

Background

Wabamun Lake is located in close proximity to 1.2 million people and has been a popular lake for fishing for over 150 years. According to anecdotal information from the 1930s, the lake was once full of anglers with five dollar net licenses and so many vehicles on the ice that finding parking was close to impossible. A survey in the 1980s recorded 80,000 recreational fishermen on the lake in one winter.

It is an unsurprising consequence that there have been many population collapses in recorded history – including the extirpation of walleye. Fish production has been negatively affected for several reasons including:

- considerable shoreline alteration by industrial and residential users;
- a train spill in 2005 resulting in pole and Bunker C oils flowing into the lake and onto lake whitefish spawning shoals; and
- issues with fish spawning linked to TransAlta Wabamun, which used the lake in its cooling processes and in doing so created an environment not suitable to the survival of young walleye.

Low catch rates of lake whitefish resulted in the closure of the commercial fishery in the early 2000s followed by the decision to close the recreational fishery to harvest. This has led to in a considerable increase in the number and size of northern pike and the fishery again became a destination for anglers.

Fisheries Management Objectives

Indigenous management objectives

Honour subsistence, heritage and ceremonial fishery uses through responsible management of fish populations.

Recreational management objectives

- **Walleye - Restoration of the walleye population** - Started in 2011, this project is ongoing. Critical to the success of this introduction is the need for very low fishing mortality to ensure stocked walleye are able to establish a self-sustaining population. Walleye introductions are considered complete when the stocked walleye produce sufficient offspring to support a sustainable harvest – it is estimated that this may happen 5-7 years from now. It is anticipated that until the fish populations come into equilibrium there could be a short period of fluctuation in numbers of yellow perch and skinny northern pike from predation and competition with the walleye.
- **Northern Pike - Trophy status fishery** - A 2013 survey of angler activity on lakes in the Lake Wabamun area suggested strong support (>80%) for high catch rates and opportunity to catch a large pike at Wabamun Lake. To maintain this type of fishery in proximity to human population, very little mortality can occur. A no harvest regulation is the current management tool.
- **Lake Whitefish - Recovery** - Despite a closure of the commercial and recreational harvest, numbers continue to decline. The management tool for recovery is to continue with a no harvest regulation.

Habitat management objectives

Decrease phosphorus inputs from fertilizers, minimize erosion of shorelines and maintain natural shorelines.

Status of the Lake Wabamun Fish Populations

Northern Pike: Despite a range of sizes, northern pike remain at **High Risk** due to low numbers

Walleye: As the population is not yet self-sustaining, walleye are classified as **Very High Risk**

Lake Whitefish: Continued decline from relative abundance – 60 fish/net (2007) to 11 fish/net (2015).

Next steps include consultation with the public on future fishing opportunities is planned for 2017-18 and plans to complete a fish population assessment of Lake Wabamun in 2020. Following the fishery assessment in 2020, fishery management objectives will be confirmed through online consultation.

Please see <http://aep.alberta.ca/fish-wildlife/fisheries-management/fall-index-netting/fall-index-netting-summaries/default.aspx> for the latest Lake Wabamun status report (2015).