



District of Kitimat Drinking Water Overview – Frequently Asked Questions

The District of Kitimat (District) has completed a review and plan for improvements of the Kitimat community water system. Regulations and treatment objectives for drinking water in British Columbia have changed, and Kitimat's water system requires upgrades to meet these regulatory requirements. The District has been actively involved in planning to meet provincial drinking water objectives, and continuing to provide the residents of Kitimat with secure, safe and reliable drinking water. Below are some questions and answers, including background information on how the District is planning to meet these objectives.

Why are improvements needed for the existing water treatment system?

It has been identified that the District's water system is not aligned with provincial guidelines ([Drinking Water Treatment Objectives for Surface Water](#)). The District is working with Northern Health to identify priorities and upgrades to meet the objectives.

The upgraded system will reduce turbidity-related water quality and boil water notices, as well as provide a pH balanced water supply, and reduce the risk of pathogens in our drinking water.

Why now? What has changed?

New provincial surface water treatment objectives are being applied consistently across BC. Northern Health has prioritized municipal water systems which use surface water (including Kitimat) for moving towards compliance with these objectives.

Since water quality issues have been identified and provincial guidelines were updated, the District has been working with Northern Health to proactively address issues.

In December 2019, the District completed a year-long detailed sampling program to help determine specific water quality issues. Even before getting the sampling results, the District already began implementing some improvements to the municipal water system, such as installation of a new water turbidity meter, and increasing signage around water intakes.

Is the Kitimat River a safe source of drinking water?

Yes, the Kitimat River is a safe source of drinking water.

Ensuring safe drinking water requires two important steps:

1. Protecting the water at the source
2. Treating the water provided to residents

Protecting the Water at the Source

The Kitimat River drainage basin is approximately 2,000 square kilometers and includes many smaller, sub-watersheds. The watershed's health depends on activities in the area, as well as the natural composition of the land, including vegetation, wildlife and weather patterns.

Most of the watershed falls under the Private Managed Forest Land Act and is considered to be in a near pristine condition. The District does not have direct control over activities in this land area, however, we actively engage in consultation and campaign efforts with stakeholders, such as industry and other levels of government, to advance the interests of the community.

The water quality in the Kitimat River is generally excellent with the exception of conditions that disrupt regular river flow. Proposed upgrades will address this issue.

Treating the Water Provided to Residents

The District presently treats the municipal water system with chlorine. Chlorination treatment eliminates or reduces microorganisms that are naturally found in water. Additional treatment options may be considered in the future.

What is turbidity? Why does it result in water advisory or boil water notices?

During high rainfall events, runoff from the Kitimat River becomes cloudy with particulates (dirt), which is also known as turbidity. Elevated turbidity levels can impact the effectiveness of chlorine to adequately disinfect the water and increases the risk of pathogens, resulting in water advisory or boil water notices being issued to ensure safe drinking water.

Are there any current risks to me?

The District of Kitimat regularly tests both the source and treated water for bacteriological and chemical parameters to make sure it is safe in accordance with drinking water regulations and guidelines. Samples taken from the Kitimat community water system meet all requirements from the *Health Canada Guidelines for Canadian Drinking Water Quality*. Water from municipal infrastructure consistently tests safe according to these guidelines. In some cases, water from private property has tested above the current guidelines with respect to lead and copper. The main source of these elevated levels in Kitimat's drinking water is a result of plumbing infrastructure on private property.

The District has prepared important messaging for Potential of Lead and Copper in Drinking Water which can be found under Water System>Water Quality on this District webpage: <https://www.kitimat.ca/en/our-community/utilities.aspx>

What has the District done to ensure safe drinking water so far?

2016

- The District worked with Northern Health to develop permit conditions. These conditions were used to develop a plan for short and long term improvements to be in compliance with provincial drinking water treatment objectives.

2018

- The District completed a source water intake review.
- The District started conducting a lead sampling program in accordance with provincial protocol.

2019

- The District commissioned an updated Water Conservation Plan.
- The District commissioned a water system assessment with recommendations for upgrades.

What water system upgrades are being proposed?

Some of the proposed upgrades include, but are not limited to:

- Upgraded intake galleries in the Kitimat River to reduce incidences of turbidity related water advisory and boil water notices.
- Ultra-violet treatment to supplement the existing chlorination treatment to reduce the risk of bacteria, parasites and viruses from the water, and meet drinking water treatment objectives for two treatment processes.
- Water conditioning – soda ash injection to balance alkalinity and slightly acidic water pH.
- Evaluate converting from chlorine gas injection for treatment to chlorine liquid injection which is safer and has less of an impact on water pH.

The District will continue to work with Northern Health to ensure upgrades are appropriate, effective, and efficient for Kitimat's water system prior to implementation. District of Kitimat Council will decide which upgrades to pursue.

When will the upgrades on the District system be complete?

The District has developed a multi-year improvement plan. Upgrades will continue in 2020, and be completed by 2024. Some of the upgrades are simple and inexpensive, while others are more complex and expensive.

In 2020, the District plans upgrades to the water system which could include the following: installing a water conditioning system and converting from chlorine gas injection to liquid chlorine injection.

How much will it cost to make the improvements to the water system?

Engineering and construction of the upgrades for the water treatment system is estimated to cost several million dollars and be spread over the upgrade period.

For more information visit www.kitimat.ca, email dok@kitimat.ca, or call 250-632-8900.