



Little Limestone Lake Park Reserve

Newsletter - First Issue, April 2009

Manitoba Conservation and Mosakahiken Cree Nation are initiating a planning process to work towards a final designation for Little Limestone Lake Park Reserve and a management program that will protect the unique qualities of this marl lake.

This is the first in a series of newsletters that will inform interested individuals of progress on the project and will solicit their ideas.

Little Limestone Lake is located in the unique karst (limestone) geology landscape north of Grand Rapids that features sinkholes, caves and other features that have been shaped by the dissolving action of water on the limestone bedrock.

A marl lake changes colour as its water warms up in the summer and calcite dissolved in the water begins to settle out. Much of the water flowing into Little Limestone Lake flows underground where it dissolves calcite – which is one of the main components of limestone. When the water in the lake warms up the calcite comes out of solution and calcite crystals are suspended in the water. These crystals give the lake its robin's egg blue or milky white colour. When the water cools the calcite is again dissolved in the water

making it clear. Because Little Limestone Lake is uniformly shallow, it warms evenly making the colour change more uniform and intense than in many other marl lakes.

While marl lakes are not uncommon in Canada or globally, Little Limestone Lake is outstanding because of its size. It is 15 km long and four km wide making it more than 15 times as big as other large marl lakes. It is also significant because of its supersaturation of calcite which causes it to change colour more dramatically than many other marl lakes.

Little Limestone Lake is on the west side of PTH 6 about 50 km north of Grand Rapids. Mosakahiken Cree Nation has a reserve (Moose Lake 31J) along most of the eastern shore of the lake. It is occasionally used as a rest stop along the highway and for sport fishing by local people.

Little Limestone Lake overlies the Thompson Nickel Belt, which is an area of rich mineralization. Mining companies have been exploring for minerals in the area near Little Limestone Lake for many years. Some of the exploration has shown potentially rich deposits although the extent of the deposits is uncertain.

Little Limestone Lake lies entirely within Tolko's Forest Management License. Moose Lake Loggers do some harvesting in the area. Logging is not permitted within 100 metres of waterbodies such as Little Limestone Lake.

There is a commercial fishery on the lake. A harvesting quota of 9,100 kg (walleye and whitefish) has been regularly utilized since 1997.

There is one registered trapline that covers all of Little Limestone Lake.

There is one recreational cabin on the lake, and another cabin on the Indian Reserve land on the east shore.

The newly formed Moose Lake Resource Management Board has responsibility for land use planning in the area. The Board has been created through the Mosakahiken Comprehensive Forebay Agreement.

Little Limestone Lake Park Reserve

The purpose of a Park Reserve is to conserve an area's natural, cultural and recreational values for up to five years while the future of the land, including a final designation, are discussed in a public consultation process. This public review enables everyone with an interest in the area to review and provide current information respecting present use and allocations, compatibility of uses, user expectations, and implications of proposed boundaries or land use practices. Manitobans are encouraged to provide comments respecting the Park Reserve and contribute to the process of developing a framework for its long-term management.

The Little Limestone Lake Park Reserve was established on July 19, 2007. It was renewed for a five year period on January 19, 2008. A final decision on its designation must be made before January 19, 2013.

The park reserve is 4,095 hectares. It includes the lake, the islands in the lake and a 100 metre wide strip of land along the shore, except in the

Moose Lake Indian Reserve on the east shore. It was designated with the support of Mosakahiken Cree Nation. Aboriginal and treaty rights continue, unaffected by the creation of the park reserve. The co-operation of the mining industry made protection possible by allowing for the re-alignment of existing mining claims that were under and adjacent to the lake. Within the park reserve mining, commercial logging and hydro-electric development are prohibited.

Management issues

Little Limestone Lake is a globally significant lake that requires careful protection. Some research on marl lakes and karst landscapes suggest that the biggest threats include:

- **Pollution of surface or ground water.** Water is the formative agent of the karst landscape, and it travels very widely and relatively quickly through the limestone bedrock as groundwater or underground streams.
- **Collapse of limestone bedrock over and around caves due to activities on the land such as construction of buildings or roads, or the use of heavy equipment.**
- **Soil, bedrock and vegetation disturbances around caves or marl lakes that might affect the biological, geological or hydrological characteristics of the feature.**

Protecting the lake from these potential threats will involve the participation of Mosakahiken Cree Nation and Manitoba Conservation, local people and industry.

A management program for Little Limestone Lake could deal with:

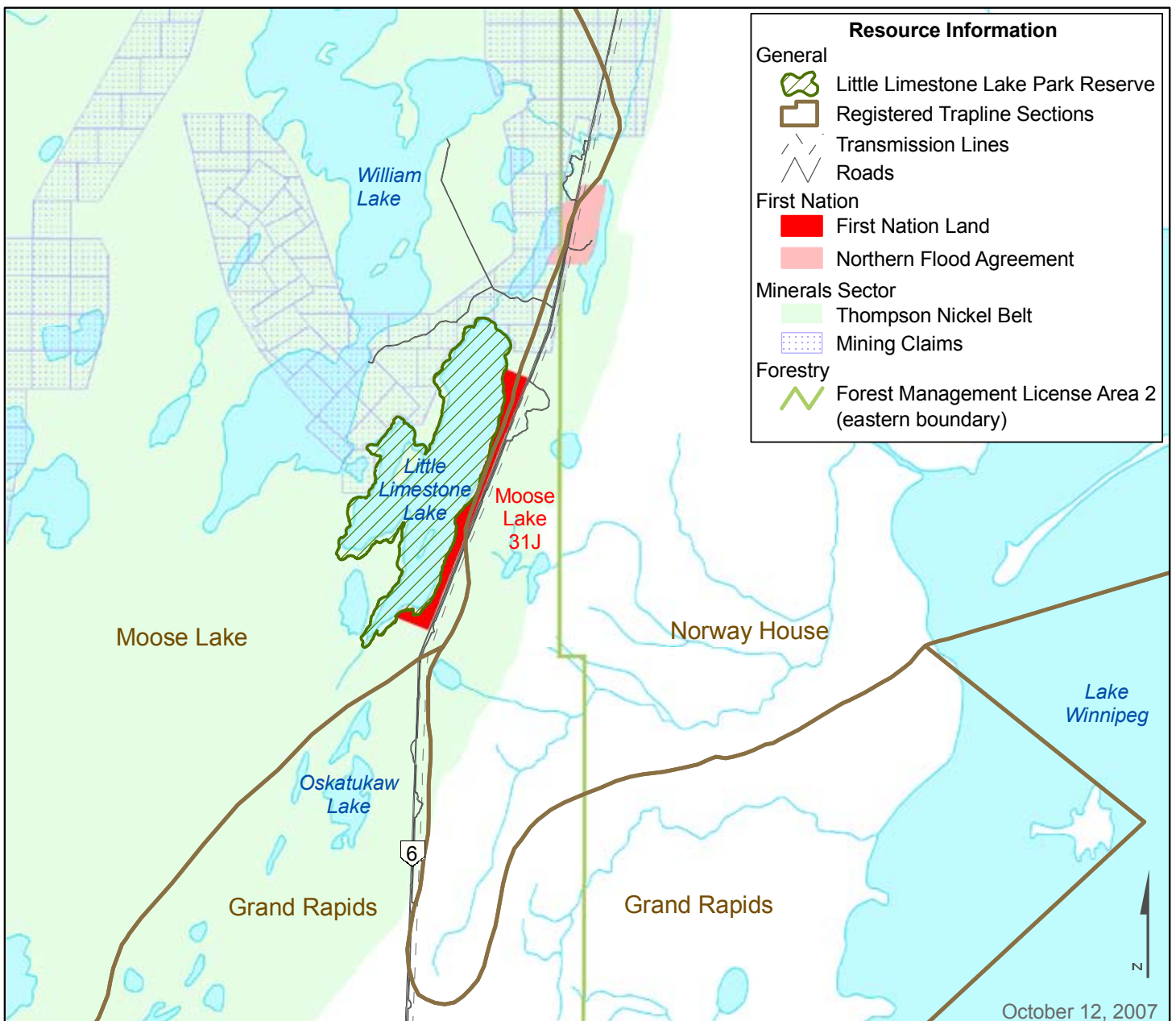
- recreational activities
- forest harvesting and windthrow
- mineral exploration - mining and quarrying activities
- soil disturbance
- surface and groundwater protection
- protection of the aesthetic qualities of the lake

- solid and liquid waste disposal
- surface and groundwater flows
- road construction
- chemical useage
- protection of flora and fauna

Activities would have to be managed in ways that will not unduly limit appropriate activities at or near the lake. A management program also has to recognize the exercising of treaty and aboriginal rights at the lake.



“Little Limestone Lake is the largest and best marl lake in the world!”



October 12, 2007



Moving forward

Mosakahiken Cree Nation and Manitoba Conservation will be working together over the coming years to decide on a permanent designation for Little Limestone Lake and a management program to protect the special qualities of the lake. This planning process should use traditional knowledge of the lake and surrounding area as well as ecological and hydrological research that can provide a solid basis for the management of ecological values and provide baseline data in the event that development does occur. It also has to be cognizant of the economic development needs and aspirations of Mosakahiken Cree Nation. Most importantly, the planning process must involve those people who have an interest in Little Limestone Lake.

Share your views

You can help design this planning process by providing your suggestions to the contacts listed below:

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