



WATER SUPPLY ADVISORY COMMITTEE
Monday, April 12, 2021
Via Zoom, 1975 Field Road, Sechelt, B.C.

AGENDA

CALL TO ORDER **3:30 p.m.**

AGENDA

1. Adoption of Agenda

PRESENTATIONS AND DELEGATIONS

BUSINESS ARISING FROM MINUTES AND UNFINISHED BUSINESS

MINUTES

2. Water Supply Advisory Committee Meeting Minutes of March 1, 2021 – *for receipt only* Annex A
pp 1 - 3

REPORTS

3. WASAC's Water Supply Planning Questions Annex B
Manager, Strategic Initiatives pp 4 - 9
4. Update on Current Water Supply Projects Verbal
General Manager, Infrastructure Services
5. March and April Water Related Staff Reports to WASAC Annex C
Manager, Strategic Initiatives pp 10
6. WASAC Recordings Verbal
Manager, Strategic Initiatives

COMMUNICATIONS

NEW BUSINESS

NEXT MEETING May 3, 2021 @ 3:30 p.m.

ADJOURNMENT

**SUNSHINE COAST REGIONAL DISTRICT
WATER SUPPLY ADVISORY COMMITTEE**

March 1, 2021

RECOMMENDATIONS FROM THE WATER SUPPLY ADVISORY COMMITTEE MEETING
HELD VIA ZOOM

PRESENT:	Chair Vice-Chair	S. Thurber D. McCreath D. Marteinson A. Skelley M. Hennessy T. Beck B. Fielding T. Silvey T. Adams
ALSO PRESENT:	Director, Area F Director Area D Sechelt Indian Government District District of Sechelt	M. Hiltz A. Tize A. Paul T. Lamb
(Non-voting)	GM, Infrastructure Services Manager, Strategic Initiatives Manager, Communications and Engagement Water Sustainability Coordinator Water Sustainability Technician Administrative Assistant/Recorder Public	R. Rosenboom M. Edbrooke A. Buckley (part) R. Shay J. Callaghan T. Ohlson 2
REGRETS:		J. Bowen B. Beamish

Directors, staff, and other attendees present for the meeting participated by means of electronic or other communication facilities in accordance with Sunshine Coast Regional District Board Procedures Bylaw 717.

CALL TO ORDER 3:30 p.m.

AGENDA The agenda was adopted as amended to include the following item of New Business:

- Meeting recordings for members

PRESENTATIONS AND DELEGATIONS

MINUTES**Recommendation No. 1** *Water Supply Advisory Committee Meeting Minutes of February 1, 2021*

The Water Supply Advisory Committee recommended that the Water Supply Advisory Committee meeting minutes of February 1, 2021 be received for information.

REPORTS

The Water Sustainability Coordinator provided the Committee with an overview of the role of the Water Supply Advisory Committee and confirming how it advises the SCRD Board.

Discussion included the following:

- Timeline and approach for installation of water metering in Sechelt
- WASAC input on Communication Plan for water metering
- Timing of funding approval through AAP for water meter installation in Sechelt and referendum if required

Recommendation No. 2 *Development of the 2021 Water Public Participation Plan*

The Water Supply Advisory Committee recommended that the report titled Development of the 2021 Water Public Participation Plan be received for information;

AND THAT staff report back to the SCRD Board with a revised 2021 Water Public Participation Plan, incorporating feedback from WASAC.

Discussion included the following:

- Cost comparison of supply projects and conservation initiatives
- Comparison of water savings from meter installation in North Pender, South Pender and other jurisdictions
- Dialogue and communication
- Surveying the public on what they would like to hear more about in future outreach

Recommendation No. 3 *Referral of 2021 Round 1 Budget Proposals- Feasibility Study Long-Term Surface Water Supply Sources*

The Water Supply Advisory Committee recommended that the report titled Referral of 2021 Round 1 Budget Proposals be received for information;

AND THAT Budget Proposal 6 [365], Budget Proposal 10 [366] and Budget Proposal 21 [370] - Water Supply Plan - Feasibility Study Long-Term Surface Water Supply Sources be deferred to a future year.

Recommendation No. 4 *Referral of 2021 Round 1 Budget Proposals – Groundwater Investigation Phase 3 – Round 2*

The Water Supply Advisory Committee recommended that the scope for Regional Water Service [370] Budget Proposal 9 – Groundwater Investigation Phase 3 – Round 2 concerning Langdale Well Field and Maryanne West Park Well Field be supported.

Recommendation No. 5 *Referral of 2021 Round 1 Budget Proposals - Feasibility Study Surface Water Intake Upgrades Gray Creek*

The Water Supply Advisory Committee recommended that the scope for Regional Water Service [370] Budget Proposal 10 – Feasibility Study Surface Water Intake Upgrades Gray Creek be supported.

Recommendation No. 6 *Referral of 2021 Round 1 Budget Proposals - Public Participation Regional Water System*

The Water Supply Advisory Committee recommended that Regional Water Service [370] Budget Proposal 19 – Water Supply Plan: Public Participation Regional Water System be supported in 2021.

Recommendation No. 7 *Referral of 2021 Round 1 Budget Proposals - Regional Water System Water Distribution Model Update and Technical Analysis*

The Water Supply Advisory Committee recommended that Regional Water Service [370] Budget Proposal 20 – Water Supply Plan: Regional Water System Water Distribution Model Update and Technical Analysis be supported in 2021.

Alan Skelley Opposed

Discussion included the following:

- Overview of projects
- Cost implications of options

Recommendation No. 8 *Water Supply Advisory Committee Meeting Frequency and April Meeting date*

The Water Supply Advisory Committee recommended that the SCR D Board approve the Water Supply Advisory Committee meeting on April 12, 2021;

AND THAT as per Section 4.1 of the Committee's Terms of Reference, the meeting schedule for the Water Supply Advisory Committee be changed to meet on a monthly basis until September, 2021;

AND FURTHER THAT as per Section 4.1 of the Committee's Terms of Reference, the meeting schedule for the Water Supply Advisory Committee be changed to meet in the second week of the month when the meeting date falls on a statutory holiday.

NEW BUSINESS

Meeting recordings for members

Discussion included the following:

- The Advisory Committee's interest in having a video recording of meetings, available as a classified zoom meeting only available to Committee members
- Staff will explore options further

NEXT MEETING April 12, 2021 @ 3:30 p.m.

ADJOURNMENT 5:34 p.m.

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Water Supply Advisory Committee – April 12, 2021

AUTHOR: Mia Edbrooke, Manager, Strategic Initiatives

SUBJECT: WASAC'S WATER SUPPLY PLANNING QUESTIONS

RECOMMENDATION

THAT the report titled WASAC's Water Supply Planning Questions be received.

BACKGROUND

On February 9, 2021, the Water Supply Advisory Committee sent questions to staff for a response, related to the water supply projects and water meter program. On March 11, 2021, staff provided a presentation to the Infrastructure Services Committee (Appendices A and B), that outlined some of the responses to these questions. The purpose of this report is to provide full answers to WASAC's questions.

DISCUSSION

What are the projected schedules and costs for bringing new water supply projects on-line? How are the costs to be covered? How are repayments of these costs distributed, and what are the likely \$ impacts per capita or per household?

Similar to any utility or service, the cost recovery model for the SCRD's water services is a combination of user fees and parcel taxes. User fees are collected to fund service operations and parcel taxes fund capital projects. Operational reserves can be used to fund one-time expenditures or budget shortfalls, and only capital reserves can fund capital projects.

If the anticipated project cost is greater than the unallocated funds available in Operating or Capital reserves, a long-term loan (more than 5 years) is required. Those funds can be borrowed through the Municipal Finance Authority of BC, which handles capital financing needs for local governments. The SCRD must obtain elector approval for long-term borrowing, either through an Alternative Approval Process (AAP) or assent vote, also known as a referendum. In these cases, authorizing a long-term loan does not mean the full amount will be actually borrowed, rather it is the maximum amount that could be borrowed. Only properties in the Regional Water Service Parcel Tax Roll are responsible for repaying any such loan, specifically parcels within the service area that are connected to, or can connect to, one of the seven water systems funded through the Regional Water Service. The water systems are Chapman, Langdale, Ruby Lake (Cove Cay), Waugh Lake (Egmont), Eastbourne, Granthams, and Soames.

For example, the Church Road well field costs, approved through an AAP in 2020, are approximately \$34.45 per parcel per year, over a 30-year loan period. The proposed water meter installations, for which funding will be requested through a 2021 AAP, the costs are estimated at \$54.38 per parcel per year, over a 15-year loan period (see Appendix C).

The following table outlines the planned or proposed water supply projects, their funding status, timeline, and associated cost if known.

Project	Funding Status	Timeline	Capital Costs (million)
Church Road Well Field (detailed estimate)	Approved (2020 AAP)	By 2022, pending Water Licence	\$7.13
Phase 3 Water Meter Installations (Chapman System)	Pending 2021 AAP	By 2023, pending approval	\$7.25
Langdale Well Field (preliminary estimate, incl. water main upgrades)	TBD based on updated design cost estimates	By 2024, pending Water Licence	\$5.2
Gray Creek Surface Water Treatment Upgrade (preliminary estimate)	TBD based on updated design cost estimates	By 2025	\$2.5
Maryanne West Park Well Field	Further investigation initiated in 2021	TBD	TBD
Raw Water Reservoirs	TBD as part of ongoing project	TBD	TBD

How do these new supply projects relate to currently projected water deficits in both magnitude and time?

The Water Demand Analysis is a planning tool, sometimes referred to as a model, for forecasting water demand using factors like historical water use, population growth, climate change and future infrastructure expansion. In the *Spring Update on the Integrated Approach to Water* (Appendix A), staff presented two scenarios using the Water Demand Analysis to demonstrate the financial benefit of fully implementing the water meter program now.

The **status quo** scenario is the current water meter program, which includes the leak notification program, water meters installed in most areas of the SCR D, and the commissioning of new water sources that are currently under development in the short term (before 2030). These water supply projects include the Church Road well field, the Langdale well field, and treatment upgrades to the Gray Creek intake so that water can be used year-round. It is important to recognize that the SCR D does not yet have a water licence for the well field projects, which could delay these projects. In this scenario, an additional source would be needed by 2026. This could be the Raw Water Reservoir, for which the estimated costs are being reviewed and updated, or a well field at Maryanne West Park, if the hydrological study results indicate there is enough groundwater that can be pumped sustainably. Further to this, an additional supply source will also be needed in the coming decades (after 2050).

Staff also presented an **alternate scenario**, which includes a fully implemented water meter program, including the installations of water meters in the Sechelt Area and a pay-per use rate structure. In this scenario, only the Gray Creek treatment upgrade or the Langdale well field is needed in addition to the Church Road well field in the short term (before 2030). This increases the likelihood that the community’s water demand can be met in the long term as well. When needed, the SCR D can develop another project, either Gray Creek or Langdale in the next decade. In 2039, an additional supply source like the Maryanne West Park well field or the Raw Water Reservoir

would be needed. Only one of these sources would be required to meet the community's needs beyond 2050.

While these are two of many possible scenarios, these selected scenarios are considered realistic and provide the best insight into the difference between the current water meter program and a fully implemented program.

What are the currently projected demands over the next 10 - 20 years, and what are the assumptions embedded in these projections re population growth, demand reductions per capita, role of metering, effectiveness of leak reduction programs (with vs without meters), and so on?

For the status quo, the projected demand is based on population growth. With a fully implemented water meter program, the projected demand is based on population growth and a reduction in water demand as a result of a fully implemented water meter program.

The assumptions used in Appendices A and B are as follows:

- Two per cent population growth,
- Per capita water demand is 10% below current the 2010 baseline (status quo),
- A fully implemented water meter program will achieve a 30% decrease in per capita water demand below baseline (alternate scenario), and
- Water demand is a bell curve that peaks in summer.

What is the timeline for the water meter program?

Water meter installations

As outlined in the SCRD 2019-2023 Strategic Plan, the SCRD Board is committed to the full implementation of the water meter program. The Board adopted a Loan Authorization Bylaw to seek electoral approval for the last phase of water meter installations in the Sechelt Area (referred to as Phase 3) through three readings in March 2021. Once this bylaw is approved by the Province, expected in mid-May, the SCRD can initiate an AAP. There are no dates currently set for this process.

After an AAP process, the SCRD can only move forward with the installations if less than 10 percent of eligible electors sign and submit response forms in opposition. Should the AAP pass, Phase 3 installations would start approximately six months later. Should the AAP fail, the Board could seek a referendum in late summer 2021.

Program

The installations would take approximately a year and a half to complete. During this time, the Board could decide whether to review the rate structure and could direct staff to seek input from the public on potential proposals. Most commercial accounts are on a metered water rate structure and no changes to the rate structure are anticipated.

Meter installations would allow for the regional implementation of customer service and water conservation program components, including online access to water use data and the leak notification program. Water meters help the SCRD identify leaks, and through the leak notification program, SCRD residents have fixed an average of two leaks per day since 2017.

What are the drives and motivations to use metering as opposed to just expanding supply?

In the 2013 Comprehensive Regional Water Plan (CRWP, see Appendix D), the option with the lowest lifecycle costs included expanding supply alongside a fully implemented water meter program. Focusing on expanding supply alone was a more expensive option, with additional lifecycle costs to increase treatment requirements, reservoirs, and upsizing transmission and distribution mains. Water metering costs money, but so does treating and distributing water, and expanding our water supply. Therefore, the results of this study indicated that water metering can offset the costs of new water infrastructure. In addition, the resiliency of our current water system is improved by balancing supply expansion and conservation initiatives.

Water metering promotes water efficiency and conservation. Water metering is broadly accepted as a best management practice for water demand management.

- A Canadian study (Environment Canada 2011 on municipal water use) found metered properties with volume-based water charges used less water than unmetered properties.
- After water meters were installed:
 - The Town of Gibsons' per capita demand fell by 40%, and
 - West Vancouver saw a 30% reduction during the summer season.

In addition, water metering helps with early leak detection, preventing property damage and water losses. In 2020, residential properties with a water leak unknowingly used about four times more water than the average home.

Finally, water metering also offers the opportunity for fair billing. With volumetric billing, you pay for what you use. As noted above, changes to the rate structure have not been initiated by the SCRD Board and any proposed changes would be the subject of public consultation.

What is the cost-benefit analysis over time of metering?

The SCRD has not done a formal cost-benefit analysis beyond the lifecycle cost analysis provided in the 2013 CRWP. The March 11, 2021 Infrastructure Services Committee report (see Appendix C) provides a cost breakdown for the Phase 3 water meter installations and provides insight into the parcel tax increase required to repay the loan. While the actual useful life of water meters is anticipated to be longer than 15 years, the loan repayment period was set at 15 years.

Are there plans to include public input/ how is community interest being gauged?

As part of the development of 2013 Comprehensive Regional Water Plan, the public was engaged on this topic and there has been a significant amount of public discussion on this topic since then. For this reason, the Board considered these discussions, and decided to include the full development and implementation of the water meter program in its 2019-2023 Strategic Plan.

Why are meters installed all at once in Sechelt? Can we phase the installations?

An analysis completed in 2019 concluded that phasing the installations would significantly increase the overall costs to install the remaining meters. The reduced economy of scale was identified as the primary contributor to the increased costs. Phasing out the water meter installation would increase the required funding through parcel taxes or a long-term loan.

Financial Implications

The budget to pursue the advancement all discussed water supply projects have been approved as part of the 2020 or 2021 budget processes. The long-term loan for the Church Road well field received public approval in July 2020 through an AAP. The funding of the water meter installations is subject to receiving electoral approval of a long-term loan authorization bylaw, which is currently under review by the Province.

Next Steps

The information outlined in this report will be the subject of the ‘Let’s Talk Water’ forums in April and May, that will provide an opportunity for the public to ask further questions about the SCRD’s water supply projects and initiatives.

STRATEGIC PLAN AND RELATED POLICIES

The completion and implementation of the water supply projects and water meter program were identified in the SCRD 2019-2023 Strategic Plan through the following strategies:

- The Engagement and Communications goal “to proactively engage with our residents, partners and staff in order to share information and obtain their input on issues and decisions that affect them.”
- The Asset Stewardship goal, specifically the strategy to have a “plan for and ensure year-round water availability now and in the future”.

CONCLUSION

WASAC requested information from staff related to water supply planning and future projections. Staff provided a presentation to the Infrastructure Services Committee of March 11, 2021 on these topics, and this report aims to provide further detail in response to WASAC’s request. This presentation outlined two scenarios, one with and the other without a fully implemented water meter program, to forecast the type of projects needed to supply drinking water to residents now and in the future. Staff will continue to share this information with the public through venues like the Let’s Talk Water Forums scheduled in April and May.

APPENDICES:

Appendix A – [Spring 2021 update to the integrated approach to water, narrated presentation](#)

Appendix B – [Spring 2021 update to the integrated approach to water, PowerPoint slides](#)

Appendix C – [March Infrastructure Services Agenda \(see page 8\)](#)

Appendix D – [2013 Comprehensive Regional Water Plan](#)

Reviewed by:			
Manager		Finance	
GM	X – R. Rosenboom	Legislative	
CAO		Other	X – J. Callaghan

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Water Supply Advisory Committee – April 12, 2021
AUTHOR: Mia Edbrooke, Manager, Strategic Initiatives
SUBJECT: MARCH AND APRIL WATER RELATED STAFF REPORTS TO WASAC

RECOMMENDATION(S)

THAT the report titled March and April Water Related Staff Reports to WASAC be received for information.

BACKGROUND

At the October 5, 2020 Water Supply Advisory Committee (WASAC) meeting, staff confirmed that SCR D water related staff reports will be a standing item on future WASAC agendas.

DISCUSSION

The following reports were presented at the [Infrastructure Services Committee Meeting on March 11, 2021](#):

1. 2021 Water Public Participation Plan;
2. Metering Installation Phase 3 Project - Financial Update; and
3. Groundwater Investigation Phase 2 Round 2 - Contract Amendment.

The following reports to be presented at the [Infrastructure Services Committee Meeting on April 8, 2021](#):

1. Landslide Water Supply Mains Chapman Creek Water Treatment Plant – Update; and
2. Infrastructure Services Department – 2021 Q1 Report.

CONCLUSION

The staff reports listed in this report are for information to WASAC.