



## Low water in a changing climate

More hot and dry weather is expected because of climate change. Drought and periods of dry weather in the north can lead to lower water levels in lakes, rivers, and wetlands. What do lower water levels mean for people and for the environment?

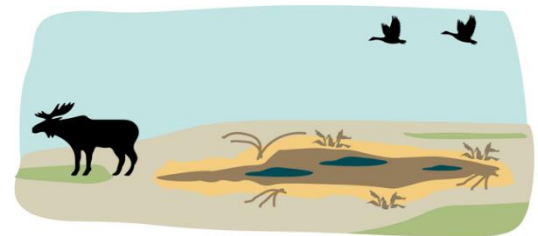
### How will climate change impact drought and low water?

As climate change brings hotter temperatures to the north, we can expect lakes, rivers, and wetlands to lose more water to evaporation. This means that water levels can lower even if the amount of rain an area gets stays the same. In northern Ontario, the summer months are predicted to see only small gains in rain, which may not be enough to offset how much water is lost to evaporation. It's possible that low water levels will happen more often as climate change continues.

### What are the impacts of low water levels?

#### Wetlands

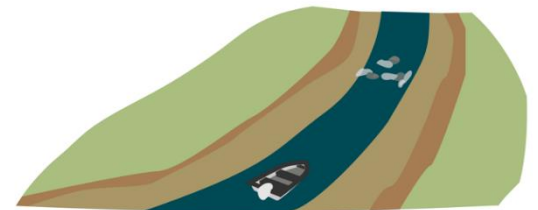
Wetlands are important ecosystems. Wetlands provide habitat for plants and animals, act as natural flood control by absorbing and holding rain and melt water, trap sediments and other contaminants to make water cleaner, and even store carbon. When wetlands shrink or dry completely, these important functions can be reduced or even lost entirely.



Plants and animals can lose habitat

#### Lakes and rivers

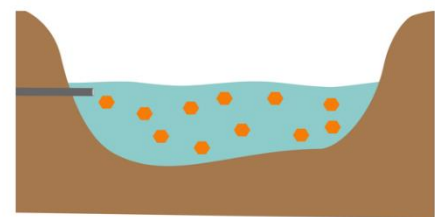
Low water in lakes and rivers can take away or limit important fish habitat like spawning areas, migration routes, and cold-water refuges. Low water can also make it harder for people to travel by boat and impact long-standing traditional travel routes.



Travel over water can be difficult

#### Drinking water

When water levels get low in lakes and rivers that supply drinking water, drinking water quality can be put at risk. Lower water levels can mean a higher concentration of contaminants, issues with drinking water intakes, and a greater chance for algae and pathogen growth.



Concern about contaminants in drinking water

### What have people noticed?

Already, people in First Nation communities across the north have seen the impacts of low water. Some say traditional water routes are harder to travel in summer and can impact hunting and fishing even into the fall. Ponds, swamps, and small lakes in some areas have gotten drier. In some cases, the loss of swamps can mean the loss of traditionally harvested plants. Many people also feel that periods of drought or dry weather are happening more often now than they used to in the past.



## How can we prepare?

### Protect habitat

Take steps to protect the wetlands, lakes, and rivers in your area. You can:

- Limit water removal or diversions of water in systems where low water is an issue.
- Make sure streams and tributaries that supply water to larger systems aren't blocked from flowing.
- Keep wetlands as part of your community. Avoid destroying wetlands when building or creating infrastructure.
- Monitor and protect fish habitat that may be sensitive to water level changes like spawning grounds, migration routes, and cold-water refuges.

### Adapt how you travel

Low water levels might make it necessary for people to change the way they travel. Changes could include:

- Finding new water routes
- Creating portage trails around areas of low water
- Using motors made for shallow water
- Carrying lighter loads in boats
- Traveling over land

### Protect drinking water

Since low water can affect drinking water quality, it is important that drinking water systems be assessed for their vulnerability to low water conditions. An effective drinking water monitoring program should also be in place to ensure water continues to be safe to drink in times of low water. Rivers and lakes that are drinking water sources, including the land that drains into those systems, should be protected from potential contamination.

Clean, safe drinking water is already an issue for many First Nation communities. Communities should continue to push for safe drinking water.

### Want to know more?

Lakehead Region Conservation Authority Low Water Response  
<https://lakeheadca.com/flood-protection/low-water-response>

Revitalize a wetland

<https://cwf-fcf.org/en/resources/for-educators/resource-sheets/revitalize-a-wetland.html>



*Wetlands are important and diverse ecosystems. Keep wetlands as part of your community.*



*Common outboard motors can be damaged when used in shallow water. Mud motors or jet motors may be better options.*



*Water treatment plant in Attawapiskat.*