

## Updated FAQ's For the Regional Waterline

**Question** – When will the project be completed?

**Answer** – The Project is now substantially complete with only minor deficiencies left to be completed. Most of these will be taken care of by the contractors in the spring. Everything is in place for the change over to the Regional Water System to happen February 1<sup>st</sup>, 2021.

**Question** – Will I notice a difference in the water?

**Answer** – In the Town of Bonnyville you should notice an improved quality of the water, especially in the summer. The new source (Cold Lake) is a significant improvement in quality over Moose Lake where it is common to have Blue-green algae blooms (Cyanobacteria) in the summer. Cold Lake water is treated through membrane filtration versus the Moose lake water which is treated with chemical addition and filter media. There will be an improvement in taste, odour and colour.

With the new extension of the regional water system which will reach the Town of Bonnyville at the furthest end, it is estimated that the travel times for drinking water between the Water Treatment Plant and Bonnyville will be significantly large. To reduce and manage the formation of disinfection by-product (DBPs) associated with higher water age, a secondary disinfection by Chloramination will be performed at the Transfer Station. The communities at the Town of Bonnyville and the MD may experience minor changes in taste & odour due to Chloramination.

*(Note: Specific sectors of the public, pet fish owners and dialysis patients need to be aware of Chloramination)*

**Question** – What is a Chloramine disinfection and What are Chloramines?

Chloramines are formed when ammonia is added to chlorinated water. Chlorine kills bacteria, viruses and other organisms that could cause serious waterborne illnesses and death. A small amount of ammonia is then added to maintain a disinfectant residual and stop the formation of disinfection by-products. The chloramine disinfection process has been used by water utilities for almost 90 years. City of Edmonton, EPCOR Water Services Inc. uses chloramine for disinfecting the treated water and provides regional treated water supply to several communities via regional water lines.

**Question** – Why is Chloramine disinfection used?

Chloramine disinfection is utilized to disinfect treated water since it will alleviate the formation of disinfection by-products (DBP's), such as Trihalomethanes.

**Question** – What are Trihalomethanes (TTHM's)?

Trihalomethanes are a by-product of the disinfection process. They are formed when chlorine breaks down organic material in the water. Research showed that the chloramine disinfection process would slow the formation of total Trihalomethanes. Both Alberta Environment and Parks, and EPCOR approved the utilization of the chloramination disinfection method.

Trihalomethanes present problems over a long period of time. Long term exposure to levels of Trihalomethanes that exceed the maximum contaminant level is a health concern (The 2014 Canadian Drinking Water Quality Guidelines for TTHM limits is 0.1mg/L or 100ug/L).

The levels of Trihalomethanes fluctuate seasonally. By utilizing the chloraminated regional water system, we are able to keep the levels of Trihalomethanes low.

**Question** – Is Chloraminated water safe to use?

Yes – Chloraminated water is safe for drinking, bathing, cooking, gardening and other household tasks. Chloramines must be removed before using water in fish tanks. Products for chloramine removal are available through aquarium supply stores. As with chlorine, the chloramines should be removed from the water when used in kidney dialysis machines. Patients undergoing dialysis should check with their doctors about the dialysis filtering method being used.

**Question** – Is Chloraminated water safe to use for plants, both indoor and outdoor?

Yes – Chloraminated water is safe for us on plants both indoor and outdoor.

**Question** – Is Chloraminated water safe for my plastic or copper pipes?

Yes – The regional water is considered as approximately neutral: neither aggressive or corrosive, so that it will not have elevated corrosion on service lines made of plastic, copper or any other metals: service lines wear out with age and may require replacement due to long service life, it won't be from corrosive water.

**Question** – What is the Updated total cost of the project and how is it being funded?

**Answer** – The total cost of the project is now anticipated to cost approximately \$94,000,000.00. The Federal and Provincial Government originally agreed to pay about 90% of the original estimated project cost of \$83,500,000.00, the remaining 10% of the project cost is contributed by the MD and Town of Bonnyville.

The Provincial Government has decided that it will only contribute 50% Of the cost overruns on the project to a maximum of \$5,153,512.00. There is no additional Federal funding for the additional costs.

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As a result the Federal and Provincial Government will pick up about 86.74% with the remaining 13.26% to be picked up by the Municipalities, split between the Town (80%) and MD (20%).

The project cost contributions are now broken down as follows:

**Federal and Provincial Grants**

Federal Government for Cold Lake First Nations	\$3,234,161.00
Provincial Government for Frog Lake First Nations	\$7,494,896.00
Provincial Water for Life Grant	\$38,013,116.00
Federal – Canada Water/Wastewater Fund	<u>\$32,434,200.00</u>
<b>Total Grant Amount</b>	<b>\$81,176,373.00 (86.74%)</b>

**Municipal Contributions**

Municipal District of Bonnyville	\$2,456,859.00 (2.63%)
Town of Bonnyville	<u>\$9,951,519.00</u> (10.63%)
<b>Grand Total</b>	<b>\$93,584,751.00</b>