



Beaver Creek Water Advisory Committee Meeting

Thursday, November 14, 2024

Zoom/Board Room (Hybrid) – 3008 Fifth Avenue, Port Alberni, BC

10:00 am

Regular Agenda

Watch the meeting live at: <https://www.acrd.bc.ca/events/14-11-2024/>

Register to participate via Zoom Webinar at:

https://acrd-bc-ca.zoom.us/webinar/register/WN_Kzy7IQzSwIRbpELugrQ#/registration

PAGE

1. **CALL TO ORDER**

Recognition of Territories.

Notice to attendees and delegates that this meeting is being recorded and livestreamed to YouTube on the Regional District Website.

Introductions - Committee Members and Staff present in the Boardroom and via Zoom.

2. **APPROVAL OF AGENDA**

(motion to approve, including late items requires 2/3 majority vote)

3. **DECLARATIONS**

(conflict of interest)

4. **MINUTES**

a. Beaver Creek Water Advisory Committee Meeting held March 12, 2024. **3-5**

THAT the minutes of the Beaver Creek Water Advisory Committee meeting held on March 12, 2024 be adopted.

5. **PETITIONS, DELEGATIONS & PRESENTATIONS (10 minute maximum)**

6. **CORRESPONDENCE FOR ACTION/INFORMATION**

7. **REQUEST FOR DECISIONS**

- a. **REQUEST FOR DECISION**
Beaver Creek Water Alternative Rate and Billing Options

6-9

THAT the Beaver Creek Water Advisory Committee recommend that no changes are made to the billing structure being used for the Beaver Creek Water System.

8. REPORTS

- a. Beaver Creek Water System 2025 Work Plan

10-12

THAT the Beaver Creek Water Advisory Committee receives this report.

9. LATE BUSINESS

(requires 2/3 majority vote)

10. QUESTION PERIOD

Questions/Comments from the public:

- Participating in Person in the Board Room
- Participating in the Zoom meeting
- Emailed to the ACRD at responses@acrd.bc.ca

11. ADJOURN



Alberni-Clayoquot Regional District

MINUTES OF THE BEAVER CREEK WATER ADVISORY COMMITTEE

MEETING HELD ON TUESDAY, MARCH 12, 2024 10:00am

Hybrid - Zoom/Board Room, 3008 Fifth Avenue, Port Alberni, BC

MEMBERS Susan Roth, Chairperson, Director, Electoral Area “E” (Beaver Creek)

PRESENT: Pam Craig
Gord Blakey
Harold Carlson
Kevin Gaudet
Mike Kobus

STAFF PRESENT: Jenny Brunn, General Manager of Community Services
Eddie Kunderman, Operations Manager
Matt Mcleod, Water Utilities Leadhand
Wendy Hayes, Community Services Assistant

The meeting can be viewed on the Alberni-Clayoquot Regional District website at:
<https://www.acrd.bc.ca/events/12-3-2024/>

1. **CALL TO ORDER**

The Chairperson called the meeting to order at 10:04 am.

The Chairperson recognized this meeting is being held throughout the Nuu-chah-nulth territories.

The Chairperson reported this meeting is being recorded and livestreamed to YouTube on the Regional District website.

Introductions - Committee Members and Staff present in the Boardroom and via Zoom.

2. **APPROVAL OF AGENDA**

MOVED: P. Craig

SECONDED: H. Carlson

THAT the agenda be approved as circulated with the addition of late items as outlined for consideration.

CARRIED

3. **DECLARATIONS**

4. **MINUTES**

a. **Beaver Creek Water Advisory Committee Meeting held December 5, 2023**

MOVED: G. Blakey
SECONDED: H. Carlson

THAT the minutes of the Beaver Creek Water Advisory Committee Meeting held on December 5, 2023 adopt as amended.

CARRIED

5. PETITIONS, DELEGATIONS & PRESENTATIONS

6. CORRESPONDENCE FOR ACTION/INFORMATION

7. REQUEST FOR DECISIONS

- a. **Request for Decision regarding Beaver Creek Water Advisory Committee Terms of Reference Review 2024**

MOVED: P. Craig
SECONDED: H. Carlson

THAT the Beaver Creek Water Advisory Committee re-confirm their Terms of Reference for 2024 as presented.

CARRIED

8. REPORTS

- a. Smith Road Watermain Replacement Update – E. Kunderman, Operations Manager
b. Beaver Creek Water System Financial Plan 2024-2028 – E. Kunderman, Operations Manager
c. Beaver Creek Water System 2023 – Annual Report – E. Kunderman, Operations Manager

MOVED: H. Carlson
SECONDED: P. Craig

THAT the Beaver Creek Water Advisory Committee receives the reports a-c.

CARRIED

9. LATE BUSINESS
(requires 2/3 majority vote)

10. QUESTION PERIOD

Questions/Comments from the public. The Community Services Assistant advised there were no questions or comments respecting an agenda topic from public:

- Participating in Person in the ACRD Board Room
- Participating in the Zoom webinar
- Submissions received by email at responses@acrd.bc.ca.

11. ADJOURN

MOVED: G. Blakey

SECONDED: H. Carlson

THAT this meeting be adjourned at 10:52 am.

CARRIED

Certified Correct:

Susan Roth,
Chairperson

Wendy Hayes,
Community Services Assistant



To: Beaver Creek Water Advisory Committee
From: Eddie Kunderman, Operations Manager
Meeting Date: November 14, 2024
Subject: Beaver Creek Water Alternative Rate and Billing Options

Recommendation:

THAT The Beaver Creek Water Advisory Committee recommend that no changes are made to the billing structure being used for the Beaver Creek Water System.

Summary:

Staff have evaluated the option of shifting from the current flat and increasing block rate structure to an increasing block rate structure. An aggressive increasing block rate would charge users more as they consume higher volumes of water, with the goal of promoting water conservation and ensuring fairness.

After a detailed review, the report recommends not switching to this structure. Key findings highlighted that while an increasing block rate could discourage high water use, it would bring significant challenges, including:

- **Complexity for Users:** Many residents may find the new structure harder to understand, leading to confusion and potential dissatisfaction.
- **Administrative Burden:** Implementing and managing a more complex rate structure would require additional administrative resources, driving up costs for the system.
- **Revenue Stability Concerns:** The current structure provides stable revenue that supports maintenance and infrastructure needs. Switching could create revenue instability, impacting the system's sustainability.

The report recommends continuing with the current rate structure while exploring other ways to encourage conservation and manage water sustainability. This approach balances financial stability with user clarity, providing a simpler and more reliable model for customers.

Background:

At the June 28, 2023, the ACRD Board of Directors passed the following resolution, "*THAT the the ACRD Board of Directors direct staff to investigate alternate billing and rate options for the water system.*"

Beaver Creek currently meters all water use and bills for water based on consumption. At each quarterly reading, consumption is reviewed, and unusually high readings are investigated. This often results in the identification and repair of homeowner leaks. Further to identifying leaks, meters also provide incentives for conservative water use. Residents are allowed a threshold of 90 m³ per quarter (\$172.62) of water each quarter. Above this amount, residents pay \$2/m³. This is an effective tool for motivating changes in water use behavior with approximately 90% of users under this threshold in the winter and 65% of customers under this threshold in the summer.

Revenue received through water rates within the BCWS need to generate between \$900,000 and \$1,000,000 annually in order to cover the operating expenses and ensure enough revenue is transferred to capital for replacement of aging water mains and infrastructure. This revenue amount is based off of the current conditions and does not reflect any changes to the bulk water agreement or changes to the primary water source. It is expected that changes to either of those items may necessitate re-examination of the rate being used to ensure that necessary revenues are generated.

Current Rate Structure:

Currently, the BCWS has a combination flat and uniform rate system. Users pay a base rate of \$172.62/quarter for each consumer unit on a property and receive a fixed amount of water within that base amount. Users pay an additional \$2/m³ for any consumption that exceeds 90m³/quarter. The current system encourages water conservation while still providing very predictable revenues.

Flat Rate Structure:

Flat rate structures charge the same amount for each household regardless of the consumption used. This structure is the only option available for systems without water meters. This rate structure results in high overall consumption and discourages conservation resulting in high summer peaks which can require the upsizing of water mains to meet the high demand periods. It is often also seen as inequitable, as those who use more do not pay more and cause high costs for all customers on the system. It has the benefit of providing a very predictable revenue but increases overall system costs through increased treatment and operational costs, bulk water purchase costs and capital replacement costs.

Increasing Block Rate Structure:

Increasing block rates divide a customer's consumption into various rate blocks, charging less for the initial consumption and more for higher usage blocks. These rate structures promote conservation because of the price signal that conveys higher costs for higher volumes of use and can be used to reduce the average and peak demands. This rate structure is often used in combination with a fixed utility fee to ensure a base amount of revenue is provided for the system and to equally share a base amount of costs among all users. Relying entirely on consumption fees for revenue generation can create revenue uncertainty, as consumption changes can dramatically reduce overall revenue.

Discussion:

An increasing block rate structure can be a very effective way to affect consumer habits resulting in an average water use reduction of 15%. However, this is a complicated system that takes effort to implement in the billing software and can seem confusing to customers if adequate engagement and

education is not undertaken prior to implementing. It can also lead to issues with system budgeting if a fixed fee is not established to ensure base revenues.

While previously, there was more interest in water systems in using a rate structure similar to the one being investigated, more systems are now moving to the rate system being used by the BCWS.

The allowable amount of 90m³ is higher than staff would recommend, as usage of 60m³/quarter is more in line with typical usage amounts seen in similar systems.

Communication and Education:

If any change to the billing system were to be implemented, staff would need to put forth a detailed education program to the BCWS users, ensuring the necessary information was known by users well ahead of the change. Staff would utilize newsletters, the ACRD website and additional communication methods to communicate the implications of any rate change. This would require significant staff time and dedicated budget to implement.

Time Requirements – Staff & Elected Officials:

Significant staff time would be necessary to implement any change to the rate structure of the BCWS. This would include staff of Community Services, Communications and Finance all being significantly involved in implementing any change.

Financial:

In order to look at the financial implications of an increasing block rate system, staff have used the last years consumption data and created a proposed block rate system that would be required to generate the same amount of revenue as the existing rate system. It increases the cost per m³ at every increase in 30m³. This compares to the City of Port Alberni Rate structure that is \$0.71/m³ for the first 60m³ and then \$0.94/m³ for anything over and above 60m³.

Blocks	Volume	Rate	Total Annual Revenue
Block 1	Under 60 m ³	Included in Basic Charge – 140.00	358,680.00
Block 2	60 m ³ -90 m ³	\$2.00/m ³	102,680.00
Block 3	90m ³ -120m ³	\$2.40/m ³	75,048.00
Block 4	120m ³ -150m ³	\$2.80/m ³	58,404.00
Block 5	150m ³ -500m ³	\$3.20/m ³	385,064.00
			979,876.00

From a customer perspective, this would result in the following utility bill depending on their quarterly consumption: The chart below shows the anticipated difference in quarterly bill amount for each tier as compared to what the current quarterly bills would be, using the median consumption amount from each tier. This system would show similar quarterly bills for most, however, those that have the highest consumption would have their bills significantly increased.

Customer Group	Median Consumption	Proposed Structure per Quarter	Current Structure per Quarter
Very Low Use	60m ³	\$140.00	\$172.62
Low Use	75m ³	\$170.00	\$172.62
Medium use	105m ³	\$236.00	\$202.72
Medium High Use	135m ³	\$314.00	\$262.62
High Use	325m ³	\$1,016.00	\$642.62

90% of users are in the very low and low use consumption groups in the in the winter and 65% of customers in these two groups in the summer.

Strategic Plan Implications:

The request aligns with Strategic Priority 2.3 Infrastructure climate resiliency: A review and further study options available for the BCWS.

Policy or Legislation:

This service was established with Bylaw No. E1054 in 2012.

Options Considered:

The Beaver Creek Water Advisory Committee (BCWAC) could choose to move forward with moving to a different rate structure, based on the high-level estimates provided. If so, there would be more revenue and financial investigation required prior to proceeding. It would also be likely to change once more information is received on the next steps for the BCWS regarding the bulk water agreement with the CPA and/or the alternate water supply study.

Staff also recommend that the BCWAC consider reducing the quarterly consumption amount included in the flat rate from 90m³ to 60m³. This would potentially reduce the water consumed within the system in the summer months, allowing for more conservation as is the practice being recommended amongst all water systems.

Submitted by: *Jenny Brunn*
Jenny Brunn, General Manager of Community Services

Reviewed by: *Cynthia Dick*
Cynthia Dick, General Manager of Administrative Services

Approved by: *Daniel Sailland*
Daniel Sailland, MBA, Chief Administrative Officer



To: Beaver Creek Water Advisory Committee

From: Eddie Kunderman, Operations Manager

Meeting Date: November 14, 2024

Subject: Beaver Creek Water System 2025 Work Plan

Purpose:

To provide the Committee with an overview of the projects and priorities that staff will be working on in the coming year. Work plans are developed with the intent of meeting the needs and desired service levels for the community. Staff must also ensure that the workplan for the BCWS fits within the overall ACRD workplan, is achievable and can be adequately resourced with both staff time and funding.

Summary:

The following draft work plan has been created for 2025 based on a variety of sources, such as needs within the system, direction from the Committee, Annual Report recommendations and best practices in water system management.

Staff will identify the required time and resources needed to complete each project and review as a part of the overall workplan for the ACRD. This plan will be reviewed in the context of the available staff resources and budget. There is no guarantee that all items on the list will be included in the approved workplan. Once the work plan is finalized, the projects will be included in the 2025-2029 Financial Plan and brought back to the Committee and Board for review through the annual budget adoption process.

Ongoing Projects:

BCWS Alternate Water Supply Study

This project will continue in 2025, with an expected completion in Q2. McElhanney Ltd. has recently been awarded the work to review alternate available water sources for the system and compare capital and operating costs of all options. That report will be provided to the committee for review prior to being finalized and taken to the Board.

City of Port Alberni Master Water Planning and Bulk Agreement Renegotiation

Staff will continue to communicate with the City of Port Alberni regarding the Bulk Water Agreement and their ongoing utility master planning process. This will help inform the next steps regarding the agreement and the alternate water supply study.

Leak Detection Survey

Initially scheduled for 2024, a variety of staffing issues has pushed this item to 2025. Staff are currently investigating options, and the necessary resources. The goal of this survey is to identify areas of concern within the distribution system, with the aim of decreasing water loss within the BCWS, which was 18% in 2023.

SCADA Improvement Plan – Phase II

The Strick Road pumphouse received SCADA improvements in 2024 and the North Reservoir site will be the location to see improvements next, as per the approved plan of one site per year for four years. The SCADA systems currently in place in the system contains older technology, and these upgrades will ensure that programming languages are up to date and the system reliability will remain high.

Proposed 2025 Workplan (in order of priority):**North Reservoir Replacement Design**

As previously communicated in 2023, the North Reservoir will likely need to be replaced within the next five (5) years. This project will be relatively more expensive and complicated than the typical watermain replacement capital projects undertaken for the system on a regular basis. The first step in this process will be to complete a preliminary technical assessment to determine what type of reservoir options can be utilized and what system upgrades might be required. Following the assessment, detailed design will be undertaken. This will allow staff more time to seek grant opportunities for this project and ensure that we are ready to move forward proactively should anything change in the replacement timeline.

Lower Kitsuksis Watermain Replacement

The Lower Kitsuksis Watermain replacement project has been identified as the next priority for replacement within the BCWS. This project was designed in 2023, and the plan is to issue the tender in early 2025. This has been the ACRD strategy for BCWS watermain renewal for the past few years and has allowed for replacement costs to come in under budget. The capital budget for this project has been identified as \$760,000.

Itron Meter Reading Hardware Upgrade

The meter reading hardware for the BCWS is no longer supported by the supplier. The longer the hardware is unsupported, the greater the risk for the system so staff are recommending this be replaced as a part of the 2025 workplan. There is likely a lengthy delay between the ordering of the hardware and its arrival, so staff will want to complete the purchase in early 2025.

Kitsuksis Reservoir Crack Ceiling

There are a few leaks that have begun at the Kitsuksis Reservoir that will need to be sealed. This is standard repair work, that will prolong the life span of the concrete reservoir.

Air Bag Installation for Dump Box Truck

The installation of air bags for the dump box truck will allow for the continued carrying of heavier loads without the risk of damage to the vehicle. Approximate cost of part and installation is \$7,500.

Time Requirements – Staff & Elected Officials:

Staff will continue to assess each project, and the resources necessary to complete them as a part of the 2025 workplan creation. Next steps will be to allocate the anticipated staff time and budget necessary

for each project, and from there staff will have a better understanding of where each project will fit within the overall ACRD workplan for 2025.

Financial:

When the review of the above items is complete and the workplan is finalized, a draft 2025-2029 financial plan will be created for the BCWS. This plan can then be presented to the Beaver Creek Water Advisory Committee for further review.

Strategic Plan Implications:

n/a

Policy or Legislation:

n/a

Submitted by: *Jenny Brunn*
Jenny Brunn, General Manager of Community Services

Reviewed by: *Cynthia Dick*
Cynthia Dick, General Manager of Administrative Services

Approved by: *Daniel Sailland*
Daniel Sailland, MBA, Chief Administrative Officer