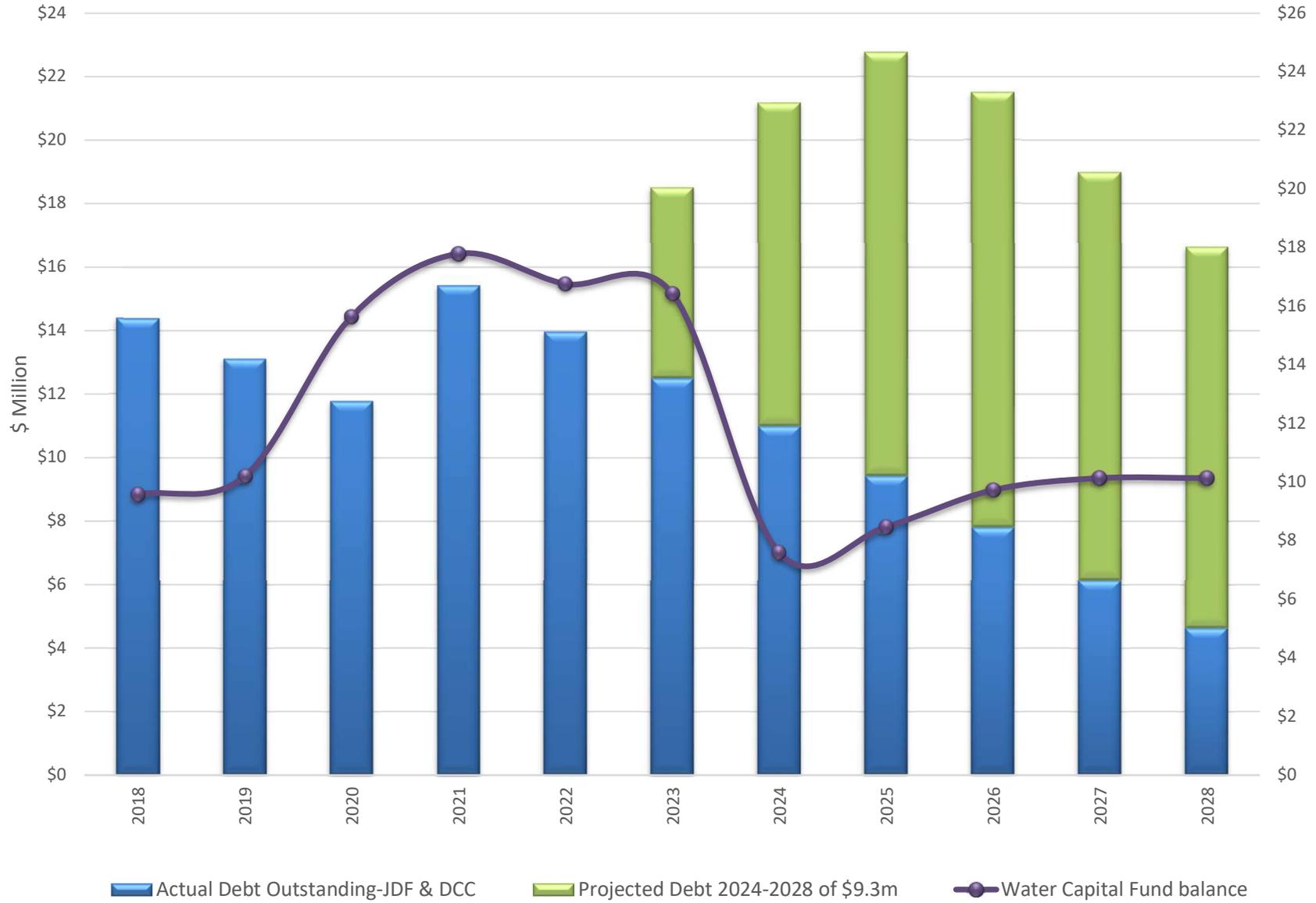
Reserve Fund: Juan de Fuca Distribution Equipment Replacement Reserve (covered by CRD-ERF Bylaw)

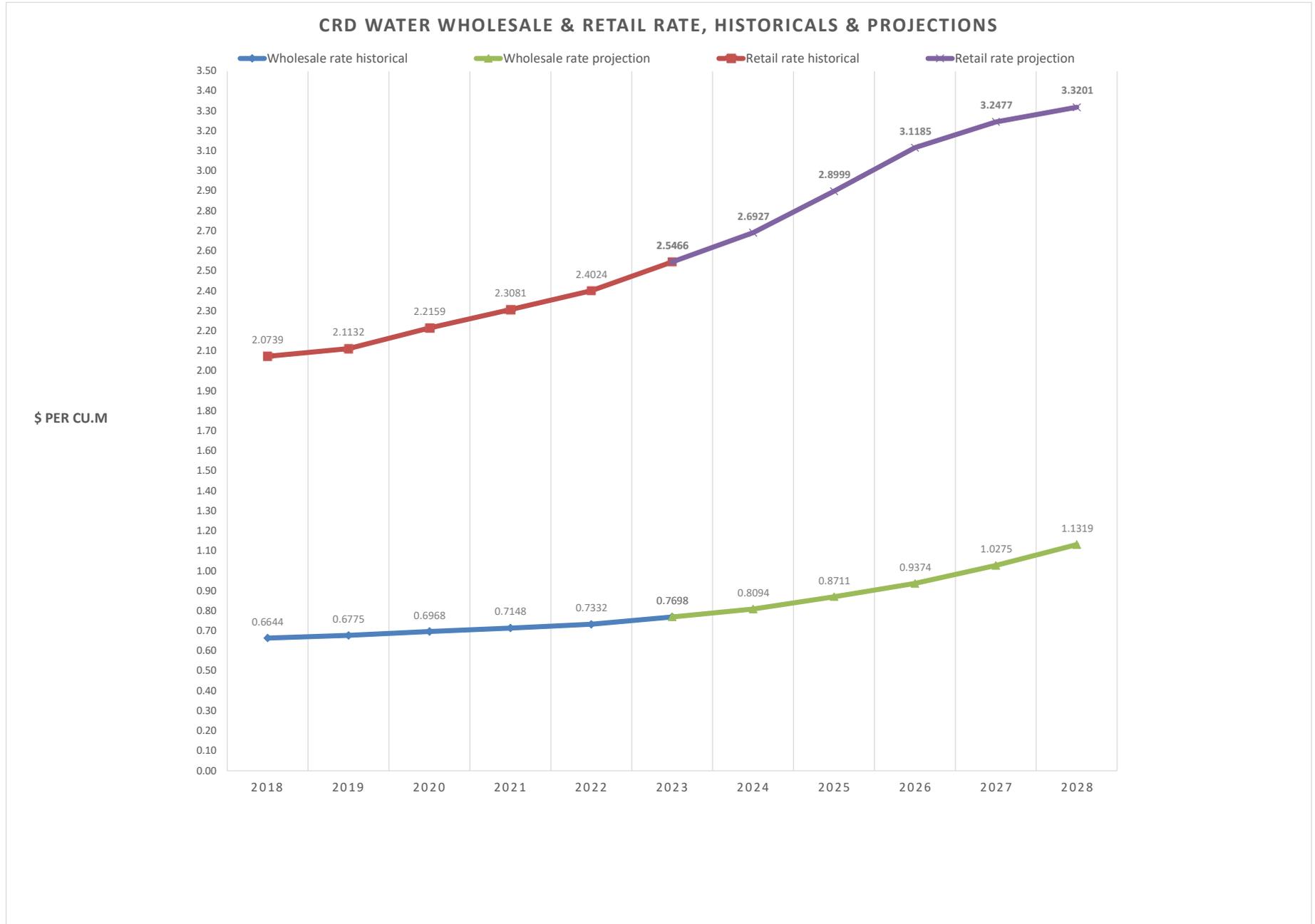
Fund: 1022 Fund Center: 101630	Estimated	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	872,739	549,196	546,453	432,660	388,326	406,663
Equipment purchases (Based on Capital Plan)	(1,080,000)	(765,000)	(905,000)	(774,000)	(710,000)	(750,000)
Transfer from Operating Budget	589,457	647,507	655,457	613,566	621,837	630,274
Proceeds on disposals	162,000	114,750	135,750	116,100	106,500	112,500
Interest Income*	5,000					
Ending Balance \$	549,196	546,453	432,660	388,326	406,663	399,437

General Comments:
Reserve Fund is used for the purpose of replacing fleet vehicles including heavy equipment and associated mobile components, as outlined in the capital plan. Proceeds from disposals are estimated at 15% of replacement equipment purchases. Note not all vehicles are sold within the year in which they are replaced.

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

JDF Water Distribution & DCC Debt Outstanding vs Water Capital Fund Balance







Capital Regional District

HOTSHEET AND ACTION LIST

Regional Water Supply Commission

Wednesday, July 19, 2023

11:30 AM

CRD Board Room
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.

2. ELECTION OF VICE CHAIR

Commissioner Karen Harper was elected Vice Chair for the remainder of the one-year term ending December 31, 2023.

4. ADOPTION OF MINUTES

That the minutes of the May 17, 2023 meeting be adopted.

CARRIED

8. WATER ADVISORY COMMITTEE

8.1 Water Advisory Committee Recommendation: Conservation Strategies

Recommendation: The Water Advisory Committee recommends that the Regional Water Supply Commission consider:

1. Increasing water conservation efforts and messaging and creating a literacy program for sharing water conservation.
2. Storage discussions with member municipalities.
3. Increasing bulk water rates to encourage conservation and to fund increased storage in partnership with municipalities.

CARRIED

Motion Arising:

That the Water Advisory Committee recommendations be referred to staff for consideration in the new strategic planning process.

CARRIED

9. COMMISSION BUSINESS

9.1 Watershed Security Officer Designation

Recommendation: That the Regional Water Supply Commission recommends that the Capital Regional District Board:
Appoint Jim Harradine and Derek Hall as Watershed Security Officers; and that Devon Barnes be removed from appointment; for the purpose of Section 233 of the Local Government Act and Section 28(3) of the Offence Act, and in accordance with Capital Regional District Bylaw No. 2681.

CARRIED

9.2 Regional Water Supply Commission - Disaster Mitigation and Adaptation Fund Grant Application

Recommendation: That the Regional Water Supply Commission recommends that the Capital Regional District Board:
That staff be instructed to apply for, negotiate, and if successful, enter into an agreement, and do all such things necessary for accepting Disaster Mitigation and Adaptation grant funds and overseeing grant management for the proposed projects.

CARRIED

9.3 Agricultural Water Rate Review Update

Recommendation: That staff be directed to proceed with the next phase of the Agricultural Water Rate Review.

CARRIED

Opposed: Graham

10. NOTICE(S) OF MOTION

10.1 Motion with Notice: Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls (Commissioner Rogers)

Recommendation: That staff be directed to explore cost-sharing with municipalities to have Post Disaster Water Supply Drop Kits placed in relevant fire halls, for consideration in the next budget cycle.

CARRIED



Capital Regional District HOTSHEET AND ACTION LIST Saanich Peninsula Water Commission

Thursday, July 20, 2023

10:30 AM

Meeting Room
Sidney Community Safety Building
2245 Oakville Avenue
Sidney, BC

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

3. ADOPTION OF MINUTES

That the minutes of the March 16, 2023 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1 Disaster Mitigation and Adaptation Fund Grant Application – Update

Recommendation: That the Saanich Peninsula Water Commission recommends to the Capital Regional District Board:
That staff be instructed to apply for, negotiate, and if successful, enter into an agreement, and do all such things necessary for accepting Disaster Mitigation and Adaptation grant funds and overseeing grant management for the proposed project.

CARRIED

THE FOLLOWING REPORTS WERE RECEIVED FOR INFORMATION

- 7.2 Saanich Peninsula Water Service Mid-Year Update
- 7.3 Summary of Recommendations from Other Water Commissions
- 7.4 Water Watch Report

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES**Water Watch**

Issued September 25, 2023

Water Supply System Summary:**1. Useable Volume in Storage:**

Reservoir	September 30 5 Year Ave		September 30/22		September 24/23		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	64,462	14,182	68,346	15,036	62,257	13,697	67.1%
Goldstream	6,039	1,329	8,284	1,822	7,595	1,671	76.6%
Total	70,500	15,510	76,630	16,859	69,853	15,368	68.1%

2. Average Daily Demand:

For the month of September	171.8 MLD	37.79 MIGD
For week ending September 24, 2023	159.2 MLD	35.02 MIGD
Max. day September 2023, to date:	190.2 MLD	41.85 MIGD

3. Average 5 Year Daily Demand for September

Average (2018 - 2022)	157.4 MLD ¹	34.63 MIGD ²
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¹MLD = Million Litres Per Day ²MIGD = Million Imperial Gallons Per Day**4. Rainfall September:**

Average (1914 - 2022):	66.5 mm
Actual Rainfall to Date	13.3 mm (20% of monthly average)

5. Rainfall: Sep 1- Sep 24

Average (1914 - 2022):	45.1 mm
2022/2023	13.3 mm (29% of average)

6. Water Conservation Action Required:

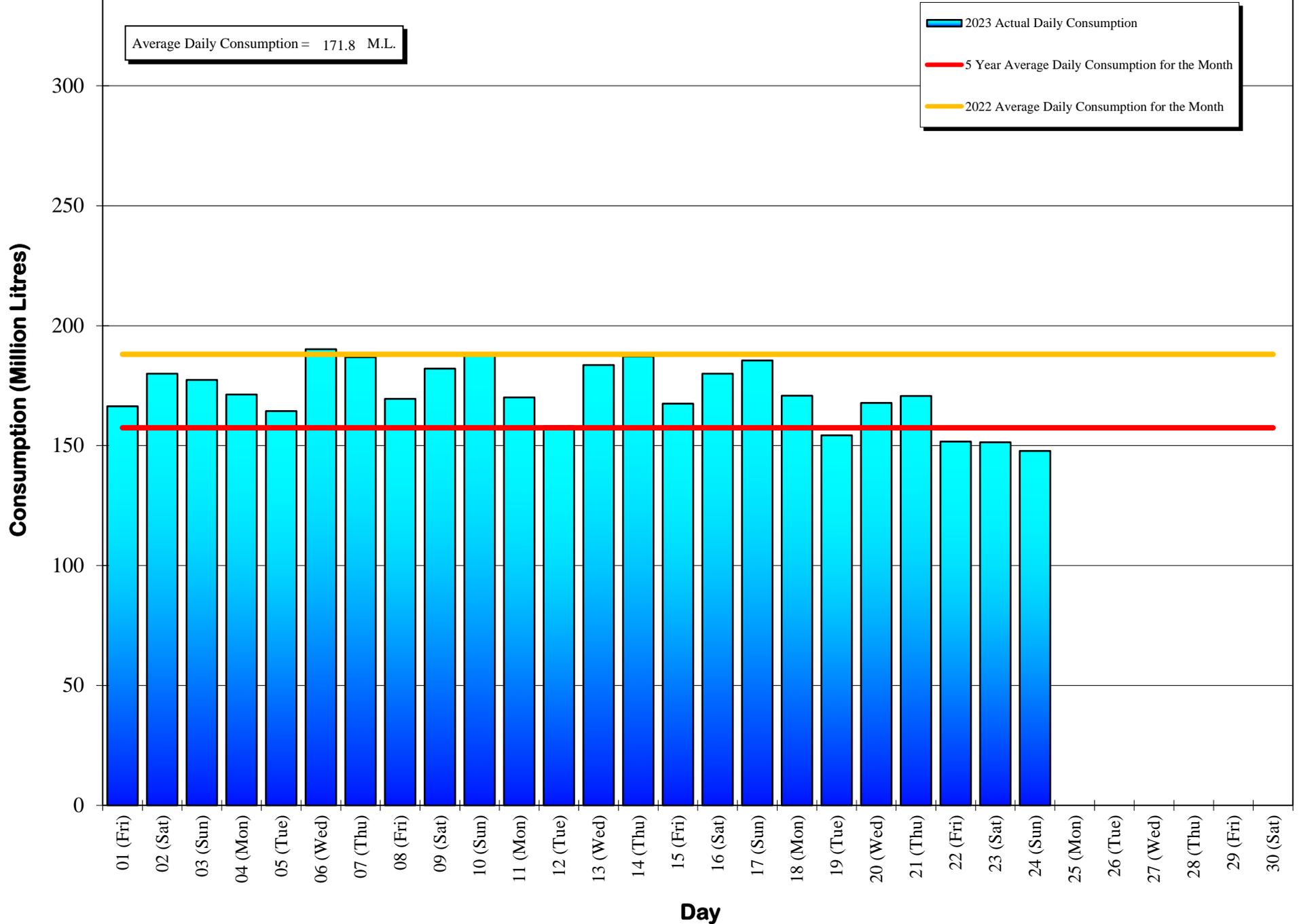
CRD's Stage 1 Water Conservation Bylaw is now in effect through September 30, 2023
Visit our website at www.crd.bc.ca/water for scheduling information.

If you require further information, please contact:

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 September 2023



Daily Consumptions: - September 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 (Fri)	166.4		36.6	26	12	Sunny	0.0	0.0	0.0
02 (Sat)	180.0		39.6	27	13	Sunny	0.0	0.0	0.0
03 (Sun)	177.4		39.0	22	12	Cloudy	0.0	0.0	0.0
04 (Mon)	171.3		37.7	18	12	Cloudy / P. Sunny	0.0	0.0	0.0
05 (Tue)	164.4		36.2	20	10	Sunny / P. Cloudy	0.0	0.0	0.0
06 (Wed)	190.2	<=Max	41.8	20	11	Cloudy / P. Sunny	0.0	0.0	0.0
07 (Thu)	186.9		41.1	20	12	Cloudy / P. Sunny	0.0	0.0	0.0
08 (Fri)	169.5		37.3	22	11	Sunny	0.0	0.0	0.0
09 (Sat)	182.1		40.1	24	10	Sunny	0.0	0.0	0.0
10 (Sun)	188.0		41.4	26	13	Cloudy / P. Sunny	0.0	0.0	0.0
11 (Mon)	170.1		37.4	22	14	Cloudy / P. Sunny / Showers	0.4	0.0	0.4
12 (Tue)	158.1		34.8	18	12	P. Cloudy / P. Sunny / Showers	0.5	0.0	0.5
13 (Wed)	183.6		40.4	21	11	Sunny / P. Cloudy	0.0	0.0	0.0
14 (Thu)	187.2		41.2	23	11	Sunny	0.0	0.0	0.0
15 (Fri)	167.5		36.9	25	11	Sunny	0.0	0.0	0.0
16 (Sat)	180.0		39.6	25	11	Sunny	0.0	0.0	0.0
17 (Sun)	185.5		40.8	22	11	Cloudy / P. Sunny / Showers	0.4	0.0	0.4
18 (Mon)	170.8		37.6	19	9	Cloudy / P. Sunny	0.0	0.0	0.0
19 (Tue)	154.3		33.9	18	10	Cloudy / Showers	1.9	0.0	1.9
20 (Wed)	167.8		36.9	18	8	Sunny / P. Cloudy / Showers	0.2	0.0	0.2
21 (Thu)	170.7		37.6	21	8	Sunny	0.0	0.0	0.0
22 (Fri)	151.7		33.4	21	8	Sunny	0.0	0.0	0.0
23 (Sat)	151.4		33.3	16	9	Cloudy / P. Sunny / Showers	4.1	0.0	4.1
24 (Sun)	147.8	<=Min	32.5	16	7	Cloudy / Showers	5.8	0.0	5.8
25 (Mon)									
26 (Tue)									
27 (Wed)									
28 (Thu)									
29 (Fri)									
30 (Sat)									
TOTAL	4122.7 ML	907.01 MIG					13.3	0	13.3
MAX	190.2	41.85	27	14			5.8	0	5.8
AVG	171.8	37.79	21.3	10.7			0.6	0	0.6
MIN	147.8	32.53	16	7			0.0	0	0.0

1. ML = Million Litres

2. MIG = Million Imperial Gallons

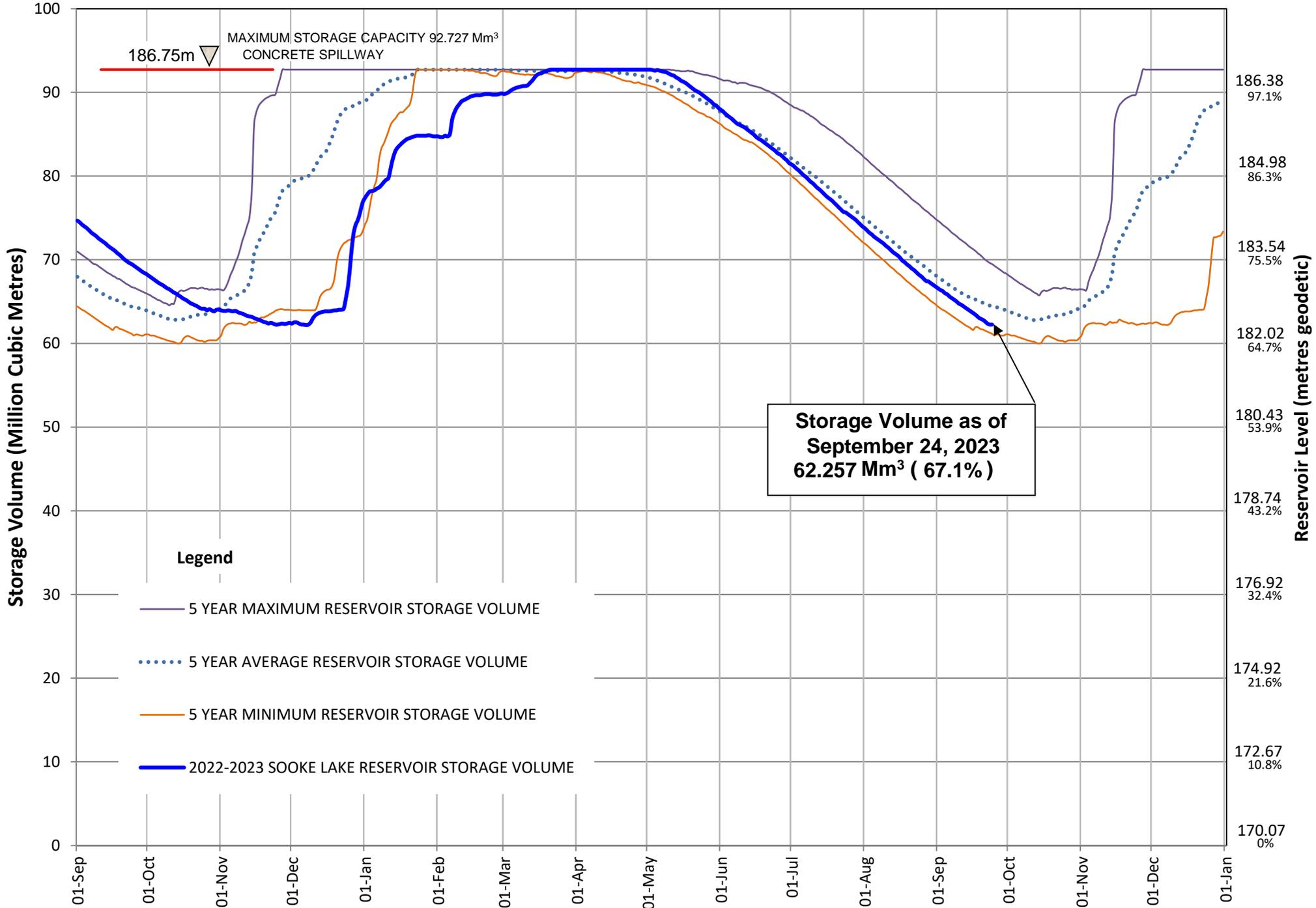
3. 10% of snow depth applied to rainfall figures for snow to water equivalent.

Average Rainfall for September (1914-2022)	66.5 mm
Actual Rainfall: September	13.3 mm
% of Average	20%
Average Rainfall (1914-2022): Sept 01 - Sep 24	45.1 mm
Actual Rainfall (2022/23): Sept 01 - Sep 24	13.3 mm
% of Average	29%

Number days with precip. 0.2 or more
7

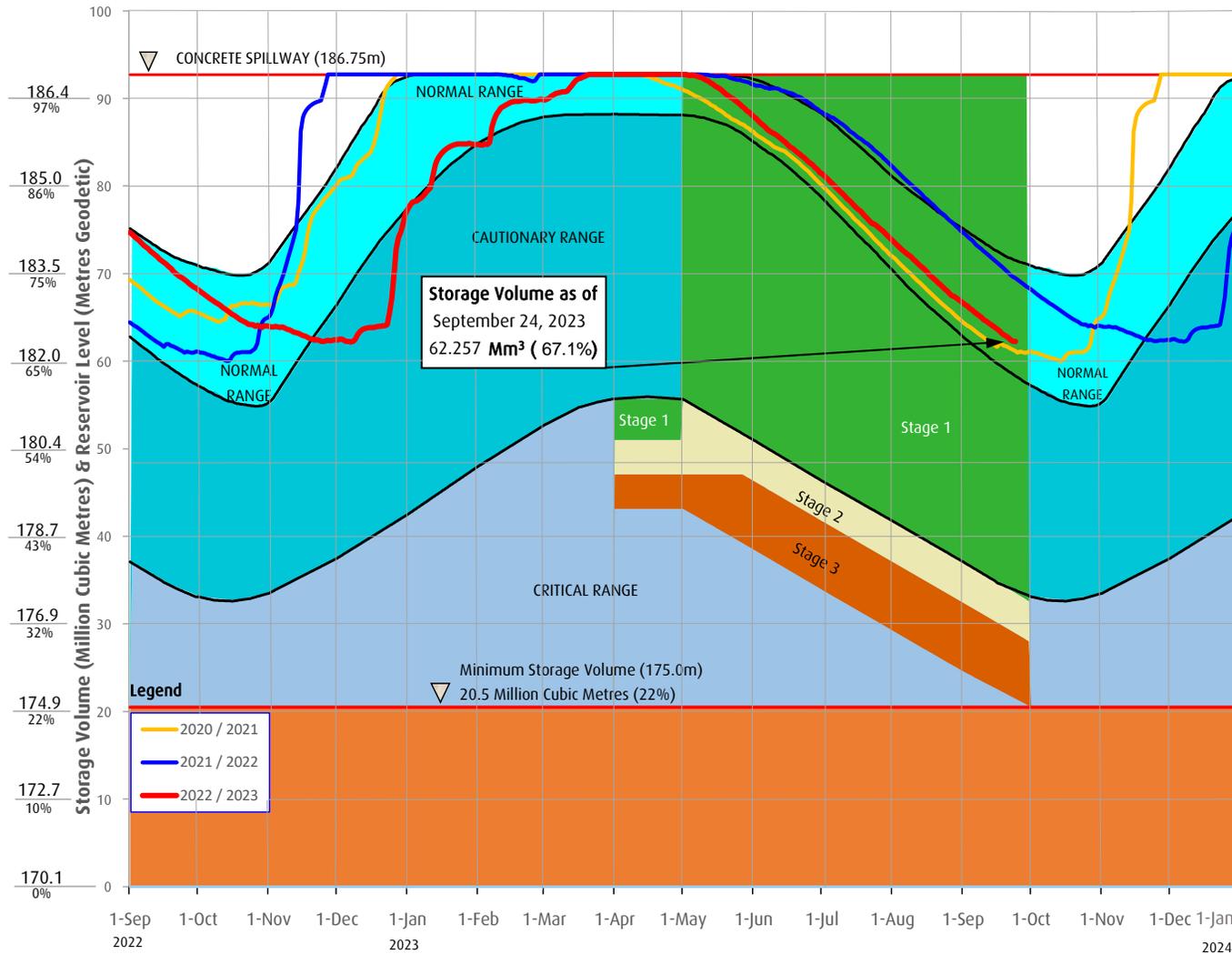
Water spilled at Sooke Reservoir to date (since Sept. 1) = 0.00 Billion Imperial Gallons
 = 0.00 Billion Litres

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





Useable Reservoir Volumes in Storage for September 24, 2023

