

## TYOK FISH

## POPULATIONS & HARVEST

### Concern 1

#### Lake trout could be overfished in Ethel, Mayo, Duo, Janet, and Williamson lakes.

Ethel Lake (Figure 1) is a favourite fishing lake that has had net studies (for counting number of fish) and creel studies (for figuring out fishing pressure) in the past. There is concern that lake trout numbers are going down, and fishing is becoming more difficult. Some community residents also expressed concern about the unknown size of the First Nation white fish fishery.

Duo Lake is a small mountain lake near the Snake River that many canoeists fly into and camp on before heading down the Snake. The lakes are quite small, and are vulnerable to being overfished, even by small numbers of people fishing.

Mayo Lake seems to have fewer large lake trout than in the past, and there is concern that if Mayo Lake reservoir is drawn to produce power for Dawson, the fish populations could suffer.

Janet and Williamson lakes are small, but accessible by good trails — net counts showed low numbers of trout in both of these lakes in 2000.

NND people do not understand or agree with catch and release management, and feel that all fish that are caught should be kept and eaten. On the other hand, lakes that are accessible can be easily overfished nowadays because of the greater number of fishers and ease of travel. To address this, imposing restrictions requiring the live release of fish on certain lakes is a tool to keep populations healthy. This difference in fishing values is a Yukon-wide issue. The Yukon Fish and Wildlife Management Board has dealt with live release of fish, but people in Mayo have not been told what the conclusions of the study were.



*View along the north shore of Ethel Lake, looking west.*

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**Solution Monitor fish harvest on Ethel Lake.**

Sport fishers can be monitored using a creel census. This involves hiring a person to visit the lake often in the summer to count the number of fishers and measure and weigh the fish caught. Results can be compared to creel studies done in 1990 and 1995. The whitefish net fishery is mainly by NND fishermen. Knowing the catch of lake trout and whitefish by nets requires a special monitoring project by NND staff.

**Commitment**

By who? By when?

**YTG**  
2002 - 2005

Complete a creel census of sport fishers. [39]

Compare the results to creel studies done in 1990 and 1995 to see if lake trout fishing has changed.

**NND**  
2002 - 2007

NND will count the number of lake trout and whitefish netted in Ethel Lake. [40]

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**Solution Monitor fish populations on Ethel, Mayo, Janet and Williamson Lake.**

The relative abundance of fish can be monitored by setting small-mesh gill nets near shore for a fixed number of hours, and counting the fish that are caught. This is called catch-per-unit-effort sampling, or CPUE. The method has been used on many lakes in the Yukon to assess fish stocks. The surveys are done by the Fisheries Section of the Yukon Department of Environment.

**Commitment**

By who? By when?

**YTG**  
2005 - 2007

Assess abundance of lake trout using a CPUE net survey on Ethel, Janet, Mayo and Williamson lakes. [41]

The Northern Tutchone regional biologist will work with the Department of Environment Fisheries Section to set up net studies on these four lakes near Mayo. All four of these lakes were netted in 2000 or 2001, and each lake will be netted again from 2005-2007.

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**Solution Limit harvest of lake trout in Duo Lakes.**

Daily harvest limits can be reduced as a precaution to protect these small, shallow lakes from being overfished.

**Commitment**

By who? By when?

**RRC/YTG**  
2003 - 2004

Complete a regulation change to limit catch to one fish per person per day for Duo Lakes. [42]

This regulation change will be submitted to be included in 2003 regulation review of YTG. To make the public review schedule, the proposal needs to be in by April 2003.

## Concern 2

### Beaver dams are blocking important spawning grounds.

Spawning grounds for whitefish and salmon have been blocked by the development of beaver dams in various creeks in NND traditional territory. In the past, trappers used to take out beavers for the fur, but now there are few trappers because fur value is low.

#### Solution **NND/RRC/YTG will develop a strategy to open important creeks to allow fish to move.**

The Department of Fisheries and Oceans has a restoration fund that can be used to improve spawning habitat and remove creek barriers in various watersheds in NND traditional territory. To get funding support will require a coordinated plan.

#### Commitment

By who? By when?

**NND/RRC/YTG**  
2004 - 2007

The plan partners will work with DFO to:

- identify creeks in the area that are blocked;
- identify priority areas to work on habitat restoration;
- identify funding;
- develop a strategy and work plan; and
- evaluate the implementation and report on the success of the work to the public.

[43]

*The concern about live release of fish produced the following recommendation.*

**Recommendation 1** At the planning workshop, concern was voiced by NND regarding catch and release methods of fishing. In 2001-2002, guidelines addressing live release were developed in cooperation with the Yukon Fish and Wildlife Management Board (YFWMB), the federal Department of Fisheries and Oceans, Renewable Resources Councils, First Nations, and others. A number of recommendations were made to the Board and included a public education component. The people in the NND traditional territory have an interest in hearing the outcome of this work.

**The plan partners recommend:** The YFWMB hold a public meeting to discuss the outcome of the guideline development process and to discuss any recommendations regarding live release with the community of Mayo.

**Responsible party and timing:** RRC in 2002.