

DATE: October 31, 2019**FILE:** 5600-20/Denman Island**TO:** Chair and Directors
Electoral Areas Services Committee**FROM:** Russell Dyson
Chief Administrative OfficerSupported by Russell Dyson
Chief Administrative Officer**R. Dyson****RE: Denman Island – Bulk Water Service Update****Purpose**

To provide an update to Denman Island residents on bulk water supply options.

Recommendations from the Chief Administrative Officer:

1. THAT a decision on implementation of a bulk water station for Denman Island residents be delayed until selection of a new treatment technology and a decision on conversion of the Graham Lake Improvement District to a regional service in late 2020.
2. THAT staff be directed to update K'ómoks First Nation regarding water service delivery challenges on Denman Island and the role of the Comox Valley Regional District.

Executive Summary

- Initial review of the bulk water infrastructure required to provide a bulk water supply off the Denman Island Water Local Service Area (DIWLSA), including siting a bulk water tank, and associated connection and control infrastructure would be expensive and possibly cost prohibitive to local residents;
- The DIWLSA is currently working with the Graham Lake Improvement District (GLID) on an analysis of options for treatment technology to be implemented by GLID for them to meet the province's Surface Water Treatment Objectives;
- In conjunction, DIWLSA and GLID are completing a conversion study examining the viability and support for conversion of GLID to a regional service (expected early 2020), as well as reviewing grant funding opportunities for treatment technology;
- Both the selection of a treatment technology and the prospect of conversion of GLID into a regional service could significantly change the optimal means of delivery of bulk water service on Denman Island;
- Staff recommend waiting until the treatment technology and long term governance model are known before making a decision on implementation of a bulk water solution for Denman Island.

Prepared by:

C. MakinsonCole Makinson, P.Eng
Engineering Analyst

Concurrence:

K. La RoseKris La Rose, P.Eng
Senior Manager of Water/
Wastewater Services

Concurrence:

M. RuttenMarc Rutten, P.Eng
General Manager of
Engineering Services

Stakeholder Distribution (Upon Agenda Publication)

Graham Lake Improvement District	✓
Island Trust, CAO	✓

Background/Current Situation

In late 2018, upon legal review, GLID determined it would no longer supply water bulk water to haulers due to concerns surrounding GLID's liability. GLID made the Comox Valley Regional District (CVRD) aware of this change in early January 2019.

CVRD's legal review of the bulk water sale identified there could be liability concerns for DIWLSA, but the risks were likely very low and should be balanced against the impact to health and safety of those members of the Denman Island community reliant on bulk water delivery.

CVRD reviewed setting up a standpipe for bulk water sales from DIWLSA's current system but the following factors led this option not to be feasible:

- Restricted filling times due to operational constraints for the GLID system;
- Estimated total summer bulk water quantity not able to be supplied by GLID's system due to limited filling times, requiring additional off island delivery of water;
- Financial factors making it comparable for costs for supply of water from off island.

An informal meeting was held with Denman residents, GLID representatives and bulk water providers at the end of June 2019 informing them of the decision to not proceed with a temporary bulk water standpipe. From the meeting there was a strong desire from residents to further determine a local solution to avoid off island delivery of water, and allow for smaller water load deliveries which work with local residents systems more efficiently.

Further investigation into a long term solution for bulk water delivery on Denman was investigated. The required upgrades included:

- Additional water storage/buffer tank to alleviate operational constraints on GLID's system;
- Extension of the water main to a water storage tank;
- Lease agreements for siting a water storage/buffer tank.

Policy Analysis

Bylaw No. 190 would require updating, establishing a separate bulk water rate for the sale from the DIWLSA system to cover capital and operational costs.

Financial Factors

The capital costs for a bulk water filling station was estimated to be \$45,000-\$85,000 with a large variable on costs due to securing a location for the buffering/storage tank. The finalized location for the storage/buffer tank would affect the costing for the watermain extension, required road crossings, and amount of civil preparation required.

Estimates for the sale of bulk water would be \$14-23/m³ to licensed haulers which include:

- Annual operational/maintenance/asset management costs;
- Capital repayment over a 30 year period;
- Contribution to liability reserve funds.

A comparison table of the previous GLID bulk water cost to residents (including delivery), and options for future costing is detailed below:

	Previous GLID Bulk Water Delivery	Private Delivery from off island	New Storage/Buffer Tank – Low Estimate	New Storage/Buffer Tank – High Estimate
Cost for Residents (\$/m ³)	\$52.90	\$50.00	\$56.70	\$65.60
Approximate load size	3.8 m ³	6.8 m ³	3.8 m ³	3.8 m ³

Legal Factors

CVRD's legal review of the bulk water sale identified there could be liability concerns for DIWLSA, these risks were likely very low and should be balanced against the impact to health and safety of those members of the Denman Island community reliant on bulk water delivery.

Should sale of water from the DIWLSA be deemed not viable, consideration could be given to sale of bulk water by the Comox Valley Water System Service, which does provide for bulk water sales. In that event, consultation would be required with the service stakeholders and Comox Valley Water Committee.

Finally, an updated Water Service Agreement with GLID would be required to establish the terms and price for sale of bulk water.

Regional Growth Strategy Implications

Related to Regional Growth Strategy Goal No. 8: climate change, establishing access to bulk water on Denman Island will reduce fuel consumption from off island delivery of bulk water.

Intergovernmental Factors

The CVRD will work collaboratively with GLID to establish a bulk water delivery system which will work with GLID's future treatment technology and operations.

Citizen/Public Relations

Updates have been provided in the form of public meetings to Denman Island residents, and updates on the CVRD webpage. Staff will continue to engage with residents as progress is made.