Making a difference...together

WATER ADVISORY COMMITTEE
Notice of Meeting on **Thursday, March 4, 2021 at 1:30 p.m.**
Goldstream Meeting Room, 479 Island Highway, Victoria, BC

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

Jeremy Caradonna	Tayler Krawczyk	Heather Thompson
Mike Doehnel	Craig Nowakowski	David Timothy
Gord Baird	John Rogers	Jennifer Todd
Elise Cote	Karen Sander	Mike Turner
Celine Davis	Wilf Scheuer	Vacant (DND)

AGENDA

1. CALL TO ORDER
By Ted Robbins, General Manager, Integrated Water Services

2. TERRITORIAL ACKNOWLEDGEMENT

3. INTRODUCTIONS

4. ELECTION OF CHAIR
(Pursuant to Section 5 Bylaw No. 2541)

Election conducted by General Manager with assistance from the committee secretary

5. ELECTION OF VICE CHAIR
(Pursuant to Section 5 Bylaw No. 2541)

Election conducted by newly elected Chair with assistance from the committee secretary

6. APPROVAL OF AGENDA

7. ADOPTION OF MINUTES 3

Recommendation: *That the minutes of the September 24, 2020 meeting be adopted.*

8. CHAIR'S REMARKS

9. PRESENTATIONS / DELEGATIONS

In keeping with directives from the Province of BC, 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.

To ensure a quorum, please call Denise Dionne at ddionne@crd.bc.ca or 250.360.3087 if you cannot attend.

IWSS-297445977-6523

10. WELCOME FROM REGIONAL WATER SUPPLY COMMISSION CHAIR

11. COMMITTEE BUSINESS

11.1. Regional Water Supply Orientation and 2021 Priorities (Presentation)

11.2. Demand Management Program Update 7

Recommendation: *That the Water Advisory Committee receive the report for information.*

11.3. Summary of Regional Water Supply Commission Recommendations.....17

Recommendation: *That the Summary of Recommendations be received for information.*

11.4. Water Watch Report 25

Recommendation: *That the February 22, 2021 Water Watch report be received for information.*

12. UPDATES FROM WORKING GROUPS

- Long term water supply and demand management
- Water Quality
- Major Capital Projects (including dam safety)
- Water Rates (including agriculture and First Nations)

13. PROPOSED MEETING SCHEDULE

- First Thursday of the month with quarterly “business” meetings

Business Meetings	**Working Group Meetings**
June 3	April 1
	May 6
September 2	Aug 5
	Oct 7
December 3	Nov 4

14. NEW BUSINESS

15. ADJOURNMENT

Next Meeting: June 3, 2021

To ensure a quorum, advise Denise at 250.360.3087 if you or your alternate cannot attend.

IWSS-297445977-6523

Making a difference...together

MINUTES OF A MEETING OF THE WATER ADVISORY COMMITTEE
Held Thursday, September 24, 2020 at 1:30 p.m., 6th Floor Boardroom, 625 Fisgard Street, Victoria, BC

PRESENT: **Members:** G. Baird; M. Doehnel for R. Barnhart; J. Rogers; D. Timothy
Electronic: R. Hunsinger (Chair); J. Todd (Vice Chair); E. Cote; T. Krawczyk; K. Sander; S. Sinclair; M. Turner (3:10 p.m.)
Staff: T. Robbins, General Manager; A, Constabel, Senior Manager, Watershed Protection; T. Urquhart, Communications Coordinator; D. Dionne (Recorder)

REGRETS: P. Lennox; C. Nowakowski; H. Thompson

The meeting was called to order at 1:30 p.m.

Vice Chair Todd advised that she would be Chairing the meeting today.

1. APPROVAL OF AGENDA

MOVED by G. Baird and **SECONDED** by J. Rogers,
That the agenda for the September 24, 2020 meeting be approved.

CARRIED

2. ADOPTION OF MINUTES

MOVED by G. Baird and **SECONDED** by J. Rogers,
That the minutes of the June 25, 2020 meeting be adopted.

CARRIED

3. CHAIR'S REMARKS

Vice Chair Todd advised that Heather Thompson recently had a baby and will be rejoining Committee meetings as soon as she is able.

4. PRESENTATIONS / DELEGATIONS

There were no presentations or delegations.

5. REGIONAL WATER SUPPLY COMMISSION BUSINESS

5.1. Summary of Regional Water Supply Commission Recommendations

T. Robbins highlighted the following staff reports received at the September 16, 2020 Regional Water Supply Commission meeting:

1. Remediation of Leech Water Supply Gravel Pit – Consideration of Certificate of Compliance.

2. Wildfires in the Greater Victoria Water Supply Area – 2020.

A. Constabel provided a presentation on the wildfires.

MOVED by G. Baird and **SECONDED** by J. Rogers,
That the Summary of Recommendations be received for information.

CARRIED

5.2. Water Watch Report

T. Robbins provided an update on water storage and demand over spring, summer and into the fall.

Discussion ensued and staff responded to questions about turbidity events and peak flow.

MOVED by G. Baird and **SECONDED** by J. Rogers,
That the September 14, 2020 Water Watch report be received for information.

CARRIED

6. WATER ADVISORY COMMITTEE BUSINESS

6.1. Working Group Discussion

T. Robbins provided background on previous working groups noting that the groups would meet on their own, without staff facilitation, to discuss or investigate specific topics of interest. The groups would report back to the Water Advisory Committee at its regular meetings. The list of working group topics below are areas of interest to the Regional Water Supply Commission and are provided to help guide the formation of the working groups.

Discussion ensued and staff responded to questions regarding, Regional Water Supply Strategic Plan and disaster preparedness.

6.2. Working Group Establishment and Procedures

1) Long Term Water Supply and Demand Management
2) Water Quality
3) Major Capital Projects
4) Water Rates
    - Agriculture
    - First Nations
5) Water Supply Area – Land Acquisition Strategy
6) Dam Safety

The Committee discussed the list of topics and established working groups in the following areas:

- Long term water supply and demand management
    - Elise Cote
    - Jennifer Todd
- Water Quality
    - Ron Hunsinger
    - David Timothy
- Major Capital Projects (including dam safety)
    - Gord Baird
- Water Rates (including agriculture and First Nations)
    - Tayler Krawczyk
    - Karen Sander

The Committee agreed that members would work together via email to confirm who would be in each group and how and when they will meet. Staff will ensure there is a standing agenda item on future Water Advisory Committee agendas for working groups to report on progress and findings to the Committee.

MOVED by G. Baird and **SECONDED** by E. Cote,
That the Water Advisory Committee establish working groups, with three to four members each, in the following areas:

- Long term water supply and demand management
- Water Quality
- Major Capital Projects (including dam safety)
- Water Rates (including agriculture and First Nations)

And that each working group report back to the Committee, at its regular business meetings, its progress and findings.

CARRIED

6.3. Update on the pH and Corrosion Study

T. Robbins advised that:

- Staff continue to undertake a recommissioning of the new disinfection works to replace the chlorine and ammonia gas system with liquid sodium hypochlorite and ammonia systems at the disinfection facility, following completion of deficiency work.
- There was some delay in receiving supplies from the United States.
- Once this work is complete and the new system is operating stably, the second phase of the pH and Corrosion Study can begin, which is the tap sampling program.
- The second phase won't begin until the new system is operational, as the pH and corrosivity of the water changes when operating on the liquid sodium hypochlorite system versus the gas system.
- Recommissioning should be completed in the next month or so, and the tap sampling program could begin before the end of the year.

- Staff continue to address the impacts of COVID-19 and confirm with potential participants of the tap sampling program that they are willing to work with the CRD.

Staff responded to questions regarding the tap sampling program and water pH conditions.

MOVED by T. Krawczyk and **SECONDED** by J. Rogers,
That the update be received for information.

CARRIED

7. WATER ADVISORY COMMITTEE – EXPIRING TERMS (DECEMBER 31, 2020)

- Sandy Sinclair
- Ron Hunsinger
- David Timothy
- Pat Lennox
- Tayler Krawczyk

T. Robbins advised that:

- The listed members' two-year term is expiring at the end of December.
- Each listed member is able to serve another two-year term.
- Staff will email each member individually to confirm if they wish to stand another term.
- All vacancies need to be advertised for.
- The names of those interested would be forwarded to the Regional Water Supply Commission to make a recommendation to the Board.

8. NEW BUSINESS

There was no new business.

9. ADJOURNMENT

MOVED by D. Timothy and **SECONDED** by E. Cote,
That the Water Advisory Committee meeting be adjourned at 3:22 p.m.

CARRIED

CHAIR **SECRETARY**

Making a difference...together

EEP 21-10

REPORT TO REGIONAL WATER SUPPLY COMMISSION
MEETING OF WEDNESDAY, FEBRUARY 17, 2021

SUBJECT **Demand Management Program Update**

ISSUE SUMMARY

To provide an update to the Demand Management Program.

BACKGROUND

The goal of the program is to define, understand and apply the regional demand for drinking water in support of the overall service. Staff provide data and research that informs strategic, financial, capital, operational and water conservation components of the regional drinking water service. The program aims to understand the "who, when and where" of drinking water use, as well as how much is or will be used (daily, seasonally, annually and long-term).

The Sooke Reservoir currently has ~ 92,800 million litres available for treatment due to the depth of the intake and distribution. The reservoir holds more volume but it is currently inaccessible in the north basin. The system can also access ~8,200 million litres in the Goldstream Reservoir system under emergency situations. The region consumes on average 52% of the available water in Sooke Reservoir each year, but the reservoir draw-down is typically only about 31% due to ongoing recharge from precipitation and inflow. The maximum draw-down in the last 10 years was 36%. The reservoir also typically spills excess water to the Sooke River during the winter months (i.e., December-April).

In 2019, the population serviced by the Greater Victoria Drinking Water System was approximately 387,400 and that population is expected to grow at a rate of 1.25% annually. That resulted in the sale of 48,200 million litres of water (Appendix A, Figure 1) across the service area. Although total water demand has remained fairly stable over the last 10 years, steady population increase, per capita consumption trends, unpredictable weather and long-term climate change increase the uncertainty in future predictions. The program seeks to understand the other factors also influencing demand projections (e.g., economic growth and residential housing stock/fixture replacement, tourism impacts, agricultural demand, consumer habits). Climate change will continue to influence demand upward and add to uncertainty with both short and long-term implications.

A conservative forecast of future demands by municipality shows that by 2050, regional demand will be almost 61,000 million litres per year, a 23% increase from 2019. The forecast indicates that, by 2050, the region will require 66% of the available water in Sooke Reservoir on an annual basis.

Based on land use type (Appendix A, Figure 2), current residential demand accounts for 65% of total regional water use, while industrial/commercial/institutional (ICI) demand accounts for 23%, agricultural demand is 3% and non-revenue water (i.e., losses and leaks) comprises approximately 9% of total demand in the region.

The total per capita demand across the region in 2019 was ~340 litres per capita per day (lcpd), which compares favourably to a jurisdiction survey completed last year for similar communities in the Pacific Northwest. Residential-only per capita demand is ~220 lcpd, compared to an optimal

high-efficiency home of ~140 lcpd. The average residential use is closer to ~190 lcpd across North America. Acknowledging the variability in the data, the trend in regional total per capita consumption indicates a ~17% decrease relative to 10 years ago (Appendix A, Figure 3). The declining trend in total per capita demand is likely attributed to new housing construction with efficient technology, but also from the ongoing replacement of low-efficiency appliances and high-flow fixtures in the existing residential housing stock. Greater awareness of water conservation over the past decade is also driving changes in behaviour related to water use.

Municipal retail data shows demand patterns for different ICI sectors. The five consistently highest demand ICI sectors in 2019 (% of total annual demand) were: retail/general sales (7%), schools and research facilities (4%), hotels (2.5%), parks (1.6%) and recreation centres/hall/arenas (1.5%).

IMPLICATIONS

Alignment with Existing Plans & Strategies

The forecasted regional demand informs the strategic planning process related to potential major supply infrastructure upgrades, the need for reliance on the Goldstream system and/or the need to advance more aggressive water conservation initiatives. Demand information (Appendix A, Figure 4) also informs and supports the negotiations regarding the CRD's service agreements with bulk water purchasers. For example, bulk water purchasers (i.e., municipal purveyors) need to understand how long their current supply can meet projected demand (Appendix A, Figure 5). Staff will be refining these forecasts and evaluating hydraulic capacity in the system to inform bulk water customers about any future constraints or concerns. Finally, demand management informs emergency planning efforts related to emergency response and system redundancy and vulnerability.

Demand projections inform the budget forecasts because revenue is based on water sales, which are driven by annual demand and longer-term demand trends. The development of a long-range forecasting tool is a key deliverable for the 2021 work plan, which will assist in reducing the uncertainty in the long-range budget demand forecasts. Financial planning intersects with strategic and capital planning, where adjustments in the water conservation strategy based on demand projections can also assist in deferring costly capital investments.

Service Delivery Implications

Daily demand curves (e.g., morning and evening peaks) across seasons inform the ability to treat and deliver safe potable water. Combined with water quality data, the results inform treatment requirements in real time, as well as flushing programs, reservoir maintenance and other operational projects and tasks over the course of each year.

Social Implications

Given the sufficient spread between current demand and supply, recent water conservation efforts are focused on education and awareness tactics rather than more severe restrictions and bylaw enforcement (Appendix A, Figure 6). The CRD is authorized to impose more severe restrictions, if necessary, but is using education and incentives at this time, along with the annual Stage 1 water restrictions that promote reasonable outdoor water use during the drier summer months.

For the residential sector, staff will focus on messages and campaigns around detecting household leaks, and reduced shower times ("Strive For Five") for indoor use, and promotion of reduced lawn/garden watering ("Go Golden"), native plantings, and proper irrigation maintenance for outdoor use (Appendix A, Figure 6). Analysis of the municipal retail data informs the conservation and outreach programs by identifying high water users and key sectors or businesses for targeted outreach. Efforts for the ICI sector in 2021 will focus on promoting and providing water use assessments for large water users, promoting water conservation and energy cost savings through building owners, developing a landscape water use calculator, and promotion of a water aerator exchange program. Short write-ups for each initiative are found in Appendix B.

Environmental & Climate Implications

The CRD has developed region-specific climate projections research that indicate an increased probability of warmer temperatures, longer, drier summers and shorter, wetter, and likely more intense winters. This information was gathered to inform all relevant services provided by the regional and local governments. Together with broader climate research, staff use this information to inform the various components of the drinking water service (e.g., fire management, supply management, infrastructure design and demand management).

CONCLUSION

Research and data analysis show that regional demand has decreased by 17% in the last decade, but future projections indicate a modest, increasing trend over the coming decades. Higher demand from specific sectors, regional population growth and municipal demand patterns will exert varying pressures on the regional drinking water system in the future. Long-range forecasting and continued capital and strategic planning support from the demand management program will inform the CRD and municipalities' planning needs to ensure a secure future water supply for residents. Ongoing studies and research will enhance our understanding of demand patterns, infrastructure needs, water quality impacts, improve the effectiveness of conservation programs, and ultimately ensure a long-term sustainable and affordable drinking water supply.

RECOMMENDATION

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

Submitted by:	Glenn Harris, Ph.D., R.P.Bio., Senior Manager, Environmental Protection
Concurrence:	Larisa Hutcheson, P.Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B.Sc., C.Tech., General Manager, Integrated Water Services

ATTACHMENT

Appendix A: Regional Water Demand Trends
Appendix B: Demand Management Program – Key Priorities and Deliverables

APPENDIX A

REGIONAL WATER DEMAND TRENDS

February 2021

Figure 1. Total Regional Supply and Demand

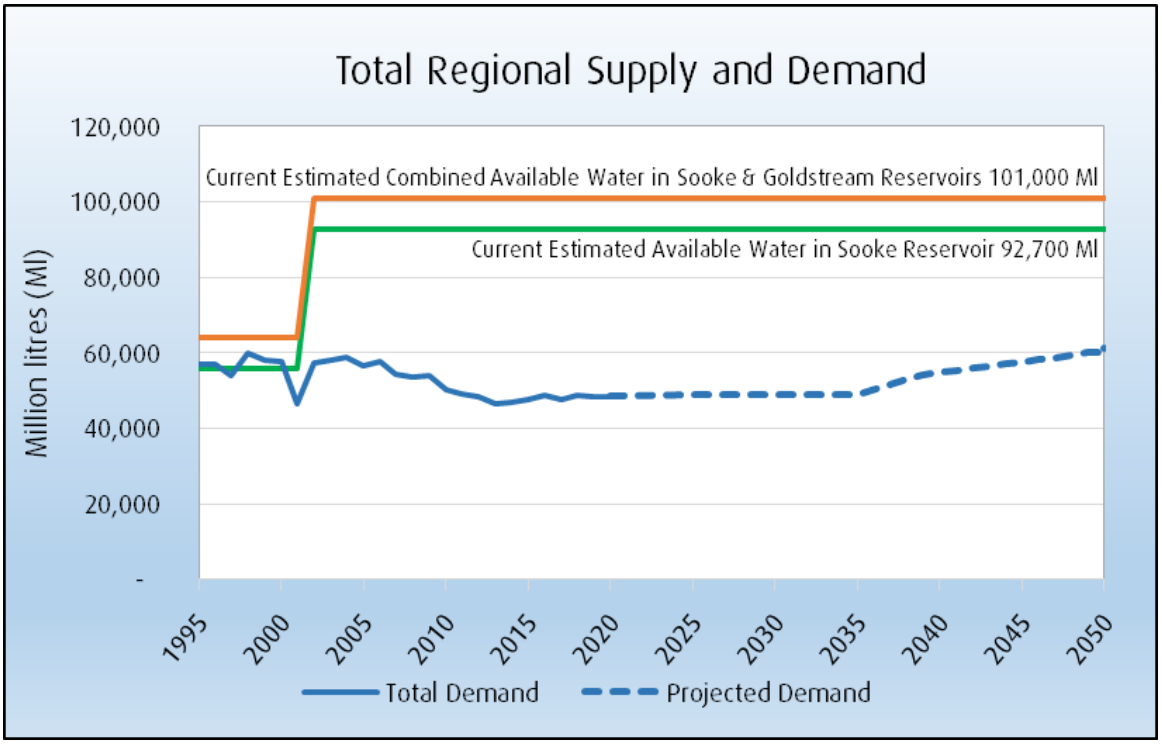


Figure 2. Water Use in the CRD

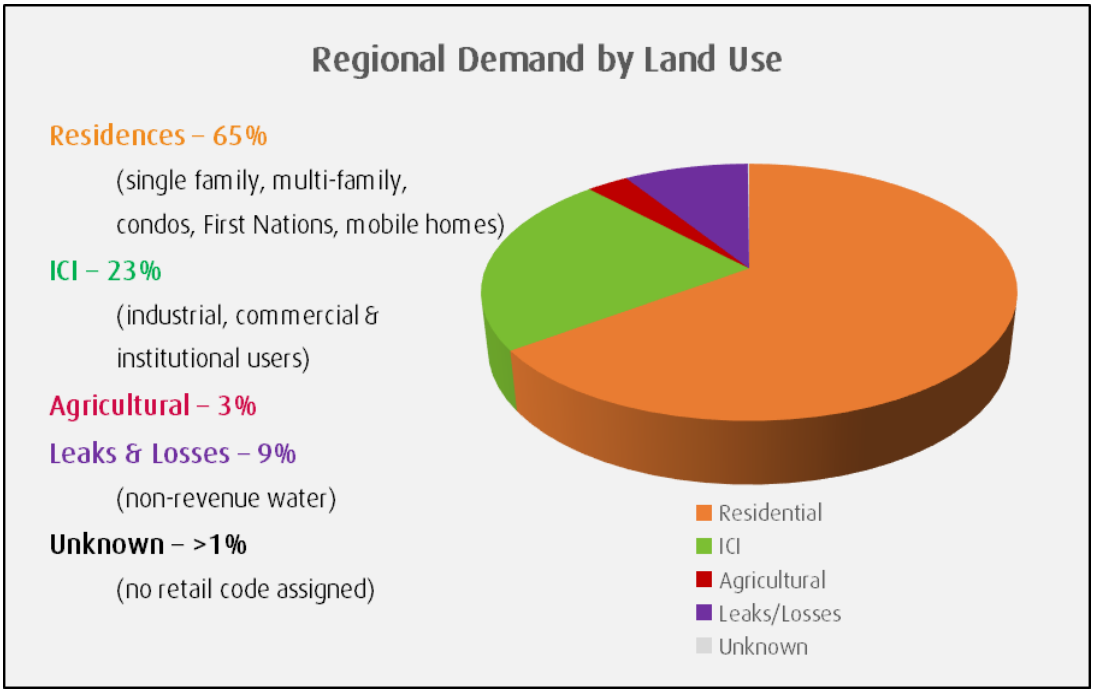


Figure 3. Regional Total Per Capita Trend and Population Growth

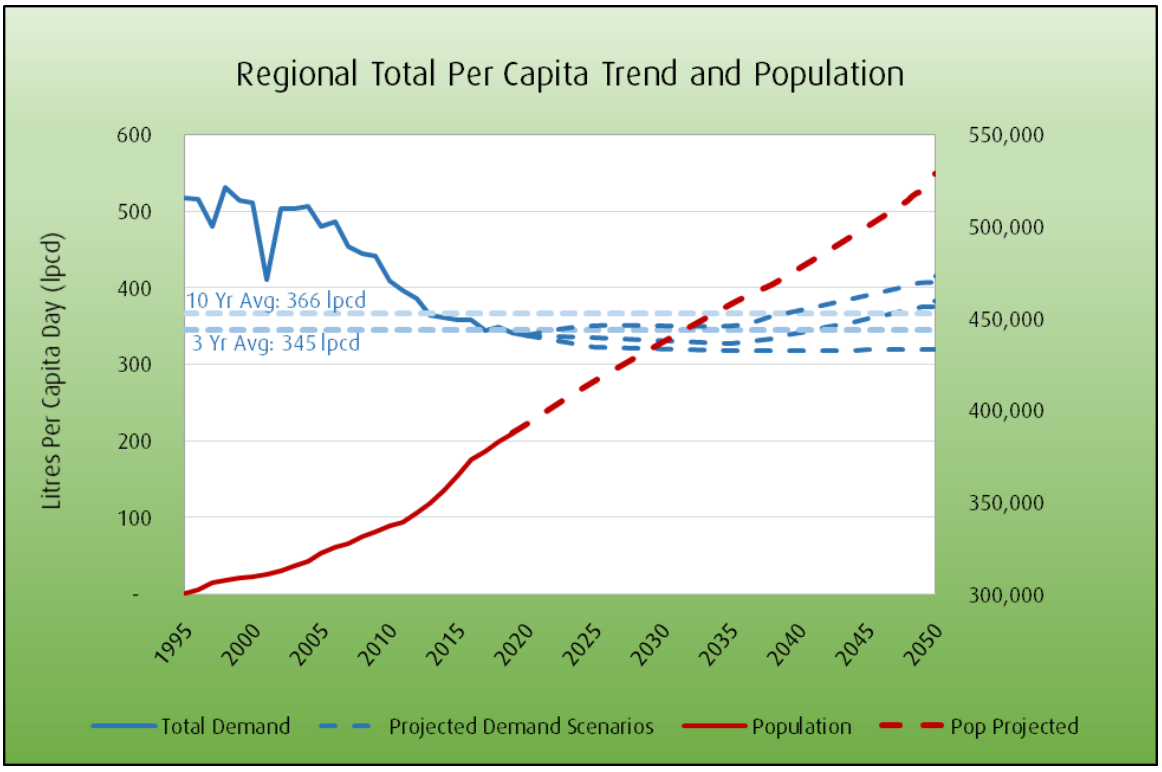


Figure 4. Total Demand by Municipality

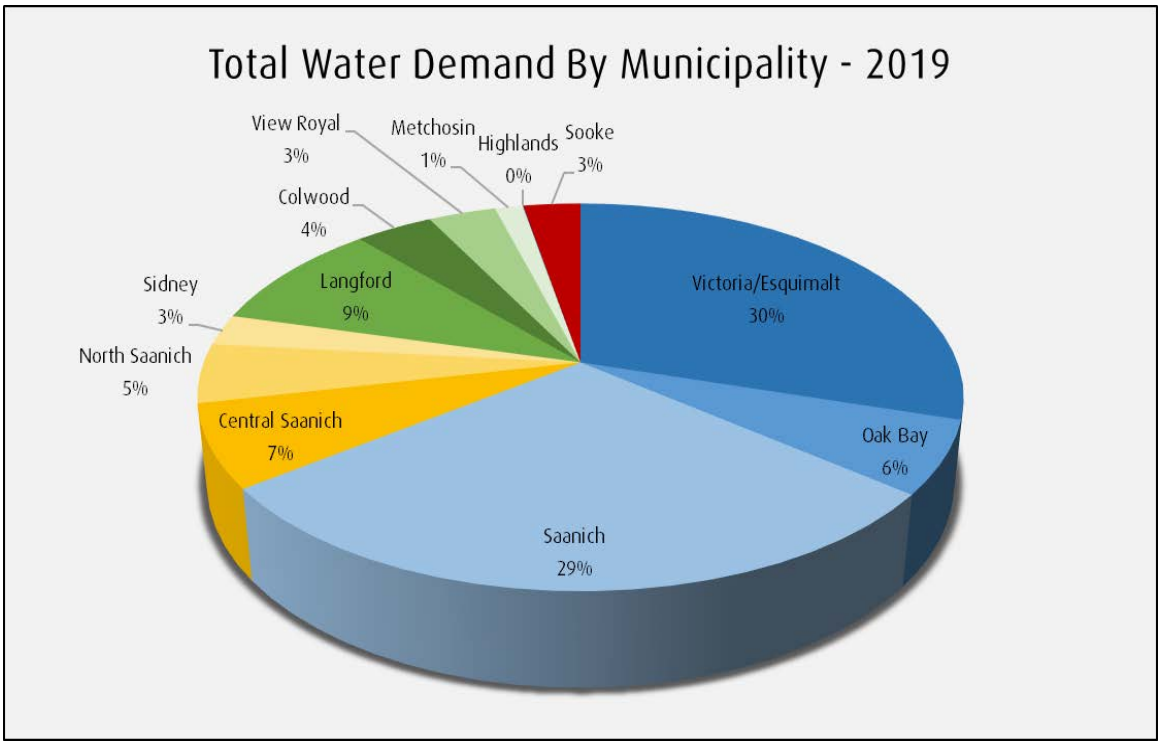


Figure 5. Projected Per Capita Demand by Municipality

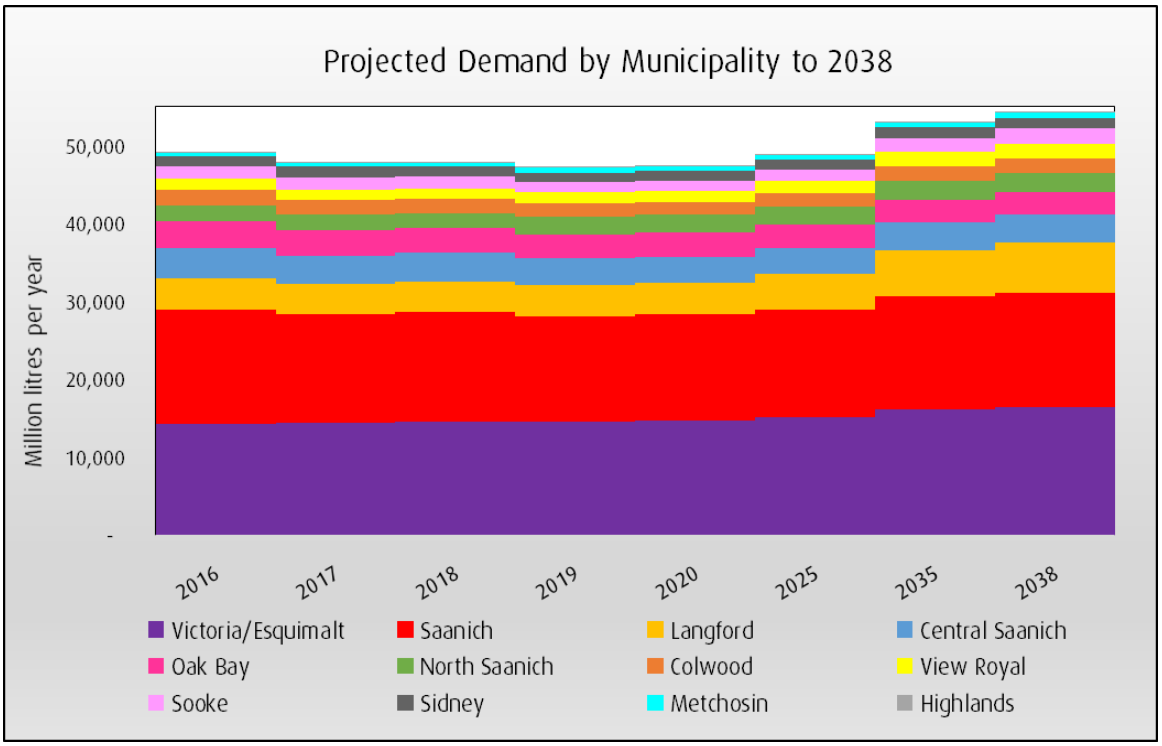


Figure 6. Indoor and Outdoor Residential Water Conservation Campaigns

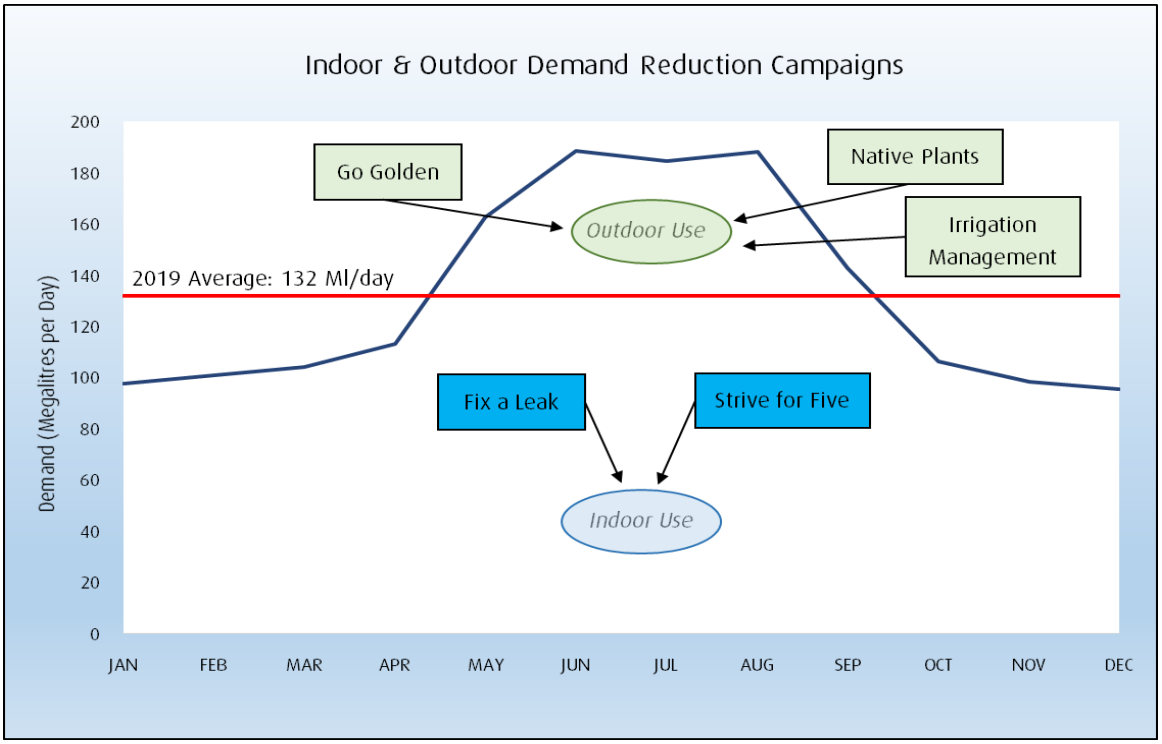


Figure 7. Annual Water Demand Profile

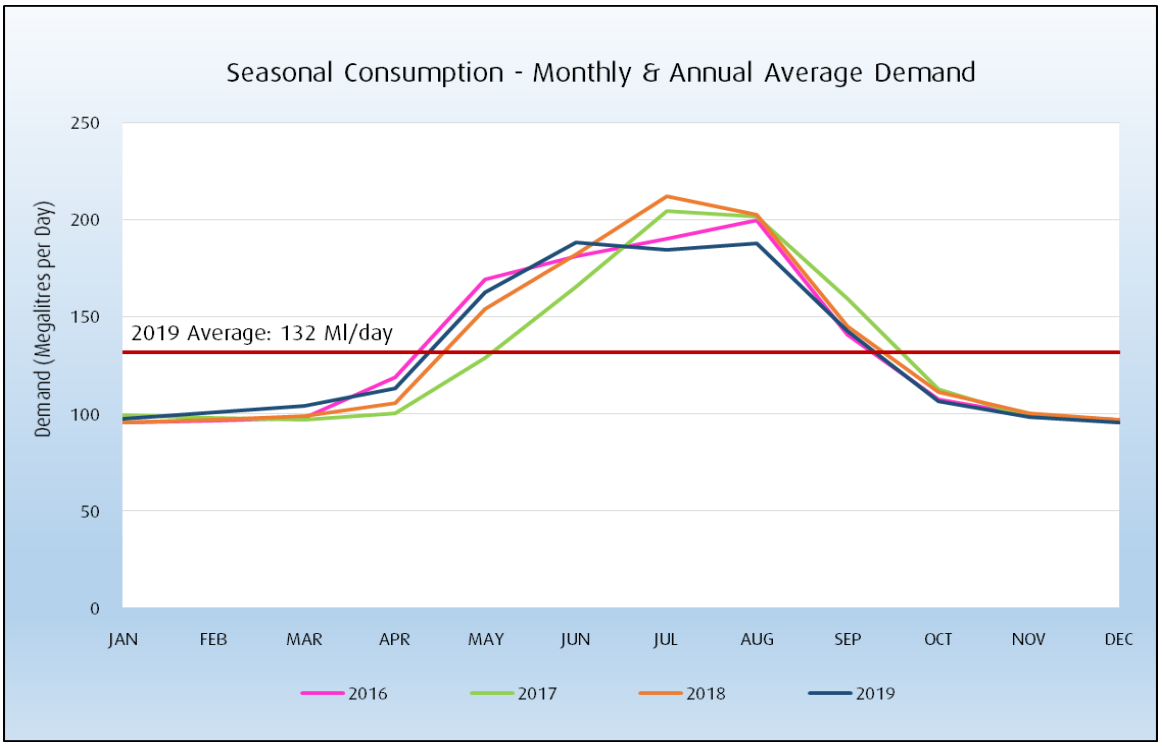
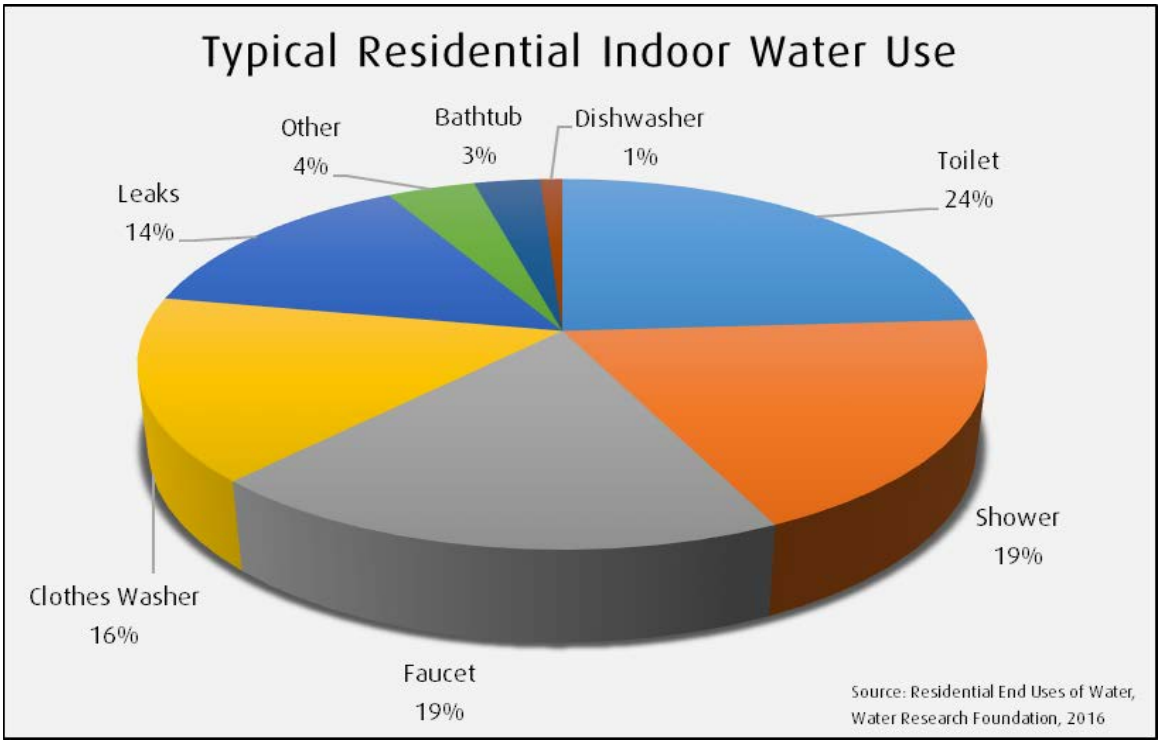


Figure 8. Indoor Residential Use



APPENDIX B

DEMAND MANAGEMENT PROGRAM
KEY PRIORITIES AND DELIVERABLES

February 2021

RESEARCH AND PLANNING

Long-Range Forecasting Tool

A long-range water demand forecasting tool is being developed by a consultant that will enable staff to forecast current and future water demands, develop a Demand Management Plan, support the data needs from Capital Regional District (CRD) Planning and Protective Services, and inform Integrated Water Services so that they can plan for infrastructure upgrades and capital projects. Long-range water demand forecasting is critical for understanding and anticipating the water needs for municipalities and the region as a whole. The long-range forecasting tool will encompass demands from the Greater Victoria Drinking Water System service areas.

Seasonal Demand Analysis

Seasonal demands will be studied to gain a better understanding of what elements drive seasonal demand and to what degree. The evaluation will look at the effects on demand, including changes to per capita demand, from the influx of tourism, agricultural demands and the impact of municipal and greenspace irrigation. The results of the study will inform targeted outreach and education initiatives to reduce over-all water use in the region.

Agricultural Trend Analysis

Agricultural water use trends will be studied to understand how agricultural demands are expected to change over time. Drivers of change to agricultural demands include climate change (longer/drier summers and shorter/wetter winters), population growth, types of crops, irrigation efficiencies and the amount of land farmed. The CRD is committed to supporting local food production so the impacts of future demands from agricultural uses are an important aspect for planning. The study will also highlight areas where water conservation can be achieved in the agricultural sector.

Local Government Supply and Demand Analysis

The available surplus hydraulic capacities of the CRD and municipal systems are expected to decline over time with increasing demands from regional growth and the limitations of existing transmission/distribution infrastructure (pipe size, flow rates) and the absence of balancing storage reservoirs in some areas. Staff will evaluate future demands against hydraulic capacity in the region to inform CRD Integrated Water Services and the municipal water customers about future constraints or concerns. Understanding constraints to future capacity allows water purveyors to plan and budget for necessary upgrades to meet future demands.

RESIDENTIAL WATER CONSERVATION

Go Golden

Summer water use almost doubles compared to winter water use, primarily due to outdoor lawn/garden watering when there is little to no rainfall to replenish the Sooke Lake Reservoir. The non-essential watering of residential lawns account for a large proportion of the outdoor watering. By letting lawns go golden, residents will significantly reduce their summer water use with no additional effort.

Strive for Five

The primary goal of this campaign is to reduce shower times to five minutes for the 18 to 34 year-old demographic. Showers represent the second-largest residential indoor water use with more room for behavioural change compared to the highest indoor water use of toilets, which relies more on appliance changes for greater water savings. A digital campaign and contest will target this audience through popular social media channels.

Water Videos

In keeping with the corporate direction to move outreach online, a series of water videos will be developed to reach a larger audience compared to many in-person outreach programs, such as workshops. This will allow relevant information to be available quickly and easily when residents are engaged in a topic. The water videos will cover three different topics, including short outdoor water use tips, irrigation system best practices, and the value of water and benefits of water conservation.

Irrigation Management

Summer water use almost doubles, primarily due to outdoor watering, when there is little to no rainfall to replenish the reservoir. For residents who choose to water their lawn and gardens, it is essential to use that water efficiently; however, many do not know how much water is required. This campaign promotes irrigation best practices to reduce water waste and promote healthier plants, as well as native plants that do not require additional watering once established. Online educational resources will be developed and used, such as best practices videos and a Landscape Water Calculator.

Fix a Leak

Undetected water leaks account for up to 14% of residential indoor water use. This excess demand can be prevented by regular leak checks by homeowners. The campaign will promote proactive leak detection habits by increasing awareness of undetected leaks and educate on leak detection best practices.

Industrial/Commercial/Institutional (ICI) Water Conservation

Water Use Assessments

High water users in the retail sector were identified by a consultant report finalized in 2020. Those users, primarily grocery stores, will be approached to participate in voluntary water and energy use assessments (also known as audits). Building off of the integrated initiative between the ICI Demand Management Program and the Climate Action Program completed in 2019 in the hotel sector, the assessments demonstrate the business case for conserving water to promote the adoption of water efficient fixtures and practices and provide greenhouse gas emission reduction planning.

Targeted Building Owner Outreach

Property managers, building owners and chambers of commerce have been identified as holding significant sway over water efficiency. Since the majority of smaller businesses rent and share a water bill based on square footage rather than usage, they are not motivated by the business case for water conservation. Property managers and building owners, however, determine the terms of the rental agreement and are poised to find considerable cost savings from adopting our program's recommendations. An outreach and education plan will be formulated to determine the best way to work with these key industry groups.

Landscape Water Calculator

The Partnership for Water Sustainability in BC has created a map-based Landscape Water Calculator for the Province, which uses local soils and climate data to calculate a water budget for a given property. Customization of the calculator for our region will allow users to determine the most efficient landscape design and encourages the use of native and drought resistant plants.

Aerator Replacement Program

Increased handwashing due to COVID-19 sanitation protocols can also mean an increase in water use and the associated costs for businesses and institutions during an already challenging time. CRD staff are going to any commercial facility that uses water supplied by the CRD and replacing any inefficient hand sink faucet aerators for free. For example, a restaurant that operates six days a week with five full-time staff who wash their hands once per hour could save approximately 60,000 litres and $560 annually.

Once-Through Cooling (OTC) videos

In keeping with the direction to move from a regulatory to an educational approach to discouraging the use of OTC cooled equipment, two videos will be developed to help building and business owners identify and replace this heavy water use equipment.

Making a difference...together

REGIONAL WATER SUPPLY COMMISSION
Wednesday, February 17, 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 January 20, 2021 meeting be adopted.

CARRIED

8. COMMISSION BUSINESS

8.1. Demand Management Program Update

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

CARRIED

8.2. Water Quality Summary Report for Greater Victoria Drinking Water System – June to November 2020

That the Regional Water Supply Commission receives the Water Quality Summary Report for the Greater Victoria Drinking Water System – June to November 2020 for information.

CARRIED

8.3. Summary of Recommendations from Other Water Commissions

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

CARRIED

8.4. Water Watch Report

That the February 8, 2021 Water Watch Report be received for information.

CARRIED

18

Making a difference...together

REGIONAL WATER SUPPLY COMMISSION
Wednesday, January 20, 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. ELECTION OF CHAIR

Commissioner Szpak was elected as Chair of the Regional Water Supply Commission for 2021 by acclamation.

4. ELECTION OF VICE CHAIR

Commissioner Baird was elected as Vice Chair of the Regional Water Supply Commission for 2021 by acclamation.

6. APPROVAL OF RESOLUTION FOR 2021

That the Regional Water Supply Commission adopt the resolution as presented.

That this resolution applies to the Regional Water Supply Commission for the meetings being held between January 1, 2021 and December 31, 2021.

1. That the attendance of the public at the place of the meeting cannot be accommodated in accordance with the applicable requirements or recommendations under the *Public Health Act*, despite the best efforts of the Regional Water Supply Commission, because:
    a. The available meeting facilities cannot accommodate more than (38) people in person, including members of the Regional Water Supply Commission and staff, and
    b. There are no other facilities presently available that will allow physical attendance of the Regional Water Supply Commission and the public in sufficient numbers; and
2. That the Regional Water Supply Commission is ensuring openness, transparency, accessibility and accountability in respect of the open meeting by the following means:
    a. By allowing the public to hear or participate via teleconference or electronic meeting software,
    b. By providing notice of the meeting in newspaper or local notice Board, including the methods for providing written or electronic submissions,
    c. By making the meeting agenda, as well as the other relevant documents, available on the CRD website, and directing interested persons to the website by means of the notices provided in respect of the meeting,
    d. By strongly encouraging the provision of, and subsequently receiving and distributing to members, written correspondence from the public in advance of the meeting, and
    e. By making the minutes of the meeting available on the CRD website following the meeting.

CARRIED

18

7. ADOPTION OF MINUTES

That the minutes of the November 25, 2020 meeting be adopted.

CARRIED

12. Appointment of COMMISSION Representative to the Water Advisory Committee for 2021-2022

That the Vice Chair of the Regional Water Supply Commission represent the Commission on the Water Advisory Committee for 2021.

CARRIED

13. COMMISSION BUSINESS

13.1. 2021 Greater Victoria Water Supply Area Mining Access Requests

That the Regional Water Supply Commission authorize Greater Victoria Water Supply Area access and special use to the mining tenure holders and their agents (where agency is confirmed) and workers (that hold valid free mining certificates) that meet Capital Regional District insurance requirements, as listed in Tables 1 and 2 of Appendix A, subject to the conditions of their Access Agreement, for the valid mining tenures they hold.

CARRIED

Action:
Discussion took place regarding remaining mineral and placer tenures in the Leech Water Supply area. The Commission requested that staff report back on the process for extinguishing remaining mining tenures within the Leech Water Supply Area.

13.2. Regional Water Supply Service 2021-2025 Capital Budget Amendment

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

That the provisionally approved Regional Water Supply Service 2021-2025 capital plan and budget be amended in accordance with the revised plan and budget for Project No. 21-05 as presented.

CARRIED

13.3. Water Watch Report

That the January 11, 2021 Water Watch report be received for information.

CARRIED

14. MOTION FOR WHICH NOTICE HAS BEEN GIVEN

14.1. Climate Change Impacts on CRD Water Operations

That the Regional Water Supply Commission request staff to bring forward a report outlining the current impacts and potential future impacts that climate change is having on CRD Water operations and the CRD's ability to provide water to the region.

CARRIED

15. MOTION TO CLOSE THE MEETING

That the meeting be closed In accordance with the Community Charter, Part 4, Division 3, 90(1)(a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the municipality or another position appointed by the municipality.

CARRIED

Making a difference...together

REGIONAL WATER SUPPLY COMMISSION
Wednesday, November 25, 2020 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 October 21, 2020 meeting be adopted.

CARRIED

4. REPORT OF THE CHAIR

5. GENERAL MANAGER'S REPORT

5.1. Water Supply Outlook
5.2. Tap Sampling Program Update
5.3. Commercial Faucet Aerator Replacement Program
5.4. 2021 Commission Chair/Vice Chair Elections

That the verbal updates be received for information.

CARRIED

8. COMMISSION BUSINESS

8.1. EEP 20-50 Water Quality Summary Report for Greater Victoria Drinking Water System – December 2019 to May 2020

That the Regional Water Supply Commission receive the Water Quality Summary Report for the Greater Victoria Drinking Water System - December 2019 to May 2020 for information.

CARRIED

8.2. Water Advisory Committee Membership

That the Regional Water Supply Commission strike a Nominating Committee consisting of the Commission Chair or Chair's delegate, the Vice Chair, the Juan de Fuca Water Distribution Commission delegate and the Saanich Peninsula Water Commission delegate, to review the applications and that the Subcommittee report back to the Commission, providing its recommendations for appointment.

CARRIED

8.3. Recommendations from Other Water Commissions

That the Summary of Recommendations from Other Water Commissions be received for information.

CARRIED

8.4. Water Watch Report

That the November 20, 2020 Water Watch report be received for information.

CARRIED

9. CORRESPONDENCE

9.1. BC Wildfire Services, September 23, 2020

That the correspondence be received for information.

CARRIED

11. MOTION TO CLOSE THE MEETING

In accordance with the Community Charter, Part 4, Division 3, 90(1)(e) the acquisition, disposition or expropriation of land or improvements.

CARRIED

12. RISE AND REPORT

The Commission rose from its closed session without report.

Making a difference...together

REGIONAL WATER SUPPLY COMMISSION
Wednesday, October 21, 2020

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.

2. APPROVAL OF AGENDA

That the agenda be approved.

CARRIED

3. ADOPTION OF MINUTES

That the minutes of the September 16, 2020 meeting be adopted.

CARRIED

7. COMMISSION BUSINESS

7.1. Regional Water Supply Strategic Plan - 2020 Progress Report

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

That the Regional Water Supply Strategic Plan - 2020 Progress Report be received for information and that the strategic priorities and actions planned in 2021-2022 that deliver on the Plan be confirmed. (NWA)

CARRIED

MOTION ARISING

That any movement toward a filtration program be based on sound health guidelines and demonstrable health benefits.

DEFEATED

Chambers; Duncan; Harper; Loveday; Mersereau; Morrison; Rogers; Stock; Taylor; Young

7.2. 2019 - 2022 Service Planning - Water

Recommendation: That Appendix A Community Need Summary - Water be approved as presented and advanced to the October 28, 2020 Provisional budget review process.

CARRIED

7.3. Regional Water Supply Service - 2021 Operating and Capital Budget

Recommendation: That the Regional Water Supply Commission recommends that the Capital Regional District Board:

1. Approve the 2021 Operating and Capital Budget and the Five Year Capital Plan;
2. Approve the 2021 wholesale water rate of $0.7148 per cubic metre;
3. Approve the 2021 agricultural water rate of $0.2105 per cubic metre;
4. Direct staff to balance the 2020 actual revenue and expense on the transfer to the water capital fund; and
5. Direct staff to amend the Water Rates Bylaw accordingly.

CARRIED

MOTION ARISING:

That the Agricultural Water Rates Study be removed from the 2021 Operating and Capital Budget.

DEFEATED

MOTION ARISING

That the Commission review the Terms of Reference for the Agricultural Water Rates Study prior to the issuance of the Request for Proposal.

CARRIED

7.4. Bylaw 4382: Regional Water Supply Water Works Facilities Loan Authorization Bylaw

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

1. That Bylaw No. 4382 cited as "Regional Water Supply Water Works Facilities Loan Authorization Bylaw No. 5, 2020" be introduced and read a first, second and third time; and
2. That Bylaw No. 4382 be referred to the Inspector of Municipalities for approval, and if received, to proceed with elector approval by way of regional alternative approval process.

CARRIED

MOTION ARISING

That the Regional Water Supply Commission defer the remaining agenda items on the open and closed agendas to a future meeting.

CARRIED

File No. 902-03

CAPITAL REGIONAL DISTRICT - INTEGRATED WATER SERVICES

Water Watch

Issued February 22, 2021

Water Supply System Summary:

1. Useable Volume in Storage:

Reservoir	February 28 5 Year Ave		February 28/20		February 21/21		% Existing Full Storage
	ML	MIG	ML	MIG	ML	MIG	
Sooke	92,688	20,391	92,727	20,400	92,727	20,400	100.0%
Goldstream	7,824	1,721	7,630	1,679	9,198	2,024	92.8%
Total	100,511	22,112	100,357	22,079	101,925	22,424	99.4%

2. Average Daily Demand:

For the month of February	105.5 MLD	23.20 MIGD
For week ending February 21, 2021	107.0 MLD	23.54 MIGD
Max. day February 2021, to date:	112.3 MLD	24.71 MIGD

3. Average 5 Year Daily Demand for February

Average (2016 - 2020) 98.5 MLD [1] 21.67 MIGD [2]

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

4. Rainfall February:

Average (1914 - 2020): 190.6 mm

Actual Rainfall to Date 122.7 mm (64% of monthly average)

5. Rainfall: Sep 1- Feb 21

Average (1914 - 2020): 1,210.4 mm

2020/2021 1,346.8 mm (111% of average)

6. Water Conservation Action Required:

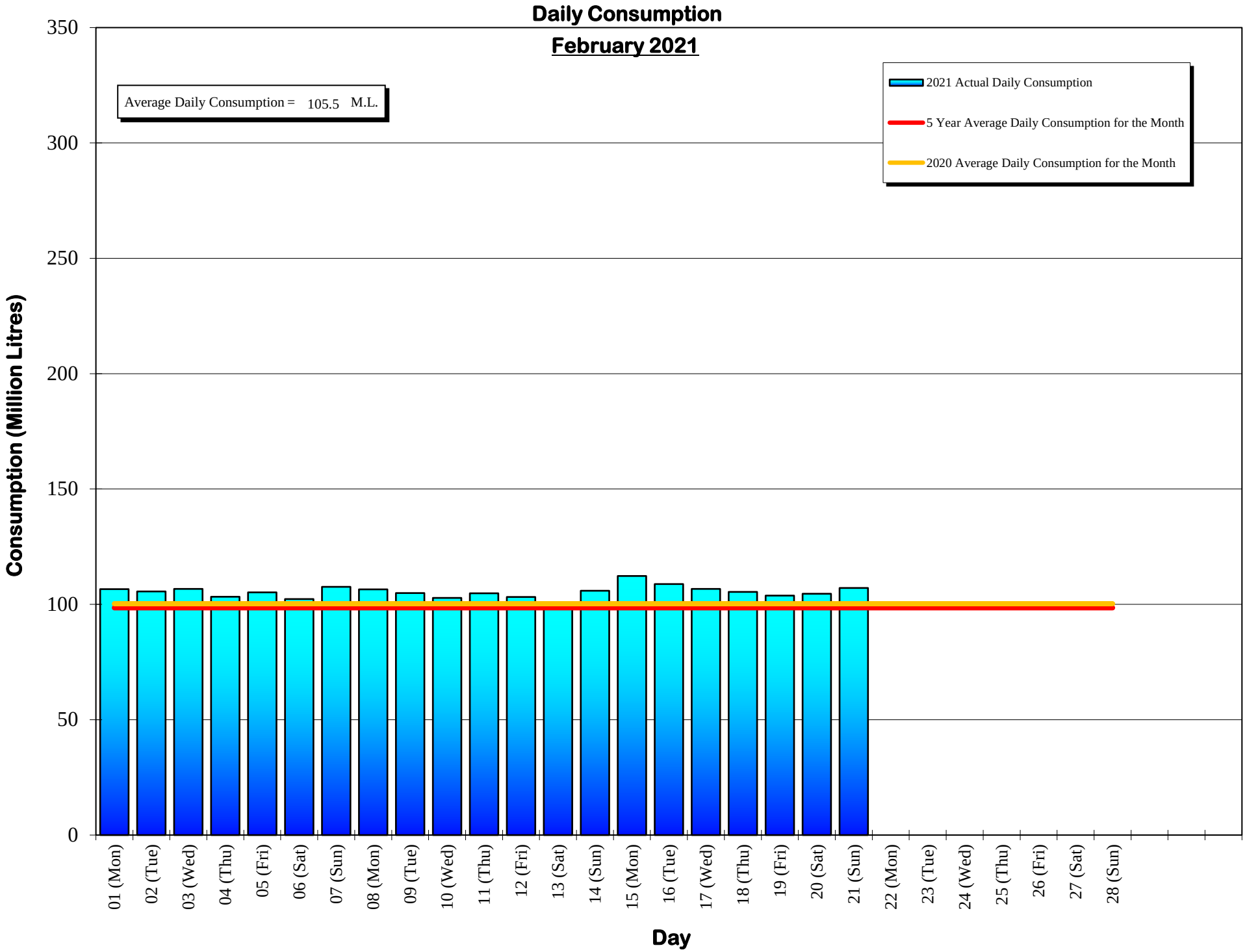
To avoid possible leaks this spring, now is the time to winterize your sprinkler system.
Visit www.crd.bc.ca/water for more information.

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

26



26

J:\WATERENG\HYDROLGY\AMRIT\MONTHEND.21\H2o watch 2021.xlsxCons. Chart

27

Daily Consumptions: - February 2021

Date	Total Consumption (ML) [1.]		Total Consumption (MIG) [2.]	Air Temperature @ Japan Gulch High (°C)	Air Temperature @ Japan Gulch Low (°C)	Weather Conditions	Precipitation @ Sooke Res.: 12:00am to 12:00am Rainfall (mm)	Snowfall [3.] (mm)	Total Precip.
01 (Mon)	106.6		23.5	7	4	Cloudy / Showers	13.5	0.0	13.5
02 (Tue)	105.6		23.2	6	4	Cloudy / Showers	6.1	0.0	6.1
03 (Wed)	106.7		23.5	8	2	Sunny / P. Cloudy / Showers	2.8	0.0	2.8
04 (Thu)	103.3		22.7	8	4	Sunny / P. Cloudy / Showers	0.5	0.0	0.5
05 (Fri)	105.2		23.1	10	5	Sunny / P. Cloudy / Showers	0.8	0.0	0.8
06 (Sat)	102.3		22.5	9	4	Sunny / P. Cloudy / Showers	2.0	0.0	2.0
07 (Sun)	107.6		23.7	8	0	Sunny / P. Cloudy	0.0	0.0	0.0
08 (Mon)	106.5		23.4	5	0	Sunny / P. Cloudy	0.0	0.0	0.0
09 (Tue)	104.9		23.1	3	-2	Sunny / P. Cloudy	0.0	0.0	0.0
10 (Wed)	102.8		22.6	2	-3	Sunny / P. Cloudy / Flurries	0.0	0.0	0.0
11 (Thu)	104.8		23.1	-2	-4	Cloudy	0.0	0.0	0.0
12 (Fri)	103.2		22.7	-2	-4	Cloudy / Snow	0.0	38.2	3.8
13 (Sat)	100.6	<=Min	22.1	0	-4	Snow	0.0	124.4	12.4
14 (Sun)	105.9		23.3	1	-1	Snow	3.8	17.7	5.6
15 (Mon)	112.3	<=Max	24.7	3	0	Cloudy / Showers	8.4	0.0	8.4
16 (Tue)	108.8		23.9	6	0	Cloudy / P. Sunny	0.0	0.0	0.0
17 (Wed)	106.7		23.5	8	-1	Sunny / P. Cloudy	0.0	0.0	0.0
18 (Thu)	105.4		23.2	4	0	Cloudy / Showers	10.4	0.0	10.4
19 (Fri)	103.8		22.8	6	1	Cloudy / Showers	6.6	2.5	6.9
20 (Sat)	104.6		23.0	5	0	Cloudy / Showers	6.3	0.0	6.3
21 (Sun)	107.1		23.6	9	2	Rain	43.2	0.0	43.2
22 (Mon)									
23 (Tue)									
24 (Wed)									
25 (Thu)									
26 (Fri)									
27 (Sat)									
28 (Sun)									
TOTAL	2214.7 ML		487.21 MIG				104.4	183	122.7
MAX	112.3		24.71	10	5		43.2	124	43.2
AVG	**105.5**		23.20	5.0	0.3		5.0	9	5.8
MIN	100.6		22.13	-2	-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 February (1914-2020)	190.6	mm
Actual Rainfall: February	122.7	mm
% of Average	64%	
Average Rainfall (1914-2020): Sept 01 - Feb 21	1,210.4	mm
Actual Rainfall (2020/2021): Sept 01 - Feb 21	1,346.8	mm
% of Average	111%	

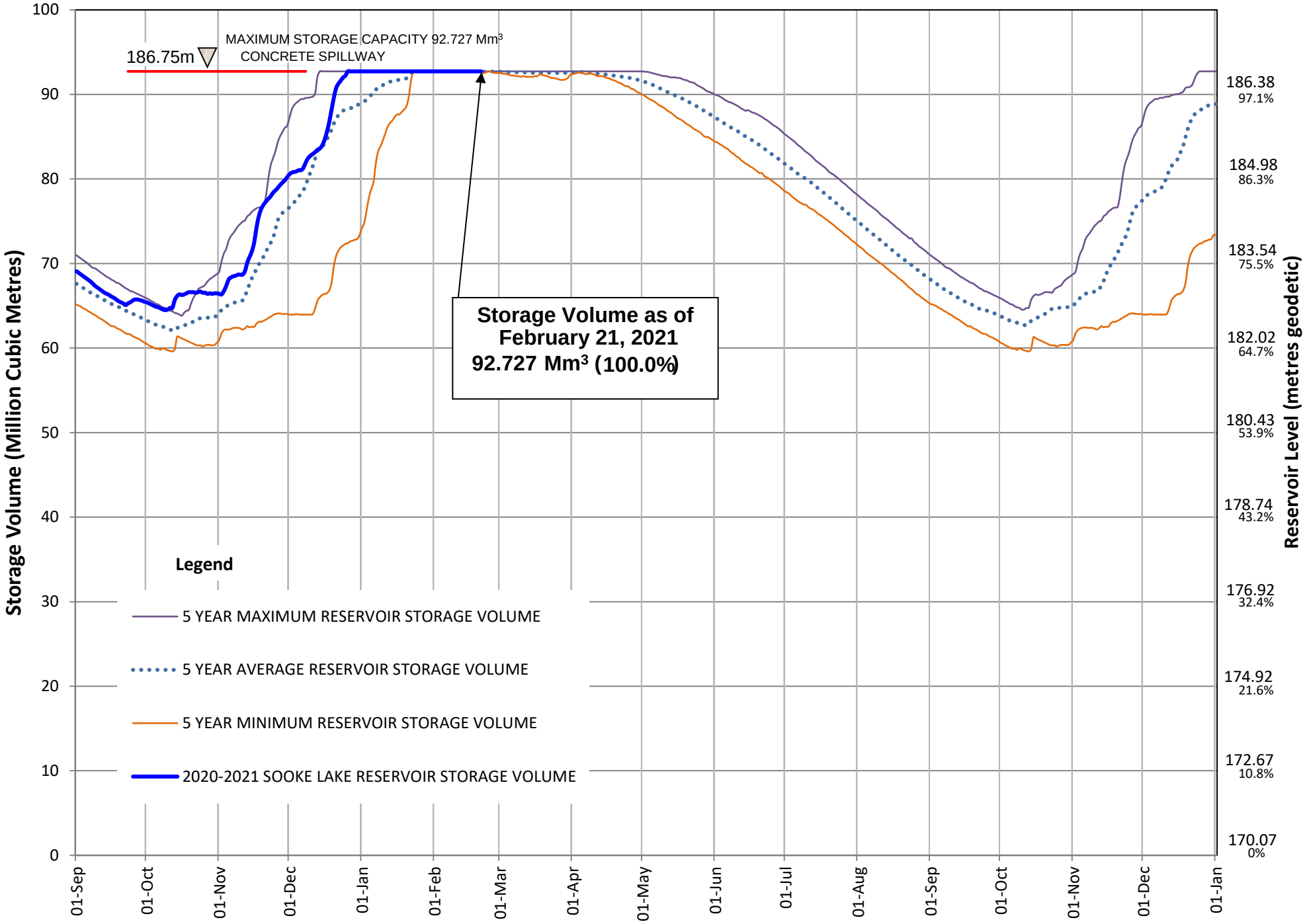
Number days with precip. 0.2 or more
14

Water spilled at Sooke Reservoir to date (since Sept. 1) = 6.55 Billion Imperial Gallons
= 29.80 Billion Litres

27

28

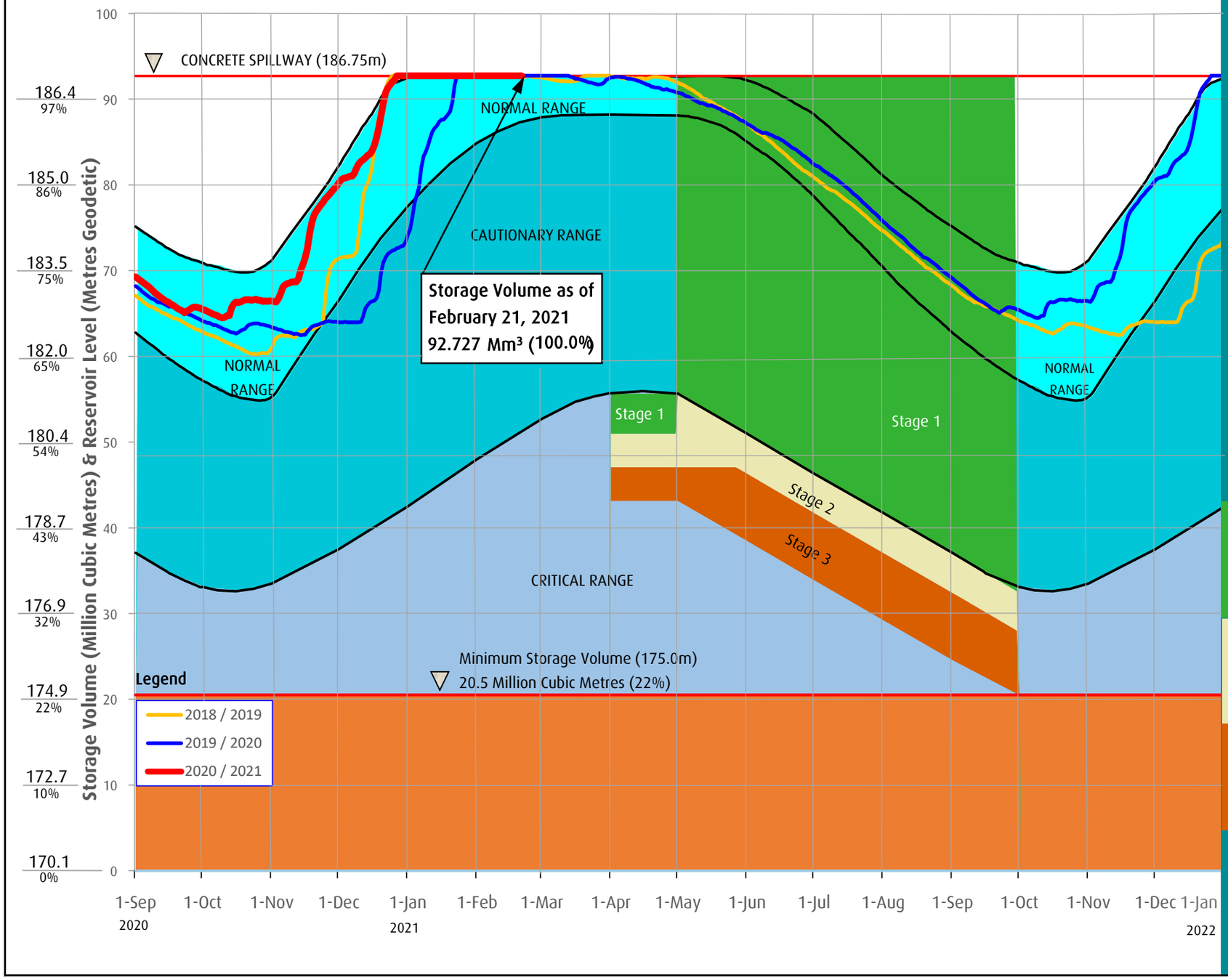
SOOKE LAKE RESERVOIR STORAGE SUMMARY
2020 / 2021



28

29

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

Making a difference...together

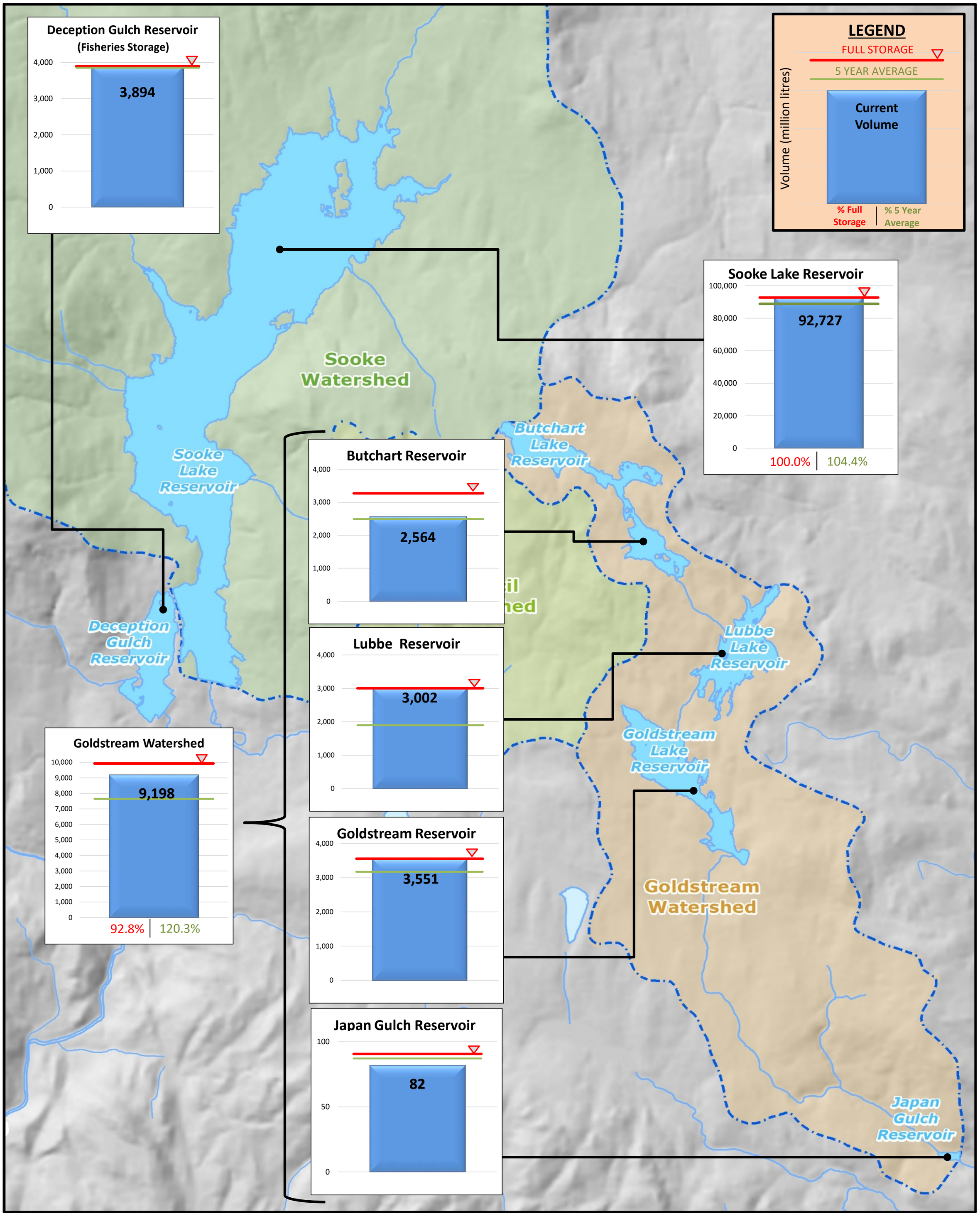
29

30

Capital Regional District Integrated Water Services

Making a difference...together

Useable Reservoir Volumes in Storage for February 21, 2021



30