

# 2

# Water



Safe drinking water and a resilient water supply

# **01** Strategy

#### **STRATEGIES & PLANS**

- Regional Water Supply Strategic Plan (update underway)
- Regional Water Supply Master Plan 2022-2050
- Regional Growth Strategy

#### **CORPORATE PLAN GOALS**

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

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# **03** Operating Context

#### **ACHIEVEMENTS IN 2025**

- 1. On September 15, 2025, the CRD purchased 1,973 hectares of land from the Kapoor Lumber Company. The strategic location of the **Kapoor Land** ensures further protection of our primary water source, as well as long-term water security, service reliability, and environmental protection.
- 2. Completed the detailed designs and construction tendering for the replacement of sections of Regional Supply Main No.4 and sections of the Saanich Peninsula Water Supply System. These projects will replace aging infrastructure, improve seismic resilience in the Regional and Saanich Peninsula Water supply systems and help continue to provide high quality, safe drinking water.
- 3. Continued to make significant progress on the proposed Regional Water Development Cost Charge Program including engaging municipal councils, the public and development community as well as First Nations. The need for such a program was identified in the CRD 2023-2026 Corporate Plan and will be used to fund future growth-related regional water supply system improvements identified in the 2022 Master Plan.
- 4. Engaged a consultant to develop Regional Water Master Plan Delivery Strategy. This strategy will provide a comprehensive roadmap for program and project implementation. This first phase of this work is underway and anticipated to be completed in early 2026
- 5. Continued to build the Dam Safety group for the Infrastructure and Water Services (IWS). This included the hiring of two new staff leading the Dam surveillance and Dam Engineering and Compliance sections. This group oversees the safety and regulatory requirements of managing the 23 water supply dams owned and operated by IWS, including 15 directly related to the Regional Water Supply system and the other eight dams located within three other local water services.
- 6. Continued progress on the ongoing Asbestos Cement Replacement Program for the Juan de Fuca Water Distribution system, which includes the design and replacement of aging distribution water mains while coordinating with various municipalities to align water main upgrades with municipal capital projects. By synchronizing critical infrastructure projects, the goal is to optimize resources and minimize impacts on the community. In 2025 between 3.4 and 4.2 kilometers of water main will be upgraded, which is significantly greater than the target annual replacement of 2.5 kilometers.
- 7. Completed the scheduled five-year update to the Juan de Fuca Development Cost Charge Program including revised projects costs, population projections and Development Cost Charge Rates.
- 8. Completed the construction and successful commissioning of the Goldstream Water Treatment Plan UV and Controls Upgrade for the Regional Water Supply System.
- 9. A new service delivery model for First Nations water servicing was successfully implemented with two participating First Nations in 2024 and will continue to be advanced with the other participating First Nation in the coming years, as First Nation capacity allows. Through these **Bulk Water Supply agreements**, the Regional Water Supply Service will become the service provider for participating First Nations governments, supporting a the CRD commitment of improving government-to-government relationships with First Nations.



- 10. Continuing to mature and operationalize the **asset and maintenance management function** by centralizing the team to build consistency and streamline service delivery. This function continues to advance standards, systems, and processes to support data-driven decision-making and efficiencies in service delivery.
- 11. Replacement of a large undersize culvert on the main access road to **Sooke Lake Reservoir** with a major bridge.
- 12. Updates of emergency response and risk reduction plans and strategies for the Greater Victoria Water Supply Area.
- 13. Completion of a major **research partnership** investigating the effects of climate change on forests and wildfire hazard and how impacts can be reduced by forest management.
- 14. The assembly, synthesis, and analysis of information needed for the development of a **forest** management plan for the Water Supply Area.
- 15. Compliance with *BC Drinking Water Protection Act* and Regulation water quality oversight and reporting requirements.
- 16. Completion of System-Wide Nitrification Study.

#### FACTORS THAT WILL AFFECT OUR OPERATIONS IN 2026 AND BEYOND

- Regional Water Supply Strategic Plan (2025): the Strategic Plan summarises the key factors affecting operations, both internally and externally, and outlines the key priorities, actions and initiatives that support the strategic priorities and commitments for the Regional Water Supply System. In 2025, the draft plan was presented to the Regional Water Supply Commission, Water Advisory Committee, First Nations and the public for confirmation of the commitments and feedback and input the priorities and actions.
- Community Growth: member municipalities continue to revise Official Community Plans to reflect provincial guidelines on housing targets. To ensure that the system can meet the current and future needs of the population, we continue to plan for future water supply requirements, while also managing our water demand through education and outreach. The CRD plans to be proactive in working with member municipalities to identify areas of growth and reassessing timing of infrastructure upgrades.
- Security and patrols: there is an ongoing need to monitor for and respond to recreational pressure into the Greater Victoria Water Supply Area from Sooke Hills Wilderness Regional Park and from the rapidly developing residential area around Langford and Goldstream. During Extreme Fire Danger Rating, this creates additional risk to the Greater Victoria Water Supply Area and additional pressure on the Watershed team.
- Climate Change: the most significant risks for water services relate to climate and environmental changes. Predicted trends of drier, hotter summers will impact the water services in several ways:
  - Demand for water, including for local agricultural activities this is monitored closely and evaluated against historical trends. Model predictions are updated for areas exhibiting higher than predicted demands. This will inform future infrastructure upgrades to meet growing demands.



- o Water quality may be affected due to increased biological growth in the source water and distribution system. The 2022 Regional Water Supply Master Plan recommends implementing filtration as a step in the treatment process by 2037.
- o In the Greater Victoria Water Supply Area, increasing periods of elevated wildfire risk, peak flows from winter storms, drought stress on trees, which could lead to increased mortality and forest pests/diseases.
- o Increased risk of power outages.
- Infrastructure Vulnerability, Resiliency, and Emergency Preparedness: there are increases in operational and system maintenance demands from a growing region combined with aging infrastructure. The 2022 Regional Water Supply Master Plan identified a strategy to address supply (quantity) and critical delivery infrastructure (redundancy) needs over the next 30 years. In addition to continuing to replace and refresh our existing assets to ensure they remain in a state of good repair, preliminary studies will also commence on the large elements identified in the Regional Water Supply Master Plan.
- Asset Management: the ongoing trend in reviewing, updating and completing asset management
  plans and the continuous upgrading, replacement and growth of assets in the water and wastewater
  systems rely on having an up-to-date asset registry, as well as an asset onboarding process. Both
  the Scottish Water Review in 2018 and the EMA Readiness Assessment of 2020 highlighted the need
  for a reliable asset registry for Water and Wastewater.
  - o The risk of assets not being maintained, replaced in a timely manner and failing could impact the CRD's ability to provide the expected water and wastewater level of service and could even result in environmental and public health and safety risks.
  - The asset registry is an important step in ensuring that assets are captured in the Maintenance Management System and Preventative Maintenance Plans are developed. This information is also critical with regards to capital and financial planning for the utility services.
- Operational Cost Increases: the costs of essential water system operating supplies, such as disinfection chemicals, have been increasing 30-40% year-over-year which is impacting the cost-of-service delivery. This trend has been seen across North America.
- Advancing Reconciliation Through Shared Water Stewardship: We recognize that the region's water supply system exists within the traditional territories of many First Nations. We are committed to meaningful collaboration with First Nations as rights holders and stewards of the land. By integrating Indigenous knowledge, removing barriers to participation, and building respectful relationships, we honour cultural connections to water and advance reconciliation through shared responsibility for the protection and sustainability of our watershed.
- Regulatory Changes: Potential regulatory changes affecting CRD Operating Permits are an ongoing risk to operations. New conditions for CRD Operating Permits may arise based on shifting risk assessments by Island Health Authority or new scientific guidelines by Health Canada (e.g., emerging contaminants).

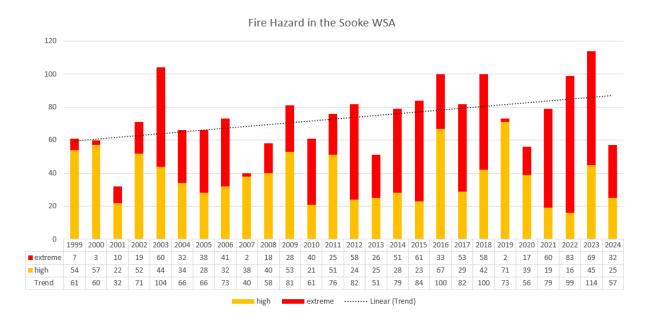


#### **OPERATIONAL STATISTICS**

Operational statistics related to the water service can be found in the following documents:

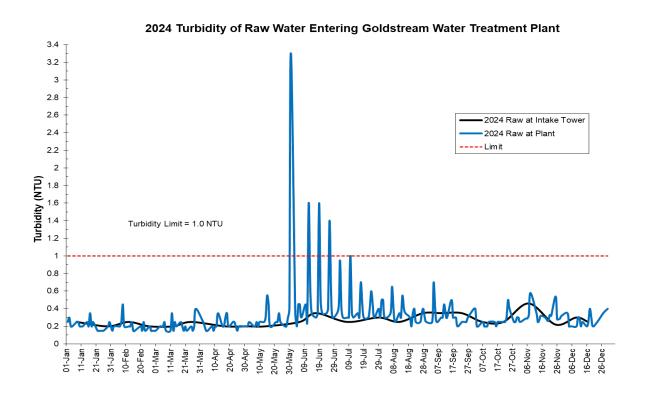
- ▶ Regional Water Supply Master Plan 2022
- Greater Victoria Drinking Water Quality 2024 Annual Report

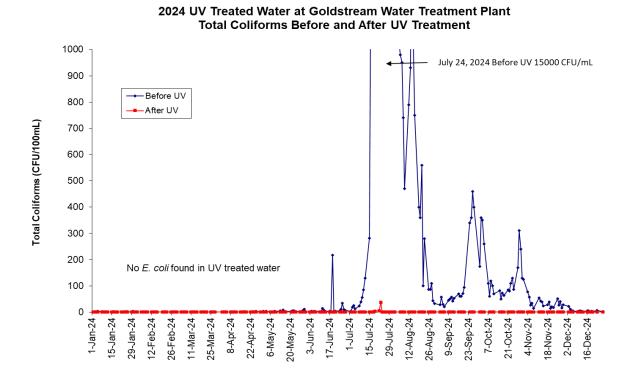
An example of the effect of climate change on the number of days of elevated wildfire risk in the Greater Victoria Water Supply Area:



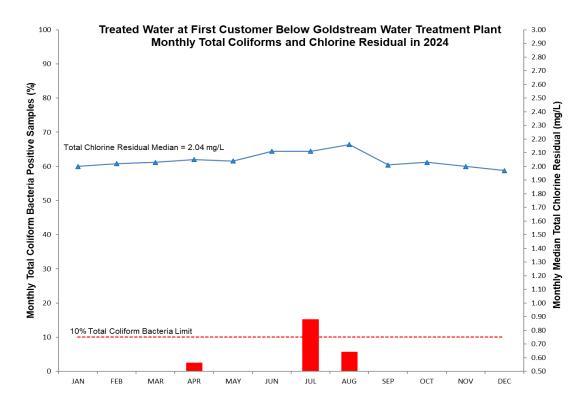


The following three graphs show critical water quality parameters over the course of 2024 with the occasional exceedance of turbidity and total coliform bacteria:

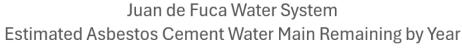


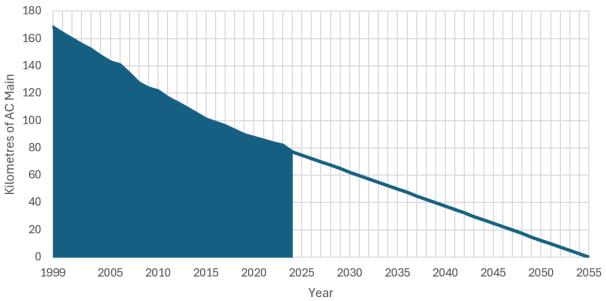






The following graph shows the remaining Asbestos Cement pipe within the Juan de Fuca Water system. The CRD has prioritised the replacement of the Asbestos Cement water main to improve service reliability and minimize potential property damage due to water main breaks.







### **04** Services

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

#### Watershed Protection

Forest land management of the 20,643 hectares of the Greater Victoria Water Supply Area to ensure highquality source drinking water for the Regional Water Supply System through following service areas.

#### SERVICE BUDGET REFERENCE<sup>1</sup>

> 2.670 Regional Water Supply

#### 1. WILDFIRE, SECURITY & EMERGENCY RESPONSE

#### Description

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

#### What you can expect from us

- ▶ 24/7 watershed emergency duty officer standby.
- Security/wildfire patrols and standby (weekends and holidays; daily during elevated fire conditions)
- Comprehensive wildfire preparedness.
- Wildfire detection by drone and air patrol during high and extreme fire hazard; infrared camera.
- Rapid response to wildfire within the Greater Victoria Water Supply Area by trained wildland firefighters
- ▶ Rapid response to spills and other emergencies within the Water Supply Area

#### **Staffing Complement**

Watershed Protection: 9.5 FTE (including 1 Manager and Administrative Support) + leadership support

#### 2. WATERSHED OPERATIONS

#### Description

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

#### What you can expect from us

Winter/summer road maintenance.

<sup>&</sup>lt;sup>1</sup> Service budget(s) listed may fund other services



- Culvert and bridge upgrades to accommodate higher peak flows and changing climate, and to improve fish passage.
- Forest fuel and forest resilience treatments and fire smarting maintenance including brushing, thinning and chipping or burning of woody debris.
- Brushing dam faces and around facilities, gates and fences.
- Danger tree assessment and removal along roads and powerlines and around water supply facilities and buildings within the water supply area.
- Invasive plants management.

#### **Staffing Complement**

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

#### 3. WATERSHED PLANNING AND MONITORING

#### Description

Wildlife management, ecological inventories and analyses, risk assessment and management, Geographic Information System (mapping) and data management

#### What you can expect from us

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

#### **Staffing Complement**

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



### Water Supply & Distribution

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

#### **SERVICE BUDGET REFERENCES<sup>2</sup>**

- > 2.670 Regional Water Supply
- 2.680 Juan de Fuca Water Distribution
- 2.610 Saanich Peninsula Water

#### 4. WATER SYSTEMS OPERATIONS AND MAINTENANCE

#### Description

Ensuring a consistent, reliable supply of clean drinking water to customers every day. Water treatment, supply, and distribution system operations. Monitoring, along with the maintenance and management of facilities, consumables, and preventative upkeep. Responding promptly to water main breaks, system emergencies and executing small capital projects to enhance infrastructure reliability.

#### What you can expect from us

- Treatment plant operation.
- Supply and transmission system operation.
- System monitoring.
- Customer service.
- System and facility maintenance.
- Consumables management.
- Component preventative maintenance.
- ▶ 24/7 emergency response to water main breaks and other system emergencies.

#### Staffing Complement

Water Infrastructure Operations: 61 FTE (including 5 Managers and Administrative Support)
Wastewater Operations also provides support through their Systems Maintenance group consisting of Electricians, SCADA Technicians, and Industrial Mechanics.

#### 5. CORPORATE ASSET & MAINTENANCE MANAGEMENT

#### Description

Leading the delivery of the actions in the Corporate Asset Management Strategy, and report on the status of asset management for the CRD. Implementing and enhancing enterprise asset management systems for asset information and analysis which informs capital plan priorities. Planning and scheduling

<sup>&</sup>lt;sup>2</sup> Service budget(s) listed may fund other services



asset interventions for water and wastewater operations with the goal of optimizing our maintenance program, minimizing failures and extending the life of he CRDs asset investments.

#### What you can expect from us

- Develop and implement standards and processes for asset and maintenance management activities.
- Plan and schedule work management activities for water and wastewater services, and build asset registers for all CRD assets eventually, and work towards an enterprise asset management approach.
- Audit and maintain the asset registers for water and wastewater services.
- Procure, implement, and enhance an asset and working management system for asset reporting and decision-making.
- Lead or support the development of asset management plans for all services.
- Lead the delivery of the actions in the Corporate Asset Management Strategy.
- Maintain safe and efficient maintenance practices in collaboration with field staff and streamlined data collection for asset reporting and decision-making.
- Coordinate and deliver fleet vehicle maintenance and repairs for all of the CRD services.
- Provide inventory management (parts and equipment) for maintenance activities.
- Manage consultants and contractors providing asset and maintenance management services.

#### **Staffing Complement**

Corporate Asset and Maintenance Management: 25 FTE (Including 3 managers)

#### 6. INFRASTRUCTURE PLANNING & ENGINEERING

#### Description

Overseeing the engineering, planning and capital project delivery related to water infrastructure including water supply dams. Strategic asset management for all water systems including modeling and capacity analysis, vulnerability assessment, infrastructure renewal plans. Project design, procurement and delivery of capital projects annually on time/budget. Main installations, dam upgrades, equipment replacement and capital projects support.

#### What you can expect from us

- Asset management and capital planning.
- Support planning of system expansion and growth planning requirements.
- Proactive capital planning for the water services with a 15-year outlook.
- Ongoing condition assessment to inform the capital program and ensure water systems assets remain in a state of good repair.
- Incorporating growth and expansion demands into future plans.
- Development application and referral reviews for local service areas and IDF Distribution system.
- Implementing the Capital Improvement Program, including infrastructure renewal and upgrades.
- Co-ordination of Capital programs with municipal partners.
- Engineering support of utility operations for the water services.
- Development and management of a dam safety management system to ensure dam safety and regulatory requirements are met.



Oversight of studies and capital upgrades to ensure water supply dams meet regulatory requirements.

#### **Staffing Complement**

Water Supply Engineering and Planning: 3 FTE (including 1 Manager) + leadership support Water Distribution Engineering and Planning: 6 FTE (including 1 Manager)

Dam Safety: 5 FTE (Including 1 Manager)

#### 7. CAPITAL PROJECT DELIVERY

#### Description

Capital delivery services, including project management, various types of studies, detailed design, procurement, construction management and commissioning services that support several community needs. Coordinating with the service leaders to procure, construct, commission, and hand off physical infrastructure projects to the related service. In addition to the water services this team also provide capital delivery services across the CRD.

### What you can expect from us

- Develop and administer the Capital Plans for the 15 Water and Wastewater Services and for one Southern Gulf Islands Small Craft Harbours Facilities budget with a current five-year budget of \$575 million.
- Currently directly managing 83 active projects/programs of varying size and complexity, with a combined 2025 budget of \$84 million.
- Provide support to other working groups, as necessary, in facilitating their capital planning requirements or providing guidance related to project delivery.
- Projects include improvements at water treatment plants and pump stations, wastewater treatment plants and pump stations, water distribution and transmission main replacements, water storage tank improvements, sewer system improvements (including trenchless rehabilitation), dam safety improvements, docks and harbours upgrades and more.
- Work collaboratively with various planning and operations groups to support ongoing successful delivery of water and wastewater services for the residents of the CRD.

### Staffing Complement

Corporate Capital Project Delivery Services: 10 FTE (including 2 Managers) + leadership support shared with Wastewater



#### **ENVIRONMENTAL PROTECTION**

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

#### **SERVICE BUDGET REFERENCES:3**

- > 2.670 Regional Water Supply
- 1.578 & 1.579 Environmental Protection

#### 8. WATER QUALITY OPERATIONS PROGRAM

#### Description

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

#### What you can expect from us

- Source water (Sooke, Goldstream Reservoirs) and distribution system (post treatment) monitoring, assessment and reporting.
- Physical, chemical and biological analytical services, assessment and reporting.
- Operational support (maintenance, repairs, spills, pipe breaks, water quality emergency response).
- Research, planning and risk assessment support for long-term planning.

#### **Staffing Complement**

Environmental Protection: 6 FTE + leadership support

#### 9. LABORATORY SERVICES

#### Description

An ISO 17025 accredited, provincially approved lab providing analysis for CRD Drinking Water and Wastewater Systems.

#### What you can expect from us

- Analyze physical, chemical, algal, and microbiological samples (source water and distribution systems; analyze wastewater compliance and process samples).
- ▶ Provide defensible compliance results and inform CRD Water and Wastewater operations on system performance.

#### **Staffing Complement**

Environmental Protection: 11 FTE (combined water/wastewater) + leadership support

<sup>&</sup>lt;sup>3</sup> Service budget(s) listed may fund other services



#### 10. DEMAND MANAGEMENT PROGRAM

#### Description

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

#### What you can expect from us

- Accurate spatial and temporal data.
- Per capita targets (Residential and Industrial, Commercial and Institutional).
- Outreach and educational programs and campaigns.
- Industrial/Commercial/Institutional audits and water use reduction campaigns.
- Administration of Water Conservation Bylaw 4099.

#### **Staffing Complement**

Environmental Protection: 3.0 FTE + leadership support

#### 11. CROSS CONNECTION CONTROL PROGRAM

#### Description

Identification, registration, tracking and reporting of potential cross connection contamination sources in the Greater Victoria Drinking Water System. Compliance monitoring, audits and follow-up, and education and outreach.

#### What you can expect from us

- Contamination prevention through facility inspections, testing and education for backflow prevention devices.
- Monitor and track >28,000 backflow prevention devices.
- Protection of regional water system through backflow risk management.
- Administration of Cross Connection Control Bylaw 3516.

#### **Staffing Complement**

Environmental Protection: 4.6 FTE + leadership support



#### 12. COMMUNICATIONS AND ENVIRONMENTAL EDUCATION

#### Description

Public education and engagement in the region to promote sustainable behavior through campaigns, initiatives and services

### What you can expect from us

- Increased public awareness of CRD messages and subsequent behavior changes
- Declining trend in per capita and per sector water use

### **Staffing Complement**

Environmental Protection: 0.8 FTE + leadership support



# **05** Initiatives

Below are the initiatives listed in the <u>Capital Regional District 2023-2026 Corporate Plan</u> and the related initiative business cases (IBCs). For an overview of the financial impacts, including cost of staffing, please refer to the Provisional Budget report.

Initiative Implementation year(s)

2a Goal: High quality, safe drinking water	
2a-1 Update the Regional Water Supply Strategic Plan	2023-2025
2a-2 Implement the 2022-2050 Regional Water Supply Master Plan	Ongoing
IBC 2a-2.1 Contracts Coordinator	2024-ongoing
IBC 2a-2.2 Purchaser	2024-ongoing
NEW IBC 2a-2.3 Master Plan Program	2026–2028
2a-3 Review water rates in service agreements with First Nations	Ongoing
2a-4 Review and determine appropriate level of water subsidy used for agriculture	On Hold
2a-5 Active forest/ecological management to enhance forest health and resilience in the Water Supply Areas	2025
IBC 2a-5-1 Seasonal Watershed Operator 2s	2025-ongoing
FUTURE IBC 2a-5.2 Equipment/Watershed Operator	Planned for 2027
FUTURE IBC 2a-5.3 Seasonal Watershed Protection Program	Planned for 2027
FUTURE IBC 2a-5.4 Forest Management Plan Implementation	Planned for 2028
▶ <b>FUTURE IBC</b> 2a-5.5 Forest Hydrology Technician	Planned for 2029
2a-6 Collect and analyze information for climate adaptation, reservoir management and the siting of new major infrastructure	Ongoing



#### Initiative

#### Implementation year(s)

2a-7 Implement a development cost charge program for the Regional Water Service	Ongoing
2a-8.1 Water Quality Sampling Technician* (withdrawn)	<del>2024-ongoing</del>
► IBC 2a-8.2 Water Quality Sampling Technician* (revised)	2025-ongoing
▶ IBC 2a-8.3 Laboratory Assistant	2025-ongoing
2b Goal: Reliable & efficient drinking water transmission sys	tem
2b-1 Enhance safety of aging dams, meet increasing regulatory requirements and mitigate against the risk of failures	2024-ongoing
▶ IBC 2b-1.1 Dam Safety Program – Integrated Water Services	2024-2027
2b-2 Invest in and maintain capital assets, and undertake regulatory monitoring, to service current and future population and climate adaptation	Ongoing
▶ IBC 2b-2.1 Utility Operator Team Lead – Water Operations	2025-ongoing
▶ IBC 2b-2.2 Capital Project Resource	2025-ongoing
▶ IBC 2b-2.3 System Maintenance Electronics Technologist	2025–ongoing
▶ IBC 2b-2.4 System Maintenance Electrician	2025-ongoing
▶ <b>NEW IBC</b> 2b-2.5 Utility Operator Program (JDF/RWS)	2026-2028
▶ <b>NEW IBC</b> 2b-2.6 Operations Coordinator (RWS/JDF)	2026-ongoing
▶ <b>NEW IBC</b> 2b-2.9 Reliability/Operational Performance	2026-2027
► <b>FUTURE IBC</b> 2b-2.7 Corporate Capital Delivery Services – Contract Support	Planned for 2027

<sup>\*</sup>Not captured in the 2023-2026 Corporate Plan



# **06** Performance

#### **■** GOAL 2A: HIGH QUALITY, SAFE DRINKING WATER

#### Targets & Benchmarks

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

#### **Measuring Progress**

Performance Measure(s)	Service	Туре	2024 Actual	2025 Forecast	2026 Target
1. Regulatory Compliance <sup>1</sup>	Regional Water Supply	Quantity	None	None	None
	Juan de Fuca Water Distribution	Quantity	None	None	None
	Saanich Peninsula Water Supply	Quantity	None	None	None
2. Water Quality Sampling (raw) <sup>2</sup>	Regional Water Supply	Quantity	18,832	18,832	20,032
3. Water Quality Sampling	Regional Water Supply	Quality	8,074	8,074	8,478
(treated)³	Juan de Fuca Water Distribution	Quality	5,205	5,205	5,501
	Saanich Peninsula Water Supply	Quality	2,006	2,006	2,201
4. Demand⁴	Regional Water Supply	Quantity	342	340	342
	Juan de Fuca Water Distribution	Quantity	303	300	299
	Saanich Peninsula Water Supply	Quantity	459	450	447

<sup>&</sup>lt;sup>1</sup> Non-compliance with Island Health, provincial and federal regulatory requirements and operational certificates that result in Boil Water Advisories or Do Not Consume Events

#### Discussion

#### Measures 1-3: Regulatory Compliance and Quality Monitoring

- Water Quality Monitoring Program: In 2024, no 'Boil Water' or 'Do Not Consume Advisories' were reported for three CRD drinking water services and regulatory sampling and testing requirements were met by 100%. The Regional Water Supply and the Juan de Fuca Distribution services had periods with minor non-compliances due to few samples with elevated indicator bacteria concentrations.
- Cross Connection Control program meets its objectives by enforcement of backflow prevention requirements referenced in the *BC Building Code* and is described by the Canadian Standard Association's CSA B64 series. This is achieved through regulatory inspections, management of a backflow assembly registry, enforcing required testing and public education. In 2024, more than 700 facility audits of moderate and severe hazard risks were conducted by the inspections team. Audit requirements achieved a 97% compliance rate. Program focus in 2024 was also on medical,

<sup>&</sup>lt;sup>2</sup> Water quality samples analyzed annually from source reservoirs (raw water)

<sup>&</sup>lt;sup>3</sup> Water quality samples analyzed annually from transmission/distribution systems (treated water)

<sup>&</sup>lt;sup>4</sup> Average day per capita water use (litres per capita per day)



manufacturing and educational facilities as well as agricultural connections. The program processed close to 20,000 assembly test report submissions. Of these, 12,000 (60%) were processed through the CRD CCC online portal and the remaining 8,000 (40%) were manually entered from paper test report submissions, achieving an overall 75% compliance rate. Goal is to phase-out paper submissions in 2025 and achieve higher test compliance.

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

- Regional Water Supply: total regional demand has been rising for the last few years after many years of a declining and the plateauing trend. This recent shift is attributed primarily to population growth and a diminishing regional inventory of water intensive household appliances that can be upgraded for water efficient ones. Per-capita demand, after 25 years of decline, has been plateauing and even slightly rising in recent years. This may be caused by higher irrigation during frequent drought conditions but may also indicate a behaviour change by customers.
- Saanich Peninsula Water Supply: Water demand on the Saanich Peninsula is driven by agricultural demand and lack of residential densification.
- **Juan de Fuca Water Distribution**: Water demand in the Westshore communities is defined by two different categories: low per-capita demand in fast growing urban communities such as Langford, Colwood and View Royal due to dense development and little agriculture; and high per-capita demand in low-density communities such as Metchosin, Sooke/East Sooke and Highlands.



#### **◆** GOAL 2B: RELIABLE & EFFICIENT DRINKING WATER TRANSMISSION SYSTEM

#### Target & Benchmarks

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

#### Measuring Progress

Performance		Туре	2024	2025	2026
Measure(s)	Service		Actual	Forecast	Target
5. Operating cost⁵	Regional Water Supply	Quantity	\$135	\$140	\$145
6. Energy usage <sup>6</sup>	Regional Water Supply	Quantity	61	45	45
7. Watershed water release <sup>7</sup>	Regional Water Supply	Quantity	11,800	12,000	12,000
8. Water-main leak repairs <sup>8</sup>	Juan de Fuca Water Distribution	Quantity	6	5	2
9. Preventative	Regional Water Supply	Quality	98%	98%	100%
maintenance <sup>9</sup>	Juan de Fuca Water Distribution	Quality	96%	96%	100%
	Saanich Peninsula Water Supply	Quality	98%	98%	100%

<sup>&</sup>lt;sup>5</sup> Annual operating cost per megaliter of drinking water treated and supplied/distributed

#### Discussion

#### Measure 6 - Energy Usage

- Energy usage per megalitre remained stable in 2024.
- A decrease in energy usage is anticipated in 2025 with the commissioning of new, high-efficiency UV reactors at the Goldstream Water Treatment Plant. These units are designed to reduce the kWh/ML required for treatment while maintaining disinfection performance.
- This upgrade aligns with the CRD's sustainability objectives and is expected to provide long-term operational savings.
- Actual reductions will be confirmed through ongoing monitoring of 2025 performance data; at this time there is insufficient billing information to quantify change.

<sup>&</sup>lt;sup>6</sup> Annual energy use (kWh) per megaliter of drinking water treated and supplied/distributed

<sup>&</sup>lt;sup>7</sup> Volume of raw water released annually from Regional Water Supply watersheds to rivers to support fish habitat (megaliters)

<sup>&</sup>lt;sup>8</sup> Number of water-main leak repairs and service line leaks annually per 100 kilometers of pipe (distribution systems)

<sup>&</sup>lt;sup>9</sup> Preventative maintenance completed (% of planned)



## **07** Business Model

#### Water Supply & Distribution, Watershed Protection

**PARTICIPANTS** Regional Water Supply: All Municipalities, Juan de Fuca Electoral Area, First

Nations (via Distribution Systems)

Saanich Peninsula Water Supply: Municipalities (Central Saanich, North

Saanich, Sidney)

JDF Water Distribution: Langford, Colwood, View Royal, Metchosin,

Highlands, Sooke, Juan de Fuca Electoral Area

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

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

Shore Municipalities

Saanich Peninsula Water: Wholesale water sales revenue

**GOVERNANCE** Regional Water Supply Commission

Water Advisory Committee

<u>Saanich Peninsula Water Commission</u>

Juan de Fuca Water Distribution Commission

#### **Environmental Protection**

**PARTICIPANTS** Water Quality Service: Allocation from Integrated Water Services and Local

Service Areas (LSA) from the municipalities of Regional Water Supply area, Juan de Fuca and various local service areas, Sidney, North Saanich, Central

Saanich and Peninsula First Nations

Demand Management, Cross Connection Control Services: water rate from

all Municipalities and Electoral Areas

Communications and Environmental Education: all Municipalities and

Electoral Areas

**FUNDING SOURCES** Water rate and requisition

**GOVERNANCE** Regional Water Supply Commission

Water Advisory Committee

Saanich Peninsula Water Commission

Juan de Fuca Water Distribution Commission