



Swimming and Fishing

1. Is the water safe for recreational use in lakes surrounding Yellowknife, Ndilo, and Dettah?

Based on currently available data, most of the lakes near Yellowknife, Ndilo and Dettah remain safe for recreational and traditional use such as swimming, boating and fishing. Public health advice will be updated as data generated from research and monitoring programs is assessed by the Chief Public Health Officer.

Lakes with green dots on the advisory map have arsenic concentrations that are below Health Canada's *Guidelines for Canadian Drinking Water Quality*¹ and are safe for recreational use such as swimming, boating and fishing.

Lakes with yellow dots on the advisory map have arsenic levels that are above the drinking water guidelines but are not so high that they would pose a significant risk from recreational use. These lakes are considered safe for swimming and fishing. Although the arsenic levels are above drinking water guidelines; occasional exposure (e.g. gulping while swimming) would not pose a significant risk for arsenic-related health effects.

The advisory currently recommends that lakes with high levels of arsenic in water (greater than 52 ppb) not be used for regular recreational activities such as swimming or wading. As an additional precaution, fish caught from such lakes should not be consumed. These lakes are shown on the advisory maps as orange, red and purple dots and are clustered around the former Giant Mine and Con Mine sites, within the Area of Interest indicated on the map.

2. Which lakes in and around Yellowknife, Ndilo and Dettah are not safe for swimming and fishing?

Due to elevated arsenic levels in the water, it is recommended that swimming and fishing be avoided at the following lakes. These lakes are identified on the public health advisory maps as orange, red and purple dots and are clustered around the former Giant Mine and Con Mine sites, and are within the Area of Interest shown on the map.

- Kam Lake, Frame Lake, Rat Lake, Peg Lake, Meg Lake, Jackfish Lake, Fox Lake, Handle Lake, Gar Lake, David Lake.
- Other unnamed lakes near Giant Mine.

People can safely enjoy paddling on these lakes and hiking in and around the area; however harvesting of berries and other edible plants is not recommended near these lakes, or anywhere within the Area of Interest shown on the map.

Occasionally, there may be other reasons why a lake should not be used recreationally.

- Blue-green algae blooms have appeared annually on Jackfish Lake. Some types of algae can cause bad rashes and other health problems when people are

exposed to it. As a precautionary measure, people should avoid skin contact with the water from any lake where blue-green algae are visibly present.

- Niven Lake was historically used as a sewage lagoon, so it is also advised not to swim in this lake.

3. Is it safe to swim and play at Long Lake?

Arsenic levels in the water at Long Lake are higher than the drinking water guidelines; however residents can continue to enjoy recreational activities at Long Lake. Over the years, sand has been routinely added to the beach area, effectively covering the natural sediment layer and further reducing concerns about arsenic exposure.

4. Is it safe to wade and swim along the shore in Ndilo and Latham Island?

Yes. Residents can continue to enjoy local areas of Great Slave Lake for all types of recreational activities.

Water from Yellowknife Bay and Back Bay is well below the drinking water guidelines for arsenic. It is recommended not to drink untreated water from any lake; however it is safe for swimming and fishing.

A human health and ecological risk assessment² assessed wading in near-shore sediments in Ndilo and Latham Island and found that it did not pose a significant health risk due to low arsenic exposure from sediments.

As a precaution, young children should be monitored so that they do not put mud or sediments in their mouths. This applies to any lake.

5. Is it safe to eat fish from other lakes in the Yellowknife, Ndilo and Dettah area?

A human health and ecological risk assessment² concluded that the fish from Back Bay and Yellowknife Bay are safe to eat.

Fish are also considered safe to eat for all lakes shown on the advisory map with green or yellow dots.

It is recommended to avoid eating fish from lakes with high levels of arsenic in the water (above 52 ppb). These lakes are shown on the advisory maps with orange, red and purple dots and are clustered around the former Giant Mine and Con Mine sites, and are within the Area of Interest.

- Kam Lake, Frame Lake, Rat Lake, Peg Lake, Meg Lake, Jackfish Lake, Fox Lake, Handle Lake, Gar Lake, David Lake
- Other unnamed lakes near Giant Mine.

Predatory fish and large, older fish tend to have higher levels of mercury than non-predatory fish and younger, smaller fish. The [GNWT General Fish Consumption Guidelines](#) provide advice on consuming fish safely while limiting exposure to mercury. Some lakes in the Northwest Territories have fish with significantly higher

levels of mercury and in those cases; the Chief Public Health Officer will issue [Site Specific Fish Consumption Advice](#).

KEY MESSAGES

- It is recommended not to swim or fish at lakes with high levels of arsenic in the water. These lakes are shown on the advisory maps with orange, red and purple dots.
- Monitor children to ensure they do not put mud or sediments in their mouths.
- Do not touch water or fish at a lake with visible blue-green algae blooms (e.g. Jackfish Lake).
- It is safe to swim and play at the Long Lake beach.
- It is safe to swim and wade on the shores of Ndilo and Latham Island.
- It is safe to eat fish from Great Slave Lake, including from Yellowknife Bay, and in other lakes shown on the advisory map with green and yellow dots.

1 - Health Canada (2019). Guidelines for Canadian Drinking Water Quality – Summary Table. Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

2 - Canada North Environmental Services. (2018). Giant Mine Human Health and Ecological Risk Assessment, Final Report. Prepared for: Public Services and Procurement Canada – Western Region, Project No. 2385.