# Solitary Lake Conservation Reserve (C2362) Statement of Conservation Interest



OMNR, Kenora District August, 2001 Updated April 7, 2011 Next Examination Due December 31, 2020

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# Examination and Adjustment History of Management Direction

Table of adjustment history of management direction

Description: Dates, outcome and list of supporting documents associated with adjustment history of management direction.

Approval	Examination or Type	Examination	List of Supporting Documents
Date	of Adjustment	Outcome	
May 24	Examination	Administrative	Administrativo Lladato form
May 24,	Examination	Auministrative	-Administrative Update form
2011		Update	signed May 24, 2011.
			-Examination Confirmation
			Statement signed December 9,
			2010



# **Approval Statement**

We are pleased to approve this Statement of Conservation Interest for the Solitary Lake Conservation Reserve.

This Statement of Conservation Interest provides guidance for the management of the conservation reserve and the basis for the ongoing monitoring activities. More detailed direction at this time is not anticipated. Should significant facility development be considered or complex issues arise requiring additional studies, more defined management direction, or special protection measures, a more detailed Conservation Reserve Management Plan will be prepared with full public consultation.

The public was widely consulted during the original regulation process and further consultation is not required at this time.

The conservation reserve will be managed under the jurisdiction of the Kenora East Area Supervisor, Kenora District, Ministry of Natural Resources.

4.00

Fred Hall District Manager Kenora District

DATE: Sept 6/2001

Charlie Lauer Regional Director Northwest Region

DATE: 🥏



# 1.0 Background Information

During the Lands for Life process, areas representative of Ontario's diverse ecosystems and biological/geological features were identified and recommended for regulation as parks and protected areas under the Provincial Parks Act and the Public Lands Act (OMNR 1999). The goal is to expand the percentage of Ontario's protected areas to encompass twelve percent of the province's land and water base.

Solitary Lake Conservation Reserve is one of the representative areas selected for protection in site region/districts 4S-1 and was regulated on May 21, 2003. The area was selected as a candidate under Ontario's Living Legacy due to the representative landform and vegetation types (primarily burns, conifer, deciduous, and mixed wood, and strongly broken ground moraine) existing in the area (OMNR 1999).

Solitary Lake Conservation Reserve is located approximately 85 kilometres north of the City of Kenora. The reserve incorporates the area adjacent to the northeastern shoreline of Solitary Lake (between two unnamed creek systems entering the lake from the east), and the peninsula on the west shore of the lake. It also includes the small island between these two areas, as well as the large island found in the southern basin of Solitary Lake. The total area to be regulated is approximately 282 hectares (OMNR 2000a).

The intent of this Statement of Conservation Interest is to identify the natural heritage values of Solitary Lake Conservation Reserve, the activities occurring in the area and, (through a set of management guidelines), outline the activities that will be permitted and prohibited.

For more information regarding the basis of this Statement, please refer to the "Conservation Reserve Policy and Procedure PL3.03.05", specifically, pages 2-6 and 14-22 of the procedure (OMNR 1997a).

Table of background information

Description: Overview data describing Solitary Lake Conservation Reserve and location.



Name	Solitary Lake Conservation Reserve (C2362)
Site Region / Site District	4S-1
OMNRF Administrative Region / District / Area	Northwest/Kenora/ English River
Total Area (ha)	282 ha
Regulation Date	Anticipated in 2002
First Nations	Grassy Narrows First Nation
OBM	100154110055950
Lat. / Long.	50° 31' / 94° 14'
Basemap	505941, 505942
FRI Stands	1164, 1861, 1454, 1753, 2763, 3159, 3263, 3071, 2876, 2575, 4471
General Location Description	This site is located approximately 85 kilometres north of the City of Kenora.
Access	The reserve is accessible by water and by air.



## 1.1 Representation Targets

This section provides a summary of the earth/life science values, cultural resources, and the recreational opportunities available or possible within Solitary Lake Conservation Reserve.

Table of values and representation

Description: Summary of earth / life science and cultural representation as well as recreational opportunities

Representation Target	Details
Life Science Representation	Mixed stands of aspen, birch, spruce, fir and some jack pine dominate the reserve. The majority of wetland vegetation is comprised of graminoid meadows and fens, low shrub bogs, shrub-rich treed bogs, and speckled alder ( <i>Alnus rugosa</i> ) thicket swamps (North- South Environmental Inc. 2000b). (Refer to Section 2.1.1).
Earth Science Representation	Solitary Lake Conservation Reserve is part of the English River Geological Subprovince. The dominant rock types are metasedimentary paragneisses and migmatites (North-South Environmental 2000a). Weakly broken bedrock plain with a discontinuous cover of silty, clay glaciolacustrine deposits dominate the topography (North-South Environmental Inc., 2000c). (Refer to Section 2.1.2).
Cultural Resource Representation	Nothing known at this time.
Recreational Opportunities	Canoeing, hunting, and fishing are the main recreational activities.

## 1.2 Survey Information

This section provides an overview of the inventories completed their level of detail and any further inventories that are needed.

Table of inventories completed



Survey Level	Reconnaissance	Detailed
Life Science	Checklist and summary report completed by North-South Environmental Inc. Survey conducted by helicopter during September, 2000.	Not required
Earth Science	Checklist and summary report completed by North-South Environmental Inc. Survey conducted by helicopter during September, 2000.	Not required
Cultural	Required	Not required
Recreational	Recreational assessment, Kenora staff; 2001.	Not required
Other	Not required	Not required

Description: Inventories completed and future requirements

# 2.0 Values to be Protected

This section provides a description of the key natural heritage values on the site, and their condition relative to past resource use and management activities and their sensitivity to future land use and management activities.

# 2.1 Values Identified on the Site

## 2.1.1 Life Sciences

Mixed forests and representative vegetation types were expected to be found in Solitary Lake Conservation Reserve (OMNR 1999). The life science surveys identified the following life science values.





Figure 1. Black spruce stands and creek system

The forest within Solitary Lake Conservation Reserve was found to include mostly mixed stands of aspen, birch, spruce, and fir (North-South Environmental 2000b). Black spruce stands were found intermixed among the mixed wood stands on the lower and mid-slopes. Some jack pine was found on drier sites. There was a potentially interesting sighting of a small bur oak sapling on the south shore of the peninsula within the reserve that could be regionally significant. There are also some small areas of regenerating burns.

Representative vegetation includes dwarf raspberry, red raspberry, prickly wild rose, blue bead lily, bush honeysuckle, bunchberry, twinflower, and strawberry (North-South Environmental Inc. 2000b).

Despite the small size of the reserve, there is a high representation of biodiversity in regards to its vegetative cover (North-South Environmental Inc. 2000b). There are good examples of wetland zonation in the northeastern corner of the reserve.





Figure 2. Creek system and wetland vegetation in the northeast corner of Solitary Lake Conservation Reserve.

## 2.1.2 Earth Sciences

Solitary Lake Conservation Reserve was selected as a candidate for protection under *Ontario's Living Legacy* because of its representative landform and vegetation types, including burns and mixed forests on organic deposits and weakly broken bedrock OMNR 1999). The site was found to include mostly weakly broken bedrock plain with a discontinuous cover of silty, clay, glaciolacustrine deposits (North-South Environmental Inc. 2000c).





Figure 3. Bedrock in the Solitary Lake Conservation Reserve

#### 2.1.3 Tourism

There are no tourist establishments within the conservation reserve, however, there is one tourist outpost situated on the northwest shore of Solitary Lake, north of the reserve boundary. The lodge is owned by Wilderness Air and caters to hunters and anglers (Moorley 2001).

#### 2.1.4 Aboriginal Values

At this time, there are no known aboriginal values within the Solitary Lake Conservation Reserve (OMNR 1995).

#### 2.1.5 Recreational Fishing

The primary game fish in Solitary Lake are walleye, northern pike, yellow perch, whitefish, and common suckers (OMNR 1973).

#### 2.1.6 Cultural/Historical Values

At this time there are no known cultural or historical values within the Solitary Lake Conservation Reserve (OMNR 1995).

#### 2.1.7 Recreational Hunting

Solitary Lake is part of Wildlife Management Unit # 3 and most likely includes moose, deer, and black bear, as well as other small game animals and a variety of waterfowl. The reserve is part of a Bear Management Area issued to Wilderness Air.



## 2.1.8 Mining

The mineral potential in the Solitary Lake Conservation Reserve is undetermined at this time. Mining is prohibited within the reserve, however, careful mineral exploration may occur within specific new conservation reserves proposed through Ontario's Living Legacy Land Use Strategy if an area is deemed to have provincially significant mineral potential. If an area is to be developed for a mine, it would be removed from the reserve and appropriate replacement lands would be placed into regulation (OMNR 1997a).

## 2.1.9 Aggregates

There is no aggregate development within the Solitary Lake Conservation Reserve (Moorley 2001).

## 2.1.10 Forest Harvesting

There are no immediate plans to harvest the area around or within Solitary Lake Conservation Reserve. There has been cutting in the past on the mainland in the northeast section of the reserve. This area is less than two hectares in size and is in the process of regenerating (Dawe 2001).

## 2.1.11 Trapping

The reserve is part of one registered trapline. Trapping will continue to be permitted within the reserve (OMNR 1997a).

## 2.2.12 Wildlife

Moose, bear, fox, wolf, deer, ducks and various other waterfowl may be found within the Solitary Lake Conservation Reserve. During the life science survey, trumpeter swans were seen in flight over the reserve, but at the present time, no evidence of a nesting site in Solitary Lake has been identified (North-South Environmental 2000b).

In 1981, a turkey vulture nest was found in a cave on the southwest shore of Solitary Lake (OMNR 1981). There was one live young found within the nest. It is not known if this nest is still in use today.





Figure 4. Young turkey vulture - Solitary Lake (1981)

## 2.1.13 Commercial Fishing

The Solitary Lake Conservation Reserve is part of one registered baitfish area. The baitfishing rights have been allotted to Wogenstahl's Canadian Resort and Trailer Park.

# 2.2 Values to be Protected

The intent of this Statement is to protect identified values by establishing management guidelines for existing and potential uses in this area given the level of past disturbance and the nature of the existing features.

## 2.2.1 Forest Values

The forest values within the reserve boundaries are to be protected from any unnatural alteration (OMNR 1999; 1997a). Successional changes associated with each forest type occurring in the area (depending on each stand's stage of maturity, specific vegetative species composition, and soil type) are anticipated to take place as outlined in the following statements. Please note that for the purpose of this document, the successional time frame is depicted as 100 years.



The northeast mainland section of the proposed Solitary Lake Conservation Reserve has been affected by two past disturbances. In 1983, a wildfire burned through the forest surrounding the northern section of Solitary Lake. The fire completely burned through some areas and jumped over others (Zroback 2001). Only small areas of the forest within the proposed Solitary Lake Conservation Reserve were affected (Dawe 2001).

The primary disturbance came in 1991 when strong winds caused extensive blowdown in the forest around Solitary Lake (OMNR 2000b). As a result of this blowdown, certain areas were harvested (Zroback 2001). Less than two hectares of this cut-over is included within the Solitary Lake Conservation Reserve boundary (Dawe 2001).



Figure 5. Cut-over in Solitary Lake Conservation Reserve – the easternmost boundary of the mainland section of the reserve runs down the extreme left-hand side of this cut-over.

Judging from the stand ages on the *1999-2004 Forest Management Plan Map*, the date of disturbance being used is the 1991 blowdown, and not the 1983 wildfire (Dawe 2001). Even though the fire disturbance map shows the entire area to have been burned in 1983, in reality, only small pockets of fire damage are evident today within the boundaries of the proposed Solitary Lake Conservation Reserve. The blowdown within



the reserve can be said to be patchy in nature as the *Forest Management Plan* maps show some areas within the blowdown to be only 6 years old, while adjacent stands are shown to be between 86 and 91 years old (Abitibi-Consolidated 1999).

The small area of cut-over that is included within the reserve is in the process of regenerating and is classified as a pure jack pine stand (Abitibi Consolidated 2000). Assuming no further disturbance takes place, long-term succession will most likely be towards a more open canopy of black spruce (OMNR 1997b).

Mixed stands of aspen, birch, spruce and fir dominate the reserve (North-South Environmental, 2000b). These stands are interspersed with black spruce and balsam fir admixtures. On the drier sites, stands of jack pine were found. There are also small areas that are in the process of regenerating from the 1983 wildfire.

In the absence of spruce budworm, the succession in the hardwood dominated stands will be toward a more open, multi-tiered, unevenly aged canopy of mixed tree species (OMNR 1997b). The canopy cover will increase up until roughly 100 years of age and then it will begin to decline as the hardwoods fall out of the canopy. The hardwood will gradually be replaced by coniferous species such as white and black spruce, and balsam fir. Today, the stands in Solitary Lake Conservation Reserve range from 6 years of age to 91 years of age (Abitibi-Consolidated 1999).

In the conifer-dominated stands, succession is towards a black spruce dominated stand. In areas where jack pine dominates with only the occasional black spruce, the canopy cover will decline through time. The canopy cover will remain fairly strong throughout where jack pine dominates but interspersed areas of white birch and trembling aspen do occur (OMNR 1997b). Today, the conifer-dominated stands in Solitary Lake Conservation Reserve range from 6 to 91 years of age (Abitibi-Consolidated 1999).

#### 2.2.2 Recreational Values

Canoeing, fishing, and hunting are the most popular recreational activities within the Solitary Lake Conservation Reserve. A canoe route flows through Solitary Lake and portages connect Solitary Lake with Confusion River in the north, and with Roger Lake in the south. Fishing opportunities exist for walleye, northern pike, yellow perch, whitefish, and common suckers (OMNR 1973). There are hunting opportunities for moose, deer, black bear, small game, and various waterfowl.



## 2.2.3 Tourism Values

There is one tourist outpost on Solitary Lake but it is situated just north of the Solitary Lake Conservation Reserve. The outpost is owned by Wilderness Air and caters mostly to hunters and anglers. Wilderness Air also operates one Bear Management Area within Solitary Lake and the vicinity.

# 3.0 Management Guidelines

## 3.1 Land Tenure

The Solitary Lake Conservation Reserve consists entirely of Crown land. No disposition by sale, Crown Lease, or Land Use Permit will be permitted within the reserve.

# 3.2 Existing and Proposed Development

There is an abandoned hunter's shack located on the southern shore of the peninsula within the reserve and there is evidence of some local disturbance around the site (North- South Environmental Inc., 2000b).

There is one tourist outpost north of the reserve boundary on the western shore of Solitary Lake. No further development will be permitted in the area that would result in disturbance of the forest, including the understory.





Figure 6. Overhead view of an abandoned hunter's shack

## 3.3 Recreational Activities

There is one canoe route that flows through Solitary Lake. It is connected to both Confusion River to the north and Roger Lake to the south via fairly extensive portages. There are also fishing opportunities within Solitary Lake for walleye, northern pike, yellow perch, whitefish, and common suckers (OMNR 1973).

Hunting opportunities for black bear, moose, deer, and various waterfowl exist within the reserve.

# 3.4 Commercial Activities

Trapping will continue to be permitted within the reserve boundary as the area forms part of a registered trapline (OMNR 1999). Black bear hunting will also continue to be permitted since the reserve is part of one Bear Management Area. The reserve is also part of a registered baitfish operation. No changes to these areas are required at this time provided that they do not impact the reserve's identified and protected natural heritage values. No further commercial activities will be permitted in the area, including



road construction, removal of aggregates, and development of utility corridors (OMNR 1999; 1997a).

The area has been permanently removed from the operable Whiskey Jack Forest Land Base and withdrawn from all mining exploration and extraction activities by the Ministry of Northern Development, Mines and Forestry (MNDMF) at the MNR's request.

# 3.5 Aboriginal Interests

Solitary Lake Conservation Reserve is located within a primary interest area of the Grassy Narrows First Nation. Any specific aboriginal values associated with the reserve are unknown at this time although they may be identified during First Nation consultation. However, nothing in this Statement of Conservation Interest will affect existing or future aboriginal or treaty rights. No boat cache permits, baitfish licenses, traplines, or Bear Management Areas are allotted to members of the Grassy Narrows First Nation.

## 3.6 Natural Resources Stewardship

## 3.6.1 Vegetation Management

The Forest Fire Management Strategy for Ontario (OMNR 2004) places Solitary Lake Conservation Reserve in the boreal zone providing the same level of protection from fire as the surrounding forest. Should natural large-scale disturbances (forest fires, blow downs) not take place, the vegetation will mature through successional processes as outlined in section 2.2.1.

Fuelwood permits will not be issued within the area encompassed by the Solitary Lake Conservation Reserve. However, usage of the areas wood resource for shorelunches and campfires will be permitted provided that there will be no resulting damage or alteration of the forest and its understory (OMNR 1997a).

#### 3.6.2 Fish and Wildlife Management

No management action is required other than the implementation of existing Wildlife Management Unit # 3 regulations, sport fishing regulations and management activities.





Figure 7. Solitary Lake Conservation Reserve - (peninsula)

#### 3.6.3 Landforms

The landforms represented within Solitary Lake Conservation Reserve will not be altered through any landform modification activities, including filling and extraction of aggregates, peat, soils, and similar materials (OMNR 1997a).

# 3.7 Cultural Resources Stewardship

Based on existing information, there are no requirements at this time.

## **3.8 Client Services**

Information regarding this conservation reserve will be made available so as to ensure that all resource users (particularly forestry and mining companies) are aware of its location, recognized values, and permitted uses. Potential users include tourists, local anglers/hunters, recreationalists (ie. canoeists, hikers, snowmobilers), and the general public, all of who may utilize the areas wood resource for camping, shorelunches, firewood, and personal use.



# 3.9 Research

Non-destructive research relating to cultural and historical values within the reserve would be beneficial so as to add further potential values to the reserve, as well as to ensure their protection. Further research into the possibility of a trumpeter swan nesting site, as well as a verification of the existence of the turkey vulture nesting site would also be very beneficial as their existence would add even more regional significance to the conservation reserve.

# 3.10 Marketing

There are no marketing requirements at this time.

# 4.0 Implementation

These management guidelines will be implemented immediately by Kenora District. Any MNR Resource Management Plans or Land Use Plans which include this area will be amended accordingly. Any affected clients will be immediately informed of amendments to this management direction. Administrative responsibility for the conservation reserve rests with the Planning and Information Management Supervisor. Implementation will primarily involve monitoring activities to ensure adherence to the management guidelines.

# 5.0 Review and Revisions

## 5.1 Review and Revisions

Methods of reviewing management direction will be consistent with the Protected Areas Planning Manual (OMNR 2009) and its associated guidelines. In accordance with the Provincial Parks and Conservation Reserves Act 2006, MNR will annually examine management direction documents that have been in place for ten years or more. The next scheduled examination for Solitary Lake Conservation Reserve will be in 2020.



# 5.2 Public Consultation

## 5.2.1 Results of Past Consultation

Contact regarding the regulation of Solitary Lake Conservation Reserve was made with timber companies, local communities, and the general public in August, 2000. Consultation efforts involved the direct mailing of a District information package to local interest groups (such as the Local Citizens Committee), as well as to all those with patent land, boat caches, bear management areas, trapline areas, baitfishing areas, and Sustainable Forest Licenses within and/or adjacent to the reserve's proposed boundaries. In addition, an interview was held on CJRL radio in Kenora and newspaper advertisements were issued in the Kenora Enterprise and the Kenora Daily Miner and News in mid-August, 2000. Only a few responses were received and were specifically related to activities permitted and prohibited within this conservation reserve.

First Nation consultation associated with Solitary Lake Conservation Reserve occurred.

## 5.2.2 Future Consultation

Other than the completion of First Nations consultation, more widespread consultation is not deemed necessary at this time due to the extensive consultation which took place in August, 2000 (refer to section 5.2.1).



# 6.0 References

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# Appendix A. Map of SCI sites within Kenora District





# Appendix B. Solitary Lake Conservation Reserve







Appendix C. Solitary Lake Conservation Reserve: Roads and Routes





# Appendix D. 1983 Forest Fire Map



For

Forest Fire (1983)



# Appendix E. 1991 Blowdown Map





Blowdown (1991)