Comox Valley REGIONAL DISTRICT

Staff Report

DATE: August 7, 2019

FILE: 5600-05/CVWS

TO: Chair and Directors
Comox Valley Water Committee

FROM: Russell Dyson
Chief Administrative Officer

Supported by Russell Dyson
Chief Administrative Officer

R. Dyson

RE: **Bulk Water Standpipe Upgrades**

Purpose
To provide a business case for upgrades to the Comox Valley Water System (CVWS) bulk water standpipe.

Recommendations from the Chief Administrative Officer:

1. THAT the 2019 – 2023 financial plan and capital expenditures program for the Comox Valley Water Supply System service, function #300, be amended to increase water infrastructure expenses in 2019 by $120,000 for upgrades to the bulk water standpipe located at 4795 Headquarters Road, to be funded by a contribution from capital works reserve #838.

2. THAT the 'other than local government' bulk water rate as outlined within Schedule A of Bylaw No. 190 being the "Comox Valley Water Supply System Bulk Water Rates, Bylaw No. 190, 2011" be amended from $1.42 per cubic meter to $3.91 per cubic meter to reflect capital, operating and administration costs associated with operation the standpipe.

Executive Summary
The Comox Valley Regional District (CVRD) currently owns and operates a bulk water standpipe located at 4795 Headquarters Road. The standpipe is utilized by commercial water haulers and individuals who experience water quantity or quality challenges. The standpipe is located within the City of Courtenay (City) and water is supplied from the City's distribution system and consumption is recorded by the City meter and invoiced to the CVRD.

In June 2019, the City of Courtenay advised that they were no longer willing to provide a connection to the standpipe via their distribution system due to a number of reasons including concerns surrounding liability, as the standpipe currently does not meet the best practice guidelines as outlined in *AWWA Cross Connection Control Manual* and needs upgrades to ensure proper backflow prevention is in place to meet the a *AWWA Cross Connection Control Manual* guidelines. CVRD staff have consulted with City staff, and have installed a reduced pressure (RP) backflow device to resolve the City's concern. However more permanent upgrades to the bulk water standpipe are needed and are described in further detail below.

The current standpipe is essentially operated on the honor system; users of the standpipe receive a key upon initial application and inspection, and report their consumption to the CVRD to be billed. In 2018, water haulers reported using 73 per cent less water than compared to the amount of water recorded by the City and subsequently billed the CVRD. This variance in consumption resulted in the CVWS losing $5,637 in revenue from bulk water sales.

The following changes are proposed for the standpipe:

1. Installation of a new bulk water kiosk that includes the required backflow prevention equipment and a card-lock system to ensure that all flow is accounted and paid for;
2. Have all bulk water standpipe users sign an updated agreement with improved language surrounding liability and indemnification;
3. Updates to the bulk water rate to accurately reflect capital, liability, operating and maintenance costs for the system; and
4. It is recommended that the 2019-2023 financial plan and capital expenditure program be amended to include upgrades to the bulk water standpipe, funded from the capital works reserve, function 300.

- The new filling station will eliminate reliance on the honor system and ensure compliance with both *AWWA Cross Connection Control Manual* and the City requirements.
- The cost of installing a bulk water dispensing station is estimated at $120,000. It is proposed that the CVWS, function 300, fund the project from reserves.
- Staff are recommending that the bulk water rate for the standpipe be increased to $\$3.91/m^3$, which will cover the City bulk water rate, operation and maintenance costs for the unit, repayment of capital costs over a 20 year time period (and contribution to a liability reserve fund for the service).
- The updated bulk water rate will recover the costs of filling station and will repay function 300, over a 20 year time period – with Municipal Finance Authority (MFA) rate paid as interest.

Prepared by:	Concurrence:
Z. Berkey	***K. La Rose***
Zoe Berkey, EIT Engineering Analyst	Kris La Rose, P.Eng Acting General Manager of Engineering Services

Background/Current Situation

The CVRD owns and operates a bulk water standpipe located at 4795 Headquarters Road, which is within the City boundaries and connected to the City's distribution system. The standpipe is utilized by commercial water haulers and individuals who have water quantity or quality challenges. The current procedure for use of the standpipe is as follows:

- Applicants make a request for use of the bulk water standpipe and sign an agreement/ application for use.
- CVRD waterworks staff meet the applicant at the bulk water standpipe and complete an inspection of their system to ensure it meets all safety requirements.
- If the applicant passes the inspection the operator gives them a key. The applicant is required to report consumption to the CVRD.
- When a user of the standpipe reports water use, the CVRD finance department then bills the applicant for water used at the other than local government bulk water rate outlined within Bylaw No. 190.

There are a number of changes proposed to the above procedure as discussed below.

Capital Infrastructure Upgrades

The bulk water station is within the City boundary, the City has a meter that records the amount of water that is used from the standpipe and bills the CVRD at the bulk water rate plus 30 per cent. In comparing the billed consumption from the City to the reported consumption from water haulers in 2018 there is a significant variance. In 2018 reported consumption from haulers was 73 per cent less than what the City meter recorded and therefore billed the CVRD, resulting in the CVRD losing $5,638 in revenue.

To eliminate reliance on the honor system, it is recommended to upgrade to a new bulk water kiosk that includes improved backflow prevention for contamination and a billing system. The proposed upgrades will ensure the bulk water filling station meets *AWWA Cross Connection Control Manual* guidelines and City requirements. In the interim as the permanent kiosk is being completed, a temporary RP backflow device has been installed in response to concerns raised by the City.

The system will identify haulers via a card swipe system and records transaction data. CVRD staff will then access the data from the system and bill users accordingly, no longer relying on users to report consumption.

The cost to install a new bulk water filling station, including the required backflow prevention, an updated billing system and concrete pad for the unit is estimated at $120,000. It is recommended that the unit upgrades be funded by the CVWS, function 300, but that the rate charged at the bulk fill station be increased to compensate the regional service.

Amendments to the Bulk Water Rate

The current bulk water rate charged for the use of the bulk water standpipe is provided within the Comox Valley Water Supply System Bulk Water Rates Bylaw No. 190, 2011. The rate charged is the 'other than local government' rate as detailed in the Comox Valley Water Supply System Bulk Water Rates Bylaw No.190, 2011.

The current rate charged by the CVRD is $\$1.42/m^3$, and the current rate charged by the City is $\$1.04/m^3$ (member municipality bulk water rate plus 30 per cent). The member municipality bulk water rate charged by the CVRD covers all operations, maintenance and capital costs associated with operating the CVWS. The additional charge for the other than local government rate is intended to reflect the operations and maintenance requirements for the bulk water standpipe, however this rate is falling short.

The total capital costs to install a new bulk water filling station is estimated at $120,000. Capital repayment to function 300 is based on a 20 year borrowing term and four per cent interest. Following repayment to function 300, this annual cost will continue to be charged and collected but will be utilized to for asset replacement of the filling station when needed. Table No. 1 below summarizes the anticipated annual costs associated with operating and maintaining the bulk water standpipe and the required standpipe water rate to cover these costs.

Table No.1: Annual Costs and Recommend Bulk Water Rate

Description	Annual Cost
Administration Fee/ Overhead - Billing	$200
Annual Operation and Maintenance Costs	$5,000
Capital Repayment to CVWS for New Bulk Water Filling Station	$9,359
Contribution to Liability Reserve Fund	$10,000
Total Annual Costs	**$24,559**
Average Annual Cost Per Cubic Meter*	$2.87
City of Courtenay Bulk Water Rate	$1.04
Recommended Standpipe Water Rate	**$3.91**

* based on the average consumption recorded by the City meter from 2013-2018 (8,544m^3)

Changes to the Bulk Water Standpipe Agreement

A legal review associated with the liability of providing a bulk water service was completed by Stewart McDannold Stuart, attached as Appendix A. The review highlighted some potential liability concerns and recommended improved language to the bulk water standpipe application to limit CVRD exposure to liability. The review also recommended updating language surrounding indemnification.

In addition, even with the approved wording of the bulk water application it was identified that the CVRD carries some liability with supplying water in bulk. Based on the identification of the potential for the service to carry liability in regards to the supply of bulk water, CVRD staff are recommending that the bulk water standpipe rate change incorporate an annual contribution to the existing future expenditures reserve fund of $10,000 per year. This portion of the reserve fund will be funded by users of the bulk water standpipe and will be available for use for any litigation resulting directly or indirectly from the sale of bulk water at the standpipe.

Policy Analysis

Bylaw No.190 being the "Comox Valley Water Supply System Bulk Water Rates Bylaw No.190, 2011", outlines the other than local government bulk water rate that is charged to user of the bulk water standpipe.

Options

The Comox Valley Water Committee has the following options:

1. Complete the capital upgrades to the bulk water standpipe and proceed with the associated amendments to water rate.
2. Do nothing at this time.

Option No. 1 satisfies the City requirements and *AWWA Cross Connection Control Manual* backflow prevention requirements and reduces reliance on the honour system by providing a card lock mechanism for billing. It is also recommended to update the rate to fairly reflect capital, operating, administration costs, along with developing a liability reserve fund for the service based on a legal review completed by Stewart McDannold Stuart. As such only Option No.1 above is recommended.

Financial Factors
A budget amendment is required for the CVWS, function 300, to include upgrades to the bulk water standpipe in 2019. The cost to connect to complete the upgrades to the bulk water standpipe is estimated at $120,000.

To fund the capital upgrades it is recommended to utilize the Comox Valley Water Systems capital works reserve. Part of the updated standpipe water rate will include repayment of the capital to the CVWS over a 20 year time period, including interest.

Legal Factors
A legal review was completed and indicated some liability concerns associated with selling bulk water to haulers. To mitigate the risk associated with supplying a bulk water service, updates to the bulk water agreement that is signed between water haulers and the CVRD have been made, including improved language surrounding indemnification.

Additionally the CVRD will begin putting a portion of the revenue from the sale of the bulk water standpipe into a liability reserve fund.

Regional Growth Strategy Implications
The bulk water standpipe provides the ability for all residents and businesses of the Comox Valley to have access to potable water, thereby enhancing public health and safety.

Installation of an upgraded bulk water standpipe will also enhance public health and safety by ensuring the appropriate backflow prevention measures are in place to prevent any potential contamination of the regional water supply system.

Intergovernmental Factors
The bulk water standpipe is located within the City boundaries, CVRD will work closely with the City on the coordination of the installation of the new filling station.

Interdepartmental Involvement
The Engineering Services branch is leading this work with support from Financial Services in the review of the bulk water rate. Legislative Services is also assisting with amendments to the bulk water rate bylaw.

Citizen/Public Relations
Prior to installation of a new filling station and billing system the CVRD will inform current standpipe users of the changes and provide users with a process to get key access to the new filling station.

Attachments: Appendix A – "Supply of Bulk Water – Supplementary Opinion, Stewart McDannold Stuart"

Appendix A

STEWART McDANNOLD STUART
Barristers & Solicitors

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January 31, 2019 File No.: 281 016

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Ms. Zoe Berkey
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Courtenay, BC V9N 3P6

Dear Ms. Berkey:

RE: Legal and Liability Implications Arising from Sale of Bulk Water

You have asked for advice with respect to the potential liability exposure for the supply of bulk water through the Denman Island Water water service of the Comox Valley Regional District ("CVRD") to water haulers given that the Graham Lake Improvement District, ("GLID") is discontinuing that service.

There are three main potential sources of liability for bulk water supply:

1. Common law;
2. *Drinking Water Protection Act*; and
3. Agreement liabilities.

In addition, there is the threshold question of whether the CVRD is currently authorized to provide the service of supplying water in this fashion.

1.0 Authority for the Service: Role of the Denman Island Water Service

At present, the Denman Island Service would be established for the purpose of providing water supply within the service area. In order to provide the additional service of supplying water in bulk to water haulers, the service bylaw should be reviewed and amended as necessary to expand the scope of the service to include supply of water to bulk water haulers for redistribution to consumers beyond the boundaries of the service area. Such an amendment would require the Inspector's approval, and such approval should not necessarily be taken for granted.

Because the water would be supplied by the CVRD under the auspices of the Denman Island Water Service, the effect of the expansion of the service would be to place a potential liability on

the ratepayers within the boundaries of the existing service area in order to provide a domestic water supply to persons whose properties are outside the service area and who have not contributed to any of the costs of the capital infrastructure of the existing service. Section 379(2) of the *Local Government Act* provides that all costs of a service, including amounts required to satisfy a judgment or other order of a court against the regional district, are deemed to be costs of the service. The only exception provided for under section 379(3) is where the action or other proceedings arose "from the negligence of the board". There is limited scope for the board itself to be negligent in a manner that could create liability in negligence---the problem would have to arise from some type of wilful or negligent action or omission of the regional board itself, and not from the operational shortcomings of the system related to improper maintenance, monitoring, or supervision of the water system by the regional district's staff or third party contractors hired to operate the system. Most liability in negligence against local governments is founded in some form of operational negligence, and it would be an unusual set of circumstances that place the regional board itself in a decision-making capacity that might be characterized as actual "negligence" rather than as a legislative or policy choice of a type that is not subject to liability in negligence.

The result would be that the property owners in the Denman Island water service area could be responsible financially for liability arising from the service of supplying water in bulk for transport to other residents of Denman Island.

2.0 Liability Concerns

2.1 Common Law

At common law, a local government that undertakes to provide a service must do so without negligence and may be liable for the foreseeable damages that arise from a failure to operate a utility system in a manner that meets the appropriate standard of care. There is no reason why a water supplier might not be liable in negligence for supplying contaminated drinking water. In *Grave v Fort Erie*, 2003 CarswellOnt 3366, a court refused to summarily dismiss a claim in negligence brought against a municipality and a regional government in Ontario for supply of contaminated water. The failure of the municipality of Walkerton, Ontario to supply potable water to its residents was a notorious example of when can happen when a water system is not properly operated, and the water supply becomes contaminated.

2.2 *Drinking Water Protection Act*

In the aftermath of the Walkerton water contamination incident in Ontario, provinces like Ontario and British Columbia moved to enact new statutory regimes to govern drinking water.

The *Drinking Water Protection Act* applies to all water systems other than domestic water systems that serve only single-family residences. The basic requirements of the Act are that a water supplier must supply drinking water that:

(a) is potable; and

(b) meets any additional requirements established by the regulations, or

the water supplier's operating to the users is served by its water system.

"Water supply system" is defined as:

> "means a domestic water system other than
>
> (a) a domestic water system that serves only one single family residence; and
>
> (b) equipment, works or facilities prescribed as being excluded."

"Domestic water system" is defined as:

"means a system by which water is provided or offered for domestic purposes, including

> (b) equipment, works and facilities used for treatment, diversion, storage, pumping, transmission and distribution,…
>
> (c)…N/A
>
> (d) a tank truck, vehicle water tank or other prescribed means of transporting water, whether or not there are any related works or facilities"

The Drinking Water Protection Regulation provides exemptions from this requirement for small systems:

(a) that do not provide water for human consumption or food preparation (and are not connected to a water supply system that does); or

(b) where each person receiving water from the system has a point of entry or point of use treatment system that makes the water potable.

There is an additional exemption under section 3(d) of the Drinking Water Protection Regulation B.C. Reg 200/2003 for a "system within a system" that allows for an exemption where a system receives water from a water supply system operating under a permit and the water does not require further treatment. This would exempt GLID if it received potable water from the CVRD and simply passed it on to its consumers without the need for further treatment. It would not exempt CVRD if CVRD were to supply water to haulers.

In my opinion, for purposes of the *Drinking Water Protection Act,* the CVRD would be considered a water supplier if it were to supply water to haulers for redistribution, and I recommend that the CVRD start from an assumption that its supply of water to the haulers would be subject to the provisions of the *Drinking Water Protection Act*.

The *Drinking Water Protection Act* provides in section 8(b)(1) that a water supplier must comply with all terms and conditions of its operating permit. Sections 8(3) and (4) of the Act authorize the drinking water officer to amend the terms and conditions of an operating permit, if the officer "considers this advisable". Section 8(3) of the Act expressly contemplates treatment and

monitoring requirements, and section 8(5) authorizes terms and conditions that are more onerous than those set out under the Act.

Section 4 of the Regulation expressly makes section 8 of the Act apply to all water systems. A water supplier is technically bound to meet all operating permit and monitoring requirements even if one of the exemptions set out above applies. This means that any liability exposure would need to be addressed through an agreement between the CVRD and the haulers, and some of the challenges of doing this will be discussed below.

3.0 Agreement Liability

In addition to the potential liability exposure if the CVRD chooses to proceed with this arrangement we would recommend that the relationship of bulk water supplier-bulk water recipient be documented through a formal service agreement setting out the terms and conditions of the bulk water supply. Typically, a supply agreement places responsibility for quality and quantity on the supplier and it is unlikely that the haulers would agree to indemnify the CVRD if it supplied contaminated water, and would only agree to indemnify and hold harmless the CVRD from liability if the contamination to the extent it had been actually caused by the hauler. Moreover, the CVRD would also be dealing with small businesses, without assets and without the means to effectively indemnify the CVRD if there were an issue.

3.1 Water Licences

Any water licences held by the Regional District in connection with the Denman Island water system that would provide the basis for supply of water in bulk outside the boundaries of the service area should be reviewed to ensure that they would allow the supply of water beyond the service area boundaries. It is recommended that any agreement to supply water be made subject to any amendments to licences necessary to allow for such supply.

3.2 Ministry of Municipal Affairs

Because the existing water service was not constituted to be a bulk water service for Denman Island, an amendment to the service bylaw would likely be required and this would require the approval of the Inspector. Alternatively, the CVRD could consider the policy implications of establishing a bulk water supply service as a separate regional service, so that the actual service area is broader and includes the area that is actually going to be served by the delivery of water. I am not, however, aware of any other local governments that operate small water systems that serve as bulk suppliers to water haulers, so this point I don't know with certainty whether the Ministry might have concerns about the CVRD engaging in this type of service. It is not the usual water service provided by local authorities of any type, whether municipal, regional or improvement districts.

4.0 Conclusion

While it would be possible for the CVRD to engage in the business of supply of water to bulk water suppliers there are a number of legal matters to consider:

1. Authority for the service, which will likely require an amendment to the existing water service, or the creation of an entirely new service;

2. Authority to use water obtained under any water licence for this purpose;

3. Challenges of meeting the requirements of the *Drinking Water Protection Act* when the actual distribution would be conducted through a third party hauler; and

4. Potential for any liability to be borne by property owners within the actual service area.

If you wish us to review the service bylaw or the conditions attached to any water licence, please advise.

STEWART McDANNOLD STUART

Per:

Colin Stewart*

CS/ce
* Law Corporation

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February 25, 2019 File No.: 281 148

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Dear Ms. Berkey:

RE: Supply of Bulk Water – Supplementary Opinion

Further to your email of February 12th, you have asked for a further opinion with respect to the potential legal issues affecting the supply of bulk water by the Comox Valley Water Service (the "Service").

As you indicate, the Service provides bulk water pursuant to Water Local Service Establishment Bylaw, 1995, ("Bylaw No. 1783"). With respect to the legal authority of the Service to supply water in bulk, I would note specifically that section 1 of Bylaw No. 1783 does cover the bulk water distribution purpose of the Service and, in particular, section 1(e) provides that the Service includes:

> "the supply, treatment, conveyance, storage and distribution of water,
>
> (e) from the bulk water dispensing system".

This is, I would assume, a reference to the bulk water stand pipe since supply of water in bulk to all other water distribution systems, such as the City of Courtenay, the Town of Comox, the Comox First Nation and Water Service Areas of the Regional District would be otherwise through the system of distribution pipes.

As discussed in my letter of January 31st, 2019, in my opinion a bulk water supplier such as the Regional District is subject to the obligations under the *Drinking Water Protection Act* and therefore, the concerns that I raised in that letter with respect to the supply of bulk water on Denman Island would be applicable to this situation. However, in this case, the inequities of providing bulk water service are tempered by the fact that the Service Area established by Bylaw No. 1783 is large and includes all of Electoral Areas A, B and C. Costs of the Service are apportioned under section 5 of Bylaw No. 1783 in accordance with the "volume of water supplied by the local service consumed within each participating area each year as a percentage of the

total water supplied in that year by the water service." This spreads the liability for the supply of bulk water among a broader tax base.

I enclose a revised Water Hauler's Agreement with a number of wording changes.

Yours truly,

STEWART McDANNOLD STUART

Per:

Colin Stewart*

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Encls.