



Making a difference...together

WATER ADVISORY COMMITTEE

Notice of Meeting on **Tuesday, May 28, 2024 at 12:00 – 2:30 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.

Katie Oppen - Chair

(Scientific)

Kathleen Zimmerman – Vice Chair

(Agriculture)

Celine Davis

(Resident / Ratepayer)

Mike Doehnel

(Vice Chair, Saanich Peninsula Water Commission)

Ashley Fernandes

(Environmental)

Karen Harper

(Vice Chair, Regional Water Supply Commission)

Tayler Krawczyk

(Agriculture)

Alex McArdle

(Agriculture)

Craig Nowakowski

(Island Health)

Adam Pakvis

(DND – Commercial / Industrial Water User)

Tom Pedersen

(Environmental)

John Rogers

(Vice Chair, Juan de Fuca Water Dist. Commission)

Wilf Scheuer

(Commercial / Industrial)

David Timothy

(Fish Habitat)

Mike Turner

(Fisheries)

AGENDA

1. TERRITORIAL ACKNOWLEDGEMENT

2. APPROVAL OF AGENDA

3. ADOPTION OF MINUTES 3

Recommendation: That the minutes of the February 27, 2024 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 Water Advisory Committee 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

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

7. COMMITTEE BUSINESS

7.1. Draft 2025 Strategic Plan for the Greater Victoria Water Supply System 7

***Recommendation:** That the Water Advisory Committee recommends to the Regional Water Supply Commission, the Committee's endorsement of the draft 2025 Strategic Plan for the Greater Victoria Water Supply System presented in this report.*

7.2. Water Advisory Committee Proposal – Agricultural Water Rates 83

***Recommendation:** The Water Advisory Committee recommends that the Regional Water Supply Commission adopt and action the Water Advisory Committee's proposed recommendations on Agricultural Water Rates.*

7.3. Summary of Recommendations from Regional Water Supply Commission 87

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

7.4. Water Watch Report 93

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

8. NEW BUSINESS

9. ADJOURNMENT

Next Meeting: Thursday, September 5, 2024

MINUTES OF A MEETING OF THE Water Advisory Committee, held Tuesday, February 27, 2024 at 12 p.m., Goldstream Meeting Room, 479 Island Highway, Victoria, BC

PRESENT: Members: C. Davis (EP) (12:39pm); M. Doehnel; K. Harper; T. Krawczyk; A. McArdle; K. Oppen; A. Pakvis (EP); T. Pedersen; J. Rogers; W. Scheuer; D. Timothy; K. Zimmerman

Staff: A. Fraser, General Manager, Integrated Water Services; S Irg, Senior Manager, Infrastructure Water Operations; J. Marr, Senior Manager, Infrastructure Engineering; K. Wilson, Environmental Protection; D. Buckle, Environmental Protection; M. Irwin, Environmental Protection; D. Dionne, Integrated Water Services (Recorder)

Also in Attendance: G. Baird, Chair, Regional Water Supply Commission

REGRETS: M. Turner; A. Fernandes; C. Nowakowski

EP = Electronic Participation

The meeting was called to order at 12:05 pm.

1. TERRITORIAL ACKNOWLEDGEMENT

Regional Water Supply Commission Chair, G. Baird, provided the Territorial Acknowledgement.

2. ELECTION OF CHAIR

G. Baird called for nominations for Chair of the Water Advisory Committee for a one-year term ending December 31, 2024.

K. Zimmerman nominated K. Oppen. K. Oppen accepted nomination.

G. Baird called for nominations a second time.

G. Baird called for nominations a third and final time.

Hearing no further nominations, K. Oppen was acclaimed as Chair for 2024.

3. ELECTION OF VICE CHAIR

The Chair called for nominations for Vice Chair of the Water Advisory Committee for a one-year term ending December 31, 2024.

T. Krawczyk nominated K. Zimmerman. K. Zimmerman accepted nomination.

The Chair called for nominations a second time.

The Chair called for nominations a third and final time.

Hearing no further nominations, K. Zimmerman was acclaimed as Vice Chair for 2024.

4. APPROVAL OF AGENDA

MOVED by K. Zimmerman, **SECONDED** by T. Krawczyk,
That the agenda be approved as circulated.

CARRIED

5. ADOPTION OF MINUTES

MOVED by A. McArdle, **SECONDED** by T. Krawczyk,
That the minutes of the September 26, 2023 Water Advisory Committee meeting be adopted.

CARRIED

6. CHAIR'S REMARKS

The Chair made the following remarks:

- Water is a high priority and the Committee has an ambitious list of work to do.
- Important for the Committee to remember it is an advisory committee to the Regional Water Supply Commission and understand how we fit into that role and do our best work.
- We make recommendations to the Commission, and we need to work within their timeline and priorities, there is still opportunity to bring forward new ideas.
- We have a lot of expertise and enthusiastic commitment to water on the Committee.
- She expressed her appreciation of the professionalism and the skills that everyone brings to the Committee.

7. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

8. GENERAL MANAGER'S REPORT

A. Fraser provided the following updates:

There are two significant programs underway:

- The Regional Water Supply Development Cost Charge program – staff are wrapping up municipal consultations and will be presenting the findings of that consultation to the Regional Water Supply Commission in March. This has been a significant amount of work which is also linked to the Master Plan that was approved in 2022.
- The 2022 Master Plan has recently garnered some attention. Staff will be presenting an overview to the Regional Water Supply Commission of the Master Plan this Friday at 9 am. Committee members are invited to tune in to the live webcast of that meeting to learn more about the Master Plan.

A. Fraser provided the Committee with an overview of the various plans that guide the management of a utility:

- **Strategic Plan** – is the vision statement of what the key priorities are and of where we want to go – essentially the aspirational goals.
- **Master Plan** – is how we get there, how we reach the Strategic Plan. It outlines the medium and long-term projects and infrastructure investments needed to achieve the Strategic Plan. It provides for staff and Commissions to look at the bigger issues at a conceptual level. All the projects identified in the Master Plan still need to be approved in the Capital Planning process.

- **Operational Plans** – as a utility there are a lot of operational plans which are internal documents that direct the day-to-day operations.

The Water Advisory Committee will be engaged on the design of the Strategic Plan and the implementation of the 2025 Master Plan.

Discussion ensued and staff responded to questions regarding:

- Managing the Master Plan and the Strategic Planning process
- Priority planning, key trends and the ability to adjust to changes
- Watershed Management Plan
- Ownership of Leech and Goldstream watersheds

9. COMMITTEE BUSINESS

9.1. Water Conservation Bylaw Amendment [Presentation]

Environmental Protection staff provided a presentation.

Discussion ensued and staff responded to questions from the Committee regarding:

- Instantaneous peak demand
- Residential demand and peaks is what the bylaw will focus
- Data analysis
- Focus on summer outdoor demand
- High density housing outdoor use
- Indoor versus outdoor demand
- Focussing on irrigation industry
- Proposing to move to overnight watering for timed irrigation and changing watering days
- Drought implications
- Once through cooling (OTC) units

MOVED by T. Pedersen and **SECONDED** by T. Krawczyk,
That the Water Advisory Committee express its support for the proposed Bylaw amendment.

CARRIED

9.2. Regional Water Supply 2017 Strategic Plan Closeout – Regional Water Supply Commission Staff Report for Information

A. Fraser spoke to the report noting that this Committee will be engaged on the Strategic Plan refresh for 2025. She highly recommended that the Committee read through the 2017 Strategic Plan and the accomplishments on the actions that have been undertaken. It will be very helpful in informing the new plan. She noted that there are some items in the 2017 Plan that would likely be carried forward to the new plan.

Discussion ensued and staff responded to questions from the Committee regarding:

- Consultation process
- Committee input
- Draft framework and outline being presented at next Committee meeting
- Public outreach

A. Fraser emphasized that she would like the Committee to familiarize itself with the attached report and the previous Strategic Plan. She advised that staff are not looking for options or input yet as staff first must draft the new Strategic Plan and would be looking to present the draft for feedback at the May meeting. Prioritizing can take place following the framework coming back in May.

9.3. Agricultural Water Rate Study – Overview

S. Irg provided an update noting that Stantec had been hired as the consultant to conduct the review, which was completed in Phase 1. Phase 2 will be a more in-depth report with a draft scope of services, which will be seeking feedback on.

Discussion ensued and staff responded to questions from the Committee and the following feedback was received:

- Needs to have a sense that we are working in the best interests of keeping our food local.
- Create greater equity in the system.
- Costly hookups are a barrier.
- Look at how farms are assessed, expanding the eligibility, review the methodology and include the BC Assessment Act.
- Regarding comments received about the “establishment of a maximum annual total” staff to change the wording in the general scope of Item 5a to read “consider the establishment of a maximum total and the impact of that”.

9.4. Summary of Recommendations from Regional Water Supply Commission

There was no discussion, the item was received for information.

9.5. Water Watch Report

There was no discussion, the item was received for information.

10. NEW BUSINESS

There was no new business.

11. ADJOURNMENT

MOVED by T. Krawczyk, **SECONDED** by W. Schuer,
That the February 27, 2024 meeting be adjourned at 2 pm.

CARRIED

CHAIR

SECRETARY

**REPORT TO WATER ADVISORY COMMITTEE
MEETING OF WEDNESDAY, MAY 28, 2024**

**SUBJECT DRAFT 2025 STRATEGIC PLAN FOR THE GREATER VICTORIA WATER
SUPPLY SYSTEM**

ISSUE

To present the summarized draft of the 2025 Strategic Plan for the Greater Victoria Water Supply System, along with the stakeholder engagement plan, to the Water Advisory Committee for review and feedback before consideration by the Regional Water Supply Commission.

BACKGROUND

Section 5 of British Columbia Regulation 284/97 under the *Capital Region Water Supply and Sooke Hills Protection Act* required that the Capital Regional District (CRD) adopt a strategic plan for a 20-year period and that the plan be reviewed on a regular basis.

In October 1999, the CRD Board passed a *Bylaw to Adopt a Strategic Plan for Water Management* and the first Strategic Plan was prepared. The Strategic Plan provided direction for the development and management of the water supply, transmission system, demand management program, and water supply catchment lands and has been subsequently reviewed and updated in 2004, 2012 and 2017. The 2017 Strategic Plan (Appendix A) focused on three overarching long-term commitments, with strategic priorities and actions guiding shorter term initiatives and service planning delivery over a five-year period.

At the February 21, 2024, Regional Water Supply Commission meeting, staff presented the 2017 Regional Water Supply Strategic Plan Close-out Report (Appendix B). This report indicated that many key actions from the 2017 Plan have been completed or operationalized. Consequently, the Strategic Plan needs to be refreshed to address current operational context and external pressures and priorities anticipated in the next 5-to-10-year planning horizon. At this meeting, the Commission passed the following resolution:

1. *That staff be directed to update the Regional Water Supply Strategic Plan; and,*
2. *That staff provide the Regional Water Supply Commission an updated draft Strategic Plan prior to initiating public, First Nations, and stakeholder engagement on the Plan.*

The summarized draft 2025 Strategic Plan (Appendix C) maintains the 2017 format, focusing on three Commitments and supporting Strategic Priorities and Actions to guide shorter-term initiatives and service planning.

The strategic priorities address changing factors affecting the service while ensuring the achievement of long-term commitments. The example actions include initiatives, projects, or studies aimed at meeting near-term objectives and supporting the strategic priorities.

The strategic priorities will be reviewed and updated every 5-10 years as part of the Strategic Plan review. Actions required to achieve the priorities and commitments will be identified by staff and integrated into a workplan, budgeted, and implemented over the five years following plan approval.

Advancing the Plan and Measuring Success

The 2025 Strategic Plan would be used at the highest level to guide the CRD's commitments to the customers of the Regional Water Supply Service, as well as guide the day-to-day activities and decision making associated with the service, to ensure the safe, reliable and efficient delivery of water supply for the current and future customers in Greater Victoria. The actions will direct the initiatives, projects and studies that will form the annual and five-year work programs, with progress reported to the Water Advisory Committee and Regional Water Supply Commission in years two, four and at the close of the Plan. These progress reports will detail how the actions contribute to achieving strategic priorities and supporting commitments.

2025 Strategic Plan Engagement and Implementation

Engaging interested parties, including the Regional Water Supply Commission, Water Advisory Committee, municipal and First Nations water purveyors, the regulators, and the public, is crucial for the Strategic Plan's development. Feedback will be gathered and incorporated before finalizing the plan in Q1 of 2025.

It is proposed to conduct virtual engagement with the public starting in the fall/winter of 2024. It is proposed to utilize the CRD's public online engagement platform "Get Involved" which has been used successfully to gain public input for various CRD initiatives. In this case, the "Get Involved" platform would be used to seek feedback from interested parties regarding the proposed Commitments, Priorities and Actions. A response period of 45 days would allow for the receipt of responses which will be included in the Engagement Summary to be brought back to the Commission at a future meeting. Engagement opportunities would be advertised via social media, the CRD website, media releases and paid advertising.

ALTERNATIVES

Alternative 1

That the Water Advisory Committee recommends to the Regional Water Supply Commission, the Committee's endorsement of the draft 2025 Strategic Plan for the Greater Victoria Water Supply System presented in this report.

Alternative 2

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

CONCLUSION

The summarized draft 2025 Strategic Plan for the Greater Victoria Water Supply System content has been prepared. The vision for the plan is to produce a concise, strategic plan that serves the Regional Water Supply Commission and services as a guiding document for service delivery and is suitable for public consumption. The planning horizon extends to 2050, focusing on Plan Commitments, Strategic Priorities, and Actions. Stakeholder engagement, including feedback from the Regional Water Supply Commission, the Water Advisory Committee, the municipal and First Nations water purveyors and the public, is a key part of the development process. Next steps include presenting the draft to the Regional Water Supply Commission and proceeding with stakeholder engagement.

RECOMMENDATION

That the Water Advisory Committee recommends to the Regional Water Supply Commission, the Committee's endorsement of the draft 2025 Strategic Plan for the Greater Victoria Water Supply System presented in this report.

Submitted by:	Alicia Fraser, P.Eng., General Manager, Integrated Water Services
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Appendix A: Regional Water Supply 2017 Strategic Plan

Appendix B: 2017 Regional Water Supply Strategic Close-out Report dated February 21, 2024

Appendix C: 2025 Draft Strategic Plan Outline

Appendix D: Presentation



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Regional Water Supply 2017 Strategic Plan

CRD
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Table of Contents

Introduction2

Context for the Strategic Plan3

Service Governance & Stakeholders4

Regional Water Supply System6

The Regional Water Supply Strategic Plan Overview8

Areas of Focus9

Commitments, Strategic Priorities, Actions12

Advancing the Strategic Plan19

Introduction

The Capital Regional District (CRD) supplies drinking water for more than 370,000 people, supporting residential, commercial, institutional, light industrial, agricultural and public safety uses across the Greater Victoria area on Vancouver Island in British Columbia. Greater Victoria is growing and factors affecting water supply continue to change. A safe and adequate supply of drinking water is critical to the livability and sustainability of Greater Victoria. Recognizing this, the CRD is committed to:



Provide high quality, safe drinking water



Provide an adequate, long-term supply of drinking water



Provide a reliable and efficient drinking water transmission system

This Strategic Plan for Regional Water Supply sets Commitments and identifies Strategic Priorities and Actions, with a planning horizon to the year 2050, that will guide the future direction for the Regional Water Supply Service. The Strategic Plan will also support CRD Board priorities, provide context for water servicing policy, and align with other CRD strategies and plans.



Sooke Lake Dam

Context for the Strategic Plan

In 1997, the service authority for Regional Water Supply transferred from the Greater Victoria Water District to the CRD under the Capital Region Water Supply and Sooke Hills Protection Act and Regulation, provincial legislation enacted to establish a new model for the delivery of Regional Water Supply.

The Regulation required the CRD to establish a strategic plan for water supply. The first strategic plan was completed in 1999 and has been reviewed and updated in 2004 and 2012. The previous plans have resulted in the implementation of a number of initiatives in the areas of water conservation, management of the watershed lands, investment in treatment and transmission infrastructure, climate change adaptation, and addressing changing trends in water use.

Moving forward, there will be a periodic review of the Strategic Priorities, and an update of the Actions set out in this plan every five years.



The CRD treats and
delivers an average of
130 million
litres of water every day.

Service Governance & Stakeholders

The water supply system operates under a CRD regional service, known as the Regional Water Supply Service, which is administered by the Regional Water Supply Commission, a Commission of the CRD Board.

The Regional Water Supply Commission is a body of 22 elected officials who represent and provide political leadership and decision making on behalf of the local authorities that receive water supply service. The Water Advisory Committee is the public advisory committee that provides advice to the Commission on matters related to the service including water supply, water quality, water conservation and stewardship of the water supply area lands.

There are many stakeholders involved in the supply and delivery of safe drinking water, each with specific roles and responsibilities.

Some of the key stakeholders are:

Canada

The Guidelines for Canadian Drinking Water Quality, published by Health Canada, set out the basic microbiological, chemical and radiological parameters and the physical characteristics, such as taste and odour, that water systems such as the Regional Water Supply System strive to achieve in order to provide the cleanest, safest and most reliable drinking water possible.

Province of British Columbia

The provincial Public Health Act and Regulation sets out the role and powers of health



The Regional Water Supply service provides bulk water to the municipalities listed below and the CRD, who operate water distribution systems that deliver water directly to customers across Greater Victoria.

- District of Central Saanich
- District of North Saanich
- District of Oak Bay
- District of Saanich
- Town of Sidney
- City of Victoria/Township of Esquimalt
- CRD Juan de Fuca Water System (Serving Town of View Royal, City of Colwood, City of Langford, District of Metchosin, District of Highlands, District of Sooke, East Sooke in the Juan de Fuca Electoral Area, Beecher Bay First Nation, Esquimalt First Nation, Songhees First Nation, T'Souke First Nation)

officials and the requirements for planning, reporting and regulation of activities that may affect public health, including the provision of drinking water. The Public Health Act works in concert with the Drinking Water Protection Act and Regulation which pertains specifically to drinking water supply and protection requirements. The CRD also meets the requirements of the Water Sustainability Act which sets out requirements to ensure a sustainable supply of fresh, clean water that meets the needs of BC residents today and into the future.

Island Health

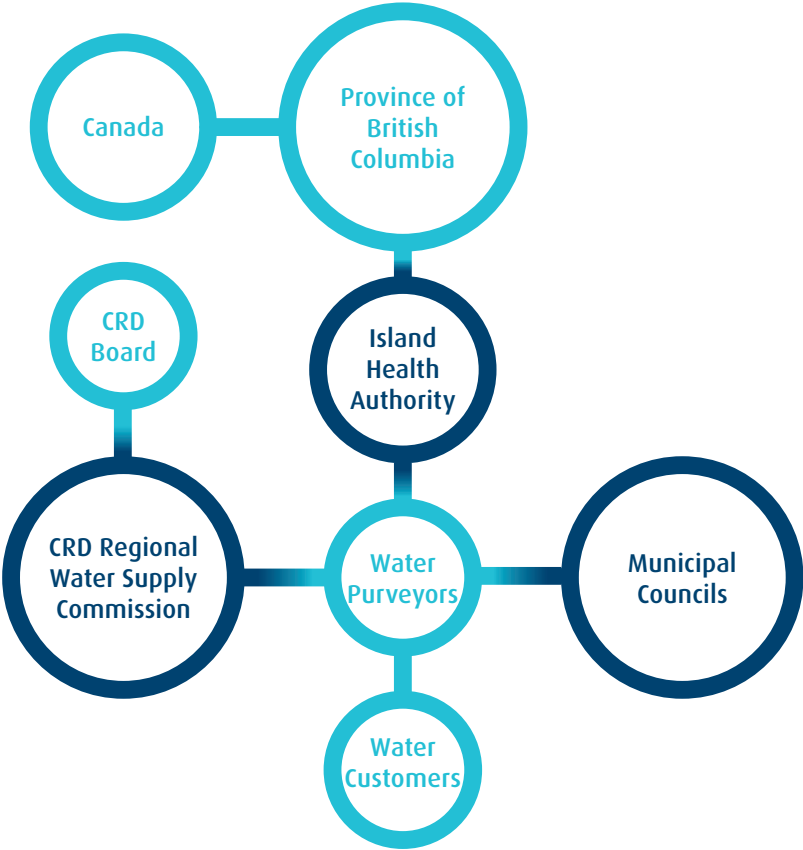
Island Health is the Vancouver Island Health Authority that administers and enforces the applicable provincial legislation through water system operating permits. The CRD holds operating permits with Island Health for the Regional Water Supply System and regularly reports drinking water quality information to Island Health.

Water Purveyors

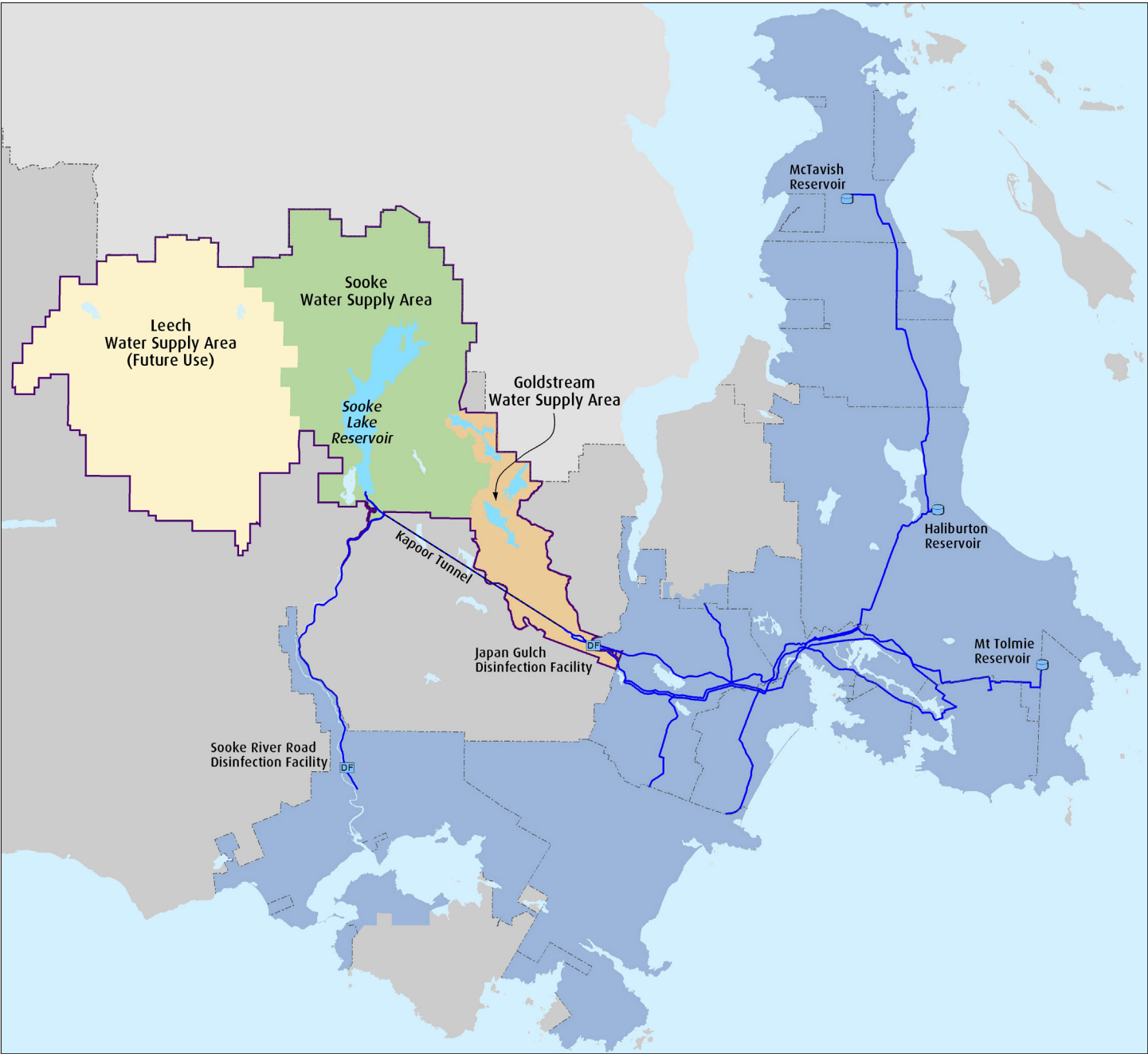
The CRD, municipalities and First Nations in the Region own and operate water systems that receive water from the Regional Water Supply Service, then distribute water directly to water customers. Water purveyors are responsible for the provision of safe drinking water as well as managing all other aspects of the distribution system.

Water Customers

All water customers connected to a public water system are responsible for ensuring that the public system is not exposed to any contamination that could be introduced through private water plumbing systems by cross connection or backflow, and for using water responsibly, particularly when using water for discretionary purposes, to assist with management of the Region’s water supply.



Regional Water Supply System



Regional Water Supply System – Serving Greater Victoria

Regional Water Supply Area:

20,549 HECTARES OF PROTECTED DRINKING WATER CATCHMENT LANDS

- Primary Supply Source: Sooke Lake Watershed & Reservoir
- Secondary Supply Source: Goldstream Watershed & Reservoir System
- Future Water Supply Area: Leech Watershed

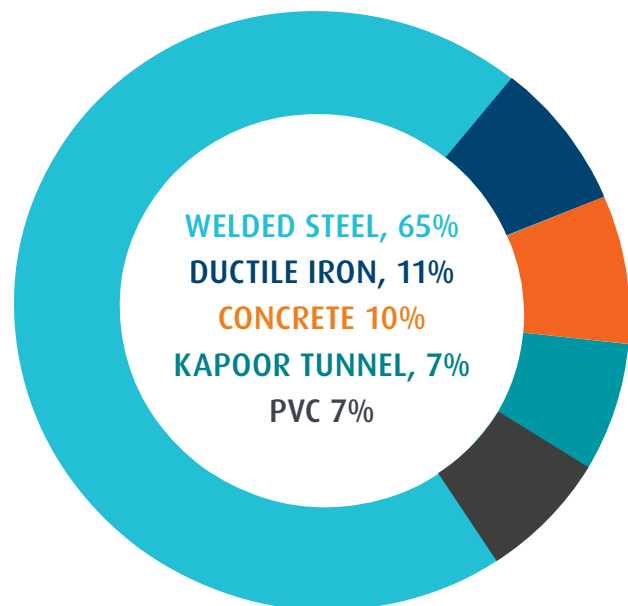
Water Treatment

- Unfiltered Source Water
- **Primary Disinfection:**
 - Ultraviolet light – targets parasites
 - Free chlorine – targets bacteria and viruses
- **Secondary Disinfection:**
 - Ammonia to produce chloramine – long lasting disinfectant



Water Transmission Mains

- 130 km of pipe and tunnel, size range: 400mm – 2,134mm in diameter
- Pipe construction and materials:



Bulk Water Supply Points to water distribution systems

187 POINTS

The Regional Water Supply Strategic Plan Overview

This update of the Strategic Plan for Regional Water Supply sets out the Commitments, Strategic Priorities and Actions for the Regional Water Supply Service.

Commitments

There are three key water supply Commitments the CRD makes today and into the future. These long term Commitments are foundational to the plan and to achieving the service authority and mandate. The Commitments are expected to remain virtually unchanged for decades.

Strategic Priorities & Actions

Each Commitment has supporting Strategic Priorities and Actions which will guide shorter term initiatives as well as service planning and delivery. It is expected that Strategic Priorities would be reviewed and updated every 5-10 years and Actions would be planned, budgeted and implemented over the five-year cycle.

Planning Horizon

The planning horizon for the development of the plan is to the year 2050 based on the following considerations:

- 2050 is the projected earliest date that the Leech Water Supply Area may be required to supplement the Sooke Lake Reservoir to meet regional water supply demand based on higher population growth rate projections
- Water supply system components can have a useful life as short as 15 years and as long as 80 years or more
- Approximately 30 years from now strikes a balance with what can reasonably be planned considering the projected water supply needs of the Region and other factors such as climate change and advances in technology, while looking far enough ahead to allow informed decision making regarding key infrastructure and financial decisions

Areas of Focus

There are six areas of focus that emerge from the Strategic Priorities and Actions that will influence operational, capital and financial aspects of the Regional Water Supply Service over the next five years and beyond. The six areas of focus are:



CRD BOARD PRIORITIES – SUSTAINABLE AND LIVABLE REGION

The current CRD Board Strategic Priorities include 12 priority areas and 51 strategic priorities, which support a vision for a sustainable, livable, vibrant, collaborative and service oriented Region. In addition, the CRD has identified corporate and core service priorities - the Drinking Water and Regional Infrastructure priority areas directly relate to Regional Water Supply and the importance of the service in supporting a sustainable and livable region. The Regional Water Supply Commission supports these priority objectives.



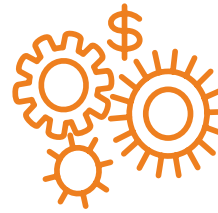
CLIMATE CHANGE IMPACTS – MITIGATION AND ADAPTATION

Preparing for and mitigating or adapting to climate change will be necessary in the Capital Region. In the years to come, it can be expected that there will be warmer winter temperatures, more extreme hot days and longer dry spells in the summer, more precipitation in fall, winter and spring and more intense, extreme weather events. All of these weather changes can have an impact on water supply, water quality and the health and resilience of forests in the watersheds. The CRD will respond to the climate change challenges by integrating climate change implications into risk register and infrastructure management decision making and plans.



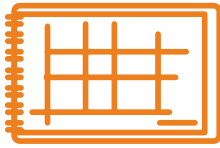
PREPARING FOR EMERGENCY AND POST-DISASTER WATER SUPPLY

Planning and preparing for the potential impacts of a destructive earthquake and other natural disasters on regional and municipal infrastructure is a priority for the CRD and municipal partners. Water supply and distribution in a post-disaster situation is a key aspect of regional emergency planning. Furthering infrastructure resiliency, coordinating emergency planning with other local governments and senior governments, and preparing for emergency water supply and distribution are priorities.



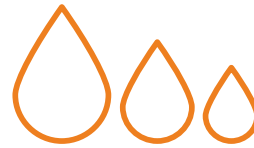
SUPPLY SYSTEM INFRASTRUCTURE INVESTMENT – RENEWING EXISTING AND PREPARING FOR NEW INFRASTRUCTURE

Infrastructure renewal is an integral component of the management of the Regional Water Supply System. The goal is to ensure that water supply infrastructure is replaced or upgraded prior to the end of its projected service life to ensure the system performs reliably, while maximizing the service life of the assets. Planning for new infrastructure related to water treatment requirements, to meet water supply and demand capacity expectations, and to address redundancy and seismic resiliency will be a priority.



PLANNING FOR THE FUTURE USE OF THE LEECH WATER SUPPLY AREA

The Leech Water Supply Area (LWSA) was acquired by the CRD in 2007 as the future water supply area for the Regional Water Supply System. The LWSA will serve as an additional water catchment area that will provide more water runoff into the Sooke Lake Reservoir when it is brought into service. Although the actual year the LWSA will be required will be subject to changing water demand and climate change impacts, as well as actual population growth rates, it is estimated that the LWSA will not be required to supplement the Sooke Lake Reservoir storage volumes until around 2070 with a moderate population growth projection or as early as around 2050 with a higher population growth rate projection. To prepare for the eventual use of the LWSA, further work is required to plan for the water quality impacts of the different raw water sources, rehabilitation of the water supply area forests and drainage structures, and infrastructure necessary to convey the LWSA flows into Sooke Lake Reservoir.



DEMAND MANAGEMENT - ADDRESSING CHANGING TRENDS IN WATER DEMAND

It is expected that the trend of declining per capita water demand across the Capital Region will continue at a rate of approximately 1% per year over the next 10 years. The declining demand is largely related to declining indoor demand resulting from ongoing household conversions to low flow fixtures and high efficiency appliances, as well as declining outdoor demand as public attitudes and behavior towards discretionary outdoor water use change. However, it remains a priority to achieve a further reduction in per capita water use in order to defer the need to build water supply, treatment and transmission capacity in the supply system, until it is necessary to support population growth. Water conservation and understanding the value of water will continue to be key elements of demand management.



COMMITMENT:

Provide high quality, safe drinking water

1 Manage and protect the Greater Victoria Water Supply Area (GVWSA).

- Continue to actively protect the GVWSA and water supply infrastructure from unauthorized activities and seek opportunities to acquire ownership and control of the remaining catchment lands and critical adjacent lands to act as a buffer.
- Reduce risk to water supply and ecosystems from contaminants and invasive plants, animals and pathogens by completing a biosecurity risk assessment and implementing biosecurity mitigation measures.
- Implement the GVWSA climate change adaptation initiatives to reduce the impact of the potential types, magnitude and rate of climate change on GVWSA ecosystems, water quality and infrastructure.
- Assess the need for more active forest management to protect and enhance forest health and resilience.
- Reduce risk of landscape level wildfire by designing and implementing forest fuel management treatments.



47.6M m³

of drinking water was delivered in 2016 through the regional water supply system



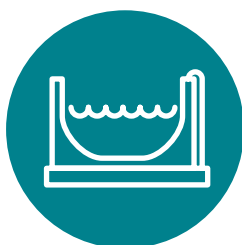
CRD Water Quality Laboratory

2 Maintain a multi-barrier approach to drinking water quality protection.

- Continually evaluate the effectiveness of the water treatment processes.
- Use the Regional Water Supply Service drinking water safety plan in operational and capital project decision making.
- Maintain multiple accreditations to ensure highest quality drinking water testing.
- Continue to develop and refine the Utility Operator Training Program and ensure adherence to Environmental Operator Certification Program requirements.
- Identify and implement progressive and innovative training and development opportunities with respect to utility operations and management for departmental staff.

3 Maintain a risk register for the Regional Water Supply System that identifies potential risks to water quality, water supply and water transmission and provide mitigation and adaptation measures.

- Regularly review Regional Water System hazards, risks and vulnerabilities and update the risk register.
- Continue the emphasis on wildfire prevention, early detection and suppression capability, preparedness, forest fuel management and post-fire rehabilitation planning to reduce and mitigate the risk of a large-scale wildfire affecting the water supply area and source water quality.
- Continue to monitor and evaluate the implications of the reliance on unfiltered source water and the absence of a filtration step in the water treatment process.
- Conduct specific seismic risk evaluations of critical assets.



COMMITMENT:

Provide an adequate, long-term supply of drinking water

1 Plan and prepare for future water supply needs to meet demand considering impacts of climate change, population growth, and per-capita demand rates.

- Evaluate climate change impacts and risks on water supply and incorporate mitigation and adaptation recommendations in operating and capital plans.
- Update service population and service population growth rate forecasts with current census data, considering municipal Official Community Plan land use and population directions, to estimate growth related water demand.
- Establish long-term per capita demand rate projections and Demand Management Program objectives to achieve rates and determine annual water demand by sector.
- Undertake regular monitoring and assessment of the physical, chemical, and biological parameters of the Leech Water Supply Area (WSA) source water and determine a plan to address potential water quality, ecological and ecosystem implications at Sooke Lake Reservoir resulting from diversion of Leech WSA source water (Leech River water) to Sooke Lake Reservoir (ie. combining source waters).
- Develop a plan to undertake more 'intensive' monitoring of Leech River water quality to inform treatability recommendations and long term treatment strategy.
- Determine conceptual 'hard' capital infrastructure plan to design and construct the necessary infrastructure to divert Leech WSA flows to Sooke Lake Reservoir.
- Conduct a feasibility study to explore the design and construction of supply and transmission infrastructure at Sooke Lake Reservoir to provide increased resiliency, including consideration of a deep northern intake and a secondary transmission pipe between the reservoir and the treatment facilities.
- Undertake biannual Supply System hydraulic modelling to confirm system capacity.



Jarvis Lake in the Leech Water Supply Area

2 Develop a higher level of public understanding of the drinking water supply system and value of water through education and engagement.

- Continue to improve Regional Water Supply service and system information available to the public through a variety of media streams, to raise awareness around specific topics including water supply and conservation, and supply infrastructure investment.
- Continue to promote the value of the drinking water resource through Water Supply Area public and school tours and other outreach.
- Continue to have two-way dialogue with the Water Advisory Committee regarding water supply matters.
- Explore opportunities for mutually beneficial collaborative partnerships to carry out research and monitoring initiatives in the water supply area and across the system.



9,628

Hectares of protected catchment lands within the Leech Water Supply Area acquired in 2007 for future drinking water supply area.



COMMITMENT:

Provide a reliable and efficient drinking water transmission system

1 Maintain a capital planning process and appropriate investment in water supply infrastructure to ensure reliable system performance

- Complete a short term (annual and 5-year), medium term (5-10 year), long term (10-20 year) and long range (20-50 year) asset management plan – informed by asset condition and remaining service life assessment, water operation and maintenance history, water audit, changing regulatory requirements, Hazard, Risk and Vulnerability Assessment (HRVA) recommendations, and system capacity requirements.
- Explore Regional Water Development Cost Charges to fund future growth related supply system infrastructure improvements.
- In collaboration with municipal and First Nations water purveyors, establish water supply service agreements.

2 Continually review cost effectiveness of service respecting operations and maintenance and capital investment decisions.

- Continue to review reactive, preventive and predictive operations and maintenance history and confirm operation and maintenance service levels for the Regional Water Supply Service that consider best practices and reliability centered maintenance approach.
- Consider life cycle costs with new infrastructure design and asset replacement.
- In asset replacement decisions, balance maximizing infrastructure service life with infrastructure reliability.
- Optimize capital investment taking into consideration priority, annual and long term budget and water rate impacts and resource availability to deliver the projects.



Japan Gulch Ultraviolet Disinfection Plant

3 Develop and manage emergency bulk drinking water supply systems for Greater Victoria.

- Establish emergency and post-disaster water supply protocols and obtain necessary supplies, materials and equipment to implement protocols. Establish water purveyor support roles and responsibilities in emergency water supply and distribution.
- Outline how an emergency/post disaster drinking water supply can be supported by regional emergency management plans and available senior government supports under certain conditions.

4 Continue to focus on retaining and recruiting experienced and professional employees responsible for the Regional Water Supply System engineering, system operation and maintenance, and management of the water supply area.

- Develop a succession plan to ensure key positions are backfilled by experienced and knowledgeable employees, and that system knowledge is preserved.
- In alignment with CRD organizational development initiatives, provide learning and development opportunities for employees.

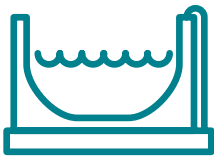


Over \$130 million has been invested in supply system infrastructure renewal since 1995.

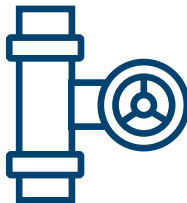
Commitments



Provide high quality, safe drinking water



Provide an adequate, long-term supply of drinking water



Provide a reliable and efficient drinking water transmission system

Advancing the Strategic Plan

A safe and adequate supply of drinking water is critical to the livability and sustainability of Greater Victoria and the Capital Region. The Greater Victoria area is fortunate to have a well established water supply system and a climate that has allowed for the replenishment of source water.

The Commitments outlined in the Plan will ensure that the CRD continues to provide clean, safe, reliable drinking water to the communities we serve. The Strategic Priorities and Actions will guide service planning and delivery over the coming years. The CRD will be responsive to factors affecting the uncertainty of water supply, such as climate change and future water demand, while ensuring the long term Commitments to our customers remain our priority.

Progress and outcomes will be tracked and reported annually to the Regional Water Supply Commission and the CRD Board to ensure the ongoing achievement of the Commitments, Strategic Priorities and Actions in the Strategic Plan.

The photos in this document were taken within the boundaries of the Capital Regional District, and we wish to acknowledge Helene Cyr whose work is featured here.

RWSC 24-03

**REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, FEBRUARY 21, 2024**

SUBJECT **2017 Regional Water Supply Strategic Plan – Close-out**

ISSUE SUMMARY

To close-out the 2017 Regional Water Supply Strategic Plan, provide a summary of the accomplishments between 2018 and 2023 and to seek direction to draft an update to the Regional Water Supply Strategic Plan.

BACKGROUND

Section 5 of British Columbia Regulation 284/97 under the *Capital Region Water Supply and Sooke Hills Protection Act* required that the Capital Regional District (CRD) adopt a strategic plan for a 20-year period and that the plan be reviewed on a regular basis.

The Plan for Regional Water Supply was renewed in 2017 following public and Water Advisory Committee engagement and approved by the Regional Water Supply Commission (Commission) and the CRD Board in the Fall of 2017. The current plan sets out a 30-year planning horizon to 2050. The Plan centers around three overarching commitments, with strategic priorities and actions to ensure the commitments are upheld over the planning period.

A safe and adequate supply of drinking water is critical to the livability and sustainability of Greater Victoria. Recognizing this, the 2017 Strategic Plan (attached at Appendix A) highlights the CRD's commitment to:

- Provide high quality, safe drinking water,
- Provide an adequate, long-term supply of drinking water,
- Provide a reliable and efficient drinking water transmission system.

To achieve these commitments and ensure the service is adapting to changing factors, the Plan identifies strategic priorities and actions. The actions focus on tactics including initiatives, projects or studies intended to inform or meet near-term objectives and support the strategic priorities. It is expected that the strategic priorities would be reviewed and updated every 5 to 10 years and the actions would be planned, budgeted, and implemented (subject to Commission and Board approval) over the five years following approval of the plan (2018 – 2022).

A status report on the implementation of the actions was presented to the Regional Water Supply Commission in October 2020.

Since 2018 significant progress was made on the Plan's strategic priorities and associated actions. These accomplishments span across all three commitments and the accomplishments are summarized in Appendix B. Some of the notable accomplishments include, but are not limited to:

- Development and adoption of land acquisition priorities for the Greater Victoria Water Supply Area (GVWSA) and resulting acquisition of 56.5 ha, disposition of 5.6 ha; and extinguishment of 12 placer claims in the Leech.

Regional Water Supply Commission – February 21, 2024
2017 Regional Water Supply Strategic Plan – Close-out

2

- Modelling of burn severity, soil erosion and debris flow potential following wildfire in the Sooke watershed to guide post-wildfire preparedness.
- Various partnerships with academia that seek to increase the knowledge of the watershed and resiliency capacity.
- Completion of a hydrology monitoring system in the Leech WSA and upgrade of hydrology monitoring stations in the Sooke and Goldstream WSAs.
- Forest & wildfire resilience trial [of thinning] to better protect and enhance forest health and resilience in the face of climate change.
- ISO 17025 laboratory accreditation.
- Creation of a Dam Safety Risk Register which is used to prioritize capital work.
- Completion of the 2021 Supply System Risk and Resilience Study which identifies risks to critical water supply assets and prioritizes strategies/capital investments to reduce risk.
- Completion of the 2022 Master Plan which provides a high-level roadmap that offers a 30-year vision into the future requirements for the Service, considering future needs-related sources of water, treatment, and conveyance considering future demand projections, hydraulic capacity limitations and risks to the system.
- Began discussions with the First Nations to negotiate terms of first bulk Water Supply Service Agreements.
- Creation of a seismic resilient transmission system, development of a critical spare inventory for transmission main repair and distribution units/kits that can be leveraged in the event of transmission main failures. These systems would be critical to response after a seismic event.

There are some actions that have yet to be completed, these have also been noted in Appendix B. Staff will continue to progress these future actions and they will be carried forward to a new Strategic Plan.

Given the progress and accomplishments made since 2018, a review of the strategic priorities and actions should be conducted to refresh the Plan for the next 5 to 10-year time horizon.

ALTERNATIVES

Alternative 1

1. That staff be directed to update the Regional Water Supply Strategic Plan; and,
2. That staff provide the Regional Water Supply Commission an updated draft Strategic Plan prior to initiating public, First Nations, and stakeholder engagement on the Plan.

Alternative 2

That staff be directed to maintain the existing plan and complete the outstanding actions.

Alternative 3

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

Regional Water Supply Commission – February 21, 2024
2017 Regional Water Supply Strategic Plan – Close-out

3

IMPLICATIONS

Service Delivery Implications

The update of the Strategic Plan would include workshopping current opportunities and challenges with CRD staff followed by public, First Nations, and stakeholder engagement. This engagement would include sharing the draft plan, gathering feedback from the Regional Water Supply Commission, the Water Advisory Committee, the municipal and First Nations water purveyors, the regulators, and the public, to prior to finalizing. Staff anticipate seeking final approval of the updated Plan by the end of 2024.

By not moving forward, staff may not be able to proactively react to emerging risks and over time service level may be impacted.

Financial Implications

Updates to the Strategic Plan and associated priorities may result in required adjustments to the 2025 to 2030 capital plan.

CONCLUSION

In 2017, the Capital Regional District (CRD) set out a 30-year plan of renewed commitments, strategic priorities and actions in a *Strategic Plan for Regional Water Supply*. After seven years of working under this Plan, many of these key actions have been completed or operationalized while new trends and challenges face the Regional Water Supply service. The Strategic Plan needs to be updated to define actions for the next 5- to 10-year planning horizon. The refresh of the Strategic Plan would include workshopping current opportunities and challenges with staff and the management team followed by stakeholder engagement. This engagement would include sharing the plan, gathering feedback from the Regional Water Supply Commission, the Water Advisory Committee, the municipal and First Nations water purveyors, the regulators, and the public, prior to finalizing. We anticipate seeking final approval of the updated Plan by the end of 2024.

RECOMMENDATION

1. That staff be directed to update the Regional Water Supply Strategic Plan; and,
2. That staff provide the Regional Water Supply Commission an updated draft Strategic Plan prior to initiating public, First Nations, and stakeholder engagement on the Plan.

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

ATTACHMENT(S)

Appendix A: 2017 Regional Water Supply Strategic Plan **REFER TO PAGE 10 OF THIS AGENDA PACKAGE**

Appendix B: Regional Water Supply Strategic Plan Close-out Summary Report



COMMITMENT:
Provide high quality,
safe drinking water

Manage and protect the Greater Victoria Water Supply Area (GVWSA)

Actions	Accomplishments	Future Actions
Continue to actively protect the GVWSA and water supply infrastructure from unauthorized activities and seek opportunities to acquire ownership and control of the remaining catchment lands and critical adjacent lands to act as a buffer.	<ul style="list-style-type: none"> Development and adoption of land acquisition priorities for the GVWSA. Remediation of the Weeks Lake gravel pit that was contaminated with lead and hydrocarbons. Acquired 56.5ha of watershed, disposition of 5.6ha; and extinguishment of 12 placer claims in the Leech. Various security gate improvements. 	
Reduce risk to water supply and ecosystems from contaminants and invasive plants, animals and pathogens by completing a biosecurity risk assessment and implementing biosecurity mitigation measures.	<ul style="list-style-type: none"> Completion of a GVWSA biosecurity strategy for the GVWSA. Introduced disinfection protocols and separate equipment for each water supply area. Started a Sooke Lake Food Web Study in 2023 to identify key species for monitoring the stability and health of the ecosystem. 	<ul style="list-style-type: none"> Sooke Lake Food Web Study to be completed in 2024. Updated or new spill management plan. Further biosecurity documentation/protocols.



COMMITMENT:
Provide high quality,
safe drinking water

Manage and protect the Greater Victoria Water Supply Area (GVWSA)

Actions	Accomplishments	Future Actions
Implement the GVWSA climate change adaptation initiatives to reduce the impact of the potential types, magnitude and rate of climate change on GVWSA ecosystems, water quality and infrastructure.	<ul style="list-style-type: none"> Implementation of climate change actions related to increasing the capacity of stream crossing structures and upgrade of weather and hydrology monitoring in the GVWSA. Developed a risk-based drainage structure replacement priority map for the GVWSA that factors in climate change needs. Initiation of a collaborative research project with the University of Victoria and Natural Resources Canada to model potential changes to the forests in the GVWSA with climate change and the implications of these changes for wildfire risk (NSERC Alliance Project). Completed Sooke Lake Watershed Flood forecasting. 	<ul style="list-style-type: none"> Additional studies including reservoir operating strategies and culvert assessments. Producing summary documents on climate change adaptation and vulnerability and risk for wider distribution. Ongoing monitoring and mapping of forest health issues in the GVWSA to help determine the effects of changing climatic conditions. Ongoing implementation of recommended adaptation initiatives. NSERC Alliance Project completion (2025). MSc study of Douglas-fir bark beetle threat to the GVWSA in a changing climate completion (2024). Complete GVWSA ecosystem mapping (2024).
Assess the need for more active forest management to protect and enhance forest health and resilience.	<ul style="list-style-type: none"> Completed Aerial and air photo mapping and ground investigation to monitor forest insect and diseases present in the GVWSA. Worked with Provincial researcher to identify issues with chlorotic (yellow) forest stands in the Leech WSA. Implementation of 42 ha trial of thinning for wildfire and forest resilience. Update of ecosystem mapping to better identify forest stands vulnerable to wildfire and climate change. 	<ul style="list-style-type: none"> Juvenile spacing to reduce wildfire hazard, accelerate stand development and reduce potential climate impacts on the forest stands. Completion of NSERC Alliance project (2025) to model how forest management treatments could reduce wildfire impacts help, inform active forest management. Assessments and monitoring to determine the effects and effectiveness of the thinning trials. Assessment of the chlorotic stands in the Leech WSA to determine if forest management options are needed.



COMMITMENT:
Provide high quality,
safe drinking water

Manage and protect the Greater Victoria Water Supply Area (GVWSA)

Actions	Accomplishments	Future Actions
Reduce risk of landscape level wildfire by designing and implementing forest fuel management treatments.	<ul style="list-style-type: none"> Completion of burn probability mapping for the GVWSA to guide forest fuel management. Completion of forest fuel management treatments by thinning, pruning and removing, chipping or burning woody debris (2 major fuel treatment corridors completed). Creation of a Niagara North and Goldstream Connector fuel management corridor. 	<ul style="list-style-type: none"> Complete trial prescribed burn (when weather permits).





COMMITMENT:
Provide high quality,
safe drinking water

Maintain a multi-barrier approach to drinking water quality protection

Actions	Accomplishments	Future Actions
Continually evaluate the effectiveness of the water treatment processes.	<ul style="list-style-type: none"> The water quality monitoring program for the Greater Victoria Drinking Water System is continually expanded to account for population/system growth and emerging new contaminants and new technologies. Since 2018 the following have been added to the monitoring program: <ul style="list-style-type: none"> Addition of 16 sample locations to Westshore due to population growth; and Sampling for polyfluoroalkyl substances (PFAS) since December 2020. 	<ul style="list-style-type: none"> Greater Victoria Nitrification Study planned for 2024 to investigate and identify potential water quality risks from nitrification processes.
Use the Regional Water Supply Service drinking water safety plan in operational and capital project decision making	<ul style="list-style-type: none"> The Greater Victoria Drinking Water Safety Plan (DWSP), a comprehensive water quality risk registry, was completed in 2018, and is annually updated to inform operational and capital upgrades. 	<ul style="list-style-type: none"> Drinking Water Safety Plan (DWSP) is update on an ongoing basis and new risks captured and acted upon (Ongoing).
Maintain multiple accreditations to ensure highest quality drinking water testing.	<ul style="list-style-type: none"> ISO 17025 accreditation (first certified 2017 to ISO 17025:2015, recertified in 2019 to new standard ISO 17025:2017). Reassessed by Canadian Association for Laboratory Accreditation (CALA) every 2 years to maintain accreditation status. Requires successful participation in a semi-annual proficiency testing. Program certified by Provincial Health Officer (PHO) for water microbiology. Maintenance of approval contingent on thrice yearly successful participation in proficiency testing program and onsite audit every 3 years. 	<ul style="list-style-type: none"> Ongoing recertification.



COMMITMENT:
Provide high quality,
safe drinking water

Maintain a multi-barrier approach to drinking water quality protection

Actions	Accomplishments	Future Actions
Continue to develop and refine the Utility Operator Training Program and ensure adherence to Environmental Operator Certification Program requirements.	<ul style="list-style-type: none"> Environmental Operator Certification Program (EOCP) Corporate Recognition Award for IWS internal operator program. Continued Utility Operator exposure to all utility disciplines, for well-rounded development. Ensure compliance and progression through EOCP certifications as a requirement of the Utility Operator Program. Development onboarding program that provides a broad exposure to the operator program over multiple years. 	<ul style="list-style-type: none"> Ongoing engagement and promotion of the program.
Identify and implement progressive and innovative training and development opportunities with respect to utility operations and management for departmental staff.	<ul style="list-style-type: none"> Utilize professional training consultants to expand knowledge of all working environments. Engaged with Corporate safety to ensure our training program meets requirements and achieve the highest value for the employer. Expand hands-on field scenario training. 	<ul style="list-style-type: none"> Continue to seek out new and innovative ways of training through professional consultants who engage staff training from different perspectives (Ongoing.)





COMMITMENT:
Provide high quality,
safe drinking water

Maintain a risk register for the Regional Water Supply System that identifies potential risks to water quality, water supply and water transmission and provide mitigation and adaptation measures

Actions	Accomplishments	Future Actions
Regularly review Regional Water System hazards, risks and vulnerabilities and update the risk register.	<ul style="list-style-type: none"> Established a Corporate Risk Register which includes Regional Water System risks. A Drinking Water Safety Plan was developed that lists and categorizes risks to the RWS and tracks actions to reduce or mitigate those risks. Completed: <ul style="list-style-type: none"> 2022 Master Plan which identified future infrastructure investments that mitigat identified risks, 2021 Supply System Risk and Resilience Study, and 2022 Seismic Assessment of Critical Facilities Study (Phase 1). These reports summarize the critical RWS related risk and proposed mitigation measures. 	<ul style="list-style-type: none"> Continue to include capital projects to reduce items identified in the risk registry and updating of the risk registry (Ongoing).
Continue the emphasis on wildfire prevention, early detection and suppression capability, preparedness, forest fuel management and post-fire rehabilitation planning to reduce and mitigate the risk of a large-scale wildfire affecting the water supply area and source water quality.	<ul style="list-style-type: none"> Added an infrared and drone technology to assist with monitoring for wildfire. Added new FTEs to support wildfire/security. Completed study on post-wildfire hazards and mitigation options in the Sooke WSA. 	<ul style="list-style-type: none"> Complete the post-wildfire risk mitigation strategy for the Sooke WSA (2024).
Continue to monitor and evaluate the implications of the reliance on unfiltered source water and the absence of a filtration step in the water treatment process.	<ul style="list-style-type: none"> Completed 2021 Regional Water Supply System Risk and Resilience Study which identifies risks to its critical water supply assets as well as, strategies/capital investments to reduce risk, this included assessment of risk to water supply as a result of unfiltered water source. Completed the 2022 Master Plan which identified the future addition of filtration by 2035, though this will be refined based on further feasibility, piloting and design. 	<ul style="list-style-type: none"> Conduct ongoing water quality analysis to monitor for any change in water quality. Continued water quality sampling to identify treatment requirements, followed by piloting studies and design of treatment requirements that consider the addition of additional source was and increase resilience to address identified risk, this would include the addition of filtration.

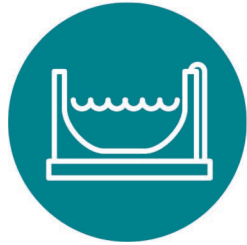


COMMITMENT:
Provide high quality,
safe drinking water

Maintain a risk register for the Regional Water Supply System that identifies potential risks to water quality, water supply and water transmission and provide mitigation and adaptation measures

Actions	Accomplishments	Future Actions
Conduct specific seismic risk evaluations of critical assets.	<ul style="list-style-type: none"> Created a Dam Safety Risk Register which includes recommendations from various Dam Safety studies and Dam Safety Reviews. Updated the Sooke, Saddle and Deception Dams Emergency Procedures along with dam breach scenario inundation mapping. Completed the Supply System Risk and Resilience Study and the Seismic Assessment of Critical Facilities Study (Phase 1) and Dam Safety seismic assessments. 	<ul style="list-style-type: none"> Seismic Assessment of Critical Facilities (Phase 2) completion in 2025. Deception Gulch Dam Risk Reduction Assessment in 2025. Goldstream System Dams Updating of Seismic Hazard, Geotechnical Investigations and Deformation Analysis in 2026. Dam Failure Mode Analysis (incl. Spillway Gates) in 2025.

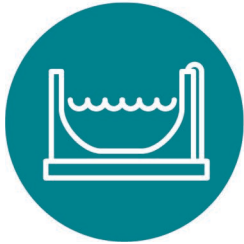




COMMITMENT:
Provide an adequate, long-term
supply of drinking water

Plan & Prepare for future water supply needs to meet demand considering impacts on climate change, population & per-capita demand rates

Actions	Accomplishments	Future Actions
Evaluate climate change impacts and risks on water supply and incorporate mitigation and adaptation recommendations in operating and capital plans.	<ul style="list-style-type: none"> Completion of a hydrology monitoring system in the Leech WSA and upgrade of hydrology monitoring stations in the Sooke and Goldstream WSAs. Completed a study on the effects of climate change on Sooke Lake Reservoir. Introduced a flood forecasting system to guide operating decisions. Goldstream Water Supply Area Capacity Study. Sooke Lake Reservoir – North Basin Water Quality Feasibility Study. Completed 2021 Regional Water Supply System Risk and Resilience Study which identifies risks to its critical water supply assets from man-made, natural, and dependency hazards and prioritizes strategies/capital investments to reduce risk. Completed the 2022 Master Plan which provides a high-level roadmap for the implementation of works that mitigate the risk to climate change. 	<ul style="list-style-type: none"> Development of a 3D hydrodynamic model of Sooke Lake is underway. The model will inform decisions around siting new intakes and Leech water discharge points.
Establish long-term per capita demand rate projections and Demand Management Program objectives to achieve rates and determine annual water demand by sector.	<ul style="list-style-type: none"> Completed an agricultural Water Demand Model and Land Use Inventory. Present an annual Water Demand report which provides details of the “by sector” demand and is used to inform our water conservation action plan and develop campaigns and education and outreach material, as well as to track progress in reducing demand by these sectors. 	<ul style="list-style-type: none"> Continue to track and update per capita demand rate projections and resulting demands.

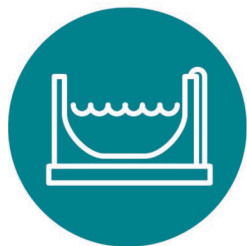


COMMITMENT:
Provide an adequate, long-term
supply of drinking water

Plan & Prepare for future water supply needs to meet demand considering impacts on climate change, population & per-capita demand rates

Actions	Accomplishments	Future Actions
Undertake regular monitoring and assessment of the physical, chemical, and biological parameters of the Leech Water Supply Area (WSA) source water and determine a plan to address potential water quality, ecological and ecosystem implications at Sooke Lake Reservoir resulting from diversion of Leech WSA source water (Leech River water) to Sooke Lake Reservoir (i.e. combining source waters).	<ul style="list-style-type: none"> Installation of hydrology monitoring system in the Leech WSA. Collected data on bathymetry of Weeks Lake to determine volume and elevation of outlet. 	<ul style="list-style-type: none"> Continuing to expand methods of assessing ecological/ecosystem impacts from combined sources waters. Installation of West Leech weather station (2025).
Develop a plan to undertake more ‘intensive’ monitoring of Leech River water quality to inform treatability recommendations and long-term treatment strategy.	<ul style="list-style-type: none"> Water quality sampling and testing in the Leech WSA started in 2020. 	<ul style="list-style-type: none"> Baseline data collection and then ongoing water quality sampling/testing of Deception Reservoir to start in 2025. (Ongoing).



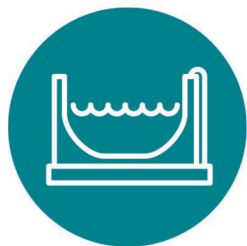


COMMITMENT:

Provide an adequate, long-term supply of drinking water

Plan & Prepare for future water supply needs to meet demand considering impacts on climate change, population & per-capita demand rates

Actions	Accomplishments	Future Actions
Determine conceptual 'hard' capital infrastructure plan to design and construct the necessary infrastructure to divert Leech WSA flows to Sooke Lake Reservoir.	<ul style="list-style-type: none"> Completed the 2021 RWS Service-Supply System Risk and Resilience Study which identifies risks to its critical water supply assets from man-made, natural, and dependency hazards and prioritizes strategies/capital investments to reduce risk. Completed the 2022 Master Plan which provides a high-level roadmap that offers a 30-year vision into the future requirements for the Service, considering future needs related sources of water, treatment, and conveyance. The Master Plan identified a Phase 2 hydrology study to investigate the feasibility of direct diversion of Leech River or construction of a storage dam. 	<ul style="list-style-type: none"> Currently developing a hydrology model for dam safety which will inform the Phase 2 model identified in the Master Plan. Phase 2 hydrology model development will commence in the next 5yrs.
Conduct a feasibility study to explore the design and construction of supply and transmission infrastructure at Sooke Lake Reservoir to provide increased resiliency, including consideration of a deep northern intake and a secondary transmission pipe between the reservoir and the treatment facilities.	<ul style="list-style-type: none"> Completed 2022 Master Plan that addressed the supply and transmission infrastructure resiliency, long-term capacity and treatment requirements. The Master Plan recommended the addition of a Deep Northern Intake, pumping station and transmission main from Sooke Lake Reservoir to the head tank as early as 2031. 	
Undertake biannual Supply System hydraulic modelling to confirm system capacity.	<ul style="list-style-type: none"> Completed 2022 Master Plan which included a hydraulic capacity assessment of the transmission system. 	<ul style="list-style-type: none"> Future Capital Plans will include ongoing updates to the Hydraulic Capacity of the transmission system.

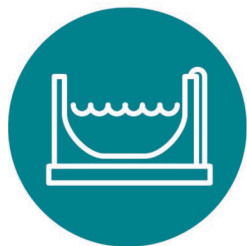


COMMITMENT:

Provide an adequate, long-term supply of drinking water

Develop a higher level of public understanding of the drinking water supply system and value of water through education & engagement

Actions	Accomplishments	Future Actions
Continue to improve Regional Water Supply service and system information available to the public through a variety of media streams, to raise awareness around specific topics including water supply and conservation, and supply infrastructure investment.	<ul style="list-style-type: none"> Increased use of CRD social media streams (Twitter and Facebook). Continue to prepare the Daily, Weekly and Monthly Water Watch and include information on the CRD webpage. 	<ul style="list-style-type: none"> Continue to prepare the Daily, Weekly and Monthly Water Watch and include information on the CRD webpage and investigate providing more information being available online.
Continue to promote the value of the drinking water resource through Water Supply Area public and school tours and other outreach.	<ul style="list-style-type: none"> Conduct annual public and school tours which are reported on annually. Feedback to tours has been positive. Created four videos for the Public: Overview, WSA, Treatment, Conservation, Protecting Water. 	<ul style="list-style-type: none"> Public Tours will continue. Future engagement with school tours and outreach/education will be incorporated into existing school curriculum development. (Ongoing).
Continue to have two-way dialogue with the Water Advisory Committee regarding water supply matters.	<ul style="list-style-type: none"> The Water Advisory Committee (WAC) typically meets quarterly and has provided advice on: <ul style="list-style-type: none"> Post Disaster Water Supply and Distribution Plan; Demand Management program; Water Supply Area Land Acquisition Study; Impacts of Malahat Detour Route Proposal; Health Canada change in Lead Guidelines for Drinking Water and CRD Actions; and Agricultural Rate Program. Development Cost Charge Program 	<ul style="list-style-type: none"> Will engage the WAC for major projects identified in the Master Plan such as the Filtration plant as planning commences. (Ongoing).



COMMITMENT:

Provide an adequate, long-term supply of drinking water

Develop a higher level of public understanding of the drinking water supply system and value of water through education & engagement

Actions	Accomplishments	Future Actions
Explore opportunities for mutually beneficial collaborative partnerships to carry out research and monitoring initiatives in the water supply area and across the system.	<ul style="list-style-type: none"> Successful research partnerships with University of Victoria, NSERC for Water network, Canadian Forest Service and UBC in the areas of: <ul style="list-style-type: none"> wildfire fuel and burn modelling; paleo-ecological record of large wildfires and forest changes; and hydrology of the Leech WSA. Began forWater partnership to complete Dissolved Organic Carbon (DOC) characterization for Sooke Lake source water. 	<ul style="list-style-type: none"> Completion of the NSERC Alliance Project in 2025. The project will inform the effects of climate change on forests and wildfire in the GVWSA and options for forest management to reduce potential impacts. UBC Douglas-fir bark beetle project completion (2024). forWater DOC characterization of Sooke Lake completed (2024).





COMMITMENT:
Provide a reliable and efficient
drinking water transmission system

Maintain a capital planning process & appropriate investment in water infrastructure to ensure reliable system performance

Actions	Accomplishments	Future Actions
Complete a short term (annual and 5-year), medium term (5-10 year), long term (10-20 year) and long range (20-50 year) asset management plan informed by asset condition and remaining service life assessment, water operation and maintenance history, water audit, changing regulatory requirements, Hazard, Risk and Vulnerability Assessment (HRVA) recommendations, and system capacity requirements.	<ul style="list-style-type: none"> Completed a Maintenance, Repair and Replacement Strategies, as well as asset management preliminary study in 2018. The Capital Plan includes various assignments related to Asset Management Planning work on each element has begun and completed to the following extent: <ul style="list-style-type: none"> Levels-of-Service: 60% complete, Asset inventory: 60%, Asset capacity: Complete Asset condition: 20% Asset risk: 20% Criticality assessment: 80% 	<ul style="list-style-type: none"> Completion of the asset management program/plan, including each element by the end of 2025. 2024-2028 Capital plans include significant Infrastructure investments including upgrades to Goldstream UV Plant and renewals to Main No 3, Main No 4 and Main No. 1.
Explore Regional Water Development Cost Charges to fund future growth-related supply system infrastructure improvements	<ul style="list-style-type: none"> Completion of the Development Cost Charge Analysis Phase 1 and initiation of Phase 2, Implementation Program including Bylaw. 	<ul style="list-style-type: none"> Completion of a Regional Water DCC program and bylaw in 2024.
In collaboration with municipal and First Nations water purveyors, establish water supply service agreements.	<ul style="list-style-type: none"> Created Draft Water Supply Service Agreements between CRD and First Nations. Created Draft Conveyance Agreements between CRD and relevant Municipalities. Began with discussion with the First Nations in the Region to negotiate terms of the agreements. 	<ul style="list-style-type: none"> Execute Water Supply agreement with the First Nations.



COMMITMENT:
Provide a reliable and efficient drinking water transmission system

Continually review cost effectiveness of service respecting operations, maintenance & capital investment decisions

Actions	Accomplishments	Future Actions
Continue to review reactive, preventive and predictive operations and maintenance history and confirm operation and maintenance service levels for the Regional Water Supply Service that consider best practices and reliability centered maintenance approach.	<ul style="list-style-type: none"> Conducted in-depth analysis of past reactive, preventive, and predictive operations and maintenance records. Evaluating service levels for the Regional Water Supply Service to ensure they meet industry standards and user expectations. Implementation of best practices in operations and maintenance to enhance the reliability and longevity of water supply infrastructure. 	<ul style="list-style-type: none"> Identify and monitor performance metrics to track the effectiveness of implemented strategies. Continuously refining operation and maintenance processes to achieve optimal performance and customer satisfaction. Adoption of reliability-centered maintenance approach to prioritize maintenance activities based on criticality and risk assessment. Improvement to Work Management System to improve efficiency, real-time tracking, data quality and support initiatives above.
Consider life cycle costs with new infrastructure design and asset replacement.	<ul style="list-style-type: none"> Life cycle costing is incorporated into all major design projects, this includes acquisition, operation, maintenance, renewal, and disposal. 	<ul style="list-style-type: none"> Ongoing
In asset replacement decisions, balance maximizing infrastructure service life with infrastructure reliability	<ul style="list-style-type: none"> Utilize condition assessments to determine replacement and rehabilitation needs of critical transmission mains. 	<ul style="list-style-type: none"> Expand condition-based maintenance and replacement to other critical asset classes, instead of solely time based in order to maximize service life of assets.
Optimize capital investment taking into consideration priority, annual and long-term budget and water rate impacts and resource availability to deliver the projects	<ul style="list-style-type: none"> Ongoing as part of Capital Plan process, staff consider output of the Corporate and RWS Risk Registers, financial impacts and staff constraints when finalizing the annual capital program. 	<ul style="list-style-type: none"> Ongoing



COMMITMENT:

Provide a reliable and efficient
drinking water transmission system

Develop and manage emergency bulk drinking water
supply systems for Greater Victoria

Actions	Accomplishments	Future Actions
Establish emergency and post-disaster water supply protocols and obtain necessary supplies, materials and equipment to implement protocols. Establish water purveyor support roles and responsibilities in emergency water supply and distribution.	<ul style="list-style-type: none"> Creation of a seismic resilient ‘hardened water main grid’ which provides a point of connection for the emergency water distribution modules. Currently 12 Seismically Restrained Hydrants. Reservoir seismic valves are located at several sites, as new reservoirs are constructed seismic valves are included as part of the project. Created a critical spares inventory for large diameter steel and ductile iron water main. Two emergency water supply/ distribution modules are ready for deployment consisting of a trailer module and a stationary module. Fabrication of drop kits and located strategically throughout the region. Three portable laboratories were procured for post disaster water quality testing, these labs will be stored at three locations. 	<ul style="list-style-type: none"> Construction of a critical equipment storage building. This structure will be used to store critical equipment and spare parts required for an emergency response related to the water supply systems.
Outline how an emergency/post disaster drinking water supply can be supported by regional emergency management plans and available senior government supports under certain conditions.	<ul style="list-style-type: none"> CRD initiated the Saanich Peninsula Post Disaster Water Supply Technical Working Group which included membership from the local municipalities, First Nations, and key stakeholder. Provided a demonstration of the post-disaster equipment to Staff from Island Health were present and View Royal Fire Department. 	<ul style="list-style-type: none"> Future initiative that considers integration with Regional Emergency Management Partnership and collaboration with Municipal water purveyors in the context of the new Emergency and Disaster Management Act.



COMMITMENT:
Provide a reliable and efficient
drinking water transmission system

Continue to focus on retaining & recruiting experienced professional employees responsible for the RWS system engineering, system operation, maintenance & management of the water supply area

Actions	Accomplishments	Future Actions
Develop a succession plan to ensure key positions are backfilled by experienced and knowledgeable employees, and that system knowledge is preserved.	<ul style="list-style-type: none"> Staff hiring is ongoing to replace experienced staff who retire. Cross over training is required for each departing staff member. CRD's continues to invest and support the iLead program which benefits the development of the IWS management team. The iLead program supports CRD managers to meet the challenges leaders are facing today and to take their leadership to a new level, while supporting moving towards the desired outcomes as outlined by the organization's Strategic and Board Priorities and Corporate Plan. The utility operator (UO) progression program is a CRD specific program that has benefited attraction and retention of operators to Integrated Water Services, between 2018 to 2023 the following advancements have occurred within this program: <ul style="list-style-type: none"> 21 staff moved from UO1 to UO 2 9 staff moved from UO 2 to UO 3 8 staff moved from UO 3 to UO 4 	
In alignment with CRD organizational development initiatives, provide learning and development opportunities for employees.	<ul style="list-style-type: none"> Efforts continue to be made to ensure knowledge is carried forward in procedures and practices such as standard operating procedures, emergency response procedures and system drawings to reduce the risk when staff retire. Staff are required and fully supported to obtain continuing education credits so as to maintain their professional status whether it be as an engineer, technician, operator or other. 	

MISSION STATEMENT:

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

GUIDING PRINCIPLES:

Empowering Staff For Sustainable Water Management

Our staff are the cornerstone of our operations, essential for maintaining the reliability and efficiency of our water supply service. Through strategic investments in training, retention, recruitment, and safety protocols, we cultivate a supportive environment where our team can thrive. Prioritizing their well-being and fostering a culture of innovation ensures the continued success and resilience of our water management efforts and our service.

Supporting A Growing Region With Reliable Service

Our commitment to the region is to provide clean, reliable water to our customers now and into the future. We achieve this through forward-thinking planning to ensure we are preparing for the future demands on our water system. We carefully balance internal and external pressures, costs, and investments over time to meet the changing needs.

Respecting And Adapting To The Changing Environment

We foster a culture of respect and stewardship of the watershed lands to supply high quality source water, while also protecting biodiversity and forest sustainability. This involves adapting our infrastructure and operational practices to enhance resilience against extreme weather events and other environmental changes.

Managing Our Resources Effectively And Efficiently

The sustainability and longevity of the water supply cannot be achieved through infrastructure investments alone. Implementing strategies to manage, maximize and optimize utilization of existing resources is at the heart of preparing for the future. We are improving efficiency by equipping staff with the tools they need to do their jobs and with data to make better informed decisions.

Proactively Managing Internal And External Risks – Balancing

The implementation of a comprehensive risk management strategy is integral to all aspects of our work serving the region. This involves balancing the consideration of opportunities and risks, with a focus on allocating resources effectively to maintain and enhance current operations. We continue to prioritize the identification and mitigation of risks to our water supply system and water quality, particularly those related to climate change impacts, service reliability, and associated health and safety concerns for both staff and the communities we serve.

Fostering Collaborative Relationships With Customers And Partners To Improve Our Service.

We must demonstrate the value of and effort behind the water supply service to foster appreciation and respect for this essential resource. We advance this by openly sharing information about the water supply system and its operations to the public, while actively seeking feedback on our service. We also collaborate with municipal staff to continue improving and aligning our services to the needs of the region's residents. We build strong partnerships and create opportunities for collaboration so we can continue to improve.

COMMITMENT 1:
PROVIDE HIGH QUALITY, SAFE DRINKING WATER

PRIORITY:

1. Manage the Greater Victoria Water Supply Area for the protection of long-term sustainable high-quality source water.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Protect water supply and ecosystems from contaminants and invasive plants, animals, and pathogens. Example Initiatives:<ul style="list-style-type: none">Complete study to document biosecurity risk and revise or implement new biosecurity protection measures.
<ul style="list-style-type: none">Continue to monitor the watershed and implement climate adaptation and mitigation initiatives to reduce the impacts associated with the magnitude and rate of projected climate change on ecosystems, water quality and infrastructure in the Greater Victoria Water Supply Area and update strategies where needed. Example Initiatives:<ul style="list-style-type: none">Undertake a feasibility study to determine optimal siting and operating procedure to access cooler deep northern Sooke Lake Basin water. (3 to 5yrs informed by model inflow model).Develop a forest management strategy or plan to prioritize and guide forest management treatments and activities.
Mid-Term Actions
<ul style="list-style-type: none">Continue to enhance capabilities in wildfire prevention, preparedness, early detection, suppression, forest fuel reduction and post-wildfire emergency rehabilitation measures to reduce and mitigate the potential impacts of a large-scale wildfire in the Greater Victoria Water Supply Area on water quality and supply. Example Initiatives:<ul style="list-style-type: none">Increased use of infrared and drone technology and monitoring software to provide early detection and monitoring.Develop post wildfire response plans to protect water quality.Trial the use of prescribed burning and other techniques to manage forest fuel build up.
<ul style="list-style-type: none">Expand opportunities for traditional knowledge and First Nations input in stewardship of watershed lands.
<ul style="list-style-type: none">Continue to seek ownership, management, or influence of watershed lands and watershed buffer lands in aligned with Greater Victoria Water Supply Area land prioritization.
Long-Term Actions
<ul style="list-style-type: none">Explore opportunities for integrating First Nations traditional ecological knowledge and perspectives in the protection and stewardship of the Greater Victoria Water Supply Area.
<ul style="list-style-type: none">Develop a management strategy specific to non-catchment lands.

COMMITMENT 1:
PROVIDE HIGH QUALITY, SAFE DRINKING WATER

PRIORITY:

2. Ensure drinking water quality with a multi-barrier risk-based approach.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Continue to update and expand the drinking water safety plan.
<ul style="list-style-type: none">Refine the schedule and delivery strategy for the implementation of filtration and other related infrastructure improvements. Include consideration for predecessors, successor and triggers for each task and step.
<ul style="list-style-type: none">Continue baseline water sampling and data collection projects which support future infrastructure design.
<ul style="list-style-type: none">Ongoing water quality monitoring program in source and treated water to verify proper system operations and identify potential water quality risks. This also includes research and studies into contaminants of emerging concern (e.g. Per- and polyfluoroalkyl substances (PFAS), microplastics, 6PPD (a common rubber antiozonant, with major application in vehicle tires) etc.).
<ul style="list-style-type: none">Maintain, enhance the cross-connection program.
Mid-Term Actions
<ul style="list-style-type: none">Commence water filtration pilots to refine the design parameters for future water treatment processes and cost estimate, to inform preliminary design.
<ul style="list-style-type: none">Maintenance of ISO 17025 Laboratory accreditation and Provincial Health Officer certification.
Long-Term Actions
<ul style="list-style-type: none">Enhance/expand network monitoring. Remote continuous lake monitoring.

COMMITMENT 1:
PROVIDE HIGH QUALITY, SAFE DRINKING WATER

PRIORITY:

3. Advance our understanding of the water supply area and source water to prepare for the future.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Complete modelling of climate change effect on forests and effectiveness of fuel reduction treatments to help guide management of the Greater Victoria Water Supply Area forests into the future.
Mid-Term Actions
<ul style="list-style-type: none">Develop reservoir inflow and circulation models and conduct analyses to improve the understanding of these linkages and how they affect drinking water quality and the health of aquatic ecosystems.
<ul style="list-style-type: none">Enhance, expand, and integrate the monitoring of watershed hydrology and water quality in the Greater Victoria Water Supply Area to improve understanding of the linkages among weather, stream flows, reservoir circulation and water quality.
<ul style="list-style-type: none">Continue to partner with the Province, Canadian Forest Service, University of Victoria, the forWater Network and others to better understand the water supply area forested and aquatic ecosystems, risks from insects, diseases, and invasive species; to inform best management for water supply and congruent natural values.
<ul style="list-style-type: none">Assess forest management trials (thinning, juvenile spacing, prescribed burning) in terms of the impact of the treatment on forest fuel, tree and stand growth and health, microclimate.
Long-Term Actions
<ul style="list-style-type: none">Undertake post-wildfire and sediment delivery modelling to inform water treatment and water quality preparedness plans and filtration design prior to and after the introduction of alternate water sources. (Link hydrodynamic model and water quality model)
<ul style="list-style-type: none">Create a digital ‘dashboard’ with real time reporting on key weather, stream flow, reservoir level, reservoir release and other water quality and supply data to facilitate internal awareness and decision-making and communication with outside regulators and stakeholders. Links to public engagement.

COMMITMENT 2:

PROVIDE AN ADEQUATE, RELIABLE, LONG-TERM SUPPLY OF DRINKING WATER

PRIORITY:

1. Continuously plan and prepare for future water supply needs.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">On a prescribed timeframe, routinely update assumptions and future growth projection as it is related to the Master Plan and Development Cost Charge Programs.
Mid-Term Actions
<ul style="list-style-type: none">Define a strategy to increase additional water resources, building on alternatives outlined in Master Plan.<ul style="list-style-type: none">Refine strategy and infrastructure needs to access additional capacity within existing CRD land to meet 2050 projected demands.Define ultimate water resources capacity within existing CRD owned watershed lands.In collaboration with municipal partners, develop a regional strategy and standards regarding storage capacity (reservoirs) within the transmission and municipal distribution systems.
Long-Term Actions
<ul style="list-style-type: none">Work collaboratively with Municipal partners to clarify and define service level related to water supply and lines of demarcation.If required, develop a land acquisition strategy to expand long term water supply to meet the needs beyond 2050.

COMMITMENT 2:

PROVIDE AN ADEQUATE, RELIABLE, LONG-TERM SUPPLY OF DRINKING WATER

PRIORITY:

2. Enhance public connection and confidence of the water supply and value of water.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Continue to evolve and promote public tours of the watershed.
<ul style="list-style-type: none">Develop and promote curriculum within school on drinking water.
<ul style="list-style-type: none">Develop an ongoing virtual speaker series that would include presentations by third party experts on emerging topics concerning water.
<ul style="list-style-type: none">Continue with public engagement through official channels like the Water Advisory Committee.
Mid-Term Actions
<ul style="list-style-type: none">Develop a long -term media/communication strategy that engages the public on efforts to protect and improve the resilience of drinking water treatment and supply.
<ul style="list-style-type: none">Assess opportunities to receive two-way communication with existing customers related to the quality of service provided.
Long-Term Actions
<ul style="list-style-type: none">Develop Live Data stream/website or App on water system – outages, fun facts, and construction.

COMMITMENT 2:

PROVIDE AN ADEQUATE, RELIABLE, LONG-TERM SUPPLY OF DRINKING WATER

PRIORITY:

3. Maximizing our water supply through adaptive demand management strategies.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Define the “by sector” demand baseline and define long term targets.
Mid-Term Actions
<ul style="list-style-type: none">Leverage baseline and targets to define a multi-year demand management strategy.Develop and evolve policy and bylaws to support effective demand management and maximizing water supply.
Long-Term Actions
<ul style="list-style-type: none">Continuous refinement of policy and practices to facilitate optimal supply and demand management.

COMMITMENT 2:

PROVIDE AN ADEQUATE, RELIABLE, LONG-TERM SUPPLY OF DRINKING WATER

PRIORITY:

4. Acting now to implement a sustainable and equitable long-term financial plan.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Implement a development cost charge (DCC) program and Bylaw for the Regional Water Supply.
<ul style="list-style-type: none">Continue to engage First Nations and put in place Bulk Water Agreements supporting development of stronger government to government relationships.
Mid-Term Actions
<ul style="list-style-type: none">Continue to refine the long-term financial plan.
<ul style="list-style-type: none">Identify grant and partnership opportunities to fund future filtration infrastructure needs.
Long-Term Actions
<ul style="list-style-type: none">Continue to assess opportunities to streamline or strengthen utility governance.

COMMITMENT 3:

PROVDE EFFICIENT AND INNOVATIVE OPERATIONS OF DRINKING WATER SUPPLY SYSTEM

PRIORITY:

1. Make data driven infrastructure decisions to ensure reliable system performance and long-term sustainability.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Continue to develop and consolidate various risk registries to prioritize expenditures based on risk.
Mid-Term Actions
<ul style="list-style-type: none">Mature our asset and maintenance management processes to maximize data driven decision making. Example Initiatives:<ul style="list-style-type: none">Align our work management tools and business processes to improve maintenance management practices, efficiency, and reliability.Define data standards and Key Performance Indicators (KPIs) related to maintenance and asset management.Refine the comprehensive asset management plan to prioritize maintenance and capital projects.
<ul style="list-style-type: none">Refine asset class specific maintenance plans to optimize and extend asset life.
<ul style="list-style-type: none">Continue to develop and improve our SCADA system to inform operational decision making.
Long-Term Actions
<ul style="list-style-type: none">Create and automate integrated process narrative for the transmission system to optimize system performance and improve energy efficiency.
<ul style="list-style-type: none">Expand critical spares program to continue to reduce system downtime or service interruptions.
<ul style="list-style-type: none">Invest in technology for decision-making support and reporting.

COMMITMENT 3:

PROVIDE EFFICIENT AND INNOVATIVE OPERATIONS OF DRINKING WATER SUPPLY SYSTEM

PRIORITY:

2. Assure long-term sustainability and capacity of water management operations through sufficient resources, robust processes, strategic partnerships, effective tools, and continuous innovation.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Continuously assess and improve internal processes and procedures to streamline operations, reduce costs and increase efficiency. Example Initiatives:<ul style="list-style-type: none">Align our work management system and Maintenance Management process.
<ul style="list-style-type: none">Participate in industry associations to leverage applicable operational experience and best practices that can add value to our system.
Mid-Term Actions
<ul style="list-style-type: none">Continuously evaluate and integrate innovative solutions, such as smart meters, leak detection technologies, and renewable energy sources, to enhance system resilience and sustainability.
<ul style="list-style-type: none">Cultivate strategic partnerships with skilled contractors and consultants through long-term agreements ensuring access to expertise and resources for timely responses to procurement opportunities to meet capital needs.
<ul style="list-style-type: none">Foster partnerships with technology providers and research institutions to stay at the forefront of innovation in water management.
<ul style="list-style-type: none">Create agreements with municipalities for shared capital delivery of contracts.
<ul style="list-style-type: none">Explore opportunities for Mutual Aid Agreements.
Long-Term Actions
<ul style="list-style-type: none">Develop educational initiatives (workshops, webinars, etc.) to assist potential vendors understand and navigate the procurement process effectively.
<ul style="list-style-type: none">Explore the technology, tools and sensors that can further inform and enhance specific asset class maintenance plans.

COMMITMENT 3:
PROVIDE EFFICIENT AND INNOVATIVE OPERATIONS OF DRINKING WATER SUPPLY
SYSTEM

PRIORITY:

3. Protect the public by enhancing the security and sustainability of the water supply by effectively managing risks and enhancing emergency response capabilities.

ACTIONS:

Near-Term Actions
<ul style="list-style-type: none">Foster partnerships with municipalities and First Nations to develop a robust integrated drinking water plan for emergency response and natural disasters.
<ul style="list-style-type: none">Continue regular safety training and drills for employees focusing on WorkSafeBC requirements, best practices for handling hazardous materials, operating equipment safely, and responding to emergencies effectively.
<ul style="list-style-type: none">Continue to actively protect the Greater Victoria Water Supply Area and water supply infrastructure from unauthorized physical activities or access. Examples of Initiatives would include:<ul style="list-style-type: none">Considering opportunities to acquire ownership and control of the remaining catchment lands and critical adjacent lands to act as a buffer.Explore the potential for partnerships with other CRD departments, not for profit organizations, and First Nations in the acquisition and management of important buffer lands adjacent to the GVWSA.
<ul style="list-style-type: none">Identify and mitigate risks to our digital environment to safeguard against cyber threats and data breaches.
<ul style="list-style-type: none">Continue to develop and resource the dam safety program, while fostering strong relationship with British Columbia Dam Safety Office (group).
<ul style="list-style-type: none">Develop and implement Dam Safety Public Engagement and Communication plans, including a public-facing webpage with dam safety and emergency preparedness information.
<ul style="list-style-type: none">Construct the Instrumentation System Improvements at Sooke Lake Dam, including integrating instrumentation data to SCADA system, to improve dam safety, warning time, and emergency preparedness.
Mid-Term Actions
<ul style="list-style-type: none">Enhance risk register with physical and cyber security concerns to guide mitigation measures.
<ul style="list-style-type: none">Implement Dam Safety Instrumentation improvements at large dams. Work to be prioritized based on each dam’s Dam Failure Consequence Classification.
<ul style="list-style-type: none">Engage consulting industry to identify at innovative delivery alternatives to expedite the delivery of the backlog of dam upgrades to meet regulatory requirements.
<ul style="list-style-type: none">Reassess large risks to dam portfolio, including regional seismic risk, flood risk, and plan for capital improvements.
Long-Term Actions
<ul style="list-style-type: none">Formalize and document the dam safety management system
<ul style="list-style-type: none">Design and implement seismic rehabilitation and capital improvements at higher consequence dams, including Sooke Lake Dam and Deception Gulch Dam.
<ul style="list-style-type: none">Complete legislated Dam Safety Reviews with support of expert consultants to reassess dam safety issues and planned capital improvements.

COMMITMENT 3:

PROVIDE EFFICIENT AND INNOVATIVE OPERATIONS OF DRINKING WATER SUPPLY SYSTEM

PRIORITY:

4. Attract, develop, and retain a diverse and high performing workforce.

ACTIONS:

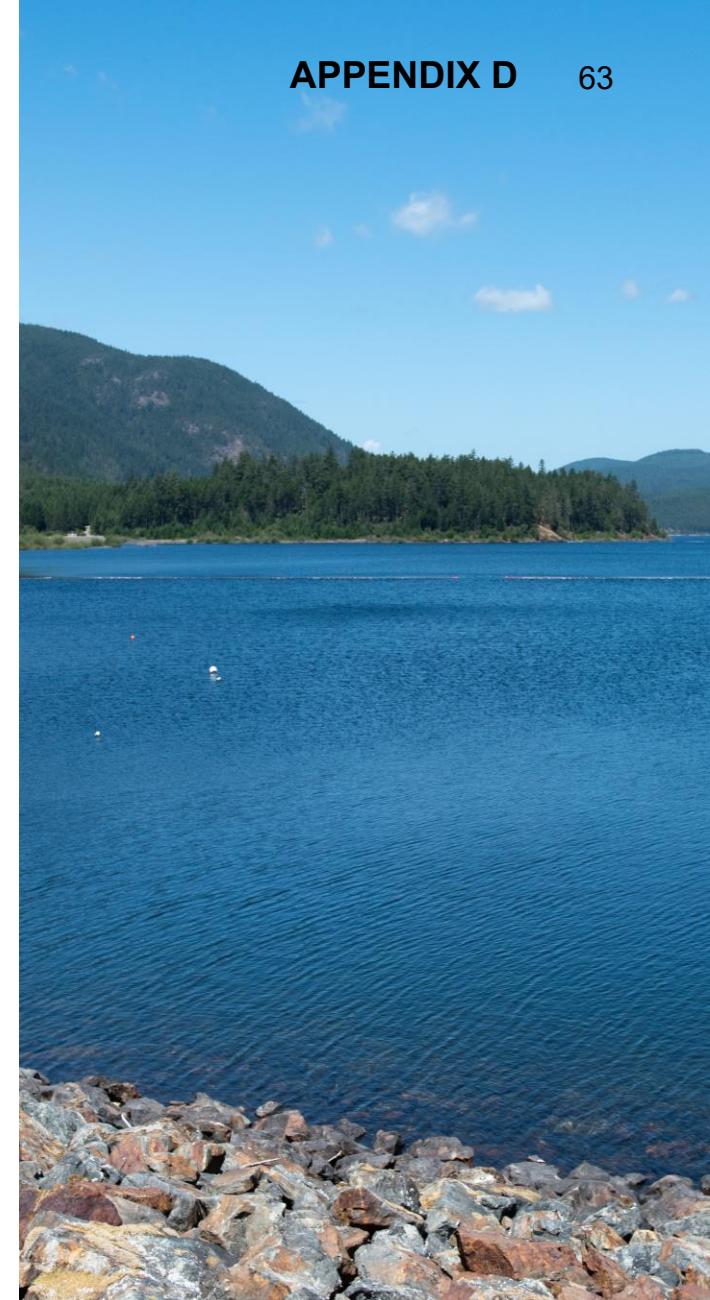
Near-Term Actions
<ul style="list-style-type: none">Continue IWS Utility Operator cross training program within each Environmental Operator Certification Program discipline.
<ul style="list-style-type: none">Support and encourage staff to participate in industry associations such as BCWWA, CWWA or AWWA or others.
<ul style="list-style-type: none">Continue to partner with post-secondary Co-op programs to consider cooperative education opportunities.
<ul style="list-style-type: none">Ongoing evaluation and success of the CRD’s Utility Operator Program, this is an internal program designed to provide career development and progression as utility staff gain additional experience and related British Columbia Environmental Operators Certificate Program certifications.
<ul style="list-style-type: none">Continue to partner with CRD Human Resources and Corporate Safety on related training opportunities, including personal and professional development.
<ul style="list-style-type: none">Continue to explore formal and informal opportunities for development, through temporary assignments, senior pay opportunities, as well as through auxiliary posted opportunities.
Mid-Term Actions
<ul style="list-style-type: none">Enhance personal and professional development opportunities to better support career advancement, including formal and informal mentorship opportunities.
<ul style="list-style-type: none">Provide training to management, team leads and supervisors on Effective Utility Management or equivalent.
<ul style="list-style-type: none">Ongoing training for Management through the CRD’s iLead program in partnership with Royal Roads University.

Water Advisory Committee Strategic Plan 2025-2030

Setting Priorities for the Next 5 Years

Strategic Plan Discussion Agenda

1. Session Overview & Objectives
2. Strategic Plan Context
3. 2017 Strategic Plan and Accomplishments
4. Internal and External Trends
5. Key Elements of the 2025-2030 Strategic Plan
 - Commitments
 - Priorities
6. Next Steps





Objectives

- Why we are all here
- What we want to accomplish today

The Planning Context



Board Strategic Drivers

- Transportation
- Housing
- Climate Action and Environment
- First Nations
- Governance



CRD Corporate Plan

- Safe drinking water and a resilient water supply
 - 2a Goal: High quality, safe drinking water
 - 2b Goal: Reliable & efficient drinking water transmission system



Regional Water Supply Commission Bylaw

- Foster the provision of high-quality water for current and future users of the water supply service
- Encourage effective conservation of the water supply and stewardship over the water supply catchment area in cooperation with local governments, First Nations, the provincial government and the public.



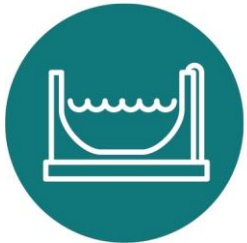
Water Committee Advisory Terms of Reference

Mandate -- provide advice to the Regional Water Supply Commission on water supply, water quality, the stewardship of the lands held by the Regional District for water supply purposes and water conservation measures.

2017 Strategic Plan Commitments and Areas of Focus

**COMMITMENT:**

Provide high quality, safe drinking water

**COMMITMENT:**

Provide an adequate, long-term supply of drinking water

**COMMITMENT:**

Provide a reliable and efficient drinking water transmission system



CRD BOARD PRIORITIES -
SUSTAINABLE AND LIVABLE REGION



CLIMATE CHANGE IMPACTS -
MITIGATION AND ADAPTATION



DEMAND MANAGEMENT -
ADDRESSING CHANGING TRENDS
IN WATER DEMAND



PLANNING FOR THE FUTURE USE
OF THE LEECH WATER SUPPLY AREA



SUPPLY SYSTEM INFRASTRUCTURE
INVESTMENT - RENEWING EXISTING
AND PREPARING FOR NEW
INFRASTRUCTURE



PREPARING FOR EMERGENCY AND
POST-DISASTER WATER SUPPLY

Internal and External Trends



Key Elements of the 2025-2030 Strategic Plan

“Strategic planning will help you fully uncover your available options, set priorities for them, and define methods to achieve them”

- Robert J. Mckain



Mission

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

QUALITY



Commitment 1:



**Provide high quality,
safe drinking water**

QUANTITY



Commitment 2:



Provide an adequate, *reliable*, long-term supply of drinking water

HOW WE WORK



Commitment 3:



Provide efficient and innovative operations of water system infrastructure



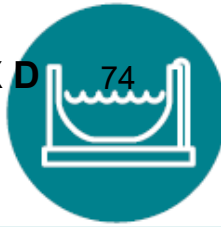
2017 PRIORITIES

1. Manage and protect the Greater Victoria Water Supply Area (GVWSA)
2. Maintain a multi-barrier approach to drinking water quality protection
3. Maintain a risk register for the Regional Water Supply System -- identify potential risks to water quality, water supply and water transmission; provide mitigation and adaptation measures.

2024 PROPOSED PRIORITIES:

1. Manage the Greater Victoria Water Supply Area for the protection of long-term sustainable high-quality source water.
2. Ensure drinking water quality with a multi-barrier risk-based approach.
3. Advance our understanding of the water supply area and source water to prepare for the future.

Commitment 2: Provide an adequate, reliable, long-term supply of drinking water



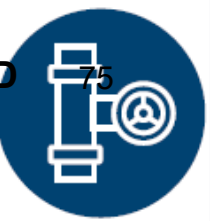
2017 PRIORITIES

1. Plan and prepare for future water supply needs to meet demand considering impacts of climate change, population growth, and per-capita demand rates .
2. Develop a higher level of public understanding of the drinking water supply system and value of water through education and engagement

PROPOSED PRIORITIES:

1. Continuously plan and prepare for future water supply needs.
2. Enhance public connection and confidence of the water supply and value of water.
3. Maximize our water supply through adaptive demand management strategies.
4. Act now to implement a sustainable and equitable long-term financial plan.

Commitment 3: Provide efficient and innovative operations of drinking water supply system



2017 PRIORITIES

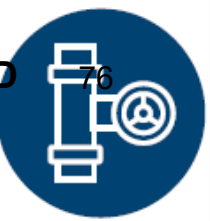
1. Maintain a capital planning process and appropriate investment in water supply infrastructure to ensure reliable system performance
2. Continually review cost effectiveness of service respecting operations and maintenance and capital investment decisions
3. Develop and manage emergency bulk drinking water supply systems for Greater Victoria

PROPOSED PRIORITIES:

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

Commitment 3: Provide efficient and innovative operations of drinking water supply system

APPENDIX D



2017 PRIORITIES

4. Continue to focus on retaining and recruiting experienced and professional employees responsible for the Regional Water Supply System engineering, system operation and maintenance, and management of the water supply area

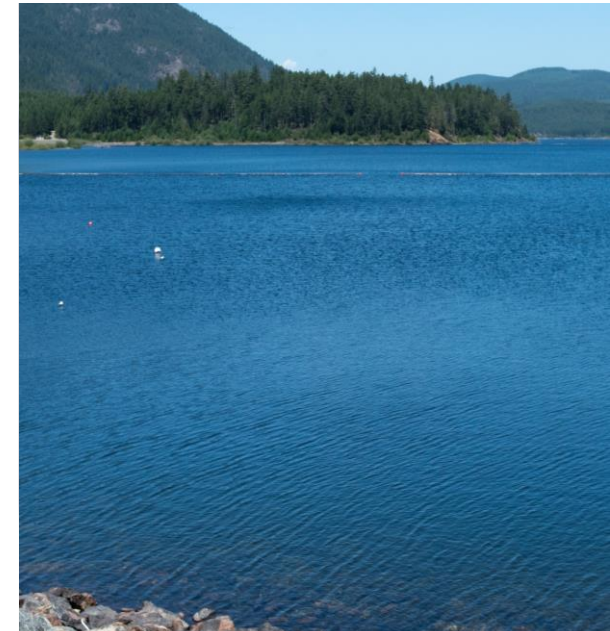
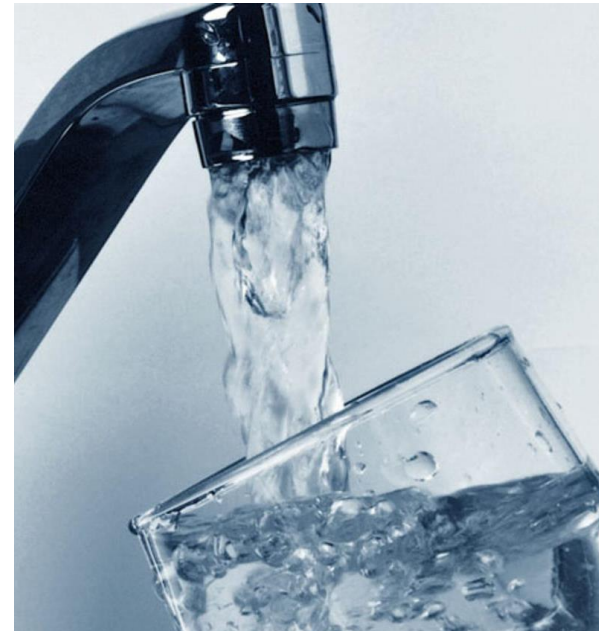
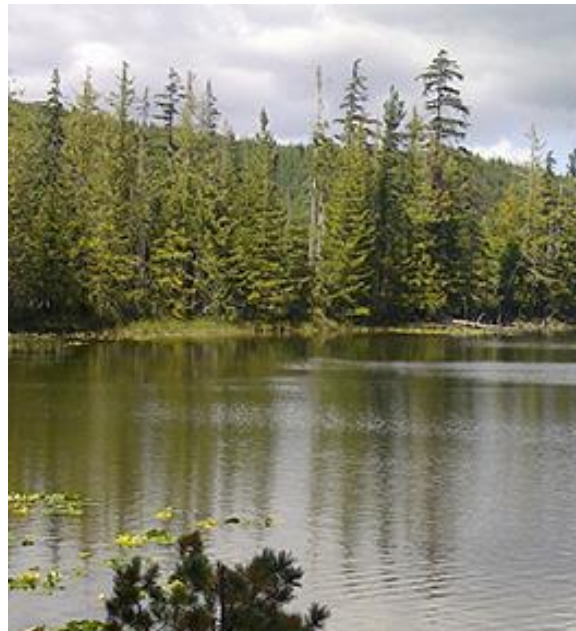
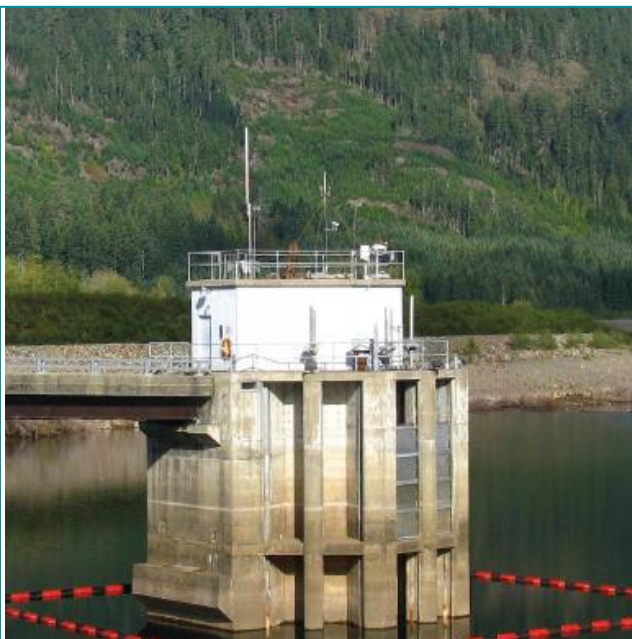
PROPOSED PRIORITIES:

4. Attract, develop, and retain a diverse and high performing workforce.

Discussion

COMMITMENTS – COMMENTS AND FEEDBACK (High level...)

PRIORITIES – COMMENTS AND FEEDBACK (High level...)





Recommendations for the Commission

Based on discussion, confirm recommendations from the Committee to the Commission for its July 17 meeting

Next Steps



Appendix



Strategic Plan

Are tools that provide guidance in fulfilling a utility's mission and commitments and includes specific goals and actions to achieve the mission.

"Where we want to go"



Master Plan

Road map that documents medium and long-term plans for major infrastructure projects, provides a description of significant capital improvements and framework for decision making

"How do we get there"



Capital Plan

Documents short term projects with defined scope, schedule and budget. Typically includes new and replacement machinery, structures, transmission networks etc.

"What we are doing"



Operational Plan

Detailed plans specific to different work areas that define tasks and associated roles and responsibilities, typically internal documents.

"How we work"

Importance of Strategic Planning

- Sets direction and priorities for the next five years (including what is out of scope), in alignment with Board Priorities and Corporate Plan and informed by trends affecting operations
- Compiles and builds common understanding of future priorities internally and externally to foster accountability and trust
- Guides future decision-making to allocate and prioritize resources efficiently and ensure long-term sustainability
- Encourages us to take a step back from day-to-day operations and identify how we will be adaptable in a dynamic environment

Guiding Principles

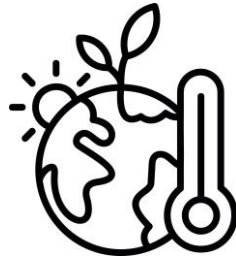
Empowering
Staff for
Sustainable
Water
Management



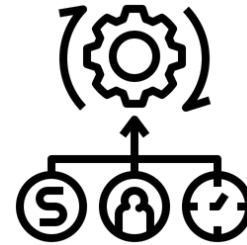
Supporting a
growing
region with
reliable
service



Respecting
and adapting
to the
changing
environment



Managing our
resources
effectively and
efficiently



Proactively
managing
internal and
external risks



Fostering
collaborative
relationships with
customers and
partners to improve
our service



Proposed Recommendation from the Water Advisory Committee to the Water Commission on Agricultural Water Rates

This proposal is for discussion at the next WAC full meeting in May, 2024. When agreement is reached by the WAC, the proposal is to be forwarded to the Regional Water Commission for adoption and action.

Rationale

The WAC considers food security to be a priority in view of the increasing challenges of climate change. Vancouver Island is especially vulnerable to food security risks because it is an island, it has relatively small pockets of good agricultural soil, much of the native soil has poor water holding capacity, and there are episodic summer droughts which are becoming more severe.

The low agricultural water rate set by the CRD is just one mechanism to support, enhance, maintain and create agricultural enterprises on the island. The cost to the CRD is relatively low in terms of the potential social, environmental and financial return on the investment.

In consideration of the urgency of action to adapt to climate change, any increase in the agriculture water rate would be counter to the goal of improving food security. Since the total amount of the subsidy is relatively small in terms of the CRD budget, any minor increases in the rate would be insignificant and would not further the goals of the CRD for food security. Moreover, the associated, and the administrative costs would likely outweigh any real benefits to the CRD. It could also be argued that the ag water rate should be reduced to further encourage farming on the island.

This proposal aligns with the CRD's 2016 Food and Agriculture Strategy.

Food security should not be leveraged only on the efforts of Integrated Water Services (IWS), but should be a joint responsibility of the CRD as a whole as well as the individual municipalities and electoral districts and other regional partners including the provincial government. A more integrated and broad agreement on water for farming and food security needs to be reached with CRD partners.

Recommendations

The Water Advisory Committee makes the following recommendations for updates to the agricultural water rate.

- Make no change to the agricultural water rate. This issue has been discussed many times over many years. The rationale for this recommendation is elaborated in the bullets following. The Regional Water Commission should make a firm decision in alignment with the WAC recommendations and CRD policies and strategies and make a commitment to developing agriculture in the CRD to enhance long term food security.
- The cost of the subsidy paid directly to municipalities and electoral districts should show as a budget item in the larger CRD budget rather than coming directly out of the IWS budget. This would position this agricultural subsidy as a regional food security commitment.
- The 2025 Strategic Plan should be more explicit on agriculture and food security, water needs and resilience, and refer to the 2016 CRD Food and Agriculture Strategy.
- The CRD should focus on ensuring an adequate water supply for food security in the region. This could include developing incentives for water catchment, conservation, and re-use, as well as maintaining and enhancing the water holding capacity of the agricultural soils and landscape by specifically developing and using local island food waste compost and mulch materials locally, re-foresting, re-wilding, and creating or restoring lowland water basins like marshes.
- Much of the discussion around the ag water rate has been focussed on non-farm properties that benefit from the low water rate, and active farms that do not benefit from the ag rate because they don't have access to the distribution system, are considered commercial, or are in urban areas. This is a result of the CRD's reliance on the BC provincial government BC Assessment services and its characterization of which properties are 'agricultural.'
 - It is highly recommended that the CRD develop a different, more accurate reference or mechanism to determine which properties can benefit from the ag water rate.
 - The CRD should consider a permitting process where farmers must apply for the ag water rate by providing information about their land and operations. The subsidy should be limited to properties that are producing

food or animal feed, animals for food, or other horticultural crops that contribute to food security, social well being and positive health outcomes.

- Farmers who are not yet on the water distribution system could also apply for the ag water rate and thereby be registered as bona fide farms within the CRD. This could make them eligible for other supports from the CRD or their local municipality, such as subsidies for installing the water pipes, water meters and back flow preventers to their properties.
- When the CRD issues a permit, the conditions in the permit must be met by the farmer. Failing to meet the conditions, such as using the ag water to fill a swimming pool, could result in cancellation of the permit.
- This would allow the CRD much more flexibility in who gets the low water rates, to collect and use information about the agricultural community in the CRD, and to limit abuses.
- Currently, the CRD pays \$2 million to municipalities to replace the revenue they did not earn from applying the full water rate to farms. For the municipalities this is a low cost way for them to benefit from enhancing agriculture in their jurisdiction. It is highly recommended that the CRD motivate municipalities and electoral districts to share the responsibility for improving food security and encouraging agriculture in their jurisdictions by putting conditions on receiving the ag water rate benefit.
 - The municipalities and electoral districts should update their internal budgeting/accounting procedures so that the financial benefit they receive as a result of the lower ag rates is clearly identified as an agricultural subsidy and that this financial benefit is applied to further supports for the agricultural community. This might be a politically positive way to leverage this financial benefit back into local agriculture.
 - If the municipalities commit to further supporting their local agricultural enterprises, they could allocate the \$2M in revenue from the CRD toward additional supports to their local agriculture industry. This could be in the form of subsidies to farms for installing new water delivery systems where the farms where access the water delivery system is currently constrained. It could also include incentives for building water catchment systems, water conservation systems, water re-cycling such as re-using non-potable water for agricultural purposes.
 - The municipalities may already have programs to support agriculture and the revenue from the CRD subsidy may already be used, indirectly, for

these purposes. The municipalities support for agriculture should not be limited to only the subsidy provided by the CRD. For political optics, it would be best if the agriculture supports were the same or more than the CRD subsidy.

- Asking the municipalities to use the \$2M on agriculture would make it easy for them to justify this investment in their local agricultural enterprises and food security. The farmers get a low water rate, and the CRD and the municipalities can leverage the \$2M earmarked for agriculture in a more focussed way.



Capital Regional District

HOTSHEET AND ACTION LIST

Regional Water Supply Commission

Wednesday, May 15, 2024

11:30 AM

Board Room, 6th Floor
625 Fisgard Street
Victoria, BC

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

3. ADOPTION OF MINUTES

The minutes of the April 17, 2024 meeting were adopted as circulated.

CARRIED

6. GENERAL MANAGER'S REPORT

Action:

Provide the Commission with a schedule and links to the Development Cost Centre public outreach as it rolls out.

Alicia

7. COMMISSION BUSINESS

7.1. Greater Victoria Drinking Water Quality Annual Report

Recommendation: The Regional Water Supply Commission recommends to the Capital Regional District Board:
That the Greater Victoria Drinking Water Quality 2023 Annual Report be approved.

CARRIED

The following items were received for information:

- 7.2. Summary of Water Recommendations from Other Water Commissions
- 7.3. Water Watch Report

11. RISE AND REPORT

The Commission rose from its closed session without report.



Capital Regional District

HOTSHEET AND ACTION LIST

Regional Water Supply Commission

Wednesday, April 17, 2024

11:30 AM

CRD 6th Floor Boardroom
625 Fisgard Street
Victoria, BC

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

3. ADOPTION OF MINUTES

The minutes of the March 20, 2024 meeting were adopted as circulated.

7. COMMISSION BUSINESS

7.1 Regional Water Supply Service Development Cost Charge Program and Bylaw Update - Phase 2

Recommendation: That Capital Regional District staff be directed to proceed with a 1% Municipal Assist Factor, for public and development community engagement.

That Capital Regional District staff be directed to report back on options for Development Cost Charges to be waived or reduced for non-market housing including government, non-profit, and co-op housing.

CARRIED

- Staff to connect with City of Victoria staff regarding their recent decision to develop a grant program for the purpose of paying DCCs for non-government, not-for-profit, non-market rental housing projects, and that staff consider this option for when this comes back to Commission after consultation.

Alicia

The following items were received for information:

7.2. Saanich Peninsula Water Commission Amalgamation with the Regional Water Supply Commission – Feasibility Study

7.3. GVWSA Wildfire Management and Thinning Update

- Highlight the priority for retention in the old growth forest – prohibiting thinning - In future updates.
- Consideration of retaining smaller logs (30cm diameter) to decompose naturally for the benefit of wildlife and eventually the forest soil.

Annette

9.1. Correspondence: Malahat Nation: Regional Water Supply Master Plan

9.2. Correspondence: City of Colwood: Referral Motion Re: Proposed Capital Regional Water Supply Development Cost Charge



Capital Regional District HOTSHEET AND ACTION LIST Regional Water Supply Commission

Wednesday, March 20, 2024

11:30 AM

6th Floor Boardroom
625 Fisgard Street
Victoria, BC

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

2. APPROVAL OF THE AGENDA

The agenda was amended to postpone Item **9.1 Placement of Post Disaster Water Supply Drop Kits in Relevant Fire Halls** to a future meeting for 2025 budget discussions.
Alicia (June/July)

Action:

Staff to provide Updated Map with Locations of Hardened Hydrants/on-site drop kits.

Shayne

3. ADOPTION OF MINUTES

The minutes of the February 21, 2024 meeting and the March 1, 2024 special meeting were adopted as circulated..

8. COMMISSION BUSINESS

8.1. Bylaw No. 4604 - Water Conservation Bylaw No. 1, 2016, Amendment Bylaw No. 4, 2024

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

1. That Bylaw No. 4604, "Capital Regional District Water Conservation Bylaw No. 1, 2016, Amendment Bylaw No. 4, 2024", be introduced and read a first, second, and third time; and
2. That Bylaw No. 4604 be adopted.

CARRIED

8.2 Regional Water Supply Service Development Cost Charge Program and Bylaw Update - Phase 2

Due to time constraints debate on Item 8.2 and the remainder of the agenda was postponed.



Capital Regional District

HOTSHEET AND ACTION LIST

Regional Water Supply Commission

Friday, March 1, 2024

9:00 AM

6th Floor Boardroom
625 Fisgard Street
Victoria, BC

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

The Following Items were Received for Information

- 3.1.1 A presentation from Dr. Benusic, Island Health, Island Health: Re: Item 4.2 – Correspondence: Island Health: Filtration of Greater Victoria Water Supply System, February 6, 2024
- 4.1 A presentation from A. Fraser: Regional Water Supply 2022 Master Plan Overview and Status Update
- 4.2 Correspondence: Filtration of Greater Victoria Water Supply System, Island Health



Capital Regional District HOTSHEET AND ACTION LIST Regional Water Supply Commission

Wednesday, February 21, 2024

11:30 AM

6th Floor Boardroom
625 Fisgard Street
Victoria, BC

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

3. ADOPTION OF MINUTES

That the minutes of the January 17, 2024 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1. Regional Water Supply 2017 Strategic Plan Closeout

Recommendation:

1. That staff be directed to update the Regional Water Supply Strategic Plan; and,
2. That staff provide the Regional Water Supply Commission an updated draft Strategic Plan prior to initiating public, First Nations, and stakeholder engagement on the Plan.

CARRIED

7.3. Greater Victoria Water Supply Access and Special Use Request for Wind Data Collection – Innergex Renewable Energy Inc. [Annette – 24-188]

Recommendation:

1. That access be approved and special use for Innergex Renewable Energy Inc. (Innergex) to place, maintain and draw data from a wind measuring device in the Greater Victoria Water Supply Area; and,
2. That staff be directed to execute a licence of occupation with Innergex for Greater Victoria Water Supply Area access and special use.

CARRIED

9. MOTION(S) WITH NOTICE

9.1. Delay Action on the Regional Water Supply 2022 Master Plan [Commissioner Jordison–January 17]

Motion arising:

That the notice of motion be deferred to the March 1, 2024 Special Regional Water Supply Commission meeting.

DEFEATED

Recommendation:

To delay further action on the Regional Water Supply 2022 Master Plan until such time as the concerns raised by the Huggett report can be investigated and addressed.

DEFEATED

9.2. First Nations Consultation Re: Bill 44 [Commissioner Chambers–January 17]

Motion arising:

That the notice of motion be referred to staff.

DEFEATED

Recommendation:

That the commission reach out to the WSANEC Leadership Council First Nations, in the absence of consultation by the Provinces' Bill 44, regarding the impacts on infrastructure and the Goldstream River.

WITHDRAWN

11. MOTION TO CLOSE THE MEETING

The commission rose from its closed session without report.

The following items were received for information:

7.2. Water Quality Summary Report for Greater Victoria Drinking Water System – April to December 2023

7.4 Summary of Recommendations from Other Water Commissions

7.5 Water Watch Report

8.1 Correspondence: from Dale Puskas, Director of Engineering, District of Central Saanich:
Re: Regional Water Supply Development Cost Charges, February 14, 2024

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued May 21, 2024

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	May 31 5 Year Ave		May 31/23		May 19/24		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	88,158	19,395	88,138	19,390	88,792	19,534	95.8%
Goldstream	8,340	1,835	9,612	2,115	9,797	2,155	98.8%
Total	96,498	21,230	97,750	21,505	98,590	21,690	96.1%

2. Average Daily Demand:

For the month of May	152.1 MLD	33.47 MIGD
For week ending May 19, 2024	164.6 MLD	36.21 MIGD
Max. day May 2024, to date:	181.0 MLD	39.83 MIGD

3. Average 5 Year Daily Demand for May

Average (2019 - 2023)	147.9 MLD ¹	32.54 MIGD ²
-----------------------	------------------------	-------------------------

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

4. Rainfall May:

Average (1914 - 2023):	47.4 mm
Actual Rainfall to Date	5.2 mm (11% of monthly average)

5. Rainfall: Sep 1- May 19

Average (1914 - 2023):	1,531.1 mm
2023/2024	1,262.1 mm (82% of average)

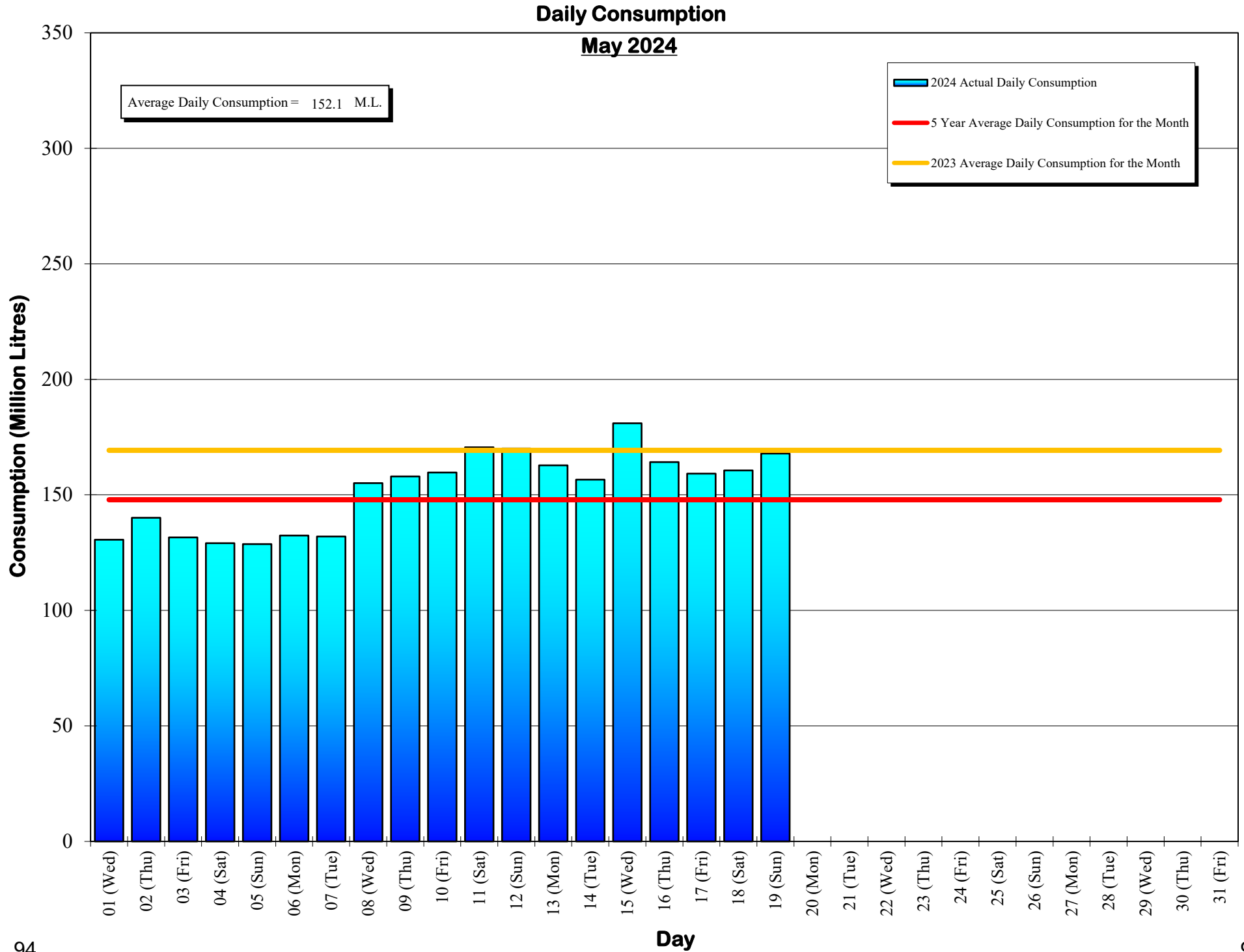
6. Water Conservation Action Required:

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

If you require further information, please contact:

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

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



Daily Consumptions: - May 2024

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am		
	(ML) ^{1.}	(MIG) ^{2.}	High (°C)	Low (°C)		Rainfall (mm)	Snowfall ^{3.} (mm)	Total Precip.
01 (Wed)	130.6		15	3	Sunny / P. Cloudy	0.0	0.0	0.0
02 (Thu)	140.1		18	3	Sunny / P. Cloudy	0.0	0.0	0.0
03 (Fri)	131.6		18	4	Cloudy / P. Sunny	0.0	0.0	0.0
04 (Sat)	129.1		18	9	Cloudy / Showers	0.3	0.0	0.3
05 (Sun)	128.7	<=Min	12	7	Cloudy / Showers	1.3	0.0	1.3
06 (Mon)	132.4		12	5	Sunny / P. Cloudy / Showers	2.5	0.0	2.5
07 (Tue)	132.0		15	4	Sunny / P. Cloudy / Showers	0.8	0.0	0.8
08 (Wed)	155.1		18	4	Sunny / P. Cloudy	0.0	0.0	0.0
09 (Thu)	158.0		25	7	Sunny	0.0	0.0	0.0
10 (Fri)	159.7		27	9	Sunny / P. Cloudy	0.0	0.0	0.0
11 (Sat)	170.6		25	11	Sunny / P. Cloudy	0.0	0.0	0.0
12 (Sun)	170.1		23	10	Sunny / P. Cloudy	0.0	0.0	0.0
13 (Mon)	162.8		19	9	Sunny / P. Cloudy	0.0	0.0	0.0
14 (Tue)	156.6		22	8	Sunny / P. Cloudy	0.0	0.0	0.0
15 (Wed)	181.0	<=Max	22	10	Sunny / P. Cloudy	0.0	0.0	0.0
16 (Thu)	164.2		15	9	Cloudy / P. Sunny	0.0	0.0	0.0
17 (Fri)	159.2		15	6	Sunny / P. Cloudy	0.0	0.0	0.0
18 (Sat)	160.6		14	6	Cloudy / P. Sunny	0.0	0.0	0.0
19 (Sun)	167.9		17	5	Cloudy / P. Sunny / Showers	0.3	0.0	0.3
20 (Mon)								
21 (Tue)								
22 (Wed)								
23 (Thu)								
24 (Fri)								
25 (Sat)								
26 (Sun)								
27 (Mon)								
28 (Tue)								
29 (Wed)								
30 (Thu)								
31 (Fri)								
TOTAL	2890.3 ML	635.88 MIG				5.2	0	5.2
MAX	181.0	39.83	27	11		2.5	0	2.5
AVG	152.1	33.47	18.4	6.8		0.3	0	0.3
MIN	128.7	28.31	12	3		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.

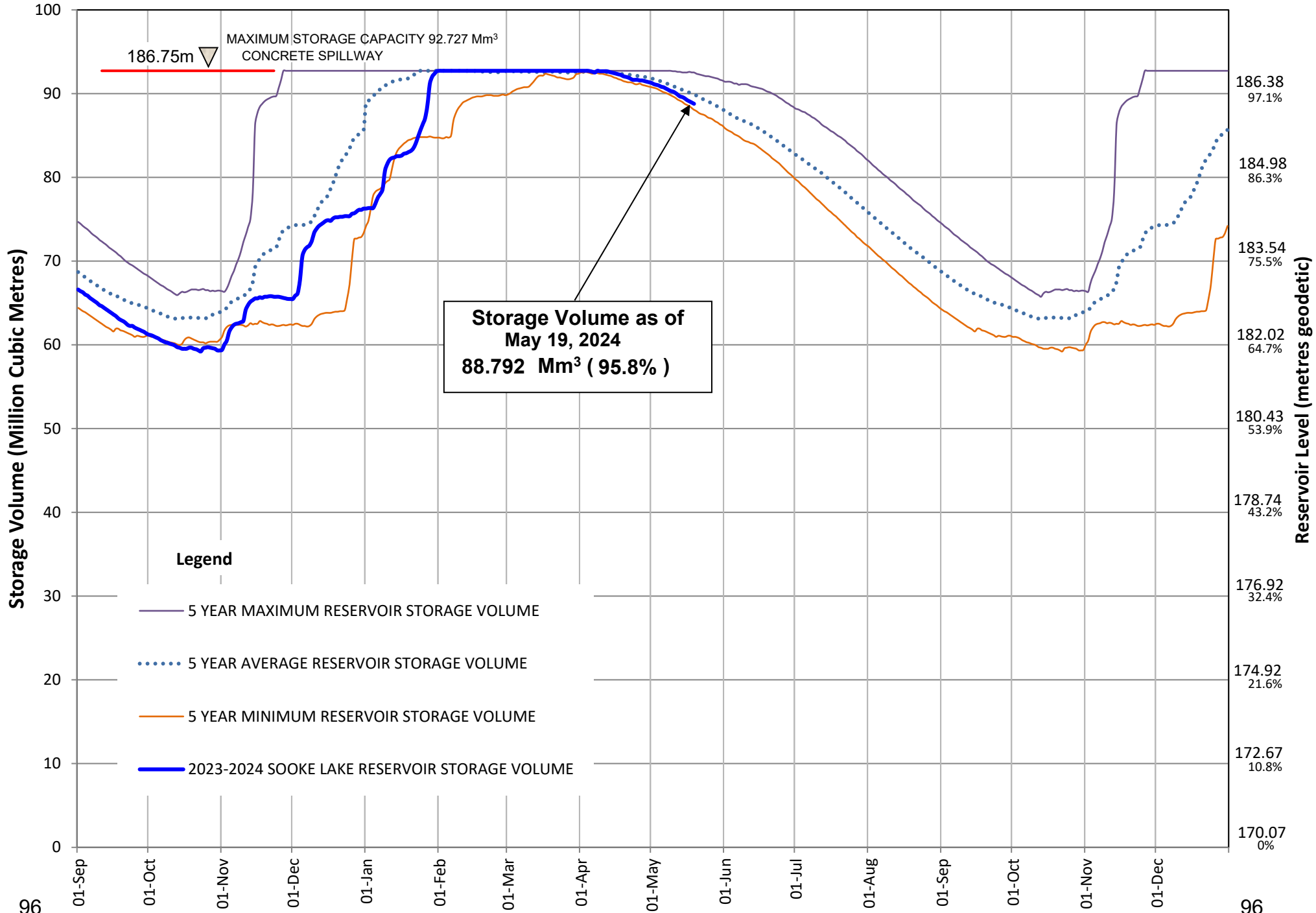
Average Rainfall for May (1914-2023)	47.4 mm
Actual Rainfall: May	5.2 mm
% of Average	11%
Average Rainfall (1914-2023): Sept 01 - May 19	1,531.1 mm
Actual Rainfall (2023/24): Sept 01 - May 19	1,262.1 mm
% of Average	82%

Number days with precip. 0.2 or more
5

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

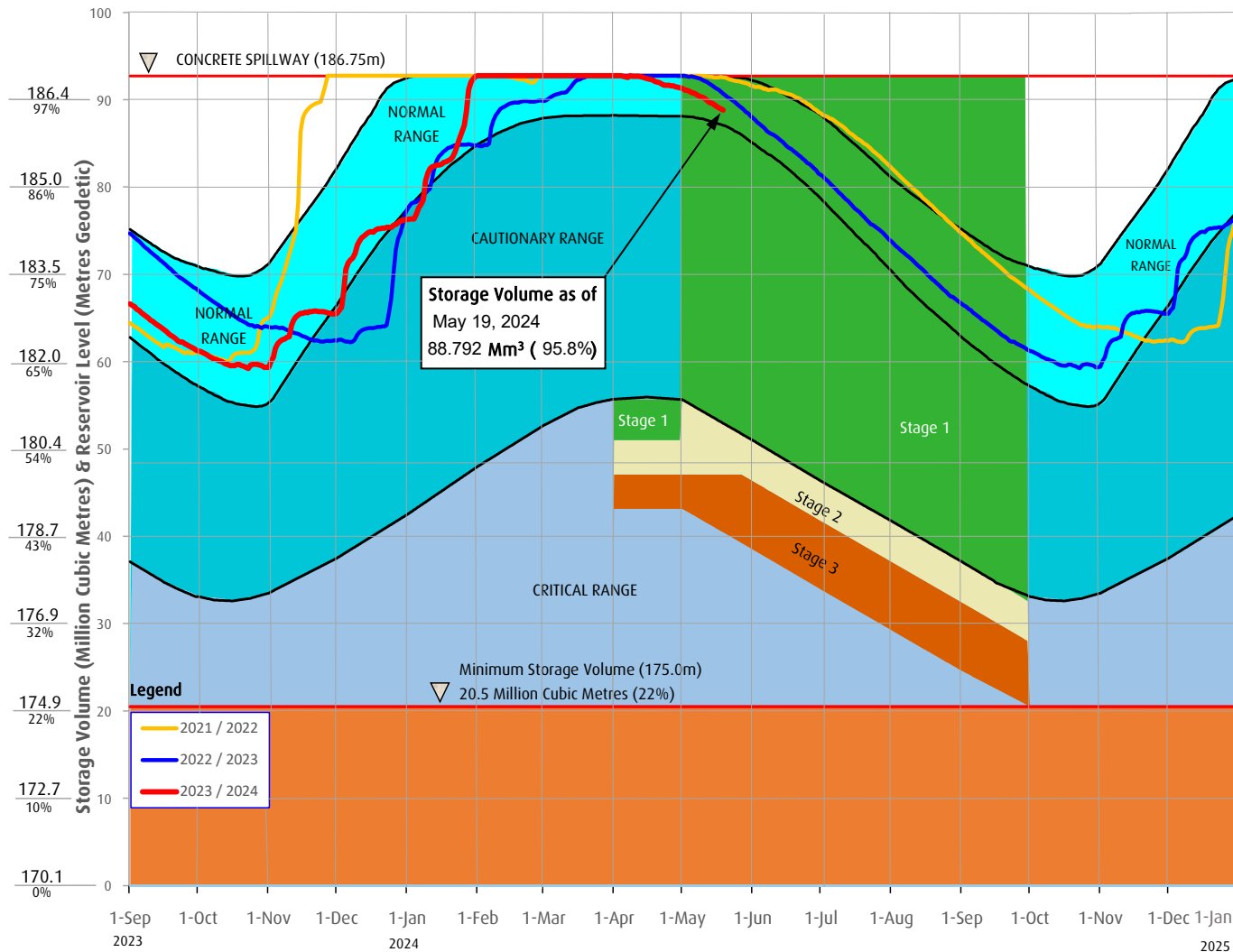
SOOKE LAKE RESERVOIR STORAGE SUMMARY

2023 / 2024



Sooke Lake Reservoir Storage Level

Water Supply Management Plan



FAQs

How are water restriction stages determined?

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

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

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

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

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

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

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

For more information, visit www.crd.bc.ca/drinkingwater

CRD
Making a difference...together

Useable Reservoir Volumes in Storage for May 19, 2024

