

Forests, Lands and Natural Resource Operations
Resource Stewardship Division
Water Management Branch
Utility Regulation Section
PO Box 9340 Stn Prov Govt
Victoria BC V8W9M1

26 August 2016

Att: Elena Oliphant, Financial Advisor
Elena.Oliphant@gov.bc.ca

Re: Northside Water Service Ltd Arsenic Treatment

Dear Ms Oliphant,

Per your email request, this letter confirms that the water utility Northside Water Service Ltd (Northside) in Vanderhoof, BC, requires treatment to reduce arsenic levels in order to come into compliance with its *Drinking Water Protection Act* operating permit dated 17 Sep 2013. There are five (5) conditions on the permit:

1. Retain a professional engineer to evaluate and propose an arsenic reduction strategy to the utility that achieves ALARA^[1] concentrations.
2. Submit the completed engineering report on the recommended strategy to the drinking water officer for consideration and acceptance.
3. Submit to the public health engineer a construction permit application under the seal of a professional engineer for any waterworks required to implement the accepted reduction strategy.
4. By October 1, 2014, have the arsenic reduction measures completed so that the distribution system supplies water at an arsenic concentration accepted by the drinking water officer.
5. Submit no less than two samples for arsenic analysis to an accredited laboratory per year, and include the results in the annual report to users beginning with the 2013 report period.

These conditions derive from the water distributed by Northside exceeding the maximum acceptable concentration for total arsenic of 10 µg/L (Health Canada, 2006), and Northern Health's assessment that this exceedance places an unacceptable health risk on the population served by the water system.

¹ ALARA stands for "as low as reasonably achievable". "Reasonable" in this context includes technical, economic, social, and environmental feasibility and acceptability.

Northern Health has been working with and overseeing the utility to ensure progress towards compliance with these conditions. We have accepted the proposed water treatment train comprising chlorination, ferric chloride addition, and oxidation/filtration using a greensand process designed by Culligan in conjunction with Scouten Engineering of Prince George, BC (conditions #1 and #2). We understand that a construction permit application for the treatment works and appurtenances (condition #3) is forthcoming, but awaits your approval of the rate increase required to fund the treatment works. The utility has been out of legal compliance with permit condition #4 since October 2014.

Northern Health acknowledges that treatment to reduce arsenic will increase capital and operating costs, and may necessitate a rate increase for users, at your discretion. In addition to arsenic reduction, we note that the proposed treatment scheme also brings side benefits to users in the form of reduced manganese concentrations and improved protection from microbiological contamination.

If you have any questions or would like to discuss anything further, please do not hesitate to contact me at your convenience by phone or email.

Respectfully submitted,



Dave Tamblyn, PEng
Public Health Engineer
Prince George
(delegated Drinking Water Officer under the *Drinking Water Protection Act*)

cc. Elvira Manwaring, Financial Manager, Northside, nswater@telus.net; elvira_m@telus.net
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