



Making a difference...together

SAANICH PENINSULA WATER COMMISSION

Notice of Meeting on **Thursday, October 21, 2021 at 9:30 a.m.**

Meeting Room #6 Greenglade Community Centre, 2151 Lannon Way, Sidney 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.

R. Barnhart (Chair)

M. Doehnel (Vice Chair)

S. Duncan

D. Kelbert

Z. King

C. McNeil-Smith

G. Orr

M. Weisenberger

M. Williams

R. Windsor

M. Underwood

AGENDA

1. TERRITORIAL ACKNOWLEDGEMENT

2. APPROVAL OF AGENDA

3. ADOPTION OF MINUTES3

Recommendation: That the minutes of the May 20, 2021 meeting be adopted.

4. CHAIR'S REMARKS

5. PRESENTATIONS/DELEGATIONS

This meeting will be held without the public present. A phone in number is provided above that will allow the public to listen to the meeting.

Presentation and Delegation requests can be made [online](#) or complete this [printable form](#) (PDF). Requests must be received no later than 4:30 p.m. two calendar days prior to the meeting.

6. GENERAL MANAGER'S REPORT

6.1. Water Supply Outlook [Verbal]

7. COMMISSION BUSINESS

7.1. 2022 Service Planning - Water9

***Recommendation:** The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:
That Appendix A, Community Need Summary – Water be approved as presented and form the basis of the 2022-2026 Financial Plan.*

*To ensure quorum, advise **DENISE DIONNE AT 250-360-3087** if you cannot attend.*

**Saanich Peninsula Water Commission
Agenda – October 21, 2021**

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7.2. Saanich Peninsula Water Service – 2022 Operating and Capital Budget.....26

***Recommendation:** The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board to:*

1. Approve the 2022 operating and capital budget;
2. Approve the 2022 Saanich Peninsula bulk water rate of \$1.0886 per cubic metre, and the Agricultural Research Station water rate of \$1.1238 per cubic metre, adjusted if necessary by any changes in the CRD Regional Water Supply wholesale water rate;
3. Direct staff to balance the 2021 actual revenue and expense on the transfer to capital reserve fund; and,
4. Direct staff to amend the Bulk Water Rates Bylaw accordingly.

7.3. Summary of Long-Term Capital Improvements and Operating Programs50

***Recommendation:** That the Saanich Peninsula Water commission receives the report for information.*

7.4. Post Disaster Water Supply Update, October 202154

***Recommendation:** That the Saanich Peninsula Water Commission receive the report for information.*

7.5. Summary of Recommendations from Other Water Commissions57

***Recommendation:** That the Summary of Recommendations from other water commissions be received for information.*

7.6. Water Watch Report65

***Recommendation:** That the October 11, 2021 Water Watch Report be received for information.*

8. COMMISSION MEMBERSHIP

9. NOTICE(S) OF MOTION

10. NEW BUSINESS

11. ADJOURNMENT

Next Meeting: Thursday, December 16, 2021



Making a difference...together

MINUTES OF A MEETING OF THE SAANICH PENINSULA WATER COMMISSION

Held Thursday, May 20, 2021 in Meeting Room #6 at Greenglade Community Centre, 2151 Lannon Way, Sidney BC

PRESENT: Commissioners: R. Barnhart; M. Doehnel; S. Duncan (EP); Z. King (EP); C. McNeil-Smith (EP); G. Orr (EP); M. Weisenberger; M. Williams; R. Windsor (EP); M. Underwood

Staff: T. Robbins, General Manager, Integrated Water Services; G. Harris, Senior Manager, Environmental Protection; S. Irg, Senior Manager, Infrastructure Water Operations (EP); M. Cowley, Manager, Wastewater Engineering & Planning; P. Kickham, Manager, Environmental Regulations; A. Hoge, Manager, Corporate Finance and Treasury (EP); D. Dionne (recorder)

REGRETS: D. Kelbert

EP = Electronic Participation

The meeting was called to order at 9:30 a.m.

The Chair conducted a roll call.

1. TERRITORIAL ACKNOWLEDGEMENT

Chair Barnhart provided the Territorial Acknowledgement.

2. APPROVAL OF AGENDA

MOVED by Commissioner Weisenberger, **SECONDED** by Commissioner Doehnel,
That the agenda be approved.

CARRIED

3. ADOPTION OF MINUTES

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Weisenberger,
That the minutes of the March 18, 2021 meeting be adopted.

CARRIED

4. CHAIR'S REMARKS

The Chair made no remarks.

5. GENERAL MANAGER'S REPORT

5.1. Water supply Outlook [Verbal]

T. Robbins stated that:

- Sooke Lake Reservoir began the annual draw down on April 13 and is at 95.4% of full storage capacity.
- It is within about a percent of the storage capacity from last year at this time, so is in a typical range, despite a dry early spring.

- April received about 46% of the average precipitation.
- May to date has only received about 9% of the historical average precipitation.
- Given the current storage levels at Sooke Lake Reservoir, there are no concerns with water supply.

MOVED by Commissioner Williams, **SECONDED** by Commissioner Weisenberger,
That the verbal update be received for information.

CARRIED

6. PRESENTATIONS/DELEGATIONS

There were no presentations or delegations.

7. COMMISSION BUSINESS

7.1. Post Disaster Water supply Update

T. Robbins presented a summary of the report and provided the following additional information regarding the tender that closed on May 18:

- Two bids were received out of six contractors who expressed interest.
- A bid received from GE Construction for \$297,000 is within budget, and will allow for completion of the Dean Park Upper, Dean Park Middle and Dean Park Lower projects.
- Staff will seek pricing from GE Construction for Bear Hill and Cloake Hill to see what can be done within the available budget.

Staff responded to questions from the Commission regarding:

- Outstanding work to be done with the municipalities:
 - Locating the static and mobile water distribution modules: the Capital Regional District (CRD) determined locations by proximity to transmission mains, locations where people and traffic can move efficiently, where there may be other emergency support services, where food and supplies may be distributed, etc. Input from the emergency services staff at the municipalities is still required for other suitable locations.
 - Resourcing the distribution centres: CRD doesn't have capacity to staff the mobile water stations on a 24 hour basis. CRD would be looking to municipalities to work together to determine how to recruit and train volunteers to staff the locations.
- Status of progress to date.
 - Staff are happy with the infrastructure side, which includes work being done with the transmission mains and the work on the plan itself in terms of installing the hydrants.
 - Yet to be addressed is the work that needs to be coordinated with the municipalities and potentially the work that the municipalities need to do to look at hardening the distribution system.
- Reservoir capacity from the three reservoirs in Dean Park during a major event.

- Unsure how much water would be supplied on a per capita basis, however any amount that could be stored in those reservoirs would be of value.
- Capacity of the distribution centres.
 - The modules can expand the distribution centres to serve varying populations around the region depending on where the distribution centres are located. With the modules that we have, operating at full capacity, it could service up to 10,000 people over a 24 hour period providing a 4 Litre jug of water.
- Completion of the water mains within five years. There is additional work as part of the longer term plan that would be required.
- Exploring connections between Central Saanich, CRD and Tsawout.
 - Commissioner Underwood advised that the Tsawout Nation received some funding from the Province to work on the Tsawout / Mt. Newton water main and some of the sewer. They are working with Elizabeth Lao with regards to the planning. T. Robbins advised the grant application last year, which was not accepted, did include addressing the dual meter system on Central Saanich Road and had also proposed a new connection to the north end of Tsawout. There have been recent conversations with Central Saanich staff regarding the water services agreement with Tsawout. Commissioner Underwood stated that they would need someone to work with them before they get going. T. Robbins advised that staff met with the Band Administrator a few months ago and could meet with them again.
- Saanich Peninsula Hospital as a distribution centre:
 - It has not been identified as a site for a hydrant, due to the hospital likely being busy during a disaster and would want to stay out of the way. This is the kind of feedback that the CRD would value from the municipalities and potentially stakeholder representatives.

7.1 (a) Motion Arising:

MOVED by Commissioner Windsor, **SECONDED** by Commissioner Underwood, That, following discussions between Capital Regional District (CRD) and District of Central Saanich staff, the partners, District of Central Saanich, CRD and Tsawout Council, meet to discuss post disaster water supply funding options.

CARRIED

Commissioner Williams spoke to the following items:

- The Commission's duty and responsibility is to ensure safe drinking water for its citizens, not only under normal circumstances but also after a disaster.
- The need for a plan to access and distribute the water to our systems after a disaster.

He further raised the following questions:

- Four hardened hydrants, which ones are used for the mobile unit and which ones for the static unit?
- How do we train staff?
- What will the priorities be for where these are sited?
- Where will the units be stored?
- How are the costs shared?

- How do we access stored water if supply rings are damaged?
- Will the water be accessible through the hardened hydrants?
- How do we prioritize use?
- Does drinking water take precedence over firefighting or does potable water come first?

7.1 (b) Motion Arising:

MOVED by Commissioner Williams, **SECONDED** by Commissioner Windsor,
 That:

- A) Staff be asked to report back with recommendations on:
1. Acquiring and funding a set of distribution modules specific to the peninsula;
 2. Deploying the distribution modules; particularly location or locations, staffing and trial runs;
 3. Short- and long-term storage and maintenance of the distribution modules;
 4. How to access the water stored in the reservoirs after seismic valves have been activated and priorities for use; and
 5. The length of time our water account holders should be asked to store water and how much they should store in an emergency.
- B) Councils be asked to support this work and authorize their staffs to work with CRD staff, first nations, emergency organizations and other stakeholders on the development of the recommendations.

CARRIED

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Weisenberger,
 That the Saanich Peninsula Water Commission receive the report for information.

CARRIED

7.2. Bylaw 4411: Saanich Peninsula Water Supply Water Works Facilities Loan Authorization Bylaw

T. Robbins provided a summary of the report advising on the municipal consent approval process.

Discussion ensued regarding funding sources, debt financing and annual reserve funding. Financing allows for repayment over a longer period.

MOVED by Commissioner Windsor, **SECONDED** by Commissioner Weisenberger,
 The Saanich Peninsula Water Commission recommends to the Capital Regional District Board:

1. That Bylaw No. 4411 cited as “Saanich Peninsula Water Supply Water Works Facilities Loan Authorization Bylaw No. 1, 2021” be introduced and read a first, second and third time; and
2. Inspector of Municipalities for approval, and if received, to proceed with elector approval by way of the municipal consent process.

CARRIED

T. Robbins advised that once the CRD Board has approved this recommendation, a meeting with municipal staff would be organized before the request for consent is received by councils.

7.3. Greater Victoria Drinking Water Quality – 2020 Annual Report

G. Harris provided a summary of the report and staff responded to questions from the Commission with the following additional information noted:

- Abnormal high water temperatures is an aesthetic value and staff are tracking it. It is not a concern to Island Health.
- CRD is undertaking a Water Supply Master Plan Update and will be looking at the potential to construct a deep water intake in the north basin of Sooke Lake Reservoir. Also reviewing the total storage volume if accessing the deep intake in the north basin and the potential impacts on water quality with combining the two sources.
- Water Balancing – Saanich Peninsula distribution system is designed to provide balancing on the supply side.

MOVED by Commissioner Williams, **SECONDED** by Commissioner Weisenberger, That the report be received for information.

CARRIED

7.4. Summary of Recommendations from Other Water Commissions

MOVED by Commissioner Doehnel, **SECONDED** by Commissioner Weisenberger, That the Summary of Recommendations from other water commissions be received for information.

CARRIED

7.5. Water Watch Report

MOVED by Commissioner Williams, **SECONDED** by Commissioner Doehnel, That the May 10, 2021 Water Watch Report be received for information.

CARRIED

8. NEW BUSINESS

Commissioner Doehnel advised the Commission of a study out of the University of BC related to blue green algae and shellfish consumption possibly being linked to some neurological diseases.

Next meeting date July 15:

- The current meeting space at Greenglade is unavailable in July for our use.
- Staff have reached out to the Districts of Central Saanich and North Saanich to inquire about using their council chambers.

9. ADJOURNMENT

MOVED by Commissioner Weisenberger, **SECONDED** by Commissioner Underwood,
That the May 20, 2021 meeting be adjourned at 10:39 a.m.

CARRIED

CHAIR

SECRETARY

**REPORT TO SAANICH PENINSULA WATER COMMISSION
MEETING OF THURSDAY, OCTOBER 21, 2021**

SUBJECT 2022 Service Planning - Water

ISSUE SUMMARY

To provide the Saanich Peninsula Water Commission with an overview of core service levels, new and progressing initiatives and performance metrics related to the Water Community Need. These activities are undertaken by the Integrated Water Services Department and deliver on approved Board Strategic Priorities and the Capital Regional District (CRD) Corporate Plan.

BACKGROUND

The CRD Board identified its strategic priorities in early 2019. Subsequently, staff prepared the 2019-2022 CRD Corporate Plan to align with this direction. The CRD Corporate Plan presents the work the CRD needs to deliver over the Board term to meet the region's fifteen most important needs (community needs). These initiatives are delivered in conjunction with the mandated core services and regulatory requirements that the CRD is accountable for delivering. The priorities were re-confirmed by the CRD Board at the annual check-ins on May 13, 2020 and May 12, 2021.

At the start of the Board term, staff identified that the ambitious plan for the region would require a significant amount of effort and resources to action and implement Board and Corporate Priorities and to keep pace with the anticipated increase in service demands, primarily driven by population growth and construction activity. The general level of effort deployed by the organization has been increasing to keep pace since the direction was set and in some cases emerging trends and changes in economic activity has had a significant impact on the demand for services driving additional resource requirements.

This is the final year of service plan and budget approvals for this CRD Board as well as the final year of implementation of its strategic priorities. For 2022, staff are recommending a significant package of work to finalize the delivery of the strategic priorities and CRD Corporate Plan. Implementation timeframes for much of the work initiated in 2022 will carry into 2023.

2022 is a transition year for the CRD Board. Staff anticipate that any service planning requests for 2023 will be focused on operational adjustments while the Board is determining its strategic priorities for the 2023-2026 term.

The Community Need Summary Report (Appendix A) provides an overview of the strategic context for service areas by department, core service levels for services, new initiatives and a summary of the business model and performance metrics associated with targeted outcomes.

ALTERNATIVES

Alternative 1

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Water, be approved as presented and form the basis of the 2022-2026 Financial Plan.

Alternative 2

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Water, be approved as amended and form the basis of the 2022-2026 Financial Plan.

IMPLICATIONS

The Executive Leadership Team (ELT) is taking steps to mitigate the financial impacts resulting from the work. ELT has reviewed the phasing of the work for 2022 to ensure that the activities and resources are allocated as efficiently as possible. Phasing out the initiatives over a longer period of time helps avoid delays which can occur when staff are too thinly spread across projects. Additionally, timing initiatives to start mid-year will also reduce the impact in 2022, but will have an incremental annualization impact in 2023 for ongoing impacts.

The CRD continues to look for ways to fund its services in a manner that relieves affordability pressure for the taxpayer. This is reflected in the policy for reserve balance measures and gaps/surplus which was approved by the CRD Board on July 14, 2021. The CRD has had other funding successes optimizing capital funding and leveraging grant funding in a more aggressive way than ever before.

Finally, where feasible, an incremental change management strategy has been adopted for larger projects. This means that divisions are testing out the objectives and delivery approach with a proof-of-concept and then deploying out more broadly, if the benefits can be demonstrated. This has been a successful strategy adopted for our enterprise asset management strategy deployment, for example.

A comprehensive overview of the resources required to advance the initiatives listed in all Community Need Summaries, including all proposed staffing changes, will be presented to the Committee of the Whole at the 2022 provisional budget review.

New Integrated Water Services initiatives proposed for 2022:

Staff have identified three initiatives in support of this community need that will have budget implications in 2022 (Table 1). The key drivers for this work are:

1. Responding to an increase in demand or workload for an existing service: the significant on-going capital investment in the drinking water systems is generating an important asset base which has to be managed and maintained. The utility asset management scope includes oversight for 45,000+ equipment records for 35 water and wastewater services spread across 320+ sites. On-boarding new assets following design and construction is the first step in establishing an operations and maintenance plan for a new asset; then monitoring the asset performance and condition will determine a replacement schedule. In addition, the scope of

the overall utility capital program is such that a full time Contracts Coordinator is required; the role was previously split with a Committee Clerk role.

2. Advancing a Board Strategic Priority: the CRD, in line with the Climate Action & Environmental Stewardship priority, monitors the environment of the Greater Victoria Water Supply Area (GVWSA) to detect trends and events of interest to climate change.

Table 1: Water Community Need Initiatives

#	Initiative	Description	Year(s)	FTE impacts (2022)	Cost impacts (2022)	Funding source
10a-2	Infrastructure Integration Technician	On-board new assets and proactively monitor and manage asset conditions with operations and engineering teams	2022	+1.0 FTE* regular	\$65K	Allocation (Split between regional/sub-regional Water and Wastewater Services)
10d-3	Watershed Hydrology Monitoring*	Expand and increase watershed hydrology monitoring in the Greater Victoria Water Supply Area	2022 (Year 3 of 5)	--	\$150K	Fee-for-service (Regional Water Supply)
10e-1	IWS Contracts Coordinator	Departmental contract coordination and support for corporate & legislated procurement policies & procedures	2022	+1.0 FTE ongoing	\$94K	Allocation (Split between regional/sub-regional Water and Wastewater Services)

Blue highlighted areas are initiatives that directly address a Board Priority.

** Also includes minor support service(s) adjustment*

This information reflects the business case costs which the executive leadership team reviewed as part of their annual assessment of initiatives.

10a-2 Infrastructure Integration Technician

There is currently a delay in receiving and recording new and updated asset information (on-boarding new assets) in the system and developing preventative maintenance plans, in line with the Corporate Asset Management Strategy. Proactively monitoring and managing asset condition is a crucial part of improving the reliability of the water and wastewater infrastructure and service.

Initiative 10a-2 seeks to create a new ongoing position (+1.0 FTE) in the Customer & Technical Services division to follow-up on capital programs and corrective maintenance actions and gather

and record information about assets in a manner that supports the development of future maintenance programs and decision-making. The resource will also build a program for performing on-site audits of critical facilities.

This initiative will also increase demand and requirements for support services (e.g. asset information, asset management support, technical support, etc.). This initiative, alongside others, will result in a small adjustment to the Financial Services and Information Technology & GIS staffing model to accommodate the demand. To provide full transparency, the financial impact of the initiative reflects the whole cost of delivering the work, including flow-down impacts on support services. The position funding will be shared across the regional/sub-regional water and wastewater services.

10d-3 Watershed Hydrology Monitoring

The CRD monitors the environment (hydrology and meteorology) of the GVWSA to detect trends and events of interest to climate change (e.g. forest change, wildfires). This directly supports the Climate Action & Environmental Stewardship Board Priority.

The data also informs and supports decision-making in relation to infrastructure upgrades and data modelling about current and future water quality and supply. The existing monitoring of the Sooke and Goldstream water supply areas, as well as the newly instrumented Leech water supply area, require increased or new monitoring and maintenance efforts.

Initiative 10d-3 seeks to renew the annual specialist service contract to install, modify and maintain hydromet instrumentation as well as collect, quality assure and analyze hydromet data. The contract was funded through a single supplementary budget increase request in 2020 and 2021. In year 2024, staff will determine the on-going requirement.

10e-1 Contracts Coordinator

The Integrated Water Services department has experienced growth in capital projects being delivered across all of the water and wastewater utility services as well as additional demand for support required for the expanded core area wastewater service. This has resulted in a material increase in contract management activities.

Initiative 10e-1 seeks to create a new position (+1.0 FTE) in the Integrated Water Services Administrative Services division to provide cross-departmental contract coordination and support corporate and local government procurement policies and procedures. The function was previously included under a committee clerk role. This initiative results in a dedicated Contracts Coordinator role.

Alignment with Board & Corporate Priorities

The direction given to staff was to bring forward work that is of essential nature. This was defined as:

- Initiatives that provide for public health and safety and/or deliver on a regulatory requirement
- Initiatives that are required to deliver the Board Strategic Priorities
- Initiatives that will prevent the materialization of significant negative impacts on service customers, partners, the region, local services or the CRD's finances

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- Initiatives that minimise the materialization of financial, reputational or other risks and liabilities for the CRD by ensuring the organisation is keeping pace with expectations and demand
- There is an imperative to deliver the work immediately and/or quickly

The Executive Leadership Team has reviewed and assessed all business cases against the criteria. The consolidated package of work is appropriate and commensurate to the challenge facing the organization.

CONCLUSION

Staff have been progressing initiatives and actions identified in the Capital Regional District (CRD) Corporate Plan, including Board Strategic Priorities. The CRD Board determines resourcing through its annual review and approval of financial plans. As per previous years, to support the Board's decision-making, staff are providing recommendations on funding, timing and service levels through the service and financial planning processes.

RECOMMENDATION

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:

That Appendix A, Community Need Summary – Water, be approved as presented and form the basis of the 2022-2026 Financial Plan.

Submitted by:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Community Need Summary – Water

Appendix B: Capital Plan Report

Appendix C: Initiatives Progress Report

Community Need

2022 Summary



Water

Strategy

Target Outcome

We envisage a sustainable and resilient water supply.

Strategic Context

Strategies

- [Regional Water Supply Strategic Plan](#)
- [Regional Growth Strategy](#)
- [Special Task Force on First Nations Relations](#)
- [Statement of Reconciliation](#)

Trends, risks and issues

- **Security and patrols:** there have been an increased number of security incursions/recreational pressure into the Greater Victoria Water Supply Area (GVWSA) from Sooke Hills Wilderness Regional Park and from the rapidly developing residential area around Langford and Goldstream. This is putting additional pressure on the Watershed team.
- **Climate Action:** the most significant risks for water services relate to climate and environmental changes. Predicted trends of drier, hotter summers will impact the water services in a number of ways:
 - Demand for water, including for local agricultural activities – this is monitored closely and evaluated against historical trends. Model predictions are updated for areas exhibiting higher than predicted demands, this will inform future infrastructure upgrades to meet growing demands.
 - Water quality may be affected due to increased biological growth in the source water and distribution system; expecting to see increasing pressure to include filtration as a step in the RWS treatment process
 - In the GVWSA, increasing periods of elevated wildfire risk, peak flows from winter storms, drought stress on trees which could lead to increased mortality and forest pests/diseases
 - Increased risk of power outages
- **Infrastructure Vulnerability, resiliency, and Emergency Preparedness:** we are seeing increases in operation and maintenance demand from a growing region combined with aging infrastructure. An updated Water Management Plan for water supply will identify a strategy to address supply (quantity) and critical delivery infrastructure (redundancy) needs
- **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

Community Need



2022 Summary

rely on having an up-to-date asset registry as well as an asset onboarding process. Both the Scottish Water Review in 2018 and the EMA Readiness Assessment of 2020 highlighted the need for a reliable asset registry for Water and Wastewater.

- The risk of assets not being maintained, replaced in a timely manner and failing could impact the CRD's ability to provide the expected water and wastewater level of service and could even result in environmental and public 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.

Services

Core Services Levels	
Service	Levels
Regional Water Supply (RWS), Juan de Fuca (JdF) Water Distribution, Saanich Peninsula Water and Small Water Systems in the Electoral Areas (EAs) Wholesale water supply to the 370,000 consumers in Greater Victoria and residents in three municipalities on the Saanich Peninsula, water distribution system within Langford, Sooke, View Royal, Colwood, East Sooke, Metchosin and Highlands and the small water systems in the EAs supported through following key service areas:	
Water Systems Operations and Maintenance Water treatment, supply and distribution system operation and monitoring. System and facility maintenance, consumables management and preventative maintenance	<ul style="list-style-type: none"> • 24/7 water treatment operations for two facilities for Greater Victoria ➔ Service level adjusted (absorbed), assessment following recent reclassification of two facilities to level III treatment plants showed need to increase staffing levels & operator certification level; addressed through internal staffing shifts • Supply and distribution system operation • System monitoring • Customer service • System and facility maintenance • Consumables management • Component preventative maintenance
Emergency Response/System Failure Water main breaks	<ul style="list-style-type: none"> • 24/7 emergency response to water main breaks and other system emergencies
Infrastructure Planning	<ul style="list-style-type: none"> • Asset management and capital planning ➔ Service level adjusted, see IBC 10a-2

Community Need



2022 Summary

Strategic asset management for all services/systems including modeling and capacity analysis, vulnerability assessment, infrastructure renewal plans.	<ul style="list-style-type: none"> Adjust plans for 15 water services System expansion and growth planning
Capital Project Delivery and Works Project design, procurement and delivery of capital projects annually on time/budget. Main installations, dam upgrades, equipment replacement and capital projects support	<ul style="list-style-type: none"> Capital program delivery Water main installations and equipment replacement Dam maintenance and upgrade projects Capital project support & contract management ↪ Service level adjusted, see IBC 10e-1
Engineering Services Development referrals, survey and mapping, engineering support to utility operations, and dam safety inspections and administration.	<ul style="list-style-type: none"> Engineering support of utility operations for the 15 water services.
Watershed Protection Forest land management of the 20,550 hectares of the Greater Victoria Water Supply Area to ensure high-quality source drinking water for the Regional Water Supply System through following service areas:	
Wildfire, Security & Emergency Response: Watershed security, and wildfire and spill preparedness, prevention and response	<ul style="list-style-type: none"> 24/7 watershed emergency duty officer standby Security/wildfire patrols (weekends and holidays; daily during elevated fire conditions) Wildfire detection air patrol during high and extreme fire hazard
Watershed Operations Silviculture, forest health and forest fuel management; invasive plant management; vegetation management and road maintenance, upgrades and rehabilitation	<ul style="list-style-type: none"> Winter/summer road maintenance Culvert and bridge upgrades to accommodate higher peak flows to higher standards and changing climate Fuel management treatment and fire smarting maintenance Brushing around facilities, dams, for tree release Danger tree assessment and removal along roads and powerlines Invasive plant management
Resource Planning Wildlife management, ecological inventories and analyses, risk assessment and management, and GIS and data management	<ul style="list-style-type: none"> Development of a comprehensive hydrology monitoring program Annual forest health survey Partnering in climate change and other research in the GVWSA Management of beaver, Canada geese and bullfrogs Public tours of the Water Supply Area and facilities

Community Need



2022 Summary

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.	
Water Quality Monitoring, assessment, reporting and technical advice to meet water quality regulatory requirements	<ul style="list-style-type: none"> Source water and distribution system monitoring, assessment and reporting Physical, chemical and biological analytical services, assessment and reporting
Demand Management Research and data to inform capital planning, water conservation, and communications and education	<ul style="list-style-type: none"> Accurate data Per capita targets (residential and ICI)
Cross Connection Control Oversight, monitoring and reporting of potential sources of contamination that may flow in a reverse direction into the Regional Water Supply	<ul style="list-style-type: none"> Contamination prevention through facility inspections, testing and education for backflow prevention devices Monitor and track (>28,000) backflow prevention devices
Communications & Environmental Education Public education and engagement in the region to promote sustainable behavior through campaigns, initiatives and services	<ul style="list-style-type: none"> Increased public awareness of CRD messages and subsequent behavior changes (declining trend in per capita and per sector water use)
Support Services	
Support Services The core services listed rely on the support of several corporate and support divisions to effectively operate on a daily basis. These services are reported on in the Accountability Community Need Summary.	<ul style="list-style-type: none"> Services include Human Resources & Corporate Safety, Corporate Communications, Asset Management, Financial Services, Information Technology & GIS, Information Services, Legislative Services, Facility Management, Fleet Management, Legal Services, Risk & Insurance and Real Estate Services.

Community Need



2022 Summary

Initiatives					
Ref	Initiative	Description	Year(s)	2022 impacts	
10a-2	Infrastructure Integration Technician	Proactively monitor and manage of assets conditions and develop preventative maintenance plans	2022	+1.0 FTE regular	\$65K allocation
10d-3	Watershed Hydrology Monitoring*	Expand and increase watershed hydrology monitoring in the Greater Victoria Water Supply Area	2022	--	\$150K fee-for-service
10e-1	IWS Contracts Coordinator	Departmental contract coordination and support for corporate & legislated procurement policies & procedures	2022	+1.0 FTE ongoing	\$94K allocation

Community Need

2022 Summary



Business Model

Funding

Who contributes

Water Supply and Distribution:

- Regional Water Supply: All Municipalities, JdF EA, 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, JdF EA
- Local Water Service Areas in the EAs

Environmental Protection

- Water Quality Service: Allocation from Integrated Water Services and Local Service Areas (LSA) from municipalities of RWS area, JdF 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 EAs
- Communications and Environmental Education: all Municipalities and EAs

Support Services

- Varies per service

Funding Sources

- Regional Water Supply: Bulk water sales revenue
- JdF Water Distribution System: Retail water sales revenue in West Shore Municipalities
- Saanich Peninsula Water: Wholesale water sales revenue
- Environmental Protection services: water rate and requisition

Community Need

2022 Summary

Reporting Structure

[Regional Water Supply Commission](#) – [Water Advisory Committee](#) – [Saanich Peninsula Water Commission](#) – [JDF Water Distribution Commission](#) – [Various LSA Commissions](#) (Port Renfrew, Lyall Harbour/Boot Cove, Magic Lake Estates, Skana, Beddis, Cedar Lane, Cedars of Tuam, Fernwood, Fulford, Highland, Sticks Allison, Surfside Park, Wilderness Mountain)

Performance

Definition and Source	Service	2020 Actual	2021 Forecast	2022 Target
Metric 1: Regulatory Compliance Non-compliance with Island Health, provincial and federal regulatory requirements and operational certificates that result in Boil Water Advisories or Do Not Consume Events	Regional Water Supply	None	None	None
	JDF Water Distribution	None	None	None
	Saanich Peninsula Water Supply	None	None	None
	Local Services	6	4	None
Metric 2A: Water Quality Sampling – Raw water Water quality samples analyzed annually from source reservoirs (raw water)	Regional Water Supply	12,090	12,585	15,392
	Local Services	4,181	3,670	3,670
Metric 2B: Water Quality Sampling – treated water Water quality samples analyzed annually from transmission/distribution systems (treated water)	Regional Water Supply	1,753	1,787	1,787
	JDF Water Distribution	7,675	7,531	7,531
	Saanich Peninsula Water Supply	1,979	2,102	2,102
	Local Services	31,216	24,903	24,904
Metric 3: Average day per capita water use (litres per capita per day)	Regional Water Supply	340	337	334
	JDF Water Distribution	301	299	297
	Saanich Peninsula Water Supply	435	424	413

Community Need

2022 Summary



	Local Services	215	192	202
Metric 4: Annual operating cost per megaliter of drinking water treated and supplied/distributed	Regional Water Supply	\$93.80	\$100.00	\$100.00
Metric 5: Annual Energy use (kWh) per megaliter of drinking water treated and supplied/distributed	Regional Water Supply	66	66	66
Metric 6: Volume of raw water released annually from RWS watersheds to rivers to support fish habitat (megaliters)	Regional Water Supply	11,489	10,500	12,200
Metric 7: Number of watermain leak repairs and service line leaks annually per 100 kilometers of pipe (distribution systems)	JDF Water Distribution	0.9	0.9	<1
	Local Services	33.2	35	<30
Metric 8: Preventative maintenance completed	Regional Water Supply	85%	97%	100%
	JDF Water Distribution	91%	96%	100%
	Saanich Peninsula Water Supply	95%	100%	100%
	Local Services	79%	99%	100%

Community Need

Capital Plan Report



Water

Highlights since 2019

- The CRD has allocated **\$87M since 2019** on projects across the region that advance the Water Community Need. This was primarily funded through water fees, reserves and capital funds at hand.
- Some of the projects included:
 - Replacing aged infrastructure including asbestos cement pipes in the Juan de Fuca Water Distribution Service Area, and intake tower screening equipment at Sooke Lake Reservoir
 - Replacement of Lubbe Dam and rehabilitation of Butchart Dam number 5 and a safety review and resulting improvements at Sooke Lake Dam in the Regional Water Supply Service
 - Constructing new infrastructure to support growth related capacity needs under the Juan de Fuca Water Distribution development cost charge program
 - Completing the Regional Water Supply Master Plan update to determine long term water supply needs for the Greater Victoria Area
 - Various studies, renewals and replacement projects to support numerous local services including Beddis Water, Cedar Lane Water, Cedars of Tuam Water, Fulford Water, Highland & Fernwood Water, Highland Water, Lyall Harbort Boot Cove, Magic Lake Estates ,Port Renfrew Water, Skana Water, Sticks Allison Water, Surfside Park Estates and Wilderness Mountain Water Service.

Planned for 2022

- The CRD will allocate **\$36M in 2022** on projects across the region that advance the Water Community Need. Projects to be undertaken include:

Community Need



Capital Plan Report

- Upgrading the Rocky Point pump station, reservoir and piping and replacing aged infrastructure including asbestos cement pipes on Goldstream Avenue and several other streets throughout the Juan de Fuca Water Distribution Service
- Planning for upgrades to vulnerable transmission main sections of the Regional Water Supply and Saanich Peninsula Water System, including Transmission Main No.4 and Main No.3
- Replace the Ultra Violet system at the Goldstream Water Treatment Plant, the primary disinfection facility for the Regional Water Supply System
- Undertaking design and construction of a new Watershed Operations Field Office to replace the temporary trailers currently in use
- Replacement of vehicle and equipment used for day-to-day operations and maintenance of water systems
- Various studies, renewals and replacement projects to support numerous local services including Beddis Water, Cedar Lane Water, Cedars of Tuam Water, Florence Lake Water System, Fulford Water, Highlands & Fernwood Water, Juan de Fuca Water Distribution, Lyall Harbour Boot Cove Water, Magic Lake Estates Water, Port Renfrew Water, Saanich Peninsula Water Supply, Skana Water, Sticks Allison Water, Surfside Park Estates and Wilderness Mountain Water.
- This work is funded through the water rates and some reserves (including equipment reserve fund) and capital funds on hand.

Community Need

Initiative Progress Report



Water

Initiatives approved in 2020 and 2021			
Ref	Initiative	% Complete	Progress to date
10a-0.1	Watershed Security Position	--	Lead: Watershed Protection (2021) Not started - pending union bargaining
10a-1	Post-Disaster Water Supply Plan	On-going	Lead: Infrastructure Engineering (2020) Progressing – continued implementation of resilient infrastructure including hardened hydrants, restrained pipe and seismic valves, as well as acquisition of emergency distribution supplies. Additional education and coordination with municipal distributors and emergency services planned for 2021.
10a-2	Water Infrastructure Resilience	On-going	Lead: Infrastructure Operations Water (2020) Progressing – Infrastructure renewal programs continue with appropriate funding levels; recruitment of new staffing approved in 2020 complete.
10a-2.1	Water Infrastructure Resilience	100%	Lead: Infrastructure Operations Water (2021) Part of core services - Recruitment of new staff for 2021 is now complete and work is progressing.
10a-3	RWSSP Update	100%	Lead: Infrastructure Engineering (2020) Part of core services – continuing progress on strategic plan initiatives; progress report was presented to RWSC in October 2020.
10a-4	Cross Connection Control Inspector	100%	Lead: Environmental Protection (2021) Part of core services
10a-5	Water Billing	100%	Lead: Financial Services (2020) Part of core services - recruitment completed
10a-7	SSI + SGI Water Operations	100%	Lead: Infrastructure Operations Water (2020) Part of core services
10b-1	Water Conservation through Demand Management	100%	Lead: Environmental Protection (2020) Part of core services

Community Need



Initiative Progress Report

Initiatives approved in 2020 and 2021			
Ref	Initiative	% Complete	Progress to date
10c-1	Agricultural Water Subsidy	50%	Lead: Infrastructure Operations Water (2020) Progressing - Agricultural land use inventory and agricultural water demand model completed and presented to Commissions in 2020. Agricultural water rate review will be completed in 2021/2022.
10d-1	Future Water Supply + Infrastructure	70%	Lead: Infrastructure Engineering (2020) Progressing – Consultant has been retained to complete the Regional Water Master Plan Update with completion in 2021 with a focus on long term water supply and infrastructure.
10d-2	Leech River Water Quality Operations	80%	Lead: Environmental Protection (2021) Progressing - sampling completed; report being developed for Q3 2021 which will be considered in Drinking Water master Planning project
10d-4	SSI Watershed Protection	--	Lead: Environmental Protection (2020) On hold
10d-3	Watershed Hydrology Monitoring	100%	Lead: Watershed Protection (2020) Completed – funding spent on: hydrology station upgrades, stream discharge measurements, and snow analysis.
10d-3	Watershed Hydrology Monitoring	60%	Lead: Watershed Protection (2021) Progressing - continuing on from 2020 IBC into 2022, renewal of contracts to be completed on budget approval – hydrology station upgrades and discharge measurements

**REPORT TO SAANICH PENINSULA WATER COMMISSION
MEETING OF THURSDAY, OCTOBER 21, 2021**

SUBJECT **Saanich Peninsula Water Service - 2022 Operating and Capital Budget**

ISSUE SUMMARY

To provide an overview of the 2022 Saanich Peninsula Water Service operating and capital budget, highlighting the changes from the 2021 budget and the proposed 2022 budget figures. The report generally follows the sequence of information provided in the attached draft budget document (Appendix A).

BACKGROUND

The draft 2022 Saanich Peninsula Water Service budget has been prepared for the Saanich Peninsula Water Commission's (Commission) consideration. The Commission will make budget recommendations to the Capital Regional District (CRD) Board through the Committee of the Whole in October. As in previous years, the draft 2022 budget has been prepared considering the CRD Board's 2022 service planning and financial expectations, which include identifying opportunities to realign or reallocate resources and seek potential efficiencies between departments and services, reviewing of service levels and adjustments related to regulatory compliance, and undertaking infrastructure improvements to maintain service levels across the service area. The following sets out the key components of the budget.

2021 Year End Financial Projections

The actual 2021 operating expense is projected to be \$21,202 under budget at year end. The actual bulk water purchase expense is estimated to be \$357,400 over budget at \$5,218,040, which corresponds with water sales revenue that is projected to be \$521,281 over budget. To balance the budget at year end, the proposed transfer to the capital reserve fund has been increased by \$185,083 to \$885,083.

Operating Budget

An increase in the 2022 operating expense in the amount of \$48,586 is planned and results primarily from non-discretionary expense adjustments such as wage/salary increases, departmental support service allocations, insurance costs, and other operating expense increases such as electricity costs.

The bulk water purchase expense, based on the proposed 2022 Regional Water Supply wholesale water rate and the 2022 Saanich Peninsula Water budget demand volume, has been set at \$5,059,080.

The drinking water quality sampling, testing and reporting function for the Saanich Peninsula Water System, as well as the three Peninsula municipalities is funded through the Regional Water Supply Service budget.

Saanich Peninsula Water Commission – October 21, 2021
Saanich Peninsula Water Service - 2022 Operating and Capital Budget

2

Capital Budget

The planned transfer to the capital reserve fund in 2022 is \$800,000. At year-end 2021, the capital reserve fund balance is estimated to be \$5,303,964 which is available to fund major capital projects. A new loan authorization in the amount of \$12,900,000 was approved this year to allow continued partial funding of the five year capital plan. The debt servicing costs associated with this loan will begin in 2023.

The planned transfer to the equipment replacement fund in 2022 is \$50,000. At year-end 2021, the equipment replacement fund balance is estimated to be \$1,814,620, which is available to fund minor capital and operational equipment replacements including vehicles.

There are a number of capital projects planned for 2022 with a total value of \$4,277,028 including \$2,260,000 in projects that are in progress or multi-year projects, including the Bear Hill Reservoir interconnect project and the Hamsterly Pump Station Backup Generator installation project. The value of the five-year (2022-2026) capital plan is currently \$18,851,028 including an on-going budget allowance for post-disaster water supply equipment and infrastructure improvements.

The Development Cost Charge (DCC) program represents \$680,488 of the five-year (2022-2026) capital plan, and reflects the projects included in the DCC program update. At year-end 2021, the DCC reserve fund balance is estimated to be \$2,076,836.

Water Demand

Total water demand across the Saanich Peninsula Water Service area has generally continued to increase year over year recently due to the continued rate of development and growth. This trend, combined with one of the hottest and driest years on record, is expected to result in actual demand exceeding budget demand in 2021; the 2021 year-end demand is projected to be 500,000 cubic metres over budget at 7,300,000 cubic metres.

The recommended 2022 water rate has been calculated using a budget demand of 6,900,000 cubic metres (Page 5 of the budget document), which is 100,000 cubic metres more than the volume used in the 2021 budget.

2022 Water Rates

The 2022 CRD Regional Water Supply wholesale water rate of \$0.7332 per cubic metre, a 2.57% increase over the 2021 rate, is being recommended to the Regional Water Supply Commission. The 2022 agricultural rate of \$0.2105 per cubic metre will also be recommended. The Regional Water Supply agricultural water rate budget funds the difference between the municipal retail water rate and the CRD agricultural water rate. An agricultural water rate review and options study is being undertaken in 2021 under the Regional Water Supply Service. This consultation phase of the study will involve the key stakeholders on the Saanich Peninsula including the Commission. It is anticipated that any changes to the rate or rate methodology resulting from the study would take effect in 2023. A summary of the agricultural water volumes and agricultural water rate payments for 2011 to 2020 is attached for information (Appendix C).

The recommended Saanich Peninsula Bulk Rate is \$1.0886 per cubic metre, a 3.3% increase over the 2021 rate. The increase in annual bulk water cost for the average household using 235 cubic metres per year would be \$8.22.

The Agricultural Research Station Rate has been set at \$1.1238 per cubic metre.

Saanich Peninsula Water Commission – October 21, 2021
Saanich Peninsula Water Service - 2022 Operating and Capital Budget

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The Saanich Peninsula Water rate and Regional Water Supply rate history and projection is attached (Appendix B). The rates may be adjusted in the future to reflect actual revenue and expenditure circumstances and water demand volumes.

ALTERNATIVES

Alternative 1

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board to:

1. Approve the 2022 operating and capital budget;
2. Approve the 2022 Saanich Peninsula bulk water rate of \$1.0886 per cubic metre, and the Agricultural Research Station water rate of \$1.1238 per cubic metre, adjusted if necessary by any changes in the CRD Regional Water Supply wholesale water rate;
3. Direct staff to balance the 2021 actual revenue and expense on the transfer to capital reserve fund; and,
4. Direct staff to amend the Bulk Water Rates Bylaw accordingly.

Alternative 2

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board to:

1. Approve the 2022 operating and capital budget as amended;
2. Approve the 2022 Saanich Peninsula bulk water rate, and the Agricultural Research Station water rate as amended, adjusted if necessary by any changes in the CRD Regional Water Supply wholesale water rate;
3. Direct staff to balance the 2021 actual revenue and expense on the transfer to capital reserve fund; and,
4. Direct staff to amend the Bulk Water Rates Bylaw accordingly.

IMPLICATIONS

If the proposed budget is amended, the implications could vary depending on how the budget is amended and the impact on specific programs, on-going operations, or the capital work program. 'One-time' reductions in reserve fund contributions could be considered by the Commission to help mitigate the budget and rate increases, but additional capital financing could result in the longer term.

CONCLUSION

The draft 2022 Saanich Peninsula Water Service budget has been prepared for the Saanich Peninsula Water Commission's consideration. The budget has been prepared considering the Commission and CRD Board's 2022 service planning and financial expectations. A proposed increase in operating and capital funding that includes an increase in the wholesale water costs from the Regional Water Supply Service, combined with an adjusted revenue budget, is resulting in a recommended bulk water rate of \$1.0886 per cubic metre, a 3.3% increase over the 2021 rate.

Saanich Peninsula Water Commission – October 21, 2021
Saanich Peninsula Water Service - 2022 Operating and Capital Budget

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RECOMMENDATION

The Saanich Peninsula Water Commission recommends the Committee of the Whole recommend to the Capital Regional District Board to:

1. Approve the 2022 operating and capital budget;
2. Approve the 2022 Saanich Peninsula bulk water rate of \$1.0886 per cubic metre, and the Agricultural Research Station water rate of \$1.1238 per cubic metre, adjusted if necessary by any changes in the CRD Regional Water Supply wholesale water rate;
3. Direct staff to balance the 2021 actual revenue and expense on the transfer to capital reserve fund; and,
4. Direct staff to amend the Bulk Water Rates Bylaw accordingly.

Submitted by:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: 2022 Budget Document

Appendix B: Saanich Peninsula Water Rate and Regional Water Supply Rate History and Projection

Appendix C: Agricultural Water Volumes and Rate Payments 2011 - 2020

CAPITAL REGIONAL DISTRICT

2022 BUDGET

Saanich Peninsula Water Supply

COMMISSION REVIEW

OCTOBER 2021

Service:	2.610	Saanich Peninsula Water Supply	Committee: Saanich Peninsula Water
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DEFINITION:

To purchase water and to acquire, design, construct, reconstruct, purchase, maintain and operate facilities and to acquire property easements, licences and authorities for the supply of water to Central Saanich, North Saanich, and Sidney, for distribution by the municipalities. Letters Patent, December 22, 1976; revised Sept. 27, 1984. Amended SLP April 27, 1978 and March 19, 1986.

SERVICE DESCRIPTION:

This service provides for the purchase of bulk water for supply to Central Saanich, North Saanich, and Sidney, for distribution within their municipalities. Included in the program is the responsibility to provide design, construction, operation and maintenance, licenses, and water quality monitoring to the service area.

PARTICIPATION:

Central Saanich / North Saanich / Sidney

MAXIMUM LEVY:

MAXIMUM CAPITAL DEBT:

As established by Inspector of Municipalities.

COMMISSION:

Saanich Peninsula Water Commission established by Letters Patent to advise the Board with respect to this function.

FUNDING:

Costs are recovered through the sale of bulk water.

CAPITAL DEBT:

Authorized:	\$12,900,000	2021 - (MFA Bylaw No. 4411 - Saanich Peninsula Water Supply Water Works)
Borrowed:	\$0	
Remaining:	\$12,900,000	

Change in Budget 2021 to 2022

Service: 2.610 Saanich Peninsula Water Supply Total Expenditure Comments

2021 Budget 7,169,999

Change in Salaries:

Change in Labour 20,700 Labour charges (Salaries and overhead)

Total Change in Salaries 20,700

Other Changes:

Bulk Water Purchase 198,440

Transfers to Capital Reserve 100,000

Standard Overhead Allocation 15,537

Other Costs 12,349

Total Other Changes 326,326

2022 Budget 7,517,025

% expense increase from 2021: 4.8%

Overall 2021 Budget Performance

(expected variance to budget and surplus treatment)

Favourable water sales variance of \$527,000 (7.4%) due to higher than budgeted water sales largely a result of increased temperatures. This additional revenue will be used to offset bulk water purchase overages. The net surplus of \$185,000 will be transferred to the Capital Reserve Fund.

CAPITAL REGIONAL DISTRICT

Program Group: CRD-Saanich Peninsula Water Supply	2022 BUDGET REQUEST						FUTURE PROJECTIONS			
	2021 BOARD BUDGET 2	2021 ESTIMATED ACTUAL 3	2022 CORE BUDGET 4	2022 ONGOING 5	2022 ONE-TIME 6	TOTAL (COL 4, 5 & 6) 7	2023 8	2024 9	2025 10	2026 11
SUMMARY										
1										
<u>OPERATING EXPENDITURES:</u>										
ALLOCATION - OPERATIONS	1,059,266	1,045,380	1,080,447	-	-	1,080,447	1,091,705	1,113,185	1,135,096	1,157,449
UTILITIES	218,086	224,120	220,708	-	-	220,708	225,122	229,625	234,218	238,902
OPERATING - OTHER COSTS	172,795	159,445	182,041	-	-	182,041	187,073	192,279	197,660	203,214
ALLOCATION - STANDARD OVERHEAD	109,212	109,212	124,749	-	-	124,749	127,244	129,789	132,384	135,032
TOTAL OPERATING EXPENDITURES	1,559,359	1,538,157	1,607,945	-	-	1,607,945	1,631,144	1,664,878	1,699,358	1,734,597
*Percentage increase over prior year board budget			3.12%			3.12%	1.44%	2.07%	2.07%	2.07%
TOTAL BULK WATER EXPENDITURES	4,860,640	5,218,040	5,059,080	-	-	5,059,080	5,212,260	5,419,260	5,701,470	5,913,990
<u>CAPITAL EXPENDITURES & TRANSFERS</u>										
TRANSFER TO CAPITAL RESERVE FUND	700,000	885,083	800,000	-	-	800,000	850,000	700,000	400,000	400,000
TRANSFER TO EQUIPMENT REPLACEMENT FUND	50,000	50,000	50,000	-	-	50,000	50,000	50,000	50,000	50,000
TOTAL CAPITAL EXPENDITURES & TRANSFERS	750,000	935,083	850,000	-	-	850,000	900,000	750,000	450,000	450,000
<u>DEBT SERVICING</u>										
DEBT-INTEREST & PRINCIPAL	-	-	-	-	-	-	74,800	381,561	826,887	1,089,735
TOTAL DEBT EXPENDITURES	-	-	-	-	-	-	74,800	381,561	826,887	1,089,735
TOTAL EXPENDITURES	7,169,999	7,691,280	7,517,025	-	-	7,517,025	7,818,204	8,215,699	8,677,715	9,188,322
<u>SOURCES OF FUNDING-OPERATIONS</u>										
REVENUE -WATER SALES	(7,164,199)	(7,691,280)	(7,511,225)	-	-	(7,511,225)	(7,812,404)	(8,209,899)	(8,671,915)	(9,182,522)
REVENUE -OTHER	(5,800)	-	(5,800)	-	-	(5,800)	(5,800)	(5,800)	(5,800)	(5,800)
TOTAL SOURCES OF FUNDING FROM OPERATIONS	(7,169,999)	(7,691,280)	(7,517,025)	-	-	(7,517,025)	(7,818,204)	(8,215,699)	(8,677,715)	(9,188,322)
<u>SOURCES OF FUNDING-REQUISITION</u>										
PROPERTY TAX REQUISITION FOR DEBT	-	-	-	-	-	-	-	-	-	-
TOTAL REQUISITION	-	-	-	-	-	-	-	-	-	-
TRANSFER FROM PRIOR YEAR	-	-	-	-	-	-	-	-	-	-
TRANSFER TO FOLLOWING YEAR										
TOTAL CARRY FORWARD (SURPLUS)/ DEFICIT	-	-	-	-	-	-	-	-	-	-
TOTAL SOURCES OF ALL FUNDING	(7,169,999)	(7,691,280)	(7,517,025)	-	-	(7,517,025)	(7,818,204)	(8,215,699)	(8,677,715)	(9,188,322)
Percentage increase over prior year's board budget			4.84%			4.84%	4.01%	5.08%	5.62%	5.88%

SAANICH PENINSULA WATER SUPPLY

2022 Demand Estimate

Retail Demand

Years	Actual Demand cu.metre	Budgeted Demand cu.metre
2017	6,549,588	6,270,000
2018	7,044,786	6,300,000
2019	6,928,173	6,500,000
2020	6,860,322	6,800,000
2021	7,300,000	6,800,000
2022 Demand Estimate	6,900,000	

* Projected consumption for 2021

SAANICH PENINSULA WATER SUPPLY

Summary of Supply Water Rates to Participating Municipalities

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>% change</u>
Retail (direct) water rate							
Sannich Peninsula Retail cost per cu.m.	\$0.9621	\$0.9815	\$1.0223	\$1.0536	\$1.0886	\$0.0350	3.3%
Agricultural Research Station cost per cu.m.	\$0.9973	\$1.0167	\$1.0575	\$1.0888	\$1.1238	\$0.0350	3.2%

Summary of Bulk Water Purchase Rates from Regional Water Supply

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>% change</u>
CRD Bulk water purchase cost per cu.m.	\$0.6644	\$0.6775	\$0.6968	\$0.7148	\$0.7332	\$0.0184	2.6%

SAANICH PENINSULA WATER SUPPLY

Summary of Supply Water Rates to Participating Municipalities

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>% change</u>
Retail (direct) water rate							
Unit cost per cu.m.	\$ 0.9621	\$ 0.9815	\$ 1.0223	\$ 1.0536	\$ 1.0886	\$ 0.0350	3.3%

Retail Water Rate Increase
Impact on Participating Municipalities Water Bill

Average consumption: 235.0 cubic meters

<u>Charge for Twelve Months Consumption</u>	<u>Year</u>	<u>Annual charge</u>	<u>2022 Annual Change \$</u>
Average Consumption	2021	\$ 247.60	
	2022	\$ 255.82	\$ 8.22
Half Average Consumption	2021	\$ 123.80	
	2022	\$ 127.91	\$ 4.11
Twice Average Consumption	2021	\$ 495.19	
	2022	\$ 511.64	\$ 16.46

Schedule A
Asset Useful Life Assignments - PSAB

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

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

CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2022 to 2026

Service No.	2.610 Saanich Peninsula Water Supply	Carry Forward from 2021	2022	2023	2024	2025	2026	TOTAL
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EXPENDITURE

Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$20,000	\$304,000	\$0	\$150,000	\$0	\$0	\$0	\$454,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$2,240,000	\$3,973,028	\$2,820,000	\$5,770,000	\$5,324,000	\$510,000	\$18,397,028	
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$2,260,000	\$4,277,028	\$2,820,000	\$5,920,000	\$5,324,000	\$510,000	\$18,851,028	

SOURCE OF FUNDS

Capital Funds on Hand	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debenture Debt (New Debt Only)	\$0	\$0	\$2,550,000	\$5,550,000	\$4,500,000	\$300,000	\$12,900,000	
Equipment Replacement Fund	\$0	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$300,000	
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Reserve Fund	\$2,260,000	\$4,217,028	\$210,000	\$310,000	\$764,000	\$150,000	\$5,651,028	
	\$2,260,000	\$4,277,028	\$2,820,000	\$5,920,000	\$5,324,000	\$510,000	\$18,851,028	

CAPITAL REGIONAL DISTRICT
5 YEAR CAPITAL PLAN
2022 - 2026

Project Number Project number format is "yy-##" "yy" is the last two digits of the year the project is planned to start. "##" is a numerical value. For example, 22-01 is a project planned to start in 2022. For projects in previous capital plans, use the same project numbers previously	Capital Project Description Briefly describe project scope and service benefits. For example: "Full Roof Replacement of a 40 year old roof above the swimming pool area; The new roofing system is built current energy standards, designed to minimize maintenance and have an expected service life of 35 years".	Carryforward from 2021 Input the carryforward amount from the 2021 capital plan that is remaining to be spent. Forecast this spending in 2022 to 2026.	Project Drivers Maintain Level of Service = Project maintains existing or improved level of service. Advance Board or Corporate Priority = Project is a Board or Corporate priority. Emergency = Project is required for health or safety reasons. Cost Benefit = Economic benefit to the organization.
Capital Expenditure Type Study - Expenditure for feasibility and business case report. New - Expenditure for new asset only Renewal - Expenditure upgrades an existing asset and extends the service ability or enhances technology in delivering that service Replacement - Expenditure replaces an existing asset	Total Project Budget Provide the total project budget, even if it extends beyond the 5 years of this capital plan.	Funding Source Codes Debt = Debenture Debt (new debt only) ERF = Equipment Replacement Fund Grant = Grants (Federal, Provincial) Cap = Capital Funds on Hand Other = Donations / Third Party Funding Res = Reserve Fund STLoan = Short Term Loans WU = Water Utility If there is more than one funding source, use additional rows for the project.	Long-term Planning Master Plan / Servicing Plan = Plan that identifies new assets required to meet future needs. Asset Management Plan / Sustainable Service Delivery Plan = Integrated plan that identifies asset replacements based on level of service, criticality, condition, risk, replacement costs as well as external impacts. Replacement Plan = Plan that identifies asset replacements based primarily on asset age or asset material/type. Condition Assessment = Assessment that identifies asset replacements based on asset condition.
Capital Project Title Input title of project. For example "Asset Name - Roof Replacement", "Main Water Pipe Replacement".	Asset Class L - Land S - Engineering Structure B - Buildings V - Vehicles	Cost Estimate Class Class A (+10-15%) = Estimate based on final drawings and specifications; used to evaluate tenders. Class B (+15-25%) = Estimate based on investigations, studies or preliminary design; used for budget planning. Class C (+25-40%) = Estimate based on limited site information; used for program planning. Class D (+50%) = Estimate based on little/no site information; used for long-term planning.	

Service #: **2.610**

Service Name: **Saanich Peninsula Water Supply**

Project List and Budget													
Project Number	Capital Expenditure Type	Capital Project Title	Capital Project Description	Total Project Budget	Asset Class	Funding Source	Carryforward from 2021	2022	2023	2024	2025	2026	5 - Year Total
SYSTEM UPGRADES AND REPLACEMENTS													
18-04	New	Post Disaster Emergency Water Supply	Identify and procure emergency systems for post disaster preparedness	\$1,050,000	S	Res	\$50,000	\$200,000	\$150,000	\$150,000	\$150,000	\$150,000	\$800,000
19-01	Renewal	Corrosion Protection Program	Carry out an investigation and monitoring program in conjunction with other services to prevent infrastructure failure due to corrosion	\$110,000	S	Res	\$0	\$10,000	\$10,000	\$10,000	\$10,000	\$0	\$40,000
20-02	New	Hamsterly Pump Station Backup Power Generator	Addition of a backup power generator at the Hamsterly Pump Station	\$335,000	S	Res	\$340,000	\$720,000	\$0	\$0	\$0	\$0	\$720,000
21-01	New	Level of Service Agreement	Determine and develop appropriate level of service agreements with the participating municipalities for water supply.	\$75,000	S	Res	\$75,000	\$75,000	\$0	\$0	\$0	\$0	\$75,000
21-02	Renewal	Stewart's Well Decommissioning	Decommission the well, and demolish the structures.	\$175,000	S	Res	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
21-04	Renewal	SCADA Upgrades	SCADA upgrades and planning in conjunction with the Juan de Fuca Water Distribution, Saanich Peninsula Water and Wastewater, and Core Area Wastewater Services.	\$350,000	E	Res	\$20,000	\$270,000	\$0	\$0	\$0	\$0	\$270,000
21-05	Renewal	SPW System Upgrade and Expansion	Upgrade vulnerable sections of the SPW system to a resilient system better able to withstand a seismic event, and extend sections of the system to have dual feed redundancy. Vulnerable sections are cement pipe material which are susceptible to failure during a seismic event. This is part of a project in partner with the RWS system.	\$14,700,000	S	Res	\$1,775,000	\$1,775,000	\$0	\$0	\$0	\$0	\$1,775,000
21-05					S	Debt	\$0	\$0	\$2,550,000	\$5,550,000	\$4,500,000	\$300,000	\$12,900,000
21-06	Renewal	Voice Radio Replacement	Replacement of the aging voice radio system with the Core Area, RWS, JDF and Saanich Peninsula Wastewater systems.	\$67,000	E	Res	\$0	\$34,000	\$0	\$0	\$0	\$0	\$34,000
22-02	New	Microwave Radio Upgrades	To provide a high bandwidth communications backbone to the SPW/SPWW systems, a microwave communications system will be installed.	\$150,000	E	Res	\$0	\$0	\$0	\$150,000	\$0	\$0	\$150,000
22-03	New	Keating Cross Road Water Main	MoTI driven project, MoTI has expectation of CRD contributing (TBD), approximately 500m of 500mm DI, agreement not in place yet	\$1,000,000	S	Res	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000
23-01	New	DCC Program Update	5-year update of the DCC program.	\$500	S	Res	\$0	\$0	\$500				\$500
25-01	New	Hamsterly Pump Station Capacity Upgrade	Increase the capacity of the Hamsterly Pump Station to address increased water demand. This is the service's contribution to the DCC project.	\$6,040	S	Res	\$0	\$0	\$0	\$0	\$6,040	\$0	\$6,040
Sub-Total System Upgrades and Replacements				\$18,018,540			\$2,260,000	\$4,184,000	\$2,710,500	\$5,860,000	\$4,666,040	\$450,000	\$17,870,540
ANNUAL PROVISIONAL ITEMS													
17-02	Renewal	Provisional Equipment Replacements	Funds to conduct emergency and unplanned repairs outside of normal Operations.	\$300,000	S	ERF	\$0	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$300,000
DEVELOPMENT COST CHARGE (DCC) PROGRAM													
22-01	New	Water Strategic Plan Update	Update the strategic plan to inform future works and identify hydraulic deficiencies.	\$33,028	S	Res	\$0	\$33,028	\$0	\$0	\$0	\$0	\$33,028
23-01	New	DCC Program Update	5-year update of the DCC program.	\$49,500	S	Res	\$0	\$0	\$49,500	\$0	\$0	\$0	\$49,500
25-01	New	Hamsterly Pump Station Capacity Upgrade	Increase the capacity of the Hamsterly Pump Station to address increased water demand.	\$597,960	S	Res	\$0	\$0	\$0	\$0	\$597,960	\$0	\$597,960
Sub-Total Development Cost Charge (DCC) Program				\$680,488			\$0	\$33,028	\$49,500	\$0	\$597,960	\$0	\$680,488
GRAND TOTAL				\$18,999,028			\$2,260,000	\$4,277,028	\$2,820,000	\$5,920,000	\$5,324,000	\$510,000	\$18,851,028

Service: 2.610 Saanich Peninsula Water Supply			
Project Number	18-04	Capital Project Title	Post Disaster Emergency Water Supply
Capital Project Description	Identify and procure emergency systems for post disaster preparedness		
Project Rationale	In the event of a disaster, it is proposed to have in place the ability to source, treat (if required) and distribute drinking water during the initial and sustained response and recovery phases to the public. This item will see the study of the issue in 2017 and 2018 with the anticipated purchase of one or more emergency distribution systems in 2018 and beyond. Initial investigation has highlighted areas, such as having hardened hydrants/standpipes that the CRD should be investing in. Additional funds are required to start implementing these additional works.		
Project Number	19-01	Capital Project Title	Corrosion Protection Program
Capital Project Description	Carry out an investigation and monitoring program in conjunction with other services to prevent infrastructure failure due to corrosion		
Project Rationale	The Saanich Peninsula Water System comprises of many material types including steel. An investigation and monitoring program will be developed to prevent infrastructure failure due to corrosion. Funds are required to retain a qualified corrosion specialist to assess and aid in developing a monitoring program.		
Project Number	20-02	Capital Project Title	Hamsterly Pump Station Backup Power Generator
Capital Project Description	Addition of a backup power generator at the Hamsterly Pump Station		
Project Rationale	From the 2018 DCC Update, KWL identified that the addition of backup power at the Hamsterly Pump Station is required. Funds are required to design and construct backup power for the Hamsterly Pump Station.		
Project Number	21-01	Capital Project Title	Level of Service Agreement
Capital Project Description	Determine and develop appropriate level of service agreements with the participating municipalities for water supply.		
Project Rationale	The SPW Service has numerous transfer points with the participating municipalities. Funding is required to determine the pressure and flow at transfer points with the participating municipalities for water supply.		

Service: 2.610 Saanich Peninsula Water Supply			
Project Number	21-02	Capital Project Title	Stewart's Well Decommissioning
Capital Project Description	Decommission the well, and demolish the structures.		
Project Rationale	Stewart's Well site was previously used to provide potable water to the Elk Lake Main. The well has not been in use for a long time, with the accessory buildings long abandoned. The site located at the end of Cultra Ave in Central Saanich, situated between two residential properties. Funds are required in 2021 to conduct a hazardous soils test and prepare tender documents for demolition of the buildings and abandonment of the well		
Project Number	21-04	Capital Project Title	SCADA Upgrades
Capital Project Description	SCADA upgrades and planning in conjunction with the Juan de Fuca Water Distribution, Saanich Peninsula Water and Wastewater, and Core Area Wastewater Services.		
Project Rationale	The existing SCADA system is nearing end of life for equipment. The SCADA system provides vital operational monitoring and control information for the Saanich Peninsula Water System. Additionally, the Juan de Fuca Water Distribution, Saanich Peninsula Wastewater, Regional Water System, and Core Area Wastewater services require similar upgrades and integration. This project will be carried out with the other services so that an fully integrated system can be implemented.		
Project Number	21-05	Capital Project Title	SPW System Upgrade and Expansion
Capital Project Description	Upgrade vulnerable sections of the SPW system to a resilient system better able to withstand a seismic event, and extend sections of the system to have dual feed redundancy. Vulnerable sections are		
Project Rationale	This project is for design and replacement of cement pipe sections that are susceptible to failure during a seismic event. Funds are required for detailed design and construction of the Bearhill section of transmission main from Mt Newton to the Dean Park Lower tank along East Saanich Road including a new PRV, detailed design of the transmission main from McTavish Tank to Mills Road. The budget breakdown of the works: Bearhill Section design and construction of new transmission main and PRV station \$14,200,000; conceptual and detailed design of the transmission main from Mctavish Reservoir to Mills Road \$500,000.		
Project Number	21-06	Capital Project Title	Voice Radio Replacement
Capital Project Description	Replacement of the aging voice radio system with the Core Area, RWS, JDF and Saanich Peninsula Wastewater systems.		
Project Rationale	The Saanich Peninsula Water System uses handheld and vehicle mounted radios for communications during emergency events. Replacement of the aging radios is required to maintain consistency with the Regional Water System, Core Area System, and Juan de Fuca Water Distribution system.		

Service: 2.610 Saanich Peninsula Water Supply			
Project Number	22-02	Capital Project Title	Microwave Radio Upgrades
Capital Project Description	To provide a high bandwidth communications backbone to the SPW/SPWW systems, a microwave communications system will be installed.		
Project Rationale	Multiple facilities throughout the CRD RWS system require additional bandwidth to allow for proper monitoring and control. This project will enable the initial design and preliminary installation of a high bandwidth microwave backbone that will be able to be leveraged by multiple CRD operational groups. The installation of this backbone will be coordinated with the other IWS service areas.		
Project Number	22-03	Capital Project Title	Keating Cross Road Water Main
Capital Project Description	MoTI driven project, MoTI has expectation of CRD contributing (TBD), approximately 500m of 500mm DI, agreement not in place yet		
Project Rationale	MoTI driven project, MoTI has expectation of CRD contributing (TBD), approximately 500m of 500mm DI		
Project Number	23-01	Capital Project Title	DCC Program Update
Capital Project Description	5-year update of the DCC program.		
Project Rationale	Multiple facilities throughout the CRD RWS system require additional bandwidth to allow for proper monitoring and control. This project will enable the initial design and preliminary installation of a high bandwidth microwave backbone that will be able to be leveraged by multiple CRD operational groups. The installation of this backbone will be coordinated with the other IWS service areas.		
Project Number	25-01	Capital Project Title	Hamsterly Pump Station Capacity Upgrade
Capital Project Description	Increase the capacity of the Hamsterly Pump Station to address increased water demand. This is the service's contribution to the DCC project.		
Project Rationale	In the 2018 KWL DCC Update report, the Hamsterly Pump Station was identified to require addition of a third pump to meet increased water demand. This is for the Saanich Peninsula Water service's contribution to the DCC project. Funds are required for the design and construction of the additional pump.		

Service: 2.610 Saanich Peninsula Water Supply			
Project Number	17-02	Capital Project Title	Provisional Equipment Replacements
Capital Project Description	Funds to conduct emergency and unplanned repairs outside of normal Operations.		
Project Rationale	Replace various system equipment that may fail during the year that is not specifically identified and funded through the operating and capital budgets.		
Project Number	22-01	Capital Project Title	Water Strategic Plan Update
Capital Project Description	Update the strategic plan to inform future works and identify hydraulic deficiencies.		
Project Rationale	A water distribution system changes with development demand. A periodic update of the strategic plan to identify hydraulic deficiencies and inform future works is periodically required to ensure the level of service.		
Project Number	23-01	Capital Project Title	DCC Program Update
Capital Project Description	5-year update of the DCC program.		
Project Rationale	Funds are required to retain a consultant to complete the 5-year updated of the DCC program.		
Project Number	25-01	Capital Project Title	Hamsterly Pump Station Capacity Upgrade
Capital Project Description	Increase the capacity of the Hamsterly Pump Station to address increased water demand. This is the service's contribution to the DCC project.		
Project Rationale	In the 2018 KWL DCC Update report, the Hamsterly Pump Station was identified to require addition of a third pump to meet increased water demand. DCC funds are required for the design and construction of the additional pump.		

2.610 Saanich Peninsula Water
Summary Schedule
2022 - 2026 Financial Plan

Asset Profile

Saanich Peninsula Water

One of the 16 CRD drinking water systems across the region, Saanich Peninsula Water Supply obtains treated drinking water from the Regional Water Supply System and is responsible for the bulk trunk water supply systems for Central Saanich, Sidney & North Saanich. Assets include land, 46 kilometres of water supply mains, nine balancing reservoirs, nine pumping stations, two pressure reducing stations, nine supply meters and two rechlorination stations.

Reserve/Fund Summary

	Actual	Estimate	Budget				
	2020	2021	2022	2023	2024	2025	2026
DCC Reserve Account	2,036,836	2,076,836	2,043,808	1,994,308	1,994,308	1,396,348	1,396,348
Equipment Replacement Fund	1,809,620	1,814,620	1,804,620	1,794,620	1,784,620	1,774,620	1,764,620
Capital Reserve	5,651,881	5,303,964	1,919,964	2,609,464	2,999,464	3,233,424	3,483,424
Total	9,498,337	9,195,420	5,768,392	6,398,392	6,778,392	6,404,392	6,644,392

**2.610 Saanich Peninsula Water
Development Cost Charges
2022 - 2026 Financial Plan**

Development Cost Charges Reserve Schedule

Reserve Fund: Saanich Peninsula Water Development Cost Charges (Bylaw # 3208)

Fund: 1009 Fund Center: 101353- DCC Water System only	Actual	Estimate	Budget				
	2020	2021	2022	2023	2024	2025	2026
Beginning Balance	2,092,293	2,036,836	2,076,836	2,043,808	1,994,308	1,994,308	1,396,348
Transfers to Reserve							
Transfers from Reserve based on DCC-capital plan	(95,000)	-	(33,028)	(49,500)	-	(597,960)	-
DCC's received from Member Municipalities							
Interest Income*	39,543	40,000					
Ending Balance \$	2,036,836	2,076,836	2,043,808	1,994,308	1,994,308	1,396,348	1,396,348

General Comments:

Saanich Peninsula Water Development Cost Charges (DCC's) was adopted in 2005 for the purpose of providing funds to assist with the capital costs of providing, constructing, altering or expanding the Districts water & wastewater systems that services the Member Municipalities.

The above cash flow only reflects DCC Reserve information for Water System only (Wastewater's information will be provided in the Wastewater budgets). These Reserve funds are received from member municipalities as Development Cost Charges (DCC's) to provide for the capital costs of water capacity system improvements within the service areas.

In December 2018 the bylaw was ammended to remove Develoment Cost Charges on new projects to recognize that the fund's balance exceeded the total of current development projects.

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

**2.610 Saanich Peninsula Water
Equipment Replacement Reserve Schedule
2022 - 2026 Financial Plan**

Equipment Replacement Reserve Schedule

Reserve Fund: Saanich Peninsula Water-Equipment Replacement Reserve (covered by CRD-ERF Bylaw)

Fund: 1022 Fund Center: 101452

	Actual	Estimate	Budget				
	2020	2021	2022	2023	2024	2025	2026
Beginning Balance	1,751,473	1,809,620	1,814,620	1,804,620	1,794,620	1,784,620	1,774,620
Equipment purchases (Based on Capital Plan)	(7,810)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
Transfer from Operating Budget	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Interest Income*	15,956	15,000					
Ending Balance \$	1,809,620	1,814,620	1,804,620	1,794,620	1,784,620	1,774,620	1,764,620

General Comments: The fund is used to replace water system infrastructure throughout the system as failing components are identified and not funded through operating budgets.

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

2.610 Saanich Peninsula Water
Capital Reserve Fund
2022 - 2026 Financial Plan

Capital Reserve Fund Schedule

Reserve Fund: Saanich Peninsula Water Capital Reserve Fund (Bylaw #1397)

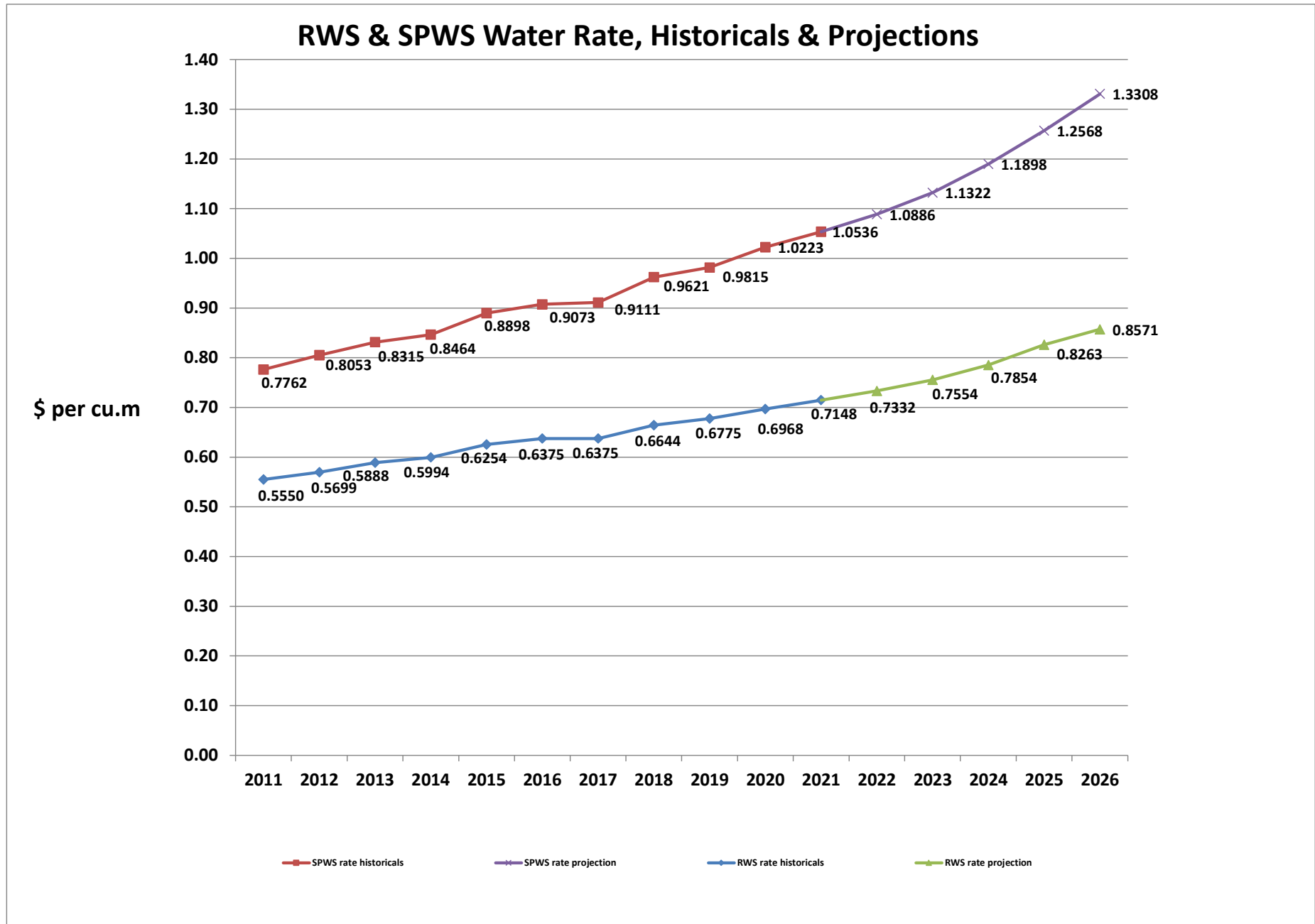
Fund: 1009 Fund Center: 102159	Actual	Estimate	Budget				
	2020	2021	2022	2023	2024	2025	2026
Beginning Balance	5,552,657	5,651,881	5,303,964	1,919,964	2,609,464	2,999,464	3,233,424
Transfers from Reserve based on capital plan	(780,000)	(1,283,000)	(4,184,000)	(160,500)	(310,000)	(166,040)	(150,000)
Transfer from Operating Budget	785,749	885,083	800,000	850,000	700,000	400,000	400,000
Interest Income*	93,475	50,000					
Ending Balance \$	5,651,881	5,303,964	1,919,964	2,609,464	2,999,464	3,233,424	3,483,424

General Comments:

Saanich Peninsula Water Capital Reserve Fund was adopted in 1985 for the purpose of capital payments including planning, engineering and legal costs for providing, latering or expanding water system infrastructure related to the Saanich Peninsula Water Supply System.

The fund is used for the purpose of funding the Service Capital infrastructure related directly or indirectly to water facilities, (excluding DCC) capital expenditures.

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



REGIONAL WATER SUPPLY COMMISSION
Agricultural Water Rate Funding Comparisons 2011 - 2020

		No. of AR Accounts	No. of AG Accounts	AR Volume m3	AG Volume m3	Avg AR Volume m3 (Vol/Accts)	Avg AG Volume m3	Agri Rate Consumption Costs	Agri Fixed Charge Costs	Total Agri Subsidy Paid out (Cons + Fixed)	Avg Agri Cost \$ (Paid/Accts)	%age of Total Paid out	Rate Differential		
													Municipal Rate m3 A	Agri Rate m3 B	Muni-CRD Diff m3 A - B
Western Communities & Sooke *															
	2020	84	15	42,432	51,118	505	3,408	\$ 187,605	\$ -	\$ 187,605	\$ 1,895	11.9%	\$ 2,2159	\$ 0,2105	\$ 2,0054
	2019	86	14	36,598	50,277	426	3,591	\$ 165,297	\$ -	\$ 165,297	\$ 1,653	11.1%	\$ 2,1132	\$ 0,2105	\$ 1,9027
	2018	95	18	40,657	19,669	428	1,093	\$ 112,411	\$ -	\$ 112,411	\$ 995	7.9%	\$ 2,0739	\$ 0,2105	\$ 1,8634
	2017	81	11	33,458	11,628	413	1,057	\$ 76,754	\$ -	\$ 76,754	\$ 834	5.6%	\$ 1,9129	\$ 0,2105	\$ 1,7024
	2016	80	11	41,248	8,652	516	787	\$ 84,950	\$ -	\$ 84,950	\$ 934	5.9%	\$ 1,9129	\$ 0,2105	\$ 1,7024
	2015	79	11	33,537	7,078	425	643	\$ 64,968	\$ -	\$ 64,968	\$ 722	5.1%	\$ 1,8101	\$ 0,2105	\$ 1,5996
	2014	79	11	29,419	9,074	372	825	\$ 60,769	\$ -	\$ 60,769	\$ 675	5.6%	\$ 1,7892	\$ 0,2105	\$ 1,5787
	2013	80	11	25,532	5,578	319	507	\$ 46,438	\$ -	\$ 46,438	\$ 510	4.7%	\$ 1,7032	\$ 0,2105	\$ 1,4927
	2012	79	13	23,617	5,932	299	456	\$ 40,828	\$ -	\$ 40,828	\$ 444	4.3%	\$ 1,5922	\$ 0,2105	\$ 1,3817
	2011	75	11	27,910	4,893	372	445	\$ 43,641	\$ -	\$ 43,641	\$ 507	5.2%	\$ 1,5409	\$ 0,2126	\$ 1,3283
Central Saanich															
	2020	278	49	375,646	233,214	1,351	4,759	\$ 873,579	\$ 6,768	\$ 880,347	\$ 2,692	56.0%	\$ 1,8047	\$ 0,2105	\$ 1,5942
	2019	276	47	421,804	210,499	1,528	4,479	\$ 862,430	\$ 2,162	\$ 864,592	\$ 2,677	58.0%	\$ 1,7260	\$ 0,2105	\$ 1,5155
	2018	278	49	378,593	297,433	1,362	6,070	\$ 866,699	\$ 7,003	\$ 873,702	\$ 2,672	61.3%	\$ 1,6350	\$ 0,2105	\$ 1,4245
	2017	296	49	398,087	298,522	1,345	6,092	\$ 792,125	\$ 7,003	\$ 799,128	\$ 2,316	58.7%	\$ 1,5575	\$ 0,2105	\$ 1,3470
	2016	297	51	446,241	303,419	1,502	5,949	\$ 879,396	\$ 7,191	\$ 886,587	\$ 2,548	61.1%	\$ 1,5139	\$ 0,2105	\$ 1,3034
	2015	294	51	412,060	246,292	1,402	4,829	\$ 739,282	\$ 7,144	\$ 746,426	\$ 2,164	58.4%	\$ 1,4582	\$ 0,2105	\$ 1,2477
	2014	294	49	361,801	190,895	1,231	3,896	\$ 596,515	\$ 6,808	\$ 603,323	\$ 1,759	55.7%	\$ 1,4033	\$ 0,2105	\$ 1,1928
	2013	296	45	321,518	194,848	1,086	4,330	\$ 542,837	\$ 4,186	\$ 547,023	\$ 1,604	55.7%	\$ 1,3799	\$ 0,2105	\$ 1,0525
	2012	280	41	325,663	210,906	1,163	5,144	\$ 518,454	\$ 5,658	\$ 524,112	\$ 1,633	55.6%	\$ 1,2841	\$ 0,2105	\$ 0,9662
	2011	210	38	312,702	169,206	1,489	4,453	\$ 462,183	\$ 5,244	\$ 467,427	\$ 1,885	56.1%	\$ 1,2867	\$ 0,2126	\$ 0,9667
North Saanich **															
	2020	102	16	57,433	108,453	563	6,778	\$ 223,532	\$ -	\$ 223,532	\$ 1,894	14.2%	\$ 1,5580	\$ 0,2105	\$ 1,3475
	2019	94	15	58,278	95,030	620	6,335	\$ 201,370	\$ -	\$ 201,370	\$ 1,847	13.5%	\$ 1,5240	\$ 0,2105	\$ 1,3135
	2018	100	16	97,574	70,666	976	4,417	\$ 220,982	\$ -	\$ 220,982	\$ 1,905	15.5%	\$ 1,5240	\$ 0,2105	\$ 1,3135
	2017	100	13	151,773	53,551	1,518	4,119	\$ 245,456	\$ -	\$ 245,456	\$ 2,172	18.0%	\$ 1,4643	\$ 0,2105	\$ 1,2538
	2016	100	12	148,450	36,774	1,485	3,065	\$ 230,697	\$ -	\$ 230,697	\$ 2,060	15.9%	\$ 1,4560	\$ 0,2105	\$ 1,2455
	2015	106	14	151,656	38,066	1,431	2,719	\$ 230,948	\$ -	\$ 230,948	\$ 1,925	18.1%	\$ 1,4278	\$ 0,2105	\$ 1,2173
	2014	98	14	133,853	30,372	1,366	2,169	\$ 194,919	\$ -	\$ 194,919	\$ 1,740	18.0%	\$ 1,3974	\$ 0,2105	\$ 1,1869
	2013	102	13	141,845	30,647	1,391	2,357	\$ 200,004	\$ -	\$ 200,004	\$ 1,739	20.4%	\$ 1,3700	\$ 0,2105	\$ 1,1595
	2012	99	13	117,497	45,227	1,187	3,479	\$ 188,679	\$ -	\$ 188,679	\$ 1,685	20.0%	\$ 1,3700	\$ 0,2105	\$ 1,1595
	2011	101	13	106,393	34,921	1,053	2,686	\$ 163,558	\$ -	\$ 163,558	\$ 1,435	19.6%	\$ 1,3700	\$ 0,2126	\$ 1,1574
Saanich															
	2020	68	53	40,416	144,443	594	2,725	\$ 268,877	\$ 10,867	\$ 279,745	\$ 2,312	17.8%	\$ 1,6650	\$ 0,2105	\$ 1,4545
	2019	68	51	37,086	140,512	545	2,755	\$ 249,436	\$ 10,278	\$ 259,714	\$ 2,182	17.4%	\$ 1,6150	\$ 0,2105	\$ 1,4045
	2018	70	49	37,503	111,896	536	2,284	\$ 208,786	\$ 9,996	\$ 218,782	\$ 1,839	15.3%	\$ 1,5910	\$ 0,2105	\$ 1,3805
	2017	80	50	38,201	132,092	478	2,642	\$ 229,604	\$ 9,719	\$ 239,324	\$ 1,841	17.6%	\$ 1,5600	\$ 0,2105	\$ 1,3495
	2016	71	53	36,409	139,764	513	2,637	\$ 237,745	\$ 10,056	\$ 247,802	\$ 1,998	17.1%	\$ 1,5600	\$ 0,2105	\$ 1,3495
	2015	75	51	74,841	129,225	998	2,534	\$ 226,276	\$ 9,727	\$ 236,003	\$ 1,873	18.5%	\$ 1,5420	\$ 0,2105	\$ 1,3315
	2014	72	53	46,230	177,633	642	3,352	\$ 213,981	\$ 9,883	\$ 223,863	\$ 1,791	20.7%	\$ 1,4560	\$ 0,2105	\$ 1,2455
	2013	65	50	35,745	122,456	550	2,449	\$ 179,004	\$ 9,655	\$ 188,659	\$ 1,641	19.2%	\$ 1,3420	\$ 0,2105	\$ 1,1315
	2012	68	47	38,212	138,455	562	2,946	\$ 180,466	\$ 9,235	\$ 189,701	\$ 1,650	20.1%	\$ 1,2320	\$ 0,2105	\$ 1,0215
	2011	71	46	101,235	121,896	1,426	2,650	\$ 149,584	\$ 9,118	\$ 158,703	\$ 1,356	19.0%	\$ 1,1530	\$ 0,2126	\$ 0,9404
Totals															
	2020	532	133	515,927	537,228	970	4,039	\$ 1,553,594	\$ 17,635	\$ 1,571,229	\$ 2,363	100%			
	2019	524	127	553,766	496,318	1,057	3,908	\$ 1,478,533	\$ 12,440	\$ 1,490,973	\$ 2,290	100%			
	2018	543	132	554,327	499,664	1,021	3,785	\$ 1,408,879	\$ 16,999	\$ 1,425,878	\$ 2,112	100%			
	2017	557	123	621,519	495,793	1,116	4,031	\$ 1,343,940	\$ 16,722	\$ 1,360,663	\$ 2,001	100%			
	2016	548	127	672,348	488,609	1,227	3,847	\$ 1,432,788	\$ 17,247	\$ 1,450,036	\$ 2,148	100%			
	2015	554	127	672,094	420,661	1,213	3,312	\$ 1,261,474	\$ 16,871	\$ 1,278,344	\$ 1,877	100%			
	2014	543	127	571,304	407,973	1,052	3,212	\$ 1,066,184	\$ 16,691	\$ 1,082,874	\$ 1,616	100%			
	2013	543	119	524,640	353,529	966	2,971	\$ 968,283	\$ 13,841	\$ 982,124	\$ 1,484	100%			
	2012	526	114	504,989	400,520	960	3,513	\$ 928,426	\$ 14,893	\$ 943,320	\$ 1,474	100%			
	2011	457	108	548,240	330,916	1,200	3,064	\$ 818,967	\$ 14,362	\$ 833,329	\$ 1,475	100%			

* Western Communities do not charge a fixed charge

** North Saanich charges the fixed charge on property taxes

*** AR - Agriculture/Residential customers receive a rebate on consumption over 455 cubic meters annual as the meter feeds both premise and land.
 AG - Agriculture customers receive a rebate on the entire consumption annually as the meter is dedicated only for land.



REPORT TO SAANICH PENINSULA WATER COMMISSION MEETING OF THURSDAY, OCTOBER 21, 2021

SUBJECT **Summary of Long-Term Capital Improvements and Operating Programs**

ISSUE SUMMARY

To provide the Saanich Peninsula Water Commission with a summary of capital improvements (completed, work-in-progress and pending) and supporting operating programs arising from recent studies and reports prepared for the service.

BACKGROUND

The Saanich Peninsula Water Commission (Commission) requested that staff prepare a report to summarize the capital improvement and operating program requirements arising from studies and reports prepared for the service over the past ten years.

The Saanich Peninsula Water Service consists of six storage tanks, six pumping stations, 13 pressure reducing stations, one re-chlorination station (not in service), and 35 kilometers (km) of water mains. Integrated Water Services manages and operates the water service and in doing so the service is continuously being assessed for performance and capacity, effects of demand related to development, public and worker safety, asset condition, asset management planning, etc. The recent studies and reports are summarized as follows:

- Saanich Peninsula Water Supply System Study, June 2, 2011, AECOM Canada Ltd.
- Roof Access, Fall Protection Equipment and Related Safety Compliance Requirements at CRD Water Reservoirs [Tanks], February 2013, Kerr Wood Leidal Consulting Engineers
- Saanich Peninsula Water System – Watermain Condition Assessment, April 2015, Kerr Wood Leidal Consulting Engineers
- Saanich Peninsula Water and Wastewater Services Development Cost Charge Update Background Report, June 2016, Kerr Wood Leidal Consulting Engineers
- Greater Victoria Water Supply Audit – Saanich Peninsula Water System, July 2017, Kerr Wood Leidal Consulting Engineers
- CRD-Integrated Water Services, Asset Management Preliminary Study, December 2018, WSP
- 2019 JdFWS, RWS & SPW Model Update, Technical Memorandum, April 22, 2020, GeoAdvice Engineering Ltd.
- Drinking Water Safety Plan, Greater Victoria Drinking Water System, May 13, 2020, Capital Regional District
- Saanich Peninsula Water Service, Corrosion Assessment, September 17, 2020, Corrosion Service Company Limited
- RWS Transmission Mains: Hydraulic Capacity Assessment and Transient Pressure Analysis, December 17, 2020, GeoAdvice Engineering Inc.
- Additional indirect studies of the Regional Water Supply Service which supplies water to the SPWS, including the 2017 Strategic Plan

Saanich Peninsula Water Commission – October 21, 2021
Summary of Long-Term Capital Improvements and Operating Programs

2

The various study conclusions and recommendations are brought forward to inform the capital expenditure plan for the service and staff have initiated a Risk Register and process that captures risks, assigns priorities and identifies resources to resolve system issues or deficiencies.

Further to the capital studies, the more significant capital expenditures over the past decade that resulted in physical improvements (construction) include the following:

- Replacement of the McTavish storage tanks with one tank
- Replacement of PermaStran water mains with ductile iron water main material
- Replacement of air/vacuum relief valves
- Various mechanical, electrical and SCADA upgrades
- Storage tank roof improvements
- Bulk service connection (Central Saanich Road)
- Emergency improvements including seismic performance – hardened hydrants, etc.

Some significant capital improvement projects that are either work-in-progress or pending include the following (includes development cost charge projects which are co-funded):

- Replacement of Main #4 (Regional Water Supply Service project)
- Replacement of approximately 500 meters of water main coordinated with the Ministry of Transportation and Infrastructure Highway 17 and Keating Cross Road improvements
- Design for replacement of the asbestos cement pipe from McTavish storage tank to Mills Road
- Completion of the Bear Hill Storage Tank Interconnect water main through Saanichton to North Saanich
- Microwave radio upgrades
- Installation of an auxiliary generator at Hamsterly Pump Station
- Stewart's well decommissioning
- Level-of-Service agreements
- Development Cost Charges Program update
- Hamsterly pump station capacity upgrade
- Capacity assessment of the Cloake Hill storage tank

In addition to the specific capital expenditures, staff also manage a variety of related operating programs including the following:

- Asset Management Program – defining the level-of-service, assess asset condition, capacity, utilization, strategies to extend asset life, etc.
- Utility Protection and Referral Program – protect assets from damage, etc.
- Corrosion Protection Program – assessment of existing assets for corrosion and implement mitigation measures
- Development Cost Charge Program – manage the Development Cost Charge Bylaw No. 3208

Saanich Peninsula Water Commission – October 21, 2021
Summary of Long-Term Capital Improvements and Operating Programs

3

CONCLUSION

There have been many capital improvements completed for the Saanich Peninsula Water service over many decades of system operation. Capital expenditures will be needed to maintain the level-of-service and performance expectations for years to come. In addition, the existing operating programs provide support for the service to mitigate a variety of system risks.

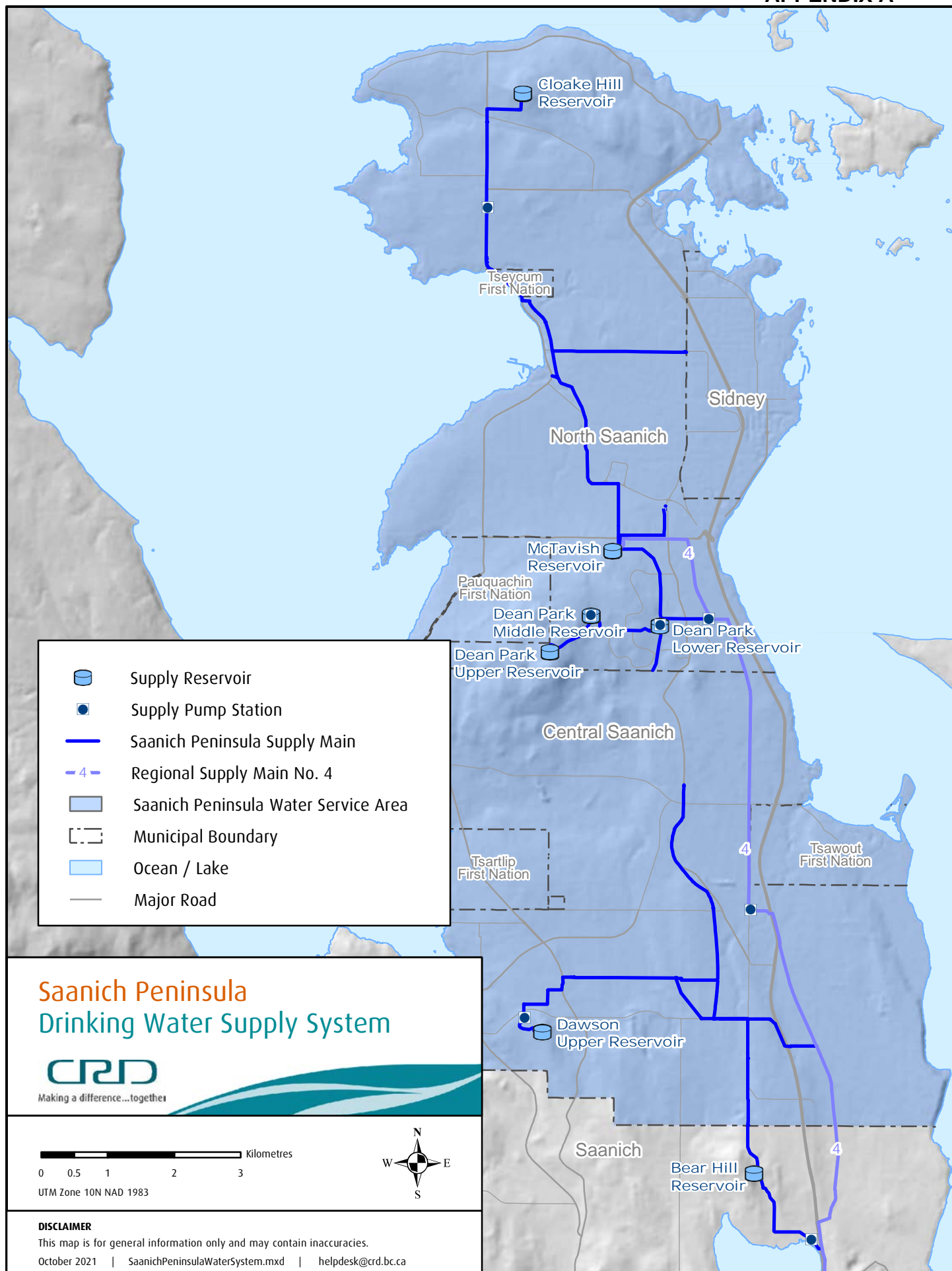
RECOMMENDATION

That the Saanich Peninsula Water Commission receives the report for information.

Submitted by:	Scott Mason, P.Eng., Manager, Water Supply Engineering and Planning
Concurrence:	Joseph Marr P.Eng., Acting Senior Manager, Infrastructure Engineering
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Saanich Peninsula Drinking Water Supply System



**REPORT TO SAANICH PENINSULA WATER COMMISSION
MEETING OF THURSDAY, OCTOBER 21, 2021**

SUBJECT **Post Disaster Water Supply Update, October 2021**

ISSUE SUMMARY

To update the Saanich Peninsula Water Commission on the Post Disaster Water Supply - Technical Working Group activities.

BACKGROUND

At its May 20, 2021 meeting the Saanich Peninsula Water Commission (SPWC) directed staff to engage stakeholders on the Saanich Peninsula to initiate discussions related to post disaster water supply. Staff reached out to stakeholders to determine interest in a technical working group and to determine who would best represent each of the stakeholder's organizations. A draft Terms of Reference for the Technical Working Group has been developed and is currently being reviewed by the membership (Appendix A). The anticipated mandate of the Technical Working Group is to provide a framework, goals, meeting protocols, and future plans for Saanich Peninsula Post Disaster Water Supply. An inaugural meeting of the Saanich Peninsula Post Disaster Water Supply – Technical Working Group was held on September 22, 2021 at the Sidney Fire Hall. The following organizations were represented:

1. District of North Saanich
2. Town of Sidney
3. District of Central Saanich
4. Victoria Airport Authority
5. BC Ferries
6. Capital Regional District

The meeting was well attended and the Capital Regional District (CRD) provided a general overview of the post-disaster water supply work completed to date. The group discussed future capital plans including: vulnerable water main replacement, resilient hydrants, and reservoir seismic valves.

The CRD also provided an overview of post disaster and system resilience work completed or planned in the Juan de Fuca Water Distribution System. Although this is not directly related to the Saanich Peninsula Water Service, it does provide relevant information to the municipalities that operate distribution systems. In addition, the CRD demonstrated the Post Disaster Water Distribution Module (Trailer), with two CRD Water Operators present who are trained and familiar with the module, to answer any technical questions.

Next Steps:

A follow-up meeting for the Technical Working Group is tentatively scheduled for December 2021. The proposed actions include members reporting back on their planned or completed infrastructure improvements related to post disaster water, budget cycles and if funds related to post disaster water and/or system resilience have been allocated, and ideas to support sharing

Saanich Peninsula Water Commission – October 21, 2021
Post Disaster Water Supply Update, October 2021

2

of resources and staffing/volunteers for a post disaster scenario or potentially utilize established volunteer programs for emergency services.

CONCLUSION

The Saanich Peninsula Post Disaster Water Supply – Technical Working Group has been established with membership from stakeholders on the Peninsula. This report provides an update on the technical working group and planned next steps.

RECOMMENDATION

That the Saanich Peninsula Water Commission receive the report for information.

Submitted by:	Shayne Irg, P.Eng., Senior Manager, Water Infrastructure Operations
Concurrence:	Ted Robbins, B. Sc., C. Tech., General Manager, Integrated Water Services
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

ATTACHMENTS

Appendix A: Draft Terms of Reference



Making a difference...together

CAPITAL REGIONAL WATER DISTRICT

SAANICH PENINSULA POST DISASTER WATER SUPPLY TECHNICAL WORKING GROUP

TERMS OF REFERENCE

BACKGROUND

The Capital Regional District (CRD) initiated a Post Disaster Water Supply program in 2016 including the Saanich Peninsula Water system. To date the program has identified required upgrades to maintain seismic resilience of supply mains, installed seismically restrained hydrants at key locations to supply water post disaster, and procured water distribution modules for the distribution of water.

PURPOSE

The general mandate of the Technical Working Group is to:

- Provide a framework, goals, meeting protocols, and develop a plan for the Saanich Peninsula Post Disaster Water Supply:
 - Optimize existing infrastructure
 - Propose new infrastructure
 - Standardize emergency water equipment
 - Develop cost sharing options for emergency equipment
 - Develop sharing of resource and staffing for post disaster scenarios

MEMBERSHIP

The group will have members with representation from:

1. District of North Saanich
2. Town of Sidney
3. District of Central Saanich
4. Victoria Airport Authority
5. BC Ferries
6. Capital Regional District

COMMITTEE MANDATE

The general mandate of the Technical Working Group is to establish and implement a plan for Saanich Peninsula Post Disaster Water Supply.

GENERAL COMMITTEE OPERATIONS

Staff from CRD Integrated Water Services will provide primary administrative support with support from other member areas as required.



JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Tuesday, October 5, 2021 at 12 PM

MEETING HOTSHEET
(ACTION LIST)

The following is a quick snapshot of the FINAL **Juan de Fuca Water Distribution Commission** decisions made at the meeting. The minutes will represent the official record of the meeting.

3. ADOPTION OF MINUTES

That the minutes of the September 7, 2021 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1. 2022 Service Planning – Water

The Juan de Fuca Water Distribution Commission recommends the Committee of the Whole recommend to the Capital Regional District Board:
 That Appendix A, Community Need Summary – Water, be approved as presented and form the basis of the 2022-2026 Financial Plan.

CARRIED

7.2. Juan de Fuca Water Distribution Service 2022 Operating and Capital Budget

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

1. Approve the 2022 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2022 Juan de Fuca Water Distribution Service retail water rate of \$2.4024 per cubic metre, adjusted if necessary by any change in the Regional Water Supply wholesale water rate; and
3. Direct staff to amend the Water Distribution Local Service Conditions, Fees and Charges Bylaw accordingly.

CARRIED

7.3. Water Watch Report

That the Water Watch Report be received for information.

CARRIED



JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Tuesday, September 7, 2021 at 12 PM

MEETING HOTSHEET
(ACTION LIST)

The following is a quick snapshot of the FINAL Juan de Fuca Water Distribution Commission decisions made at the meeting. The minutes will represent the official record of the meeting.

3. ADOPTION OF MINUTES

That the minutes of the July 6, 2021 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1. Rocky Point Water Upgrades Tender – Recommendation to Award

That the Juan de Fuca Water Distribution Commission approves the award of Contract 2019-537, Rocky Point Water Upgrades, to Industra Construction Corp. in the amount of \$7,927,793.44 plus GST.

CARRIED

7.2. Summary of Other Water Commission Recommendations

That the summary of other water commission recommendations be received for information.

CARRIED

7.3. Water Watch Report

That the August 30, 2021 water watch report be received for information.

CARRIED



JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Tuesday, July 6, 2021 at 12:00 PM

MEETING HOTSHEET
(ACTION LIST)

The following is a quick snapshot of the FINAL Juan de Fuca Water Distribution Commission decisions made at the meeting. The minutes will represent the official record of the meeting.

3. ADOPTION OF MINUTES

That the minutes of the June 1, 2021 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1. Proposed Seagirt Improvement District (SID) Conversion

That the Juan de Fuca Water Distribution Commission recommends that the Capital Regional District Board direct staff to:

1. Commence a service conversion process with the Province to convert the Seagirt Improvement District (SID) to a Capital Regional District (CRD) service which, when concluded, would result in incorporating the SID water infrastructure into the Juan de Fuca Water Distribution Service; and establishing a new service for the purpose of CRD financing of the infrastructure improvements required as a condition of conversion, and dissolving the SID; and
2. Apply for any available conversion or infrastructure grants on SID's behalf.

CARRIED



JUAN DE FUCA WATER DISTRIBUTION COMMISSION
Tuesday, June 1, 2021 at 12:00 PM

MEETING HOTSHEET
(ACTION LIST)

The following is a quick snapshot of the FINAL **Juan de Fuca Water Distribution Commission** decisions made at the meeting. The minutes will represent the official record of the meeting.

3. ADOPTION OF MINUTES

That the minutes of the May 4, 2021 meeting be adopted as amended.

CARRIED

6. COMMISSION BUSINESS

6.1. Water Service Connection Request - 2755 Sooke River Road

That the Juan de Fuca Water Distribution Commission:

As per Bylaw No. 3889, permit the construction of the service through a registered easement and require the construction of waterworks (a water main) from the end of the existing water main, across the entire frontage of 2755 Sooke River Road at the applicant's expense, in order to service lands beyond the extension in the future.

CARRIED

Opposed: Logins, Hicks, Wade

6.2. Summary of Other Water Commission Recommendations

That the Juan de Fuca Water Distribution Commission receive the report for information.

CARRIED

6.3. Water Watch Report

That the Juan de Fuca Water Distribution Commission receive the May 25, 2021 water watch report for information.

CARRIED



REGIONAL WATER SUPPLY COMMISSION
Wednesday, June 16, 2021 at 11:30 AM

MEETING HOTSHEET
(ACTION LIST)

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.

3. ADOPTION OF MINUTES

That the minutes of the May 19, 2021 meeting be adopted.

CARRIED

6. WATER ADVISORY COMMITTEE REPORT

6.2. Draft Minutes of the June 3, 2021 Water Advisory Committee Meeting

That the Draft Minutes of the June 3, 2021 Water Advisory Committee meeting be received for information.

CARRIED

7. COMMISSION BUSINESS

7.1. Options & Implications for Developing Reserve Fund for Greater Victoria Water Supply Area Land Acquisition

Motion Arising:

That the Regional Water Supply Commission move into closed meeting to receive information related to the Acquisition or Disposition of land or improvements under Section 90 (1)(e) of the Community Charter.

DEFEATED

Opposed: Duncan, Graham, Harper, Hicks, Kahakauwila, Mersereau, Morrison, Stock, Wade, Wood Zhelka

That the Regional Water Supply Commission:

Not pursue the establishment of a reserve fund for Greater Victoria Water Supply Area Land Acquisition at this time, and address any land purchase opportunities through adjustments to the existing capital program and utilize existing capital funding and/or debt financing to fund the acquisition.

CARRIED

Opposed: Baird, Chambers, Dubow, Isitt, Loveday, Mersereau, Rogers, Taylor

Motion Arising

That the Regional Water Supply Commission direct staff to bring this report back in one year time to consider the creation of a land acquisition reserve fund.

CARRIED

Opposed: Wood Zhelka

7.2. Regional pH & Corrosion Study Update

That the Regional Water Supply Commission defer Items 7.2 and 7.4 to next regular meeting.

CARRIED

7.3. Water Quality Summary Report for Greater Victoria Drinking Water System – January to March 2021

That the Regional Water Supply Commission receives this report for information.

CARRIED

7.4. Greater Victoria Water Supply Area Wildlife Program

Item deferred to next meeting.

7.5. Summary of Recommendations from Other Water Commissions

That the summary of recommendations from other water commissions be received for information.

CARRIED

7.6. Water Watch Report

That the June 7, 2021 water watch report be received for information.

CARRIED

8. MOTION WITH NOTICE

8.1. Motion with Notice: Once Through Cooling Systems – Commissioners Rogers and Wood Zhelka

That staff be directed to report back on the jurisdictional questions and incentive funding consideration regarding the elimination of once through cooling equipment for the 2022 budget.

CARRIED

Notice of Motion – Commissioner Isitt

That the Regional Water Supply Commission direct staff to provide a report, in a closed meeting, on land acquisition priorities.



REGIONAL WATER SUPPLY COMMISSION
Wednesday, July 21, 2021 at 11:30 AM

MEETING HOTSHEET
(ACTION LIST)

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.

3. ADOPTION OF MINUTES

That the minutes of the June 16, 2021 meeting be adopted.

CARRIED

7. WATER ADVISORY COMMITTEE BUSINESS

7.1. Draft Minutes of the June 22, 2021 Water Advisory Committee Special Meeting

That the Draft Minutes of the June 22, 2021 Water Advisory Committee special meeting be received for information.

CARRIED

8. COMMISSION BUSINESS

8.1. Regional pH and Corrosion Study Update

That the Regional Water Supply Commission receive this report for information.

CARRIED

8.2. Greater Victoria Water Supply Area Wildlife Program

That the Regional Water Supply Commission receive the report for information.

CARRIED

8.3. Water Conservation Initiative – Once Through Cooling Project

That staff be directed to:

1. Continue with the Regional Water Supply Demand Management Program Outreach, specifically the commercial sector based free water use assessments, that provide custom business cases for the replacement of inefficient fixtures, including once-through cooling equipment; and

CARRIED

That staff be directed to:

2. Include a once-through cooling equipment replacement rebate program in the 2022-2026 budgets, in the amount of \$20,000 per year.

CARRIED

**Opposed: Baird, Young, Stock, Duncan,
Harper, Morrison, Mersereau, De Vries**

Motion Arising:

That staff recommend a program of reduced rebates to fit within the approved \$20,000 per year budget.

CARRIED

Opposed: Duncan

Staff to follow up on whether new once-through cooling units continue to be installed.
G. Harris

8.4. Summary of Recommendations from Other Water Commissions

That the summary of recommendations from other water commissions be received for information.

CARRIED

8.5. Water Watch Report

That the July 12, 2021 water watch report be received for information.

CARRIED

9. NOTICE(S) OF MOTION

9.1. Motion with Notice (June 16, 2021) – Commissioner Isitt

That the Regional Water Supply Commission direct staff to provide a report, in a closed meeting, on land acquisition priorities.

CARRIED

11. MOTION TO CLOSE THE MEETING

That the meeting be closed for Legal Advice in accordance with Section 90 (1)(i) of the Community Charter.

CARRIED

12. RISE AND REPORT

The Commission rose from its closed session without report.

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued October 12, 2021

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	October 31 5 Year Ave		October 31/20		October 10/21		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	64,863	14,270	66,475	14,625	60,310	13,268	65.0%
Goldstream	5,687	1,251	6,994	1,539	6,945	1,528	70.0%
Total	70,549	15,521	73,469	16,163	67,255	14,796	65.6%

2. Average Daily Demand:

For the month of October	116.7 MLD	25.66 MIGD
For week ending October 10, 2021	116.1 MLD	25.54 MIGD
Max. day October 2021, to date:	122.1 MLD	26.87 MIGD

3. Average 5 Year Daily Demand for October

Average (2016 - 2020)	110.0 MLD ¹	24.19 MIGD ²
-----------------------	------------------------	-------------------------

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

4. Rainfall October:

Average (1914 - 2020):	169.6 mm
Actual Rainfall to Date	28.3 mm (17% of monthly average)

5. Rainfall: Sep 1- Oct 10

Average (1914 - 2020):	104.8 mm
2021	214.1 mm (204% of average)

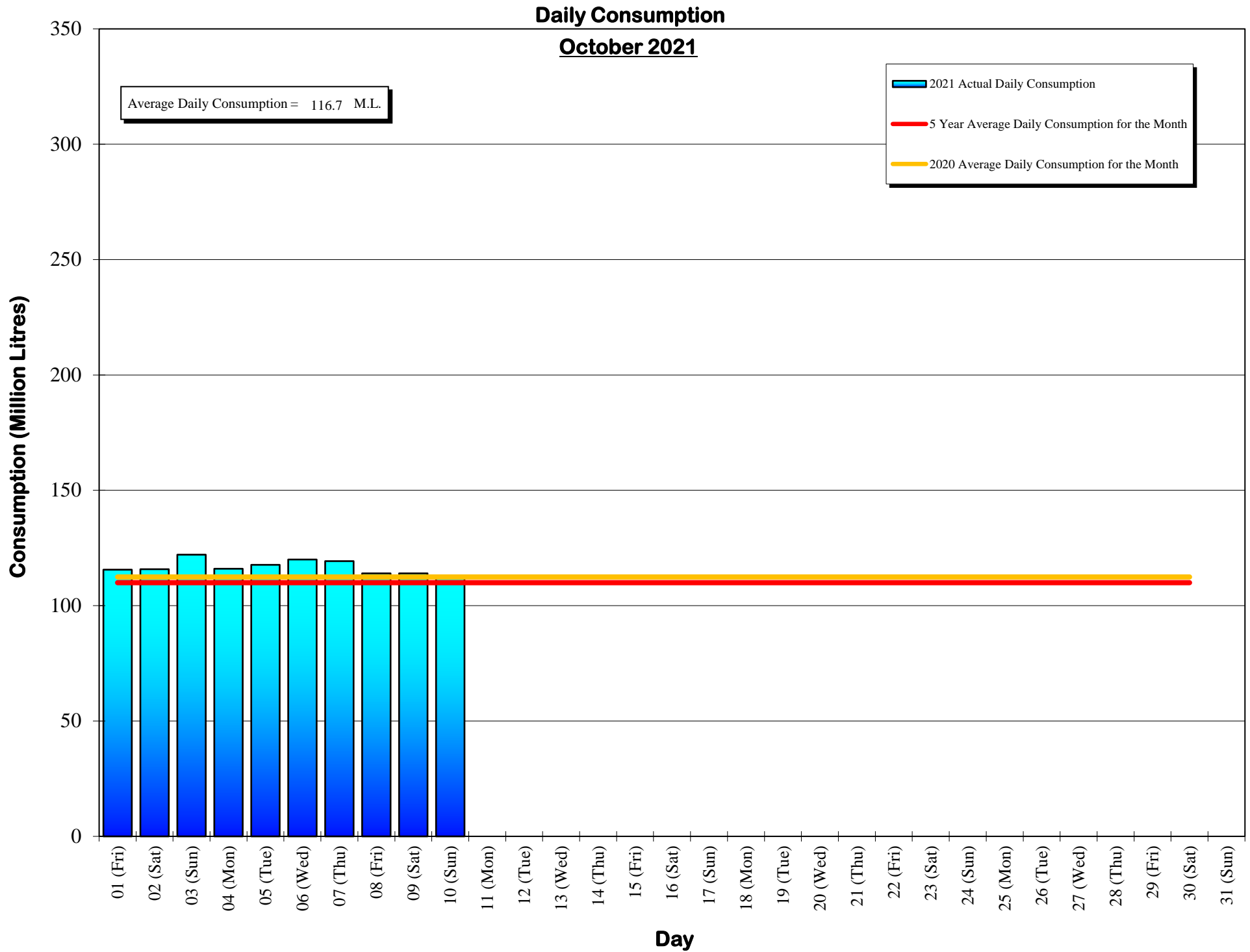
6. Water Conservation Action Required:

To avoid possible leaks this spring, now is the time to winterize your sprinkler system.
Visit our website at www.crd.bc.ca/water for more information.

If you require further information, please contact:

Ted Robbins, B.Sc., C.Tech
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: - October 2021

Date	Total Consumption		Air Temperature @ Japan Gulch		Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am		
	(ML) ^{1.}	(MIG) ^{2.}	High (°C)	Low (°C)		Rainfall (mm)	Snowfall ^{3.} (mm)	Total Precip.
01 (Fri)	115.6	25.4	14	7	Sunny / P. Cloudy / Showers	0.3	0.0	0.3
02 (Sat)	115.8	25.5	17	9	Sunny / P. Cloudy / Showers	0.3	0.0	0.3
03 (Sun)	122.1	<=Max	16	8	Sunny / P. Cloudy / Showers	2.5	0.0	2.5
04 (Mon)	116.0	25.5	15	6	Sunny / P. Cloudy	0.0	0.0	0.0
05 (Tue)	117.7	25.9	13	6	Sunny / P. Cloudy / Showers	6.4	0.0	6.4
06 (Wed)	120.0	26.4	11	6	Sunny / P. Cloudy / Showers	5.1	0.0	5.1
07 (Thu)	119.3	26.2	12	4	Sunny / P. Cloudy	0.0	0.0	0.0
08 (Fri)	114.0	25.1	13	6	Sunny / P. Cloudy	0.0	0.0	0.0
09 (Sat)	114.0	25.1	11	5	Cloudy / Showers / P. Sunny	12.2	0.0	12.2
10 (Sun)	112.0	<=Min	12	4	Sunny / P. Cloudy / Showers	1.5	0.0	1.5
11 (Mon)								
12 (Tue)								
13 (Wed)								
14 (Thu)								
15 (Fri)								
16 (Sat)								
17 (Sun)								
18 (Mon)								
19 (Tue)								
20 (Wed)								
21 (Thu)								
22 (Fri)								
23 (Sat)								
24 (Sun)								
25 (Mon)								
26 (Tue)								
27 (Wed)								
28 (Thu)								
29 (Fri)								
30 (Sat)								
31 (Sun)								
TOTAL	1166.5 ML	256.62 MIG				28.3	0	28.3
MAX	122.1	26.87	17	9		12.2	0	12.2
AVG	116.7	25.66	13.4	6.1		2.8	0	2.8
MIN	112.0	24.64	11	4		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 October (1914-2020)	169.6 mm	Number days with precip. 0.2 or more
Actual Rainfall: October	28.3 mm	
% of Average	17%	
Average Rainfall (1914-2020): Sept 01 - Oct 10	104.8 mm	7
Actual Rainfall (2021): Sept 01 - Oct 10	214.1 mm	
% of Average	204%	

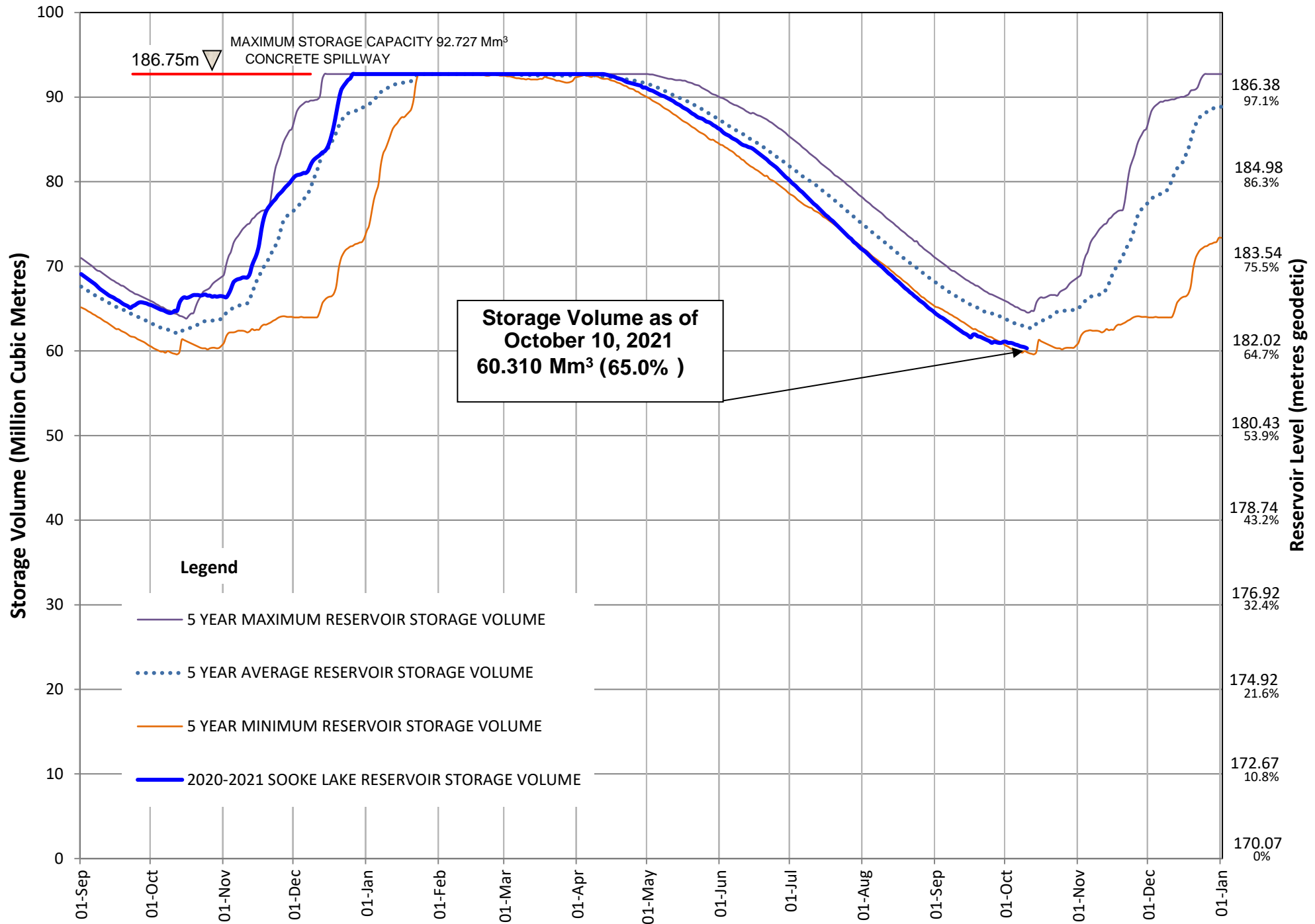
Water spilled at Sooke Reservoir to date (since Sept. 1) =

0.00 Billion Imperial Gallons

=

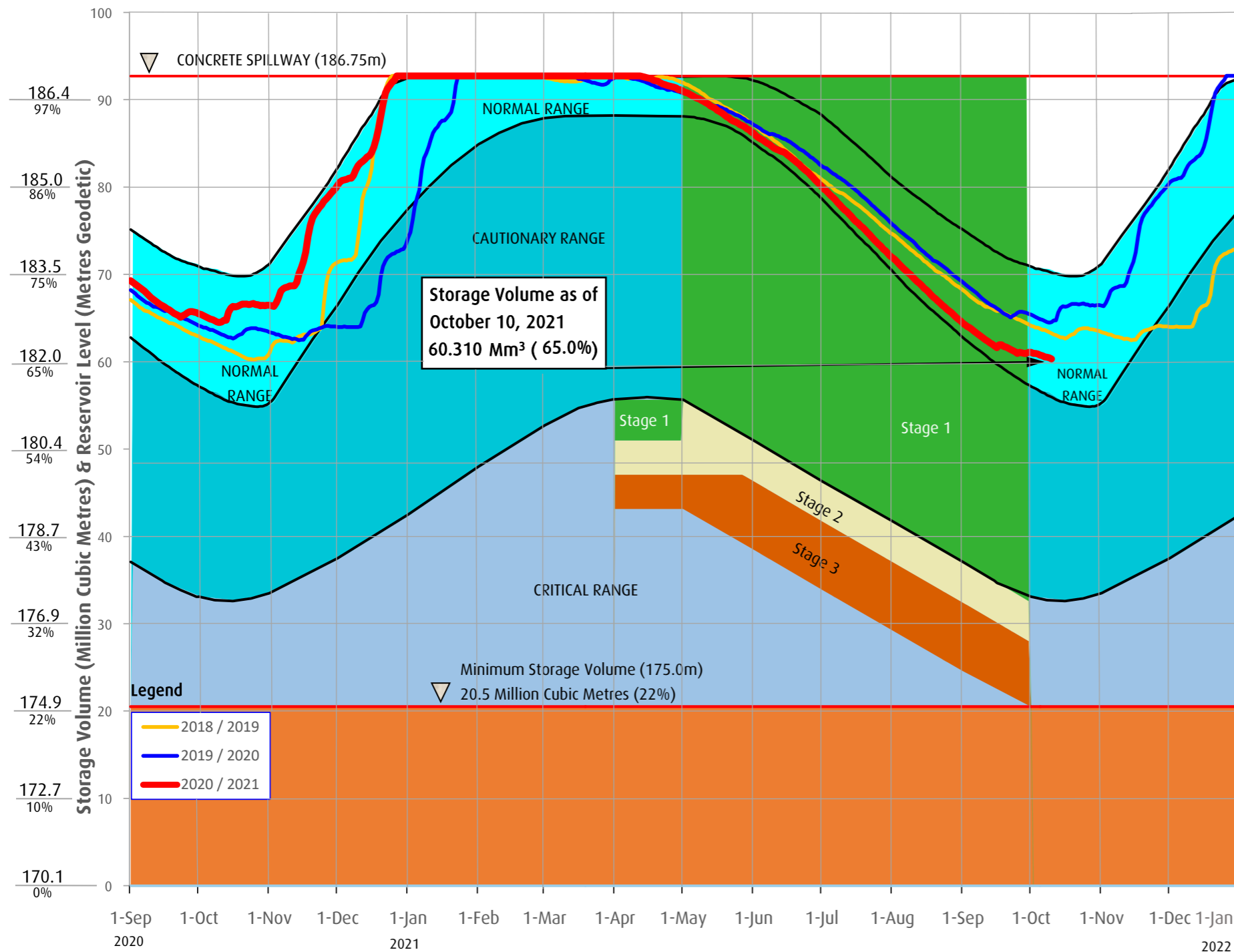
0.00 Billion Litres

SOOKE LAKE RESERVOIR STORAGE SUMMARY 2020 / 2021



Sooke Lake Reservoir Storage Level

Water Supply Management Plan



FAQs

How are water restriction stages determined?

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

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

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

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

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

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

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

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

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Useable Reservoir Volumes in Storage for October 10, 2021

