

May 30, 2012

The **Village of Foremost, County of Forty Mile, Alberta Environment & Water and Alberta Health Services** wishes to inform residents that the communities of **Foremost, Manyberries, Etzikom, Skiff and Nemiscam** have a known and established high level of natural fluoride in the drinking water. These agencies have become aware of these higher levels through routine water testing, conducted to ensure that drinking water for Albertans is safe.

Currently, the Village of Foremost, County of Forty Mile, Alberta Environment & Water and Alberta Health Services are working on solutions to reduce the high level of fluoride in the drinking water system to below the maximum allowable concentrations.

These levels do not present any immediate health concern, but long term exposure to low levels of fluoride may create health issues. Since the level of fluoride exceeds Health Canada's *Guidelines for Drinking Water*, the agencies involved have prepared this document to explain the issue to local residents. Information provided below may answer some questions you have.

What is fluoride? Fluoride is a naturally occurring element and is found in varying levels in different water sources. It is also found in common products such as toothpaste, bottled water and canned foods. Specific fluoride levels in our daily lives are an important aspect in preventing tooth decay and maintaining good dental health. Using water high in fluoride for cooking is also a concern as the element becomes more concentrated in the food during the cooking process (e.g. boiling potatoes).

What is fluorosis? High levels of fluoride may cause dental fluorosis, skeletal fluorosis or bone fracture. Mild dental fluorosis looks like white flecks on the teeth and may be difficult to notice. Teeth with moderate to severe fluorosis, from exposure to high levels of fluoride for some time, will have large white patches and may have rough enamel or stains. Dental fluorosis is only a concern for developing teeth (i.e. baby teeth or adult teeth).

What water sources that supply Foremost, Manyberries, Etzikom, Nemiscam and Skiff? These communities are supplied by deep wells. These wells are considered deep because well depth is greater than fifty feet. This water is pumped to surface, partially treated in some cases and then delivered to residents. Generally, as the depth increases, so does the amount of minerals, metals or other elements in the water.

What are the Canadian Drinking Water Guidelines? The *Canadian Drinking Water Guidelines* is the work of provincial and territorial governments and protect the most vulnerable populations, including children and the elderly. It sets parameters for water systems to achieve safe, clean and reliable drinking water.

What is Maximum Acceptable Concentration? Maximum Acceptable Concentration (MAC) is a standard created by scientific research to establish a safe exposure level of a substance to prevent adverse effects on health. MACs establish safe limits for lifelong consumption, taking into consideration the average amount of water consumed, used in food preparation, personal hygiene and other domestic use. MAC is determined by considering the toxicity of the substance, the effect on the body, and the seriousness of the health condition.

What about mixing formula for infants? If using bottled water, ensure that the water contains no more than 1.5mg/L of fluoride. Do not use water that is high in fluoride to mix formula.

What about breastfeeding? Water high in fluoride is safe for mothers to drink since only small amounts of fluoride are transferred in breast milk.

What about brushing teeth? For children under 3 years old and at risk of tooth decay, use fluoride toothpaste (about a grain of rice size amount) and brush their teeth for them. For additional information or concerns, please consult your local dentist. For children age 3 to 6 years of age, use a pea size amount of fluoride toothpaste and assist with brushing. With all ages, teach your children to spit out all toothpaste and never eat it.

What about showering and bathing, doing laundry or washing dishes with this water? There is no risk with washing clothes, washing dishes or using this water for bathing. The long term health risks are associated with drinking or cooking with this water.

Can fluoride be removed from the water system? Fluoride can be removed by a special type of treatment system known as reverse osmosis. Once treatment units have been installed by a professional water installation company or engineering firm, testing will be done to ensure that all contaminants are within required limits for use.

What are the next steps? The Village of Foremost, County of Forty Mile, Alberta Environment & Water and Alberta Health Services will continue to work on strategies to reduce fluoride levels in your communities. It is important that residents be aware and understands the complexity of this issue. Residents need to make informed decisions about their own health. These levels do not present any immediate health concern, but long term exposure to low levels of fluoride may create health issues.

Is there a risk to livestock? If you are concerned about cattle or other livestock drinking water with high levels of fluoride, contact Alberta Agriculture at 403-381-5143 or visit <http://www1.agric.gov.ab.ca>. The Canadian Drinking Water Guidelines are for human health, and may not be representative for livestock and other animals.

I have my own well; can I test my private water system? Alberta Health Services offers free testing to all land owners with private water systems. Typical water samples are tested for bacterial and routine chemical safety. Should you have concerns and would like your water system tested by a public health inspector for fluoride or trace metals, please contact the Medicine Hat, Environmental Public Health office at 403-502-8205. If your residence is attached to a public water system, water samples are collected and tested on a regular basis.

How can these contaminants be removed from my private system? For private drinking water systems that contain high levels of fluoride and other elements, specific types of treatment can be applied to remove these materials or reduce them to safe levels. Typical treatment systems use a point of use system such as reverse osmosis, distillation or filtration units. Once treatment or filtration units have been installed by a professional water installation company, testing should be done to ensure that all contaminants are within safe limits for use.

Please feel free to contact your local municipality or Environmental Public Health at 403-502-8205.