Fisheries Management Plan for Fisheries Management Zone 6

August 2009

Ontario Ministry of Natural Resources
Thunder Bay District

Table of Contents

TABLE OF CONTENTS **2**

TITLES AND APPROVAL **3**

1.0 INTRODUCTION **4**
2.0 STRATEGIC DIRECTION AND GUIDING PRINCIPLES **4**
3.0 DESCRIPTION OF FISHERIES MANAGEMENT ZONE 6 ..... **6**
4.0 BROAD FISHERIES MANAGEMENT GOAL FOR FISHERIES MANAGEMENT ZONE 6 ..... **6**
5.0 ISSUES, CHALLENGES AND PROPOSED MANAGEMENT ACTIONS **8**
5.1 Exploitation 9
5.1.1 Walleye 9
5.1.2 Lake Trout 10
5.1.3 Northern Pike 12
5.1.4 Smallmouth Bass 13
5.1.5 Brook Trout 15
5.1.6 Lake Whitefish 16
5.1.7 Other Species 17
5.2 Invasive Species 18
5.3 Habitat 19
6.0 PUBLIC AND ABORIGINAL COMMUNITY INVOLVEMENT **21**
6.1 Fisheries Management Zone Advisory Councils 21
6.2 Aboriginal Community Involvement 22
6.3 Public Consultation Program 22
6.3.1 Invitation to Participate 22
6.3.2 Draft Plan Consultation 23
6.3.3 Final Plan Inspection 24
7.0 ONGOING COMMITMENT TO MONITORING **24**
8.0 REVIEW AND AMENDMENT OF THE FISHERIES MANAGEMENT PLAN **25**
9.0 IMPLEMENTATION PLAN **25**

REFERENCES **27**

APPENDIX A **29**

Titles and Approval
(to be completed for the Final Plan)

FISHERIES MANAGEMENT PLAN

For

FISHERIES MANAGEMENT ZONE 6

Encompassing Portions of the MNR Administrative Districts of Thunder Bay, Dryden and Nipigon

August 18, 2009

I certify that this plan has been prepared using the best available science and is consistent with accepted fisheries management principles. I further certify that this plan is consistent with MNR's strategic direction, MNR's Statement of Environmental Values and direction from other sources. Thus, I recommend this fisheries management plan be approved for implementation.

Recommended by: William (Bill) Baker July 31, 2009
(District Manager, Thunder Bay District) (Date)

Recommended by: Kim Groenendyk August 6, 2009
(District Manager, Nipigon District) (Date)

Recommended by: Bert Hennessey August 5, 2009
(District Manager – Dryden District) (Date)

Approved by: Bob David August 18, 2009
(Acting Regional Director, Northwest Region) (Date)

1.0 Introduction

This plan provides direction for the management of the fisheries resources within Fisheries Management Zone 6 (FMZ6).

Management objectives and actions are presented to address specific fisheries management issues and challenges identified during the preparation of the background information document for FMZ6 (MNR 2007).

The fisheries advisory council for FMZ6 advised the MNR at all stages in the preparation of the management plan. Their active participation in the plan development process was very much appreciated.

2.0 Strategic Direction and Guiding Principles

In 2005 a new *Ecological Framework for Recreational Fisheries Management* in Ontario was approved to ensure fisheries resource sustainability and to optimize angling opportunities. The approach described in the "framework" is consistent with the Ministry of Natural Resources strategic direction as outlined in *Our Sustainable Future* (MNR, 2005a), *Ontario's Biodiversity Strategy* (MNR, 2008b), and with the principles stated in the *Strategic Plan for Ontario Fisheries* (MNR, 1992).

The *Ecological Framework for Managing Ontario's Recreational Fisheries* focussed on three key areas: 1) new ecological fisheries management zones; 2) managing and monitoring at the broader landscape level; and 3) enhanced stewardship.

FMZ6 was one of 20 zones created as a new unit for fisheries management planning across the province. The new boundaries were based on ecological factors such as climate and watersheds as well as angler use patterns related to factors such as fishing pressure, road patterns and accessibility.

A broad scale monitoring program has been put in place in FMZ6. A landscape level monitoring program was conducted throughout FMZ6 in the summer of 2008 and winter of 2009. This program will be repeated again in five years and will provide an evaluation of the fisheries resource on a landscape level.

The third component of the "ecological framework" was enhanced stewardship. The fisheries advisory council for FMZ6, comprised of representatives from stakeholder groups and Aboriginal communities, provided advice to MNR at all stages in the preparation of this management plan. Extensive consultation with sportsman's groups, tourism industry and local citizens committees occurred throughout the development of the plan. Aboriginal involvement was strongly encouraged and sought. Information was made broadly available through public and stakeholder meetings and staffed displays at trade shows and local events. A summary of the public consultation program is provided in Section 6.3.

Consideration of the strategic direction in all of these policy documents resulted in a set of 15 guiding principles being established. During the deliberations by the advisory council, proposed management goals, objectives and actions were compared to the list of guiding principles in order to ensure that they were consistent.

The principles that were used to develop the fisheries management plan are also important during plan implementation to guide managers with decision making in those situations that are not specifically addressed by this plan.

Guiding Principles

Ecological Approach: An ecological approach to fisheries management will be followed to ensure conservation and sustainable use of the resource.

Landscape Level Management: Fisheries will be managed on a landscape scale. Exceptions may be required but will require rationale. Individual lake management is discouraged other than in the context of large, specific fisheries designated by MNR (i.e. Specially Designated Waters of Lac des Mille Lacs, Whitefish Lake and Lake Nipigon).

Adaptive Management: FMZ6 will be managed using an adaptive management approach. Objectives will be set, monitoring will occur, results will be compared against objectives and management regimes adjusted as necessary and where possible to ensure attainment of objectives.

Aboriginal Interests: Ontario is committed to building better relationships with Aboriginal peoples and in involving them in decisions that affect them.

Balanced Resource Management: Strategies and actions will consider the ecological, economic, social and cultural benefits and costs to society, both present and future.

Sustainable Development: The finite capacity of the resource is recognized in planning strategies and actions within FMZ6. Only natural resources over and above those essential for long-term sustainability requirements are available for use, enjoyment and development.

Biodiversity: Fisheries management will ensure the conservation of biodiversity by committing to healthy ecosystems, protecting our native and naturalized species, and sustaining genetic diversity of fisheries in the FMZ6. All species in the FMZ6 including non-sport fish and Species at Risk (SAR) must be considered.

Natural Reproduction: Priority will be placed on native, naturally reproducing fish populations in lakes and rivers where they currently exist. They provide predictable and sustainable benefits with minimal long-term cost to society. Hatchery-dependent fisheries will also play a role in providing fishing opportunities.

Habitat Protection: The natural productive capacity of habitats for Canada's fisheries resources will be protected and habitat will be enhanced where possible.

Valuing the Resource: Stakeholders and other users will be invited to understand and appreciate the value of fisheries resources and to participate in decisions to be made by MNR that may directly or indirectly affect aquatic ecosystem health.

Responsibility: Local, regional, provincial and federal cooperation and sharing of knowledge, costs and benefits will be sought to manage fisheries at the FMZ6 level.

Multi-Party Involvement: A wide range of stakeholders, Aboriginal peoples, and interested parties will provide fisheries management advice to ensure an open and transparent process that acknowledges their valuable role in the process.

Direct Action: All possible options must be considered. Actions chosen for implementation will be feasible.

Knowledge: The best available information will be used for FMZ6 based objective setting and strategy development and implementation. Information from the new broad based fisheries monitoring and reporting program will be of great value in this regard.

Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not fully established scientifically.

3.0 Description of Fisheries Management Zone 6

FMZ6 is located in the Ministry of Natural Resources' Northwest Region and encompasses a large portion of the MNR administrative district of Thunder Bay, as well as smaller portions of the Nipigon and Dryden districts.

The boundaries of FMZ6 are shown in Figure 1. FMZ6 is bounded to the west by Quetico Provincial Park and longitude 91 to Highway 17; along Highway 17 easterly to the Graham Road and north along the Graham Road and the Brightsand River to the mainline of the Canadian National Railroad (CNR). The northern boundary is the CNR line from the Brightsand River to the Kinghorn Road in the Nipigon District. The eastern boundary follows the Kinghorn Road from the CNR line to Highway 11, then along Highway 11 and the Nipigon River to the shoreline of Lake Superior. The southern boundary is the shoreline of Lake Superior and the Canada/US border. FMZ6 also includes the islands in Nipigon Bay and St. Ignace and Simpson Islands in Lake Superior. FMZ6 encompasses all of the former fishing divisions 21 and 34 and parts of former fishing divisions 22 and 33. The southern portion of Wabakimi Provincial Park, the Black Sturgeon River Provincial Park, Kopka River Provincial Park, Sleeping Giant Provincial Park as well as a number of other provincial parks and conservation reserves are situated with FMZ6.

Three waterbodies Lake Nipigon, Lac des Mille Lacs and Whitefish Lake within FMZ6 have been identified as Specially Designated Waters (SDW). This fisheries management plan for FMZ6 will provide direction for the management of fisheries in Lac des Mille Lacs and Whitefish Lake until such time as an individual fisheries management plan is prepared for these waterbodies. Since a fisheries management plan is currently under development for Lake Nipigon the FMZ6 plan does not apply to the Lake Nipigon SDW.

4.0 Broad Fisheries Management Goal for Fisheries Management Zone 6

The fisheries management goal for FMZ6 is:

a. To optimize social, cultural and economic opportunities and values derived through the biologically sustainable use of aquatic resources; and

b. To protect genetic, species and ecosystem diversity within FMZ6.

Part a of the broad management goal incorporates the concept that there are biological limits to the use of fisheries resources. Unless use of the fisheries resources is biologically sustainable people are unable to derive social, cultural or economic benefits and opportunities over the long term.

Part b recognizes that there is a hierarchy of biological diversity that needs to be considered and protected. It is this hierarchy which encompasses genetic, species and ecosystem diversity that contribute to the biological well being of the fisheries resources in FMZ 6.

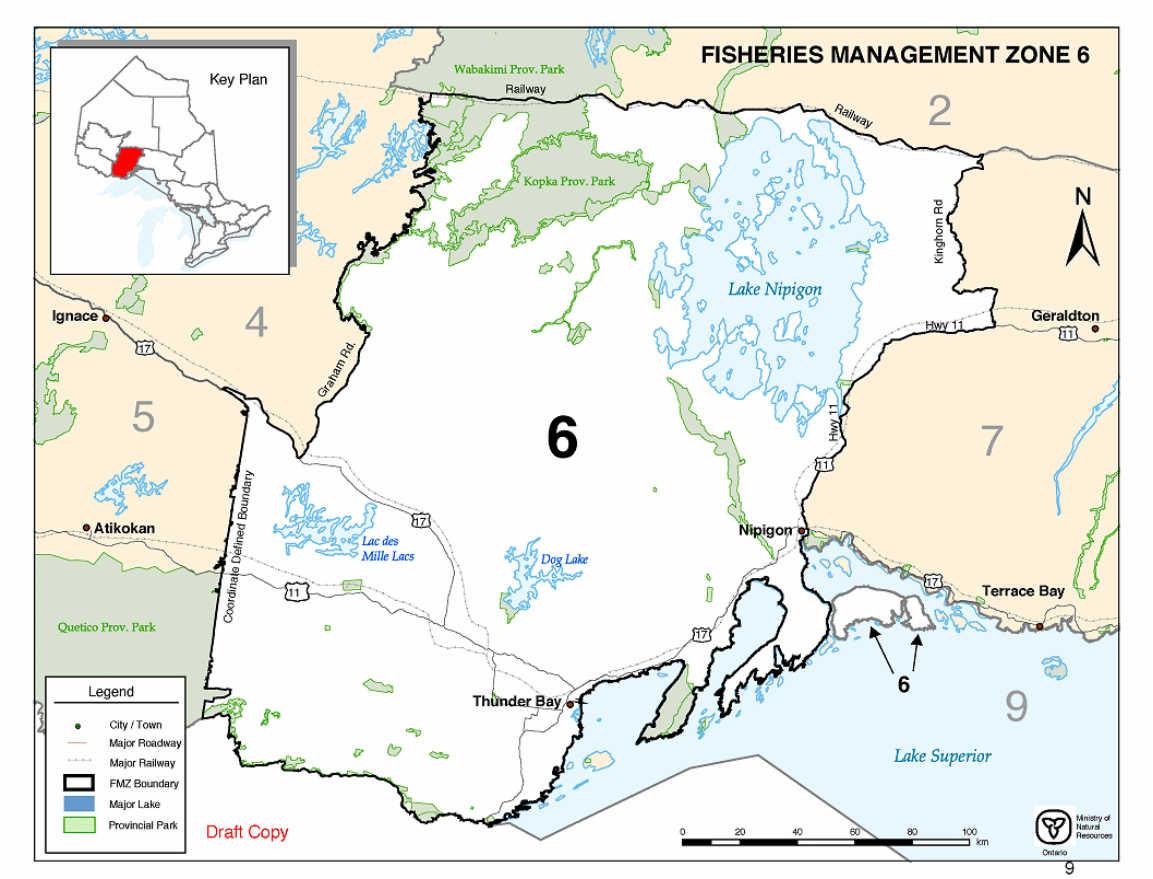

Figure 1. Boundary of Fisheries Management Zone 6

There are 3 primary watersheds in FMZ6: Great-Lakes St. Lawrence; Hudson-James Bay; and the Nelson River system. The lakes and rivers in this watershed generally flow in a southerly direction directly to Lake Superior or into Lake Nipigon. Cold water and cool water lakes comprise 56 and 44 percent of the total lake area respectively.

The most prominent fish species of FMZ6 are; walleye, northern pike, brook trout, lake trout, lake whitefish, lake herring, yellow perch, small mouth bass, and lake sturgeon. Rainbow trout and splake are stocked into many lakes for additional angling opportunities. Rainbow trout or steelhead, and chinook, pink and coho salmon utilize rivers in FMZ6 that flow into Lake Superior. Invasive species such as sea lampreys also utilize the rivers and streams of FMZ6 for spawning and rainbow smelt have been found in many inland lakes.

The productive capacity of fish bearing waters is based upon 2 things: climate - the length of the growing season; and the nutrients in the water body. FMZ6 has a mid-latitude continental climate with large differences between summer and winter temperatures, low relative humidity, high levels of solar radiation and moderate winds (MNR, 2008a). Ice cover occurs for approximately 6 months of the year beginning in mid November and thaw occurring in early May (MNR, 2008a). The average number of growing degree days from 1968 to 1988 was approximately 1370 but has increased by 106 days to approximately 1476 from 1990 to 2003, (Cano and Parker, 2006). The increase in growing degree days could be a result of climate change. This increase in growing season will increase the productivity of the lakes. The productivity of lakes in FMZ 6 is intermediate when compared to the rest of the Northwest region.

FMZ6 is well accessed in the southern portions but access decreases from south to north.

5.0 Issues, Challenges and Proposed Management Actions

An analysis of the issues in FMZ6 resulted in the grouping of fisheries management issues into three categories. In order of priority they are exploitation, habitat and invasive species/introductions.

The biologically sustainable use of aquatic resources referred to in the fisheries management goal for FMZ6 has traditionally been viewed from a species perspective. Exploitation is controlled through the use of seasons and possession limits for individual species. While the control of angling mortality on the species which support the fisheries in FMZ6 is important, it is recognized that habitat is also an important factor in maintaining these fisheries. Shoreline development, dam construction and timber harvest are all activities which have the potential to reduce the productive capacity of fish habitat and have effects on fish populations. Production of the desired fish species in the zone can also be impacted by the introduction of invasive species. Some invasive species have already become established in FMZ6, and there is a high risk of the introduction of other species which are already present in Lake Superior. In the longer term, climate change may have even broader effects on the fisheries of FMZ6. A warming climate may eventually result in significant changes to fish communities as the species supporting our current fisheries are replaced by other species better adapted to the warmer conditions. The broad scale monitoring program, one of the pillars of the new Ecological Framework for Fisheries Management, will provide species specific information important for the management of exploitation in the shorter term. It will also provide a broader view of fish community structure and trophic structure which will be essential in understanding the impacts of long term environmental change on our fish communities.

A significant challenge in the preparation of this fisheries management plan was the fact that information from the broad-scale monitoring program was not yet available. Objectives were developed using existing data which limited the ability to provide quantitative benchmarks to measure the achievement of objectives. Where appropriate, benchmarks were stated in terms of change between 2008 and 2013 broad-scale monitoring results. For example, for an objective stated as ‘maintain current abundance’ the benchmark would be ‘no change in large mesh catch per unit of effort between 2008 and 2013 broad-scale monitoring’. When this plan is reviewed in 5 years there will be two rounds of broad-scale monitoring data available to revise objectives, indicators and benchmarks.

5.1 Exploitation

Angling exploitation is the single most important factor influencing fish abundance in FMZ6. There are licensed commercial fisheries on two lakes in FMZ6. One license has a whitefish quota on Arrow Lake and the other has a walleye quota on Lac des Mille Lacs. Commercial harvest is controlled directly with a quota. Angling exploitation in FMZ6 is controlled indirectly through seasons, catch and possession limits. Species that are of most concern with respect to exploitation are walleye, lake trout, brook trout, northern pike and smallmouth bass. The following sections outline the priority issues regarding exploitation of these species. Fisheries management objectives and corresponding management actions have been developed to address exploitation of the primary sport fish species in FMZ6. Where changes to the fishing regulations are proposed they will replace the general FMZ6 seasons and limits and will apply to all lakes in FMZ6 with the exception of Lake Nipigon as there is a fisheries management process already proceeding for Lake Nipigon. In the cases where the general FMZ6 regulations are changed, the current Lake Nipigon regulations will be listed as exceptions to the FMZ6 regulations in the upcoming fishing regulation summary. All exceptions to the FMZ6 regulations listed in the 2008-2009 regulation summary will be retained and no new exceptions are proposed (Appendix A). The existing exceptions will be reviewed to ensure that they are still warranted.

5.1.1 Walleye

A reduction in the walleye possession limit from six fish to four fish with only one fish over 18 inches was implemented in 1999. There was considerable discussion around the rationale for implementation of the 1999 regulation change. The council did not feel that there was a strong biological rationale in 1999, and that any further regulation changes should be supported with biological data. An analysis of netting and creel data pre and post regulation change (Cano and Parker 2006) was inconclusive as to the effect of the regulation on walleye population status in FMZ6.

There was a general consensus among the council members that anglers are satisfied with the current fishing quality for walleye in FMZ6. This view is generally supported by the available data which indicates that walleye populations are healthy. However population changes due to the level of exploitation in FMZ6 are apparent in comparison to some other zones in the Northwest Region.

Increased possession limits and an increased size limit were discussed, however it was decided that implementing any substantive changes to the walleye regulations in the absence of solid biological data was too risky. Looking forward, the broadscale monitoring program implemented in FMZ6 in 2008 and to be repeated in 2013 will provide a zone wide baseline population status and trajectory (stable, increasing or decreasing) against which management actions can be objectively measured.

Objective: Maintain current walleye abundance

Management Actions: The current walleye season, possession limit and size limit will be retained. Existing spring fish sanctuaries to protect spawning walleye will be retained. Research lakes (Argon, Gessie, Henderson, Ice, Savanne) will remain closed.

Season: January 1 - April 14 and the 3rd Saturday in May - December 31
Daily Catch and Possession Limit:
Sport license 4, not more than 1 over 46cm total length
Conservation License 2, not more than 1 over 46cm total length

Exceptions: See Appendix A

Objective	Maintain current walleye abundance
Indicator	Large mesh catch per unit of effort from fixed walleye lakes sampled in broad-scale monitoring
Benchmark	Area-weighted catch per unit of effort from 2008 monitoring on fixed walleye lakes will provide the benchmark
Target	No decrease in walleye catch per unit of effort between 2008 and 2013 broad-scale monitoring
Accomplished by Date	2013
Management Action	Maintain current season, possession limit and length limit (1 over 46 cm)
Monitoring strategy	Follow broad-scale monitoring protocol once every 5 years beginning in 2008

5.1.2 Lake Trout

Anglers have indicated that they are happy with the quality of the lake trout fishery but are dissatisfied with the current one month winter lake trout season. There is a desire to provide increased winter angling opportunities for lake trout.

The lake trout season in the former Fishing Division 21 (encompassing Thunder Bay District) was January 1 to September 30 prior to 1984. In 1984 the winter season was reduced to one month in response to evidence of overharvest (Sein and Wisenden 1989). The current season is from the fourth Saturday in May to September 30 and from February 15 to March 15. In 1998 the possession limit was reduced from 3 to 2 and a length limit of one fish over 56 cm during September was implemented.

It is difficult to determine the reduction in fishing effort on a zone wide basis attributable to the one month winter lake trout season. Scholten (2003) estimated that winter effort during 1999 and 2001 aerial surveys was 1/3 to 1/2 of the effort observed in 1982.

The currently accepted lake trout yield model (Shuter et al 1998) suggests safe levels of angler effort for inland lake trout lakes. The model defines three levels of angling effort. There is a sustainable effort level below which population abundance will move toward a stable, equilibrium level. There is an unsustainable effort level above which the population will collapse if the level of effort is maintained. Between the sustainable and unsustainable levels, the effort is considered ‘conditionally sustainable’. For each level of effort in this interval there is a critical population abundance. If the population size is above this level and effort is maintained, the population will move towards a stable equilibrium level. If the population size is below this level and effort is maintained, the population will collapse.

Aerial effort surveys of the winter lake trout fishery in the southern portion of Thunder Bay district conducted in 1999 and 2001 (Scholten 2003) revealed that winter effort on medium (150-500 ha) and large (>500 ha) lakes was in the sustainable category while effort on small (<150 ha) lakes was in the conditionally sustainable category.

There was a general consensus among council members that winter angling effort has decreased since the last aerial effort survey in 2001. Casual observations by MNR staff and Conservation Officers are in agreement with this view. The council also felt that it was important to proceed with caution in light of the 1999/2001 data indicating that the small lake trout lakes in Thunder Bay District were subject to effort levels in the conditionally sustainable range.

A zone wide return to the pre 1984 season (January 1-September 30) as is currently in place in FMZ4 and 5 was ruled out because it would necessitate very restrictive creel and length limits in order to prevent excessive harvest.

An option to increase the season on selected larger lakes to two months while keeping the season at one month on smaller lakes was considered. This option would allow increased angling opportunities on large lakes while providing protection for small lakes which are receiving high relative effort. This would also necessitate a large number of exceptions to the zone wide regulations and would run counter to recent efforts to simplify the fishing regulations.

The council's preferred option was to increase in the winter season from one month to two months zone wide. The council did not feel that this option poses an unacceptable risk to the lake trout resource, but that additional monitoring should be undertaken in order to ensure that effort on the small (<150ha) lake trout lakes remains sustainable. Winter aerial effort surveys on the lakes sampled in 1999/01 should be conducted during the winter of 2009 and be repeated in 2011 on the small lakes (<150 ha) at a minimum to confirm that effort levels remain in the sustainable range.

Subsequent to the discussions and recommendations regarding the winter lake trout season aerial effort surveys were conducted in the winter of 2009 on lakes which were sampled in 1999/01. This survey confirmed the assumption that winter effort has decreased since 1999/01. Preliminary results from this survey indicate that winter effort on small (<50 ha) lakes is approximately half of the effort observed in 1999/01.

Objectives:

1. Maintain current lake trout abundance
2. Provide increased winter angling opportunities

Management actions:

1) Increase the winter lake trout season by 4 weeks on all lakes.

Season: 4th Saturday in May - September 30 and February 1 - March 31

Daily Catch and Possession Limit:

Sport License - 2 with not more than 1 greater than 56cm total length from Sept.1-Sept 30

Conservation License - 1 with not more than 1 greater than 56cm total length from Sept. 1-Sept 30

2) Repeat the aerial effort surveys in 2011 on the small lakes (<150ha) in Thunder Bay District which were surveyed in 1999/2001 and 2009.

Exceptions: See Appendix A

Objective	1) Maintain current lake trout abundance 2) Provide increased winter angling opportunities
Indicator	1) Large mesh catch per unit of effort from fixed lake trout lakes sampled in broad-scale monitoring 2) winter effort from enhanced 2009 aerial effort survey
Benchmark	1) Area-weighted catch per unit of effort from 2008/09 monitoring on fixed lake trout lakes will provide the abundance benchmark 2) Sustainable effort level from Shuter et al
Target	1) No decrease in lake trout catch per unit of effort between 2008 and 2013 broad-scale monitoring 2) Mean relative effort <3 rod hr/ha for small (<150 ha) lakes
Accomplished by Date	1) 2013 2) 2009
Management Action	Maintain the current possession and size limit Amend the fishing regulations to change the lake trout season to the 4th Sat in May-Sept 30 and Feb 1-Mar 31
Monitoring strategy	1) Follow broad-scale monitoring protocol once every 5 years beginning in 2008 2) Repeat aerial effort survey on small lake trout lakes in 2011

5.1.3 Northern Pike

Northern pike are the most widely distributed sport fish in FMZ6. Overall abundance is good and overharvest is not seen as an issue. A protected slot size with no fish between 70 and 90 cm and only 1 fish over 90 cm as part of a daily possession limit of four fish was implemented in the Northwest region in 1998. The intent of this regulation was to protect large breeding females and to increase the recruitment of pike into the 'trophy' size category. This was seen by the council as an impediment to the utilization of northern pike for consumption. Pike below 70 cm are generally not seen as desirable for consumption and in many lakes pike above 90 cm are rare or absent. Representatives of the tourism industry indicated that they would like to promote the consumption of northern pike for shore lunches as an alternative to walleye in some cases as a means to reduce exploitation on walleye populations. Similarly, angler groups thought that the protected slot eliminated the opportunity to harvest pike for consumption in many lakes, increasing the harvest pressure on walleye. There was the recognition that not all lakes are capable of producing 'trophy' sized pike but it was seen as important to provide protection for large fish in those lakes that are capable of producing trophy pike.

A size limit from the northern pike 'toolkit' allowing 2 fish greater than 61cm of which only one fish could be greater than 86 cm was considered. This is the same regulation that is currently in use in the Northeast Region. While this regulation would make pike of an acceptable size available for consumption it was felt that it did not provide sufficient protection for large pike in lakes which do provide trophy fishing opportunities. It was also seen as overly complex. The council recommended a regulation allowing one fish over 70cm as part of a limit of four fish.

This regulation will allow the harvest of pike for consumption and will provide greater protection for trophy fisheries than the toolkit regulation option.

Objectives:

1. To maintain current northern pike abundance
2. To provide opportunities for consumption of northern pike
3. To provide opportunities for trophy northern pike fishing

Management Actions:

There will be no protected slot size for pike. This will provide more opportunities for the consumption of pike. One larger fish over 70 cm will be permitted to allow the possession of trophy pike and to provide protection of large female pike.

Season: Open all year

Daily Catch and Possession Limit:

Sport License - 4 with not more than 1 fish greater than 70 cm total length
Conservation License - 2 with not more than 1 fish greater than 70 cm total length

Objectives	1) To maintain current northern pike abundance 2) To provide opportunities for consumption of northern pike 3) To maintain opportunities for trophy northern pike fishing
Indicator	1) Large mesh catch per unit of effort from fixed lake trout and walleye lakes containing northern pike sampled in broad-scale monitoring 3) Abundance of mature female pike in lakes greater than 1000 ha.
Benchmark	1) Area-weighted catch per unit of effort from 2008 monitoring on fixed lake trout and walleye lakes will provide the abundance benchmark 3) Proportion of northern pike greater than 70cm total length in fixed lake trout and walleye lakes greater than 1000 ha. from 2008 large mesh gillnetting
Target	1) No decrease in northern pike catch per unit of effort between 2008 and 2013 broad-scale monitoring 3) No decrease in proportion of northern pike greater than 70cm from 2008 large mesh gillnetting
Accomplished by Date	1) 2013 2) 2013 3) 2013
Management Action	Amend the fishing regulations to allow the possession of one fish over 70cm as part of a limit of 4 northern pike
Monitoring Strategy	Follow broad-scale monitoring protocol once every 5 years beginning in 2008

5.1.4 Smallmouth Bass

Smallmouth bass were present along the north shore of Lake Superior prior to 1926. Numerous Lakes in the Thunder Bay area were stocked with smallmouth bass in the 1940s and 1950s

(Hartviksen and Momot, 1989). Currently, smallmouth bass have been documented to be present in 132 lakes in FMZ6. Some lakes have quite healthy populations of bass and established catch and release tournaments for this species. The quality of the smallmouth bass fishing in many of these lakes is considered to be quite good. Bass are relatively easy to catch and do provide an alternative to other sport fish species.

The distribution of smallmouth bass within FMZ6 has expanded considerably over time. Some of this expansion is due to natural dispersal throughout watersheds following historical stocking along the rail line. Other introductions have been accidental via bait bucket releases, or intentional through unauthorized stocking by individuals wanting to create new angling opportunities. Introduction of small mouth bass into waters where they have not been previously found has the potential to negatively affect native ecosystems and biodiversity. Bass introductions have been shown to impact lake trout populations by reducing the abundance and biodiversity of littoral zone fish communities (Vander Zanden et al. 2003). Direct effects on walleye populations are not as well understood but likely occur as well (Dr. Mark Ridgway, personal communication, 2009).

Although quantitative data on bass populations are lacking, there was a consensus within the advisory committee that the abundance of bass is increasing in many waterbodies within FMZ6. There is a perception that this increase in smallmouth bass abundance is often in concert with a decrease in walleye abundance. The current bass regulation has been highly protective of large male bass that tend nests during the spawning season as well as aggregations of bass during the winter season. This regulation has likely had a positive influence on bass abundance. Climate may also be a factor as bass populations are expected to benefit from warmer temperatures. Whether there is a cause and effect relationship between increased bass abundance and decreased walleye abundance is not well understood. A common view among FMZ6 anglers is that bass are a less desirable species as table fare and some of the expansion of bass populations, particularly in walleye lakes, may be a result of high angling mortality of walleye allowing increased forage biomass to be available to bass. Regardless of the mechanism the expansion of bass populations is viewed as a cause for concern on a zone wide basis.

The management of smallmouth bass in FMZ6 must deal with two distinct issues. The first issue is the accidental or deliberate transfer of bass into new waters. This is illegal and this issue is addressed in the section dealing with invasive species. The second issue is the management of exploitation in waters where bass are already established. Bass are considered underutilized in comparison to walleye and the council felt strongly that the current level of protection is unwarranted and possibly detrimental to other game fish populations. The following objective was developed to address the current pattern of exploitation of bass.

Objective: Increase the utilization of smallmouth bass in Fisheries Management Zone 6

Management Actions:
In choosing a management option the council had to balance two opposing viewpoints. On one hand bass are underutilized and there is certainly an opportunity to increase harvest without jeopardizing the sustainability of bass populations. On the other hand there are a number of lakes in the zone that provide high quality bass fisheries and excessively liberal regulations could negatively affect fishing quality. It was judged that elimination of the current restrictions on winter and spring harvest while retaining the existing four fish limit was a balanced approach which would allow increased harvest and simplify the regulations while maintaining an appropriate level of protection for lakes with valued bass fisheries.

Season: open all year
Daily Catch and Possession limit:
Sport License - 4, no size limit
Conservation License – 2, no size limit

Objective	Increase the utilization of Small Mouth Bass in Fisheries Management Zone 6
Measurable Indicator	Large mesh catch per unit of effort of smallmouth bass from fixed lake trout and walleye lakes sampled in broad-scale monitoring
Benchmark	Area-weighted bass catch per unit of effort from 2008 monitoring on fixed lake trout and walleye lakes will provide the abundance benchmark
Target	No increase in bass catch per unit of effort between 2008 and 2013 broad-scale monitoring
Accomplished by Date	2013
Monitoring Strategy	1) Follow broad-scale monitoring protocol once every 5 years beginning in 2008 2) Partner with the tournament fishers to monitor the effect of the regulation on the size of bass available for tournaments.

5.1.5 Brook Trout

This management plan deals exclusively with the management of inland brook trout fisheries in FMZ6. Coaster brook trout are found in many streams tributary to Lake Superior within FMZ6 however management responsibility for these and other anadramous fish species lies with the Lake Superior Management Unit. Coaster brook trout regulations will be reviewed as part of the FMZ9 (Lake Superior) Fisheries Management Plan development. The current exceptions in the fishing regulations for brook trout in Lake Superior tributaries within FMZ6 (1 fish with a minimum size of 56 cm) will be retained during this planning process.

Native brook trout (*Salvelinus fontinalis*) populations within FMZ6 are largely stream and river fisheries with a limited number of natural brook trout lakes found throughout the zone. These natural brook trout lakes are sensitive to over fishing, particularly in the winter, which led to a closure of the winter season and implementation of size limit allowing the possession of only one brook trout over 30cm (11.8 in) in 1994. In addition, the brook trout stocking program was expanded to provide alternative year round brook trout angling opportunities and reduce harvest pressure on native populations. At present there are 94 lakes stocked with brook trout fry or yearlings and 12 lakes stocked with splake within FMZ6. These lakes are open year round with no size limits.

No issues were raised regarding the management of brook trout. The advisory council did express strong support for the continuation of the stocking program.

Objective: To maintain current abundance of native brook trout populations in FMZ6 lakes.

Management Actions:

The focus of inland brook trout management in FMZ6 will continue to be protection of native brook trout populations through a winter angling closure and the provision of alternate angling opportunities in stocked brook trout lakes. The current stocking program will continue.

Season: 4th Saturday in April to Labour Day
Daily Catch and Possession Limit:
Sport License – 5 with not more than 1 over 30cm
Conservation License – 2 with not more than 1 over 30cm

Objective	Maintain current abundance of native brook trout populations in FMZ6 lakes
Measurable Indicator	1) Large mesh catch per unit of effort from fixed brook trout lakes sampled in broad-scale monitoring
Benchmark	Area-weighted catch per unit of effort from 2008 monitoring on fixed brook trout lakes will provide the abundance benchmark
Target	No decrease in brook trout catch per unit of effort between 2008 and 2013 broad-scale monitoring
Accomplished by date	2013
Management Action	-No change to the current regulations (Creel limit of 5 (sport) 2 (conservation) not more than 1 greater than 30 cm (11.8 inches) from the 4th Saturday in April to Labour Day -continuation of the brook trout stocking program to provide alternate angling opportunities
Monitoring Strategy	Follow broad-scale monitoring protocol once every 5 years beginning in 2008

5.1.6 Lake Whitefish

Lake whitefish are widespread throughout the zone. Prior to 2007 the whitefish limit was S-25 and C-12 province wide with the exception of Lake Simcoe and the Ottawa River. The season was open all year in the Northwest and Northeast Regions. When the new Fisheries Management Zones were created the zone wide regulations were reduced to 12 –S and 6-C for all zones with the exception of FMZ7 and 8 (Northeast Region) and FMZ14 (Georgian Bay). Additionally, a dipnetting season from Oct. 1 to Nov. 15 was implemented province wide. The dipnetting season was extended to Dec. 15 in 2008.

Although the whitefish limit was not identified as an issue during the initial council deliberations it was raised as an issue during the public review of the draft plan. There is not believed to be a sustainability issue related to whitefish. In response to public input, the advisory council recommended that the limits be changed back to the previous limit of S-25 and C-12 Additional analysis on this issue and further public consultation will be required on this proposal. It will be considered for inclusion in the next regulation summary, scheduled for 2012.

5.1.7 Other Species

There are a number of other sport fish species in FMZ6 that are covered under the Ontario Fishing Regulations. No issues were identified for the remaining sport fish species and the seasons and limits will remain unchanged.

Yellow perch are widespread throughout the zone.
Season: Open all year
Daily Catch and Possession Limit: S-50 C-25

Crappie and sunfish are not widespread but they are present in a number of lakes in FMZ6.
Season: Open all year
Daily Catch and Possession Limits: Crappie S-15 C-10
Sunfish S-50 C-25

Brown trout were introduced into the Arrow River in the 1980s by the Thunder Bay flyfishing club to create catch and release flyfishing opportunities in waters that were not capable of supporting other salmonid species. In order to minimize catch and release mortality only artificial lures and barbless hooks may be used in the lower Arrow River (below Robbins/Hartington Township line) and only artificial flies with barbless hooks may be used upstream of this point.
Although rare, stray brown trout may occasionally be caught in other Lake Superior tributaries as a result of stocking by other agencies. The general regulation applies in these cases.

General Regulation
Season: Open all year
Daily Catch and Possession Limit: S-5 C-2

Arrow River
Season: 4th Sat. in Apr.-Sept.30
Daily Catch and Possession Limit: S-0 C-0 (catch and release only)

Rainbow Trout and Pacific Salmon (chinook, coho, pink) are all anadramous (lake run) species which are common in Lake Superior tributaries within FMZ6. As with coaster brook trout, the management responsibility for these fish lies with the Lake Superior Management Unit and the regulations will be reviewed as part of the upcoming FMZ9 management plan development. There are several inland lakes in FMZ6 stocked with rainbow trout on a put grow and take basis. These lakes are listed in the regulations under 'Additional FMZ6 Fishing Opportunities'.

General Regulation
Season: open all year
Daily Catch and Possession Limit: S-1 C-0

McIntyre River
Season: open all year
Daily Catch and Possession Limit: S-1 C-0 minimum size 69cm

Stocked Lakes
Season: open all year
Daily Catch and Possession Limit S-5 C-2

Splake are stocked in several lakes in FMZ6 on a put grow and take basis to provide alternative angling opportunities. Splake are a hatchery produced hybrid of brook trout and lake trout.

Season: open all year
Daily Catch and Possession Limit: S-5 C-1

Lake Sturgeon are listed as a species of concern under the Ontario Endangered Species Act. There is a season for sturgeon in FMZ6 but it is a catch and release only fishery.

Season: Jan.1-Apr.30 and July1-Dec.31
Daily Catch and Possession Limit: S-0 C-0

Cisco (Lake Herring)

Season: open all year (may be dipnetted Oct.1-Nov.-15. No dipnetting license is required). Possession limit: Cisco are listed as a bait fish and as such a limit of 150 applies.

Channel Catfish, Muskellunge and Atlantic Salmon have all been documented in FMZ6 but are extremely uncommon. Standard seasons and limits apply in FMZ6 to cover the rare event that one of these species may be caught by an angler.

Muskellunge
Season: third Sat. in June to Dec.15
Daily Catch and Possession Limit: S-1 C-0 minimum size 91cm.

Channel Catfish
Season: Open all year
Daily Catch and Possession Limit: S-12 C-6

Atlantic Salmon
Season: Open all year
Daily Catch and Possession Limit: S-1 C-0

Province wide **aggregate limits for trout and salmon** will continue to apply in FMZ6. A Daily Catch and Possession Limit for any combination of trout and salmon is 5 (S) or 2(C). Individual species limits apply within the aggregate limit.

5.2 Invasive Species

The introduction of non native species to a watershed can have a lasting impact on native ecosystems. The most common vector for the transfer of non native species is the ballast water of ocean going vessels entering the Great Lakes via the St. Lawrence seaway. Foreign species can then be transferred to inland waters often unknowingly by anglers, sportsmen and recreationists in bait buckets and attached to boats and other recreational equipment. Zebra Mussels, quagga mussels, round goby, tubenose goby, eurasian milfoil, smelt, river ruffe, threespine and fourspine sticklebacks, spiny waterflea and sea lamprey are all present in Lake Superior and pose a high risk of being transferred into inland waters. Smelt, river ruffe, and spiny waterflea have already been transferred into FMZ6. Rusty crayfish are also present in FMZ6 having been introduced through their use as bait. There is also a high risk of unintentional transfers from inland lakes where these species are established to new waters within the zone.

Invasive species are generally thought of as non native species. However even species which are native or naturalized in FMZ6 can be invasive when they are introduced into waters where they previously did not have access. Yellow perch and smallmouth bass are two examples of fish species that have been introduced either intentionally or unintentionally into new waters. Yellow perch have had negative impacts on brook trout populations in FMZ6. Smallmouth bass have been shown to negatively affect lake trout and appear to negatively affect walleye populations. There have also been instances of individuals stocking fish purchased from a private hatchery into lakes or streams, or into ponds connected to lakes or streams. This is both risky and illegal.

Objectives:

1. To prevent the introduction of new invasive species in FMZ6.
2. To confine existing invasive species to present locations and prevent further spread in FMZ6
3. To prevent the unauthorized transfer or stocking of sport fish.

Management Actions:

1. Regulatory:

1) Ban the use of smelt (alive or dead) as a bait for angling
2) Baitfish harvesters using smelt for catching leeches will have a condition placed on their license that requires them to use frozen smelt

c) Recommend to the FMZ9 Council the need to ban the harvest of baitfish for personal use from Lake Superior
d) Maintain the province wide prohibition on transporting crayfish overland for use as bait

2. Non –Regulatory

Education:

a) Educate the general public on the impacts of invasive species, including the transfer of native and naturalized species upon native ecosystems utilizing summer students, posters, signs at landings etc.
b) Partner with tourism, conservation groups etc. to inform the public on the dangers of invasive species.

Awareness:

a) inform people on the most common methods of transport for invasive species
b) partner with tourism, conservation groups etc. to create awareness of invasive species transport
c) link with other initiatives such as Ontario Federation of Angler and Hunters Invasive Species Hotline

5.3 Habitat

Achievement of the species specific objectives of this plan is dependant on suitable habitat quality and quantity. While the council felt that fish habitat is generally in good shape overall on a zone wide basis, there are some stressors which have had impacts on fish habitat or have the potential to negatively affect fish habitat.

Waterpower production is an activity that currently impacts fish habitat and has the potential to result in significantly more impacts as new facilities are developed. Impacts of existing waterpower development are related to management of headpond levels, the provision of downstream water flows and levels and the restriction or elimination of fish passage. Water management planning in recent years has resulted in the recognition of fish habitat as an important value which must be taken into account when balancing the interests of power producers, recreational users and property owners in the development of water management plans for existing waterpower facilities. There is recognition that tradeoffs between competing interests are necessary in the management of water flows and levels for existing waterpower facilities and the movement towards more natural flow regimes at existing facilities is viewed by the council as a very positive development. The development of new waterpower facilities was seen as having potentially large impacts on fish habitat which could in turn affect achievement of the management objectives in this plan. While the council recognizes the need to develop new waterpower facilities as an alternative to the burning of fossil fuels, they were unanimous in their view that a more strategic approach to the siting of new facilities is necessary. They felt that the potential impacts to fish habitat should be a priority consideration in the release of new waterpower sites.

Peat extraction is another activity which could potentially have widespread impacts on fish habitat. The disruption of hydrological regimes and the mobilization of high levels of methyl mercury are impacts that should be thoroughly researched before any large scale peat extraction is considered.

The effects of timber harvesting on fish habitat is also a concern. In particular, the impacts of timber harvesting on groundwater recharge and movement, particularly in headwater areas is seen as a threat to the sustainability of brook trout in the many coldwater streams within FMZ6. This is an area of research currently being conducted by the MNR's Centre for Northern Forest Ecosystem Research. The council fully supports this work and feels that the area of groundwater protection should be a high priority in the development of forest management guidelines.

While the habitat issues discussed above have the potential to directly impact fish habitat, climate change is an issue that has the potential to significantly alter fish habitat in the longer term. Under a warming climate scenario it is expected that fish communities will be significantly altered, with species that currently dominate fish communities being replaced by other species better adapted to warmer conditions. In order to understand and adapt to changes in fish communities brought about by a changing environment it is essential to broaden the focus of fisheries monitoring from the traditional species-focused approach with an emphasis on managing exploitation using a broader, ecosystem based approach which monitors changes in fish communities and trophic structure across the landscape and over time. The council fully endorses the FMZ broad-scale monitoring program and feels that its fish community based approach will provide essential information for managing exploitation in the short term and fish community changes in the longer term.

Management Actions:

1. The advisory council will make input to the proposed Green Energy Act on the need for a strategic approach to the development of waterpower facilities and on the information needs to support the review of development proposals. During the site release process for waterpower, use the Council as a forum to inform the applicant during the initial public notification period.

2. Prepare and implement a strategy that will ensure that all planning initiatives and projects have regard for the objectives and direction in the fisheries management plan

3. Work with Forest Management Branch to develop a process to ensure consideration of groundwater movement and recharge areas in the forest management planning process

4. Develop and implement a strategy that will identify a) the watershed impacts of existing dams and b) proposed options to mitigate these impacts

6.0 Public and Aboriginal Community Involvement

A detailed summary of the Public and Aboriginal Community Involvement program is available in a companion document to this Fisheries Management Plan.

6.1 Fisheries Management Zone Advisory Councils

As one of the three components of the *Ecological Framework for Fisheries Management in Ontario*, enhancing public and Aboriginal involvement in the management planning process, was integral to the development of the FMZ6 Fisheries Management Plan. The Fisheries Management Zone 6 Advisory Council is composed of representatives from a diverse group of local stakeholders and Aboriginal Communities. Through all stages of the preparation of the management plan the Advisory Council provided insight and information that helped to shape the management plan to reflect local interests and concerns.

Stakeholder Group	**FMZ6 Advisory Council Member**
Northern Ontario Sportsman's Alliance	John Hay (co-chair)
Northern Ontario Sportsman's Alliance	Dennis Ukrainec
Consultant – Fisheries Science	Dr. Peter Colby
North Shore Steelhead Association	Larry Doggett, Tom Whalley (alternate)
Outdoor Writer	Gord Ellis
Cottage Associations	Terry Olsen
Thunder Bay Field Naturalists	Dr. Walter Momot, Art Gunnell (alternate)
Ontario Federation of Anglers and Hunters	Neil Wiens
Ontario Federation of Anglers and Hunters	Debbie Rivard
Bait Harvester	Steve Ball
Charter Boat Industry	Tim Carroll
Tourism	Elson Strickland
Tourism	Rachel Macsemchuk, Scott Macsemchuk (alt.)
Ontario Ministry of Natural Resources	Londa Mortson (co-chair)

Aboriginal Community	**FMZ6 Advisory Council Member**
Whitesand First Nation	Alan Gustafson
Lac des Mille Lacs First Nation	Quentin Snider
Councillor – Red Rock Indian Band	Ed Wawia, Omer Belisle (alternate)
Bingwi Neyaashi Anishinaabek (Sand Point)	Paul Gladu
Biinjitiwaabik Zaaging Anishinaabek	Frank Hardy Jr.

Animbiigoo Zaagi'gan Anishinaabek	Yvette Metansinine
Fort William First Nation	Harold Pelletier
Kiashke Zaaging Anishinaabek	Wilfred King
Red Sky Metis Independent Nation	Pat Hainrich

6.2 Aboriginal Community Involvement

Aboriginal involvement was strongly encouraged and sought at all stages of development of the fisheries management plan. Aboriginal Communities were well represented on the FMZ6 Advisory Council and representatives provided valuable support and insight to council deliberations. Invitations to discuss recommendations with communities were sent to all local Aboriginal Communities.

6.3 Public Consultation Program

The provision of meaningful opportunities for public input to the development of the fisheries management plan was very important to the FMZ6 Advisory Council. A broad outreach approach for public consultation was developed for FMZ6 and occurred in three stages:

- Stage 1: Invitation to participate: January 2009 – February 2009
- Stage 2: Review of the draft fisheries management plan for FMZ6: May - June 2009
- Stage 3: Inspection of final plan: Summer 2009

Public comments were submitted through four separate methods:

- Posted directly to the Environmental Registry
- Directly contacting a member of the MNR team or FMZ6 Advisory Council Member.
- Mailing or emailing comments directly to the Thunder Bay District.
- Submitting comment sheets at one of the public meetings, stakeholder meetings or trade show presentations that were attended by the FMZ6 Advisory Council and the MNR

6.3.1 Invitation to Participate

At the Invitation to Participate stage, interested members of the public were invited to become involved in the preparation of a fisheries management plan for FMZ6. The background Report and the initial Council recommendations were also available for review and input.

The Invitation to Participate was distributed by the following methods:

- Newspaper ads in the Nipigon Gazette (January 24, 2009) and the Thunder Bay Chronicle Journal (January 31, 2009).
- Direct mailing to known interested parties
- Policy Proposal Notice posted on the Environmental Registry on January 5, 2009 for a 45 day period (closed on February 19, 2009).

The Advisory Council also requested that information be presented to the public through a means that encouraged participation and public interest. Individuals from the FMZ6 MNR team and the Advisory Council attended and presented information from the FMZ6 Background Report as well as the recommended options proposed by the Advisory Council at the following

stakeholder meetings, tradeshows, local citizen committee meetings and two MNR hosted Public Centres:

- October 23, 2008 Tourism Outfitters
- January 13, 2009 Lakehead Forest Local Citizen's Committee meeting
- January 13, 2009 Northwestern Ontario Sportsman's Alliance meeting
- January 15, 2009 North Shore Steelhead Association meeting
- January 17, 2009 Northwestern Ontario Sportsman's Alliance Big Game Event
- January 22, 2009 Ontario Federation of Anglers and Hunters Annual General meeting
- January 26, 2009 Spruce River Forest Local Citizen's Committee meeting
- January 29, 2009 MNR hosted FMZ6 Public Center, Red Rock
- February 5, 2009 MNR hosted FMZ6 Public Center, Thunder Bay
- February 11, 2009 Dog River Mattawin Forest Local Citizen's Committee meeting
- February 20 – 21, 2009 Trappers Convention (display only)
- February 27-March 1, 2009 Thunder Bay Outdoor Show
- March 26, 2009 Lake Nipigon Forest Local Citizen's Committee meeting

At these events, two or more MNR staff were available to present material in either poster or presentation format and answered public questions or comments regarding the FMZ6 Fisheries Management Plan. Comment sheets were made readily available and factsheets outlining the Advisory Councils objectives and recommended regulatory and non-regulatory options for invasive species, smallmouth bass, lake trout, northern pike, brook trout and walleye were distributed to the public.

A total of 102 comments were received. The majority of comments were supportive of the initial council recommendations, but there were several concerns expressed. The largest number of concerns focused on the proposed change to the bass regulation and the potential risk to small lake trout lakes if a longer winter season was implemented. Comments were also received regarding the proposed regulatory change to prohibit the harvest of rainbow smelt for use as bait. A summary of the comments collected during public consultation and MNR response is provided in the Public Consultation Program summary document.

6.3.2 Draft Plan Consultation

Comments and input received during the Invitation to Participate stage were reviewed and considered in the preparation of the draft fisheries management plan. Notice that the draft plan was available for public review was conducted through:

- Newspaper ads in the Nipigon Gazette (May 2, 2009) and the Thunder Bay Chronicle Journal (May 2, 2009).
- Direct mailing to individuals and parties on the mailing list
- Policy Proposal Notice posted on the Environmental Registry, May 7, 2009 for a 45 day period (closed on June 22, 2009).

In addition the draft Fisheries Management Plan for FMZ6 was available at the Thunder Bay and Nipigon MNR District offices for the public to view and an English and French translated summary was posted on the MNR website:

http://www.mnr.gov.on.ca/en/Business/LetsFish/2ColumnSubPage/STEL02_166747.html

A total of 7 comments were received for the draft plan consultation. The majority of comments were supportive. Concerns that were submitted were similar to those received during the invitation to participate. A few of the comments questioned the potential risk to lake trout populations in small lakes with the implementation of a longer winter season and the proposed bass regulations. Additional comments were received requesting a review of current the brook trout regulations and a return to the previous limits for lake whitefish. A summary of the comments collected during the draft plan consultation and MNR response is provided in the Public Consultation Program summary document.

6.3.3 Final Plan Inspection

The final plan will be available at MNR offices, on the MNR website and on the Environmental Registry for public inspection.

7.0 Ongoing Commitment to Monitoring

One of the pillars of the Ecological Framework for Fisheries Management (EFFM) is the implementation of a broad-scale monitoring program. The landscape approach to fisheries management necessitates the random sampling of lakes across the landscape in order to determine overall zone fisheries status. Previous assessment work has tended to target 'issue lakes' and did not provide an unbiased sample of lakes across the zone. The intent of the broad-scale monitoring program is to sample each FMZ on a five year rotation. The protocol employs a mixed design with 'fixed' walleye, lake trout and brook trout lakes as well as randomly selected 'variable' lakes. The fixed lakes were initially selected at random but will be re-sampled every 5 years. Variable lakes will be randomly re-selected for each sampling period. Fixed lakes are included in order to provide a faster indication of trends in fish populations within the zone, while the variable lakes will provide a more unbiased assessment of zone-wide fishery status. In order to address the guiding principles of EFFM concerning an ecological approach to fisheries management and a commitment to the preservation of biodiversity, a departure from the tradition species based approach to fisheries monitoring is required. The broad-scale program utilizes a new gillnetting protocol which is designed to sample the entire fish community rather than targeting a particular species as many of the previous netting protocols have done. In addition to sampling the fish community, the broad-scale program samples fish contaminant levels, habitat parameters (water chemistry, transparency, bathymetry and temperature) and lower trophic levels (zooplankton and benthos). Angling effort is also estimated using aerial effort surveys.

This monitoring program will enable greatly improved fisheries management in two ways. First, trends in the abundance and population structure of currently favored sport fish species will be assessed on a landscape basis and will provide information upon which to manage exploitation of the key fisheries in the short term. In the longer term the program will allow the development of improved yield models which will integrate exploitation, habitat and community factors to predict changes in carrying capacity related to long term environmental change.

Broad-scale monitoring represents a large ongoing commitment of resources. The advisory council considers this program to be an essential component of the EFFM and they feel that it is of critical importance for the MNR to retain their commitment to this program for the long term.

8.0 Review and Amendment of the Fisheries Management Plan

Management plans for fisheries management zones do not have a "sunset" date rather they are reviewed every 5 years. The review of the FMZ6 plan will occur in 2014 after the next round of broad scale monitoring is completed in the zone in 2013. The FMZ6 advisory council will be involved in the review of the management plan in 2013.

Where a review identifies that certain sections of the management plan need to be updated it is only those portions of the plan that will be changed. Depending upon the nature of the changes, public consultation may or may not be required. Significant changes in plan direction will require further consultation with the public, stakeholder groups and Aboriginal communities. The nature and scope of consultation efforts will be determined by the MNR District Manager, Thunder Bay District.

Amendment of the plan can occur prior to a review being conducted. It is anticipated that amendments to the plan would only occur if there was a significant management issue that affected fisheries across the zone.

9.0 Implementation Plan

Management Action	Responsibility	Target Completion Date
Implement regulation changes for sport fish: 1) Extension of the lake trout winter season 2) Change to northern pike size limit 3) Increase in smallmouth bass size limit	MNR	January 2010
Implement regulation change to prevent further spread of smelt: Ban use of live and dead smelt for angling	MNR	January 2010
Review the list of current regulation exceptions in FMZ6. In consultation with the Council and with public input, remove exceptions for waterbodies where there is no longer a valid rationale for the exception.	MNR and FMZ6 Council	March 2010
Consider a proposal to increase the limit on lake whitefish from 12 to 25.	MNR	January 2012
Conduct aerial effort survey on Thunder Bay district lake trout lakes in winter of 2011	MNR – Thunder Bay District	February/March 2011
Partner with the bass tournament fishers to monitor the effect of the increase in smallmouth bass catch limit on the size of bass available for tournaments.	MNR and tournament organizers	2013
Recommend ban on baitfish harvest from Lake Superior as part of FMZ9 planning	MNR and FMZ6 Council	September 2009
Prepare and administer a public education program aimed at preventing the impacts of invasive species. The program will utilize summer students, posters, signs at landings etc.	MNR	Ongoing

Management Action	Responsibility	Target Completion Date
Link with other initiatives such as Ontario Federation of Angler and Hunters Invasive Species Hotline	MNR, OFAH	September 2009
Make input to the proposed Green Energy Act on the need for a strategic approach to the development of waterpower facilities and on the information needs to support the review of development proposals.	FMZ6 Council	July 2009
During the site release process for waterpower, use the Council as a forum to inform the applicant during the initial public notification period.	MNR/FMZ6 Council	Ongoing
Prepare and implement a strategy that will ensure that all planning initiatives and projects have regard for the objectives and direction in the fisheries management plan	MNR/FMZ6 Council	Ongoing
Work with Forest management branch to develop a process to ensure consideration of groundwater movement and recharge areas in the forest management planning process	MNR – Thunder Bay District, CNFER, Forest Management Branch	Ongoing
Develop and implement a strategy that will identify a) the watershed impacts of existing dams and b) proposed options to mitigate these impacts	MNR	June 2011

The FMZ6 Advisory Council will have an ongoing role in the implementation of the fisheries management plan. The Council will meet up to twice a year to review the progress of implementing management actions, to review the results of monitoring efforts, and to discuss any fisheries management issue. Should issues arise that warrant more immediate council input, additional meetings may be requested by the MNR District Manager.

References

Cano T., and S. Parker. 2007. Characterization of Northwest Region Management Zones: Sport Fish Populations and Exploitation. Ontario Ministry of Natural Resources. NWSI Technical Report TR-140. 63pp

Cooke, S.J. and I.G. Cox. 2006. Contrasting recreational and commercial fishing: searching for common issues to promote unified conservation of fisheries resources and aquatic environments. Biological Conservation 128: 93-108.

Hartviksen, C and W. Momot, 1989. Fishes of the Thunder Bay Area of Ontario. 1989. Wildwood Publications, Thunder Bay, ON.

Kaufman, S.D., Snucins, E., Gunn, J.M. and W. Selinger. 2009. Impacts of road access on lake trout (*Salvelinus namaycush*) populations: regional scale effects of overexploitation and the introduction of smallmouth bass (*Micropterus dolomieu*). Can. J. Fish. Aquat. Sci. 66: 212 – 223.

MacRae, P.S.D. and D.A. Jackson. 2001. The influence of smallmouth bass (*Micropterus dolomieu*) predation and habitat complexity on the structure of littoral zone fish assemblages. Canadian Journal Fisheries Aquatic Science 58: 342-351.

MNR (Ontario Ministry of Natural Resources). 1992. Strategic Plan for Ontario Fisheries, SPOF II, An Aquatic Ecosystem Approach to Managing Fisheries. Queen's Printer for Ontario. 22 pp.

MNR (Ministry of Natural Resources). 1997. Fisheries Action Plan 1997 – 2000, Northwest Region. Northwest Region, Thunder Bay. 6 pp.

MNR (Ministry of Natural Resources), 2005a. Our Sustainable Future: Ministry of Natural Resources Strategic Directions, February, 2005. Queen's Printer of Ontario. ISBN 0-7794-7520-8. 21 pp.

MNR (Ministry of Natural Resources), 2005b. Protecting What Sustains Us: Ontario's Biodiversity Strategy. Queen's Printer of Ontario. ISBN 0-7794-7981-5. 44 pp.

MNR (Ministry of Natural Resources). 2005c. A New Ecological Framework for Recreational Fisheries Management in Ontario. Fisheries Section, Fish and Wildlife Branch. 18 pp.

MNR (Ministry of Natural Resources). 2005d. New Fisheries Management Divisions for Ontario: A Proposal. Fisheries Section, Fish and Wildlife Branch. 68 pp.

MNR (Ministry of Natural Resources). 2003. Northwest Region Fisheries Action Plan (FishMAP). Northwest Region, Thunder Bay. 19 pp.

MNR (Ministry of Natural Resources), 2006. Recreational Fishing Regulations Summary 2005 – 2006. Queen's Printer for Ontario. ISSN 1480-4387. 88 pp.

MNR (Ministry of Natural Resources), 2008a. Background Information to Fisheries Management Plan for Fisheries Management Zone 6. Thunder Bay District, Thunder Bay. 136 pp.

MNR (Ministry of Natural Resources), 2008b. Interim Report on Ontario's Biodiversity 2008. Queen's Printer for Ontario. ISBN 978-1-4249-6405-5.

MNR (Ministry of Natural Resources), 1997.Fisheries Management Needs Analysis, Northwest Region 1996. Northwest Region, Thunder Bay, Ontario. 64pp

Sein, Rod and Brian Wisenden. 1989. An Assessment of the Winter Lake Trout Fishery in Thunder Bay District Following the Implementation of a Shortened Season in 1984. OMNR Thunder Bay., unpublished report 38pp

Sharma, S., Jackson, D.A., Minns, C.K. and B.J. Shuter. 2007. Will northern fish populations be in hot water because of climate change? Global Change Biology. 13: 2052-2064.

Scholten, S., 2003. Aerial Effort Surveys of the Winter Lake Trout Fishery in Thunder Bay District for 1999 and 2001. OMNR Thunder Bay, unpublished report. 19pp

Shuter, B.J., M.L.Jones, R.M. Korver, and N.P. Lester. 1998. A General, life history based model for regional management of fish stocks: the inland lake trout (Salvelinus namaycush) fisheries of Ontario. Can. J. Fish. Aquat. Sci. 55:2161-2177.

Vander Zanden, M.J., Wilson, K.A., Casselman, J.M. and N.D. Yan. 2004. Species introductions and their impacts in North American shield lakes. Pages 239-264 in J. M. Gunn, R.J. Steedman, and R.A. Ryder, editors. Boreal shield watersheds: lake trout ecosystems in a changing environment. CRC Press, Boca Raton, FL.

Appendix A
Proposed Zone 6 Seasons and Limits

Species	Open Seasons	Limits
Walleye and Sauger or any combination	Jan. 1 to Apr. 14 & 3rd Sat. in May to Dec. 31	Sport – 4: not more than 1 greater than 46 cm (18.1 in.) Conservation – 2: not more than 1 greater than 46 cm (18.1 in.)
Largemouth and Smallmouth Bass or any combination	Open all year	Sport – 4: no size restrictions Conservation – 2: no size restrictions*
Northern Pike	Open All Year	Sport – 4: not more than 1 greater than 70 cm (27.5 in.) Conservation – 2: not more than 1 greater than 70 cm (27.5 in.)*
Muskellunge	3rd Sat. in June to Dec. 15	Sport – 1; must be greater than 91 cm (36 in) Conservation: 0
Yellow Perch	Open all year	Sport: 50 Conservation: 25
Crappie	Open all year	Sport: 15 Conservation: 10
Sunfish	Open all year	Sport: 50 Conservation 25
Brook Trout	4th Saturday in April to Labour Day	Sport – 5: not more than 1 greater than 30 cm (11.8 in) Conservation – 2: not more than 1 greater than 30 cm (11.8 in)
Brown Trout	Open all year	Sport: 5 Conservation: 2
Rainbow Trout	Open all year	Sport: 1 Conservation: 0
Lake Trout	February 1 to March 31 4th Saturday in May to September 30*	Sport – 2: not more than 1 greater than 56 cm (22.1 in.) from Sept. 1 – Sept. 30. No size limit the rest of the year. Conservation – 1: no size limit
Splake	Open all year	Sport: 5 Conservation: 2
Pacific Salmon	Open all year	Sport: 5 Conservation: 2
Atlantic Salmon	Open all year	Sport: 1 Conservation: 0
Lake Whitefish	Open all year	Sport 12 Conservation: 6
Lake Sturgeon	Jan. 1 to Apr. 30 & July 1 to Dec 31	Sport: 0 Conservation: 0
Channel Catfish	Open all year	Sport: 12 Conservation: 6
*	**Shaded areas show a proposed change to the 2008-09 regulation.**	

Other Zone 6 Regulations
Non-residents camping on Crown land must follow conservation fishing limits
Smelt (alive or dead) may not be used as bait or possessed as bait for angling*

Additional Zone 6 Fishing Opportunities

No change to the 2008-2009 Fishing Regulations

Exceptions to Zone 6 Regulations

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
Lake Superior Tributaries	• Brook Trout S – 1 and C – 0, must be greater than 56 cm (22 in)	Maintain - To be considered in FMZ9 plan.
Argon Lake Grand Trunk Pacific Block 2	• Fish Sanctuary – closed all year	Maintain - Research Lake
Arrow River between the dam on Arrow Lake (Hardwick Twp) and the Robbins/Hartington Township line	• Only artificial flies may be used	Maintain – catch and release brown trout fishery
Arrow River between the Robbins/Hartington Township Line and its confluence with the Pigeon River in Devon Township.	• Only Artificial Lures (no organic bait) may be used.	Maintain – catch and release brown trout fishery
Arrow River	• Live fish may not be used as bait or possessed for use as bait • Only barbless hooks may be used • Brown trout open from 4th Sat in Apr. – Sept. 30 • Brown trout S – 0, C – 0	Maintain – catch and release brown trout fishery
Black Sturgeon Lake	• Lake trout closed all year	Maintain – rehabilitation stocking
Black Sturgeon River downstream from the dam to Lake Superior	• Walleye closed all year	Maintain - To be considered in FMZ9 plan
Cushing Lake	• Walleye must be greater than 33 cm (13.0 in), not more than 1 greater than 46 cm (18.1 in). Northern pike open from Jan. 1 – Apr. 14 & 2nd Sat. in May – Dec. 31.	Maintain – To be considered in LDML Fisheries Management Plan
Gessie Lake – Goodfellow Twp.	• Fish sanctuary – closed all year	Maintain – research lake
Granite River and Saganaga Lake, Saganaga Falls	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Greenwater Creek – from the dam	• Fish sanctuary – no fishing from Apr. 1	Maintain –

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
on Greenwater Creek to the first island in Upper Shebandowan Lake	– May 31.	protection for spawning walleye
Grouse Lake	• Fish sanctuary – no fishing from Jan. 1 – Fri. before 4th Sat. in May & Oct. 1 – Dec. 31.	Maintain – research lake
Henderson Lake – Grand Trunk Pacific Block 2	• Fish sanctuary – closed all year	Maintain – research lake
Ice Lake – Goodfellow Twp.	• Fish sanctuary – closed all year	Maintain – research lake
Jessie Lake	• Brook trout S – 1 and C – 0, must be greater than 56 cm (22 in). • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	Maintain existing exception and previous Zone-wide regulation - To be considered in Lake Nipigon Fisheries Management Plan
Kashabowie River – from the dam on Kashabowie Lake to the island in Upper Shebandowan Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain
Lac des Mille Lacs	• Walleye must be greater than 33 cm (13.0 in), not more than 1 greater than 46 cm (18.1 in) • Northern pike open from Jan. 1 – Apr. 14 & 2nd Sat. in May – Dec. 31.	Maintain – to be considered in Lac des Mille Lacs Fisheries Management Plan
Lake Helen	• Walleye and sauger closed all year • Brook trout S – 1 and C – 0, must be greater than 56 cm (22 in). • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th	Maintain existing exception and previous Zone-wide regulation - To be considered in Lake Nipigon Fisheries Management Plan

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
	Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Lake Nipigion – Ombabaika Bay, Wabinosh Bay and tributaries of bays up to first barrier including the Little Jackfish River downstream from and including the first rapids upstream of the Pikitigushi Road Bridge and Wabinosh River downstream of Wabinosh Lake.	• Walleye and sauger S – 2 and C – 2, not more than 1 greater than 46 cm (18.1 in) • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Lake Nipigon (West Bay) the waters lying north and west of the north tip of Boles Island	• Fish Sanctuary – closed all year	
Lake Nipigon and all tributaries downstream from the first falls, rapids, dams or lakes or the entire stream if there are no falls, rapids, dams or lakes identified.	• Only artificial lures (no organic bait) may be used when angling through the ice • Only one barbless hook may be used • No person shall use or possess stringers, impounding devices or live holding boxes unless the box forms part of or is attached to a boat. • Walleye and sauger open from Jan. 1 – Apr. 14 & June 10 – Dec. 31. • Northern pike open from Jan. 1 – Apr. 14 & 3rd Sat. in May – Dec. 31. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Brook trout open from 4th Sat. in Apr. – Sept 15. • Brook trout S – 1 and C – 0, must be greater than 56 cm (22 in). • Lake trout open from Mar. 1 – Sept 30 • Lake trout – not more than 1 greater than 70 cm (27.6 in). • No possession of live brook trout or lake trout • Largemouth and Smallmouth bass –	

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
	open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30.	
Little Gunflint Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Little North Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Little Savanne River – from the C.P.R. right of way to the first C.N.R. right of way	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Little Savanne River	• Walleye must be greater than 33 cm (13.0 in) not more than 1 greater than 46 cm (18.1 in).	Maintain – to be considered in LDML Fisheries Management Plan
Maligne River and Curran Bay (Saganaga Lake)	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
McIntyre River – from the footbridge to the dam on the University property in the City of Thunder Bay	• Fish sanctuary – closed all year	Maintain – staging area below fish ladder
McIntyre River	• Rainbow trout must be greater than 69 cm (27.1 in).	Maintain – to be considered in FMZ9 plan
Muskrat River – from Muskrat Lake downstream to Black Sturgeon Lake	• Lake Trout closed all year	Maintain – Black Sturgeon Lake rehabilitation stocking
Neebing River	• Rainbow trout must be greater than 69 cm (27.1 in)	Maintain - To be considered in FMZ9 plan
Nipigon River (Backpool) – below the Alexander Dam east of a line drawn south from the Alexander Dame Log Chute to the northernmost tip of the point of land on the east shore of the Nipigon River.	• Fish sanctuary – no fishing from Jan. 1 – Fri. before 4th Sat. in May & Tues. after Labour Day – Dec. 31. • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm	Maintain existing exception and previous Zone-wide regulation - To be considered in Lake Nipigon Fisheries Management Plan

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
	• Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Nipigon River – between Alexander Falls Dam and Nipigon Bay	• Walleye and sauger closed all year • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Nipigon River (Gapen's Pool) that part of the Nipigon River lying east of a line drawn north from the eastern shore abutment of Hwy. 11/17 bridges to the western tip of a point of land on the eastern shore of the outflow from Lake Helen.	• Fish sanctuary – no fishing from Jan. 1 – Fri. before 4th Sat in May & Tues. after Labour Day – Dec. 31. • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Nipigon River (Parmacheene) from the downstream edge of the Parmacheene C.N.R. bridge abutments, upstream approx. 400 m to the first narrows.	• Fish sanctuary – no fishing from Jan. 1 – Fri. before 4th Sat in May & Tues. after Labour Day – Dec. 31. • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to	Maintain existing exception and previous Zone-wide regulation - To be considered in Lake Nipigon Fisheries Management Plan

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
	Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	
Pine River – near Gunflint Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Polly Lake	• Walleye and sauger closed all year • Brook trout S – 1 and C – 0 must be greater than 56 cm (22 in). • Largemouth and Smallmouth bass – open all year. S-2; must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 4; no size limit from July 1 to Nov 30. C-1: must be less than 35 cm from Jan 1 to June 30 and Dec 1 to Dec 31. S- 2; no size limit from July 1 to Nov 30. • Northern Pike – open all year. S-4; none between 70-90 cm, not more than 1 greater than 90 cm. C-2: none between 70-90 cm • Lake trout – Feb 15 to Mar 15 and 4th Sat in May to Sept 30. S-2; not more than 1 greater than 56 cm from Sept 1 to Sept 30, no size limit rest of year. C-1; no size limit	Maintain existing exception and previous Zone-wide regulation - To be considered in Lake Nipigon Fisheries Management Plan
Savanne Lake – Grand Trunk Pacific Block 2	• Fish sanctuary – closed all year	Maintain – research lake
Savanne River – from One Mile Creek to Dexter Creek	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Savanne River	• Walleye must be greater than 33 cm (13.0 in), not more than 1 greater than 46 cm (18.1 in)	Maintain – to be considered in LDML Fisheries Management Plan
Sawmill Creek and Sawmill Bay of Upper Shebandowan Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Shebandowan Lake	• Lake trout closed all year	Maintain – severely stressed population
Spruce River – from Little Sturge Lake downstream to Black Sturgeon Lake	• Lake trout closed all year	Maintain – Black Sturgeon Lake rehabilitation stocking

Waterbody Name – FMZ6	Exception Details	Recommended Action and Rationale
Squeers Lake	• Fish sanctuary – closed all year	Maintain – research lake
Swamp River and Swamp Bay of Lower Shebandowan Lake – Conacher and Hagey Twps.	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Watershed Lake	• Fish sanctuary – no fishing from Jan. 1 – Fri. before 4th Sat. in May & Oct. 1 – Dec. 31.	Maintain – research lake
Weikwabinonaw River – between Marks Lake and Weikwabinonaw Lake	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Weikwabinonaw River – from Marks Lake upstream to the Weikwabinonaw Lake Road.	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Weikwabinonaw River – from Trafalgar Bay on Northern Light Lake extending upstream to its confluence with Nelson Creek, including the unnamed lake known locally as Lily Lake.	• Fish sanctuary – no fishing from Apr. 1 – May 31.	Maintain – protection for spawning walleye
Whitefish Lake	• Yellow perch S – 50 in one day, possession limit of 100 • Yellow perch C - 25	Maintain – to be considered in Whitefish Lake Fisheries Management Plan