



2021 Business Plan Lac La Hache Water (1880)

*Charles Boulet, P.Eng.
Manager of Environmental Services*

Working in partnership with communities large and small to offer local, sub-regional and regional services to ensure that the Cariboo Chilcotin is a socially, economically and environmentally desirable region.

Department Services

- The Cariboo Regional District (CRD) owns and operates the Lac La Hache Community Water System.

Background Information

- The community of Lac La Hache is located along Highway 97 approximately 25km North of 100 Mile House.
- The Lac La Hache water function was established in 1981 and at the time of writing, services 193 residential and 23 business water service connections.
- The community is serviced by a community water system originally constructed in 1982 with the latest upgrades happening in 2002.
- The water system services residential, business, community services and recreation.
- The system is comprised of:
 - Two groundwater wells (The Community Hall Well and the Lake Well)
 - The Lake well has not been in use since 2016 due to poor water quality.
 - Wood framed pumphouse
 - 533,000 litre cast-in-place concrete water reservoir
 - 10.5 kilometers of distribution watermain pipe
 - 216 service connections (193 residential and 23 commercial)
 - 44 gate valves, 16 fire hydrants, 9 blow offs and various other water system appurtenances.

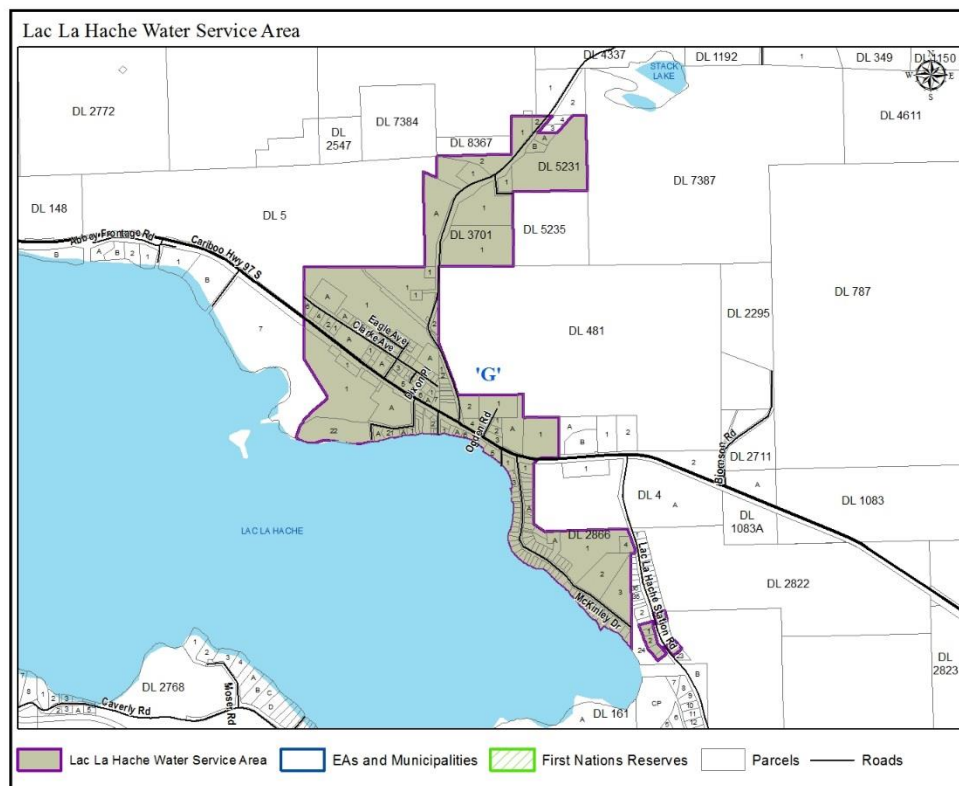
- In addition to meeting domestic needs, the system provides an adequate quantity of water to aid community fire protection.

Operations

The water quantity and quality is tested on a regular basis and adjustments to the system are made as required. Regular inspection and maintenance to the system components is undertaken to ensure continuous operations. Connection changes, such as a new connection, are provided to residents as requested.

The Lac La Hache Local water service is governed by various bylaws in order to manage, operate, regulate and apply fees as necessary. Operational costs are collected by way of an annual residential variable rate user fee. This user fee is currently \$183.70 as of 2020 and planned to go up by 12% to \$205.75 in 2021.

As Electoral Area G is the only stakeholder, and the *Local Government Act* requires more than one vote, the entire Board is responsible for the governance of this service.



Significant Issues & Trends

WorkSafe BC has a recent mandate targeting municipalities and regional districts focusing on confined space entry plans, policies and procedures as well as general occupational health and safety requirements. In response to inspections by WorkSafe, hazard assessments were completed for all utilities owned by the Cariboo Regional District to identify all confined space locations and subsequently procedures were developed for each. In order to strictly meet WorkSafe requirements, some of the procedures recommended cannot be implemented with existing infrastructure layout. Staff are currently investigating how other jurisdictions are approaching these requirements and looking for alternative procedures acceptable to WorkSafe.

In 2017 the Interior Health Authority conducted inspections of CRD water systems and made recommendations to achieve compliance with the Drinking Water Protection Act and Regulation. Recommendations for the Lac La Hache system were:

- 1) Increased monitoring frequency
- 2) Updated GUDI/GARP assessment
- 3) Disinfection.

The Public Sector Accounting Board now requires local governments to report and record tangible capital assets. At some time in the future local governments may be required to amortize these assets over their useful life.

The Cariboo Regional District is a signatory on the Province of BC/UBCM Climate Action Charter and has committed to continuing work towards carbon neutrality in respect of corporate operations.

Other issues are the ageing existing well and pumphouse at the Community Hall and the Lake Well. The Lake Well was taken out of use in 2016 because of poor water quality; it has elevated levels of manganese and tested positive for total coliforms. In addition, the Lake Well is reported to have elevated water temperature in the summer months, odors similar to the adjacent lake, elevated sulfur content, and causes staining due to the elevated level of manganese.

Moving Forward:

As proposed in True's report, construct a new 200mm diameter well approximately 30m Northwest of the existing Community Hall Well. The water quality in the Community Hall Well aquifer requires no water treatment other than the addition of chlorine to provide residual disinfection of the water distribution system. Also, having the two supply wells located adjacent to each other would allow each well to share a common pumphouse and chlorination building.

Business Plan Goals, Objectives & Strategies

- 1. Goal:** Upgrade existing well c/w pumphouse and add a second well to reduce risk of losing the potable water supply.
Rationale: The existing “Community well” and associated pumphouse are nearing the end of their useful life and the backup well should be de-commissioned because it has not been in use since 2016 and cannot provide potable water without more extensive treatment.
Strategy: A Feasibility Study has been prepared by TRUE Consulting to investigate the feasibility and cost estimates for a replacement well and pumphouse at a location adjacent to the existing Community well.
- 2. Goal:** Update GUDI/GARP assessment.
NB: Ground water under direct influence of surface water (GUDI)
 Groundwater at Risk of Containing Pathogens (GARP)
Rationale: Update GUDI/GARP assessment to meet IHA recommendations.
Strategy: Retain consultant to update the assessment.

Overall Financial Impact

The 2021 requisition increases by 12% from the 2020 requisition.

The projected capital reserve as of December 2020 is \$187,038. An annual capital reserve contribution of \$1,000 is being committed at this time.